chikin in order to move to documents to the new branch ... #17 change 9346 edit on 2001/11/06 by llefebvr@llefebvre_laptop_r400 (binary+l) sequencer spec backup ... #16 change 8606 edit on 2001/10/26 by llefebvr@llefebvre_laptop_r400 (binary+l) ... #15 change 8175 edit on 2001/10/22 by llefebvr@llefebvre_laptop_r400 (binary+l) sequencer v1.0 BACKUP ONLY not yet complete. ... #14 change 8081 edit on 2001/10/19 by llefebvr@llefebvre_laptop_r400 (binary+l) One before last major architectural revision of the sequencer before the implementation spec. Control flow is complete and was accepted by SW team. Remains before freezing 1.0: external and internal interfaces. ... #13 change 7930 edit on 2001/10/17 by llefebvr@llefebvre_laptop_r400 (binary+l) version 0.8 of the sequencer spec. It contains the new control flow porcedure as well as updated external interfaces ... #12 change 7380 edit on 2001/10/05 by llefebvr@llefebvre_laptop_r400 (binary+l) version 0.7 of the sequencer. Interfaces and control managment added. ... #11 change 7261 edit on 2001/10/03 by llefebvr@llefebvre_laptop_r400 (binary+l) backup of the sequencer + register loading diagram ... #10 change 6865 edit on 2001/09/24 by llefebvr@llefebvre_laptop_r400 (binary+l) new spec of the Sequencer. ... #9 change 6790 edit on 2001/09/21 by llefebvr@llefebvre_laptop_r400 (binary+l) RE spec backup + HZ stats + SC spec backup

... #8 change 5698 edit on 2001/08/24 by llefebvr@llefebvre_laptop_r400 (binary+l)

Ex. 2043 --- R400_Sequencer (version 0.1 to 1.2).doc

version 0.4 of the sequencer

... #7 change 5289 edit on 2001/08/13 by llefebvr@llefebvre_laptop_r400 (binary+1)
added an exemple of registry file management

... #6 change 5260 edit on 2001/08/13 by llefebvr@llefebvre_laptop_r400 (binary+1)
updated spec for sequencer

... #5 change 4001 edit on 2001/07/05 by llefebvr@llefebvre_laptop_r400 (binary+1)
lockin is on

... #4 change 4000 edit on 2001/07/05 by llefebvr@llefebvre_laptop_r400 (binary)
sequencer checkin

... #3 change 3999 edit on 2001/07/05 by pmitchel@pmitchel_iris (binary+1)
change file type to lock

... #2 change 3330 edit on 2001/06/07 by llefebvr@llefebvre_laptop_r400 (binary)
safety backup

... #1 change 3105 add on 2001/05/25 by llefebvr@llefebvre_laptop_r400 (binary)
backup sequencer

Page 2 of 2

Ex. 2043 --- R400_Sequencer (version 0.1 to 1.2).doc

ATI 2043 LG v. ATI

IPR2015-00325

AMD1044 0258037

 $//depot/r400/doc_lib/design/blocks/sq/R400_Sequencer.doc\\ ... \#62 change 118771 edit on 2003/08/29 by llefebvr@llefebvr_r400_montreal (binary+l)$

Fixing number of bits in the auto-count.

 $...\ ...\ branch\ into\ //depot/r600/r400_doc_lib/design/blocks/sq/R400_Sequencer.doc\#1$

...... branch into //depot/yamato/legacy/r400/doc_lib/design/blocks/sq/R400_Sequencer.doc#1 ...#61 change 114724 edit on 2003/08/04 by llefebvr@llefebvr_r400_montreal (binary+f)

Corrected the max number for mem exports to be 5 instead of 9

- ... #60 change 109954 edit on 2003/07/09 by llefebvr@llefebvr_r400_montreal (binary+1)

 Fixing VC table.
- ... #59 change 107253 edit on 2003/06/20 by llefebvr@llefebvr_r400_montreal (binary+l)

 Backup, no major changes.
- ... #58 change 103310 edit on 2003/05/30 by llefebvr@llefebvr_r400_montreal (binary+l)

 Added comments about address register.
- ...#57 change 101984 edit on 2003/05/21 by llefebvr@llefebvre_laptop_r400 (binary+l)
 more precisions on XYST generated register.
- ... #56 change 101037 edit on 2003/05/14 by llefebvr@llefebvr_r400_montreal (binary+t)

 Fixing the spec some more to match R500. Added some diagrams (SQ internals)
- ... #55 change 100004 edit on 2003/05/08 by llefebvr@llefebvr_r400_montreal (binary+l)

 Some interface updates.
- ... #54 change 98760 edit on 2003/05/02 by llefebvr@llefebvr_r400_montreal (binary+I) forgot to remove 1 waterfall signal.
- ... #53 change 98500 edit on 2003/05/01 by llefebvr@llefebvr_r400_montreal (binary+I)

 Refreshing the interfaces per Andi's last mail.
- ... #52 change 98401 edit on 2003/04/30 by llefebvr@llefebvr_r400_montreal (binary+1)

 Updated the SQ:>SP interfaces for the R500.

Page 1 of 8

Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc

... #51 change 97450 edit on 2003/04/24 by llefebvr@llefebvre_laptop_r400 (binary+l)

Updated stall conditions. Made swizzle changes. Added more R500 specifics

- ...#50 change 97161 edit on 2003/04/23 by llefebvr@llefebvre_laptop_r400 (binary+l) interface name changes for the SQ.>SP fetch swizzles.
- ...#49 change 97092 edit on 2003/04/23 by llefebvr@llefebvre_laptop_r400 (binary+l)

 Added SP stall conditions to the SQ spec.
- ...#48 change 96572 edit on 2003/04/19 by llefebvr@llefebvr_r400_montreal (binary+l)

 Documentation changes for R500.
- ...#47 change 93456 edit on 2003/04/02 by llefebvr@llefebvr_r400_montreal (binary+l)
 update to the control flow instruction.
 Adding timing diagram for the SQ->VC/TP transfers.
- ...#46 change 92587 edit on 2003/03/28 by llefebvr@llefebvre_laptop_r400 (binary+1) added swizzle codes to the spec.
- ... #45 change 87762 edit on 2003/02/28 by llefebvr@llefebvr_r400 (binary+l)

 Added the new SX interface.
- ... #44 change 82838 edit on 2003/02/07 by llefebvr@llefebvr_r400 (binary+l)
- small update regarding the implementation change for the Pos Allocated / PC allocated bits
- ... #43 change 81538 edit on 2003/02/03 by llefebvr@llefebvr_r400 (binary+l)
- Missed bits 41 and 42 in the SQ_EXEC instruction format. Those are RESERVED as well.
- ... #42 change 81401 edit on 2003/02/03 by llefebvr@llefebvr_r400 (binary+1)
 refined the interfaces to the SP to specify wich signals should or shouldn't be pipelined.

Page 2 of 8

Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc

- ... #41 change 80832 edit on 2003/01/30 by llefebvr@llefebvre_laptop_r400 (binary+1) wording change for the predicate override bit.
- ... #40 change 78984 edit on 2003/01/23 by llefebvr@llefebvr_r400 (binary+1) small correction on memory export buffer sizes.
- ... #39 change 77093 edit on 2003/01/16 by llefebvr@llefebvr_r400 (binary+l)

 Modified the alloc instruction to include a no-serial bit.
- ... #38 change 77001 edit on 2003/01/15 by llefebvr@llefebvr_r400 (binary+l)

Interface change from the SX (alloc dealloc bus) and interface change from the SP (predicates and kill mask).

- ... #37 change 74942 edit on 2003/01/07 by llefebvr@llefebvre_laptop_r400 (binary+l)

 New revision of the spec.
- ... #36 change 59941 edit on 2002/10/29 by llefebvr@llefebvre_laptop_r400 (binary+l) backup and SQ->SP interface change.
- ... #35 change 58563 edit on 2002/10/22 by llefebvr@llefebvre_laptop_r400 (binary+l)

 Defined the memory exports better.
- ... #34 change 57527 edit on 2002/10/16 by llefebvr@llefebvre_laptop_r400 (binary+l) Clarifications and minor updates. Version 2.08.
- ... #33 change 56881 edit on 2002/10/14 by llefebvr@llefebvre_laptop_r400 (binary+l)

Loops, jumps and calls are now using a 13 bit address which allows to jump and call and loop around any control flow addresses (does not requires to be even anymore).

- ... #32 change 56604 edit on 2002/10/11 by llefebvr@llefebvre_laptop_r400 (binary+l)
- ... #31 change 50456 edit on 2002/09/10 by llefebvr@llefebvre_laptop_r400 (binary+l)

New spin of the SQ spec including some interface changes and auto-counter architectural changes (for multipass pixel/vertex shaders).

Page 3 of 8

Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc

- ...#30 change 49717 edit on 2002/09/05 by llefebvr@llefebvre_laptop_r400 (binary+l)
- ... #29 change 49244 edit on 2002/09/03 by llefebvr@llefebvre_laptop_r400 (binary+l) new spec
- ... #28 change 48839 edit on 2002/08/29 by llefebyr@llefebyre_laptop_r400 (binary+l)

 Updated the SO>SP interface. Added comment on the Constant load bus.
- ... #27 change 48092 edit on 2002/08/26 by llefebyr@llefebyre_laptop_r400 (binary+l)

 Added the new SQ->SP instruction interface.
- $...\,\#26\ change\ 46138\ edit\ on\ 2002/08/14\ by\ llefebvr@llefebvre_laptop_r400\ (binary+l)$

Changed the MASK mnemonics to KILL.
Added DST perode.
Added DST perode.
Added MUL_PREV2 opcode.
Reordered the opcodes in primilib and SP.
Implemented the new KILL and SET SCALAR opcodes, they are now all comparing the
ALPHA channel to 0.0f (instead of comapring against the RED channel).

- ... #25 change 44021 edit on 2002/08/02 by llefebvr@llefebvre_laptop_r400 (binary+1)

 New parameter generation scheme included in the spec.
- ...#24 change 41600 edit on 2002/07/19 by llefebvr@llefebvre_laptop_r400 (binary+l)

 SO backup
- ...#23 change 40691 edit on 2002/07/15 by llefebvr@llefebvre_laptop_r400 (binary+l)

 New sequencer spec.
- ... #22 change 37951 edit on 2002/07/03 by llefebvr@llefebvre_laptop_r400 (binary+l)
- ... #21 change 31433 edit on 2002/06/03 by llefebvr@llefebvre_laptop_r400 (binary+l)

 Backup and minor updates.

Page 4 of 8

Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc

ATI 2044

LG v. ATI IPR2015-00325

AMD1044 0258038

... #20 change 27717 edit on 2002/05/13 by llefebvr@llefebvre_laptop_r400 (binary+l) new revision of the sequencer spec v1.6 Changed CF opcodes, SQ->SP interface and SP->SQ constant index load interface ... #8 change 12335 edit on 2002/01/03 by llefebvr@llefebvre_laptop_r400 (binary+l) ... #19 change 26057 edit on 2002/05/02 by llefebvr@llefebvre_laptop_r400 (binary+l) backup of the spec Modification on the Control flow instructions ... #7 change 11833 edit on 2001/12/17 by llefebvr@llefebvre_laptop_r400 (binary+l) ... #18 change 23957 edit on 2002/04/19 by llefebvr@llefebvre_laptop_r400 (binary+l) The new control flow scheme is now included in v2.0 of the sequencer spec. ... #6 change 11503 edit on 2001/12/11 by llefebvr@llefebvre_laptop_r400 (binary+l) ... #17 change 23946 edit on 2002/04/19 by llefebvr@llefebvre_laptop_r400 (binary+l) Version 1.5 of the sequencer spec. See Revision changes of the document for details. Last version of the spec with the old control flow scheme ... #5 change 11443 edit on 2001/12/10 by llefebvr@llefebvre laptop r400 (binary+l) ... #16 change 20320 edit on 2002/03/25 by llefebvr@llefebvre laptop r400 (binary+1) backup. Updated the constant memory management section by copying stuff from the R400 state management document by Mike Mantor. Upated the interfaces and added an exporting rule section ... #4 change 11393 edit on 2001/12/07 by llefebvr@llefebvre_laptop_r400 (binary+l) ... #15 change 20199 edit on 2002/03/22 by llefebvr@llefebvre_laptop_r400 (binary+l) Some minor changes to the SQ interfaces. ... #14 change 19503 edit on 2002/03/18 by llefebvr@llefebvre laptop r400 (binary+l) ...#3 change 11306 edit on 2001/12/06 by llefebvr@llefebvre_laptop_r400 (binary+l) Changed the interfaces to reflect the fact that the PCs are now in the SX blocks New revision of the sequencer spec. ... #13 change 17380 edit on 2002/03/04 by llefebvr@llefebvre_laptop_r400 (binary+1) ... #2 change 11226 edit on 2001/12/05 by llefebvr@llefebvre_laptop_r400 (binary+l) New revision of the sequencer spec. Updated the register spec. ... #12 change 14466 edit on 2002/02/04 by llefebvr@llefebvre_laptop_r400 (binary+l) #1 change 11061 branch on 2001/12/03 by pmitchel@pmitchel_r400_win_marlboro Version 1.7 of the Sequencer spec. mv doc_lib/parts to doc_lib/design/blocks ... #11 change 13058 edit on 2002/01/15 by llefebvr@llefebvre_laptop_r400 (binary+1) branch from //depot/r400/doc_lib/parts/sq/R400_Sequencer.doc#1,#3 //depot/r400/doc_lib/parts/sq/R400_Sequencer.doc#3 change 11048 edit on 2001/12/03 by llefebvr@llefebvre_laptop_r400 (binary+1) redondant opcodes corrected. ... #10 change 13057 edit on 2002/01/15 by llefebvr@llefebvre_laptop_r400 (binary+1) submited for Paul to move stuff around again. There was a small error in the control flow section. Checked in the spec so that Richard has a correct version to build the assembler on. \dots ... branch into //depot/r400/doc_lib/design/blocks/sq/R400_Sequencer.doc#1 \dots #2 change 10774 edit on $2001/\bar{1}1/27$ by llefebvre_laptop_r400_emu (binary+l) ... #9 change 12708 edit on 2002/01/09 by llefebvr@llefebvre_laptop_r400 (binary+l) Page 5 of 8 Page 6 of 8 Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc opened the files with the wrong client new spin on the sequencer spec #1 change 10705 branch on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro branch from //depot/r400/doc_lib/parts_lib/sq/R400_Sequencer.doc#3 //depot/r400/doc_lib/parts_lib/sq/R400_Sequencer.doc ... #3 change 10699 branch on 2001/11/26 by pmitchel@pmitchel_r400_win_mar/boro (binary+1) doing rename properly branch from //depot/r400/doc_lib/blocks/sq/R400_Sequencer.doc#5
...... branch into //depot/r400/doc_lib/parts/sq/R400_Sequencer.doc#1
...#2 change 10698 delete on 2001/11/26 by pmitchel@pmitchel_400_win_marlboro (binary+1) #1 change 10691 branch on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro rename "blocks" to "parts lib" . branch from //depot/r400/doc_lib/blocks/sq/R400_Sequencer.doc#1,#2 //depot/r400/doc_lib/blocks/sq/R400_Sequencer.doc ...#5 change 10697 add on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro (binary+f) $.....branch\ into\ //depot/r400/doc_lib/parts_lib/sq/R400_Sequencer.doc\#3\\ ...\#4\ change\ 10695\ delete\ on\ 2001/11/26\ by\ pmitchel@pmitchel_r400_win_marlboro\ (binary+l)$ rename ... #3 change 10693 edit on 2001/11/26 by llefebvr@llefebvre_laptop_r400 (binary+l) closing for Paul to move files around ... #2 change 10676 edit on 2001/11/26 by llefebvr@llefebvre_laptop_r400 (binary+i) changed the file type to binary and locked \dots ... branch into //depot/r400/doc_lib/parts_lib/sq/R400_Sequencer.doc#1 ... #1 change 10674 add on 2001/11/26 by llefebvre_laptop_r400 (binary)

Page 7 of 8

Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc

AMD1044 0258039

Page 8 of 8

Ex. 2044 --- R400_Sequencer (version 1.4 to 2.11).doc

... #1 change 430 add on 2000/11/15 by smorein@smorein_r400 (binary)

Adding the initial versions of several specs.

added block descriptions, added tiling

... #2 change 496 edit on 2000/12/11 by smorein@smorein_r400 (binary)

Page 1 of 1

Ex. 2045 --- R400 Architecture Proposal Log --- r400spec.doc

ATI 2045 LG v. ATI IPR2015-00325

AMD1044_0258040

//depot/r400/arch/doc/chip/R400 Top Level Spec.DOC ... #7 change 3995 edit on 2001/07/05 by pmitchel@pmitchel_iris (binary+l)

change file type to prevent simultaneous open for edit

... #6 change 3091 edit on 2001/05/24 by lseiler@ma_lseiler (binary)

Updated RB and MC block diagrams

... #5 change 2950 edit on 2001/05/17 by smorein@smorein_r400 (binary) updated spec, finally checked in

...#4 change 2359 edit on 2001/04/26 by llefebvr@llefebvre_laptop_r400 (binary) updated top level spec to match RE and SC specs

... #3 change 2347 edit on 2001/04/25 by lseiler@ma_lseiler (binary)

Added text about the RB and MC plus descriptions of some RB features

 \dots #2 change 2314 edit on 2001/04/23 by smorein@smorein_r400 (binary)

Updated area to new area estimate, post texture path changes checked in top level spec for larry to add to it

...#1 change 1741 add on 2001/03/15 by smorein@smorein_r400 (binary) adding first real version of top level spec.

Page 1 of 1

Ex. 2046 --- R400 Top Level Spec.DOC

ATI 2046 LG v. ATI IPR2015-00325

AMD1044_0258041

 $//depot/r400/arch/doc/gfx/SP/Shaders.doc\\ ... \#19\ change\ 10769\ delete\ on\ 2001/11/27\ by\ pmitchel@pmitchel_r400_win_marlboro\ (binary)$ mv to doc_lib/parts ... #18 change 10501 edit on 2001/11/21 by askende@andi_r400_docs (binary) opcode update branch into //depot/r400/doc_lib/parts/sp/Shaders.doc#1 ... #17 change 10500 edit on 2001/11/21 by askende@andi_r400_docs (binary) updated a couple of opcodes ... #16 change 9723 edit on 2001/11/12 by askende@andi_r400_docs (binary) ... #15 change 6889 edit on 2001/09/25 by askende@andi_docs (binary) newest version ... #14 change 5466 edit on 2001/08/17 by askende@andi_docs (binary) new rev of the spec ... #13 change 4960 edit on 2001/08/01 by askende@andi_docs (binary) ... #12 change 4929 edit on 2001/07/31 by askende@andi docs (binary) ... #11 change 4033 edit on 2001/07/06 by askende@andi_docs (binary) update of the specs ... #10 change 3585 edit on 2001/06/20 by askende@andi_docs (binary) ... #9 change 3574 edit on 2001/06/20 by askende@andi_docs (binary) Page 1 of 2

Ex. 2047 --- Shader Document Log --- Shaders.doc

... #8 change 3565 edit on 2001/06/19 by askende@andi_docs (binary)
new rev

... #7 change 3560 edit on 2001/06/19 by askende@andi_docs (binary)
new rev

... #6 change 3558 edit on 2001/06/19 by askende@andi_docs (binary)
another rev

... #5 change 3553 edit on 2001/06/19 by askende@andi_docs (binary)
another rev (rev.03) of the shader spec

... #4 change 3138 edit on 2001/05/29 by askende@andi_docs (binary)
more updates to the spec

... #3 change 3020 edit on 2001/05/21 by askende@andi_docs (binary)
another revision of the shader spec

... #2 change 2712 edit on 2001/05/09 by askende@andi_docs (binary)
more updates

... #1 change 2700 add on 2001/05/09 by askende@andi_docs (binary)
Shader specifications

Page 2 of 2

Ex. 2047 --- Shader Document Log --- Shaders.doc

ATI 2047 LG v. ATI IPR2015-00325

AMD1044_0258042

Change 175294 on 2004/06/24 by mmantor@FL_mmantorLT_r400_win - Added YIELD* keywords to the Shader Assembler. < initial checkin of osm random generator with minor changes to supporting files> - Added processing for serial bit in SO and Shader Assembler. Change 172110 on 2004/06/07 by llefebvr@llefebvr_r400_linux_marlboro - Changed handling of Control flow constants in Emulator Fixing bad resource hang on the vertex shader to more closely match the hardware Change 171407 on 2004/06/02 by llefebvr@llefebvr r400 linux marlboro Change 154141 on 2004/03/10 by llefebvr@llefebvr r400 linux marlboro Fixing Qnan issue integration of the valid bit bug fix from Xenos Change 168815 on 2004/05/19 by llefebvr@llefebvr_r400_linux_marlboro Change 153494 on 2004/03/08 by llefebvr@llefebvr_r400_emu_montreal Integrate of the number of RS stations fixes from Xenos. Integration of the VS DONE EVENT change from Xenos Change 168560 on 2004/05/18 by llefebvr@llefebvr_r400_linux_marlboro Change 152749 on 2004/03/04 by llefebvr@llefebvre_laptop_r400_emu Back integration of the AddreValid fix from Xenos. Integration of the PRED_COND_CALL change to R400. Change 168033 on 2004/05/14 by llefebyr@llefebyr r400 linux marlboro Change 152663 on 2004/03/04 by llefebvr@llefebvre_laptop_r400_emu Integration of Randy's Kill maks changes from Xenos. Fixing COND_JMP and COND_CALL predicated. Also fixing bit mask problem in the SX that controls the tracker. Change 167975 on 2004/05/14 by llefebvr@llefebvr r400 linux marlboro Change 151381 on 2004/02/26 by llefebvr@llefebvre_laptop_r400_emu Blanket integrate of the Xenos emulator files for SQ,SP,SX to R400 Integration of the cond pred execute fix from Xenos Change 167630 on 2004/05/13 by mmantor@FL_mmantorLT_r400_win Change 151315 on 2004/02/26 by llefebvr@llefebvr_r400_linux_marlboro <made alterations to tp_formatter to work in sp standalone environment made vsp more hardware like in pred, kill, mova, write enables and update on testbench> Removing the storage for RT parameters in the emultor from the register space and the Change 155924 on 2004/03/17 by llefebyr@llefebyr r400 emu montreal Change 151063 on 2004/02/25 by llefebvr@llefebvr_r400_linux_marlboro Integration from Xenos of the valid bit change, tb sqspsx tracker data only, no Incorporating Tom's changes to the emulator. Change 155819 on 2004/03/17 by llefebyr@llefebyr r400 emu montreal Change 149973 on 2004/02/19 by llefebyr@llefebyr r400 linux marlboro Integration of the gpr clamping base address change from Xenos. Change 154760 on 2004/03/12 by kryan@kryan r400 win marlboro XP Integrate changes from Xenos/devel to my r400/branch to r400/devel Integrate Xenos/devel to r400 branch Ex. 2048 --- R400 Sequencer Emulator FH --- folder history This makes the emulator write to PV/PS on all units even when the operation is predicated. Only the writes to the registers are blocked on predication (and pred vector/kill

Change 149972 on 2004/02/19 by llefebvr@llefebvr r400 emu montreal Fixing the control flow machine in the emulator to remove an extra trip to the RS on a ${\tt COND_PRED_EXEC}$ opcode. Change 149638 on 2004/02/17 by llefebyr@llefebyr r400 emu montreal Ex. 2048 --- R400 Sequencer Emulator FH --- folder history The emulator now ignores the MSB of the count field Change 147181 on 2004/02/04 by llefebvr@llefebvre_laptop_r400_emu Adding Sq->SX event dump file. Change 146961 on 2004/02/03 by mearl@mearl xenos linux orl Updated the emulator to match the hardware Change 146954 on 2004/02/03 by llefebvr@llefebvre laptop r400 emu Fixing alloc with no serial followed by serialized instruction bug (emulator wasn't <added checking of vector and scalar results all the time, constant address and export control&fog overlay, More values are randomized> Change 146655 on 2004/01/31 by mmantor@mmantor_xenos_linux_orl <added include directory for crayola_enum.h and fixed vectpipe makefile to use env</p>

Change 149424 on 2004/02/16 by llefebvr@llefebvr_r400_emu_montreal

Fixing REP bug.

Change 149402 on 2004/02/16 by llefebvr@llefebvr_r400_emu_montreal

This fixes the COND_EXEC_PRED opcode so it returns the thread with the correct resource when the predicate vector is dirty

Change 148881 on 2004/02/12 by llefebvr@llefebvr_r400_emu_montreal

The predicate clean bit was overwritten instead of being "anded" in creating less clause boundaries than it should have on the emulator

Change 148666 on 2004/02/11 by llefebvr@llefebvr_r400_emu_montreal

This is a fix for the control flow instruction mismatch in the case of a COND_EXEC_PRED opcode. The emulator wasn't updating the resource field while the HW

Change 148344 on 2004/02/10 by llefebvr@llefebvr r400 emu montreal

Enabling PRED_CLEAN instructions in primlib. Fixed a problem with COND_EXEC_PRED_CLEAN_END opcode in the emulator.

Change 148246 on 2004/02/09 by donaldl@donaldl xenos linux orl

Added flat_shading signal for use in the SX parameter subtract function (ie. if flat_shading is true, ignore infinity checks; just do subtract. Result should be zero.)

Change 148084 on 2004/02/09 by llefebvr@llefebvre_laptop_r400_emu

Implemented the REP function in the emulator

Change 147964 on 2004/02/07 by donaldl@donaldl_xenos_linux_orl

Fixed bug when calling parameter_sub during creation of vectors (ie. lessthan0 and greaterpoint5 parameters were swapped)

Change 147952 on 2004/02/07 by mmantor@mmantor_xenos_linux_orf

<added test bench for DiffEng param sub in the sx for numerical verification>

Change 147697 on 2004/02/06 by llefebvr@llefebvre_laptop_r400_emu

Page 3 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

stopping).

Change 146738 on 2004/02/02 by mmantor@FL_mmantorLT_r400_win

variables for dep dir>

Change 146654 on 2004/01/31 by mmantor@FL_mmantorLT_r400_win

<saved environment updates, problem with last checking>

Change 146651 on 2004/01/31 by mmantor@FL_mmantorLT_r400_win

preparing for intrinsity release, updated makes to be compatible with multiple directories using \$ROOT and \$BRANCH environmen variables and cleaned up sp_vector.v for readability and removed unused signals, functionally equivalent>

Change 146535 on 2004/01/30 by llefebvr@llefebvr r400 linux marlboro

Adding Tom's changes to the emulator and SP testbench

Change 146499 on 2004/01/30 by llefebvr@llefebvr_r400_linux_marlboro

Removing HW accureate flag

Change 146490 on 2004/01/30 by llefebvr@llefebvr_r400_emu_montreal

Removing numbers.h

Page 4 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history ATI 2048

LG v. ATI

IPR2015-00325

AMD1044 0258043

Change 146478 on 2004/01/30 by llefebvr@llefebvr_r400_linux_marlboro Change 143096 on 2004/01/14 by hartogs@hartogs xenos linux orl Fixing bad casting in the TB Change to fix ferret dump file for VGT_SQ_Verts interface. This change passed Change 146091 on 2004/01/29 by llefebvr@llefebvr_r400_emu_montreal Change 141868 on 2004/01/09 by llefebvr@llefebvre laptop r400 emu Fixing SX buffer size management problem when EXPORT BUFFER size > 128. Adding warnings for bad register settings on VS_CONST_BASE and VS_CONST_SIZE (sum must be $\!<\!512)\!.$ Change 146069 on 2004/01/29 by mmantor@mmantor xenos linux or updated makefile for standalone rand vector generator for vsp> Change 141694 on 2004/01/08 by llefebvr@llefebvre_laptop_r400_emu Change 146063 on 2004/01/29 by mmantor@FL_mmantorLT_r400_win Fixing DB_ALU_SIZE to say we need 2X the number of constants than highest use in a Fixing VS NUM REG to say it is number of registers -<added new files for last checkin> Fixing bug in predicated loop end where the jump back to the start of the loop wasn't Change 146062 on 2004/01/29 by mmantor@FL_mmantorLT_r400_win taken <repartition more vector scaler pipe (vsp) into seperate class to support lower level</p> Change 140866 on 2004/01/06 by llefebvr@llefebvre laptop r400 emu random test bench and intrinsity effort This is the new alu code as provided by Tom. uses the new 27 bit adder. Passed release parts lib, the mulator regression and the tb_sqspsx regression. also passed 4000000 vectors on the SP testbench. moved all math from sq_alu.cpp to vsp.cpp> Change 145619 on 2004/01/27 by llefebvr@llefebvr_r400_emu_montreal Added VS_FETCH_DONE event and interface pulse to the CP for the Change 140078 on 2003/12/29 by llefebvr@llefebvr_r400_emu_montreal PL_LIME_BUFFER early de-allocation of the vertex buffer Fixing flush to zero problem on MUL_PREV2 Fixing $_CONST$ abs modifier problem. Change 145089 on 2004/01/23 by llefebvr@llefebvr_r400_emu_montreal Added event propagation to the SX (from the SQ). Need to tie it off in Xenos to the BC. Change 139972 on 2003/12/29 by llefebvr@llefebvr_r400_emu_montreal Change 143941 on 2004/01/20 by llefebvr@llefebvr_r400_linux_marlboro Reverting Tom's changes (try 3). 1) Fixed Kill and waterfall issue (r400sq_killgt_01.cpp)
2) Fixed waterfall and mova co-issue problem (only in non-optimized mode). Change 139970 on 2003/12/29 by llefebvr@llefebvr_r400_emu_montreal 3) Fixed SX dumpfile NAN sign propagation problem. Reverting Tom's changes (try 2) Change 143832 on 2004/01/19 by mmantor@FL mmantorLT r400 win Change 139968 on 2003/12/29 by llefebvr@llefebvr_r400_emu_montreal <updated the vectpipetest.exe do process interleaved threads, all opcodes and changed tb_vector back to simple design. All ops pass 400000 instruction random Reverting Tom's changes. They brake the random tests with LSB missmatches. Change 139340 on 2003/12/23 by llefebvr@llefebvr_r400_emu_montreal testing > Fixed SX to send Nans on invalid positions. Fixed waterfalling on _CONST opcodes. Added more debug info to SX->PA dumps. Change 143255 on 2004/01/15 by llefebvr@llefebvr_r400_emu_montreal Added VS_FETCH_DONE control flow instruction. Added VS FETCH DONE pulse to CP interface Placed the hooks for when the event will be created Change 139084 on 2003/12/22 by llefebvr@llefebvr r400 emu montreal Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Adding more dump info in the SX->RB color dump This is fixing the Nan and data scramble on scalar TRUNC Adding bug fixes in 27 bit adder path (not used). Change 137124 on 2003/12/12 by llefebvr@llefebvre laptop r400 emu Change 138986 on 2003/12/20 by mmantor@mmantor_xenos_linux_orl This is fixing the _CONST opcode failure. This is an SQ only change so it will not affect <changed csim to only make one pass for param gen and gen index and write the dump</p> files correctly, fixed a timing loop in pix tthread buffer Change 137080 on 2003/12/11 by mmantor@FL mmantorLT r400 win Change 138150 on 2003/12/17 by llefebvr@llefebvr_r400_emu_montreal <tmp remove scalar prev opcodes for standalone testing> Removed power of 2 specific wrapping to allow any size VTX and PIX RS Change 137063 on 2003/12/11 by llefebvr@llefebvre laptop r400 emu Change 138102 on 2003/12/17 by llefebvr@llefebvr_r400_emu_montreal Changing swizzles on CUBE instruction to exactly match SP Added programable VTX and PIX RS sizes (from state register). Added programable SX export buffer sizes. Added programable number of EA buffers in SX. Added programable State export slots in SX. Change 136833 on 2003/12/10 by llefebvr@llefebvre laptop r400 emu Fixing PRED_SET* opcodes to match HW behavior. Fixing bad channel select on KILL* and MAX4 opcodes Change 138048 on 2003/12/17 by llefebvr@llefebvr r400 emu montreal Change 136832 on 2003/12/10 by mmantor@FL mmantorLT r400 win The emulator now outputs an error message and exits uppon bad usage of the address <added all ops and provide pred opcode swizzle changes and kill in the standalone vectpipetest> Change 137942 on 2003/12/16 by llefebvr@llefebvr r400 linux marlboro Change 136727 on 2003/12/10 by mmantor@FL_mmantorLT_r400_win The testbench now compiles and runs on linux <added all vector ops> Change 137864 on 2003/12/16 by rramsey@rramsey xenos linux orl Change 136641 on 2003/12/10 by llefebvr@llefebvre laptop r400 emu Change emulator so param cache reads for params not exported by the VS Fix cf_resource_change logic in the cfs so it catches the clause boundary Fix for vector TRUNC +/~ 0 clamping issues Change 136555 on 2003/12/09 by mmantor@FL_mmantorLT_r400_win where a cf instr with only tex instr gets sent to the alu cfs

Change 137313 on 2003/12/12 by mmantor@FL_mmantorLT_r400_win

<update for standalone vp test>

 $Change~137273~on~2003/12/12~by~llefebvr@llefebvre_laptop_r400_emu$

Fixing another data scrmable on TRUNC scalar.

Modified MAXAv to match exactly numerics.

Modified MAX and Min opcodes to remove the subtract that could cause an LSB missmatch on the compare.

Fixed Nan on FLOOR scalar.

Change 137256 on 2003/12/12 by llefebvr@llefebvre laptop r400 emu

Page 7 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

add VectPipeTest that test the vector pipe of the sp.

Change 136540 on 2003/12/09 by llefebvr@llefebvre laptop r400 emu

This should fix TRUNC nan failures and DOT2Add INF and NAN failures

 $Change\ 136519\ on\ 2003/12/09\ by\ llefebvr@llefebvre_laptop_r400_emu$

Another pass on the SP files to be more HW lookalike.

Change 136387 on 2003/12/09 by llefebvr@llefebvre_laptop_r400_emu

This is the new SP files more HW lookalike. Also fixes DOT2ADD SRCC swizzle issues.

Page 8 of 75

Change 136287 on 2003/12/08 by llefebvr@llefebvre_laptop_r400_emu

The TRUNC was rounding instead of clamping when dealing with negative numbers (LSB of mantissa only) $\,$

Change 135538 on 2003/12/04 by vromaker@vromaker_emul_r400_linux_marlboro

- updated vtx and pix thread buffer sizes

Change 135361 on 2003/12/04 by llefebvr@llefebvr_r400_emu_montreal

This should fix +/0 problems in CUBE (501-502). And TRUNC to +0 issue (trunc_02).

Change 134820 on 2003/12/02 by llefebvr@llefebvr r400 emu montreal

Fixing the CUBE opcode. It was reading from SRCB.X while if should have read from

Change 134536 on 2003/12/01 by llefebvr@flefebvr_r400_emu_montreal

Fixing bad swizzle in the case of a co-issued 2 operand scalar op along with a 3 operand vector op. Emulator was doing x and w while it should have been z and w.

Change 133958 on 2003/11/25 by llefebvr@llefebvr_r400_emu_montreal

There was a parenthesis problem in the if causing the fix for the +/- zero not to work on the Muladd. This is fixing it.

 $Change~133810~on~2003/11/25~by~llefebvr@llefebvr_r400_emu_montreal$

Fixing Add/MulAdd +/-0 problem in the emulator

Change 133619 on 2003/11/24 by llefebvr@llefebvr r400 emu montreal

Fixing additionnal control flow entry in the SQ dumps

Change 133415 on 2003/11/21 by llefebvr@llefebvr_r400_emu_montreal

Fixed the wrong function for the +/- Zero bug on the Muladd engine

Change 133358 on 2003/11/21 by llefebyr@llefebyr r400 emu montreal

Adding RETAIN_PREV opcode to the scalar engine as opcode 0x32 (last one). Opcode has syntax

RETAIN PREV Rx; Where Rx is any register. To just retain the predicate vector use: RETAIN PREV Rx@

Page 9 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Fixed bad SRC selection for Tc in cube opcode Fixed +/- 0 problem in the multiply engine

Change 133025 on 2003/11/20 by mearl@mearl_xenos_linux_orl

Fixed 2 primitive per clock interpolation bug in the emulator Change 132250 on 2003/11/17 by llefebvr@llefebvr_r400_linux_marlboro

Changing emulator and tests to meet with the new cube swizzles wich now are for SRCA zzxy (instead of zzyx). Also change the assembler to accept the new swizzle code

Change 131172 on 2003/11/10 by llefebvr@llefebvre_laptop_r400_emu

This fixes KILL* and PRED_SET_INV opcodes when working with denorms.

Change 130817 on 2003/11/07 by llefebvr@llefebvr_r400_emu_montreal

Fixing SUB NaN sign propagation Fixing PRED* flush of denorms to 0 Also fixing +/-0 flush to zero problems in multiple other opcodes.

Change 130473 on 2003/11/06 by llefebvr@llefebvr_r400_emu_montreal

Now using SRCB.z for input argument of the Z channel ma computation when Z wins in a cube opcode

Change 130441 on 2003/11/06 by llefebvr@llefebvr_r400_emu_montreal

Removal of duplicate code.

Change 130357 on 2003/11/05 by llefebvr@llefebvr_r400_emu_montreal

Fixing the CUBE opcode. Was broken because the emulator wasn't taking into account that SRCA and B had a different set fo swizzle

Change 130281 on 2003/11/05 by llefebvr@llefebvr_r400_emu_montreal

Fixing SRCC valid GPR valid channel Putting the SERIAL on the right line the the cubic pixel shader program

Change 130216 on 2003/11/04 by mmantor@FL mmantorLT r400 win

<changes to enable standalone vector pipe random testbench?

Change 130154 on 2003/11/04 by llefebvr@llefebvr_r400_emu_montreal

Updated DOT2ADD opcode to propagate NAN from SRC C as well.

Page 10 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 130063 on 2003/11/04 by llefebvr@llefebvr_r400_emu_montreal

This should fix NAN sign propagation on the SUBs* opcodes (including SUB PREV).

Change 129772 on 2003/11/03 by llefebvr@llefebvr r400 emu montreal

This fixes a problem were the dummy line in the SP->SX dump to signify a dump free done on memory export was places between phases 2 and 3 of an export instead of being between two exports. This change will only affect the TB_SQSPSX and TB_SX

Change 129642 on 2003/10/31 by llefebvr@ilefebvr r400 emu montreal

New ExecuteVPInst function more flexible and hence more suitable to the testbench

Change 129587 on 2003/10/31 by llefebvr@llefebvr_r400_emu_montreal

 $Instanciation\ of\ multiple\ memories\ in\ the\ emulator\ to\ allow\ for\ use\ of\ SQ_DEBUG_MISC.DB_EN_MEMORY_X\ and\ DB_READ_MEMORY\ register\ fields.$

Change 129454 on 2003/10/30 by llefebvr@llefebvr r400 emu montreal

This should make the CUBE opcode match exactly HW even if SRCA and B are differen

Change 129388 on 2003/10/30 by llefebvr@llefebvr r400 emu montreal

The emulator does not clamp the W channel anymore on a clamped CUBE operation This is in order to minimic HW behavior.

Change 129348 on 2003/10/30 by mearl@mearl_xenos_linux_orl

Added two primitive interpolation back in

Change 129150 on 2003/10/29 by llefebvr@llefebvr r400 linux marlboro

Increasing VC mini count to I1_fifo_size +2.

Change 129117 on 2003/10/28 by danh@danh xenos linux orl

Changed sq_sx_pcaddr.dmp generation

Change 128927 on 2003/10/28 by llefebvr@llefebvr_r400_emu_montreal

Fixing precision problem in all PRED* vector opcode. Emulator was rounding.

Change 128679 on 2003/10/27 by llefebvr@llefebvr_r400_emu_montreal

This fixes an emulator dump problem related to VSISR address when vtx_count is on but VSR continued if off.

Page 11 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 128526 on 2003/10/24 by mearl@mearl xenos linux or

Took out two prim per clock to get regression to pass

Change 128365 on 2003/10/24 by mearl@mearl_xenos_linux_orl

Added 2 primitive interpolation in SQ and SPI. Fixed a bug in sx_parameter_cache Fixed synthesis bugs in SC.

Change 128179 on 2003/10/23 by llefebvr@llefebvr r400 emu montreal

This should fix the bad data type on a position free done in the sp->sx emulator dump file. This will only affect the TB_SQSP, TB_SQSPSX and TB_SX test benches as they are the only ones using this field.

Change 127742 on 2003/10/22 by llefebvr@llefebvr_r400_linux_marlboro

Removed the warnings from the sp->sx trackers and sx->sp Now emulator is always executing the scalar instruction even in the case of a 3 operand vector opcode. This is to match with random shaders.

Change 127044 on 2003/10/16 by llefebvr@llefebvre_laptop_r400_emu

There was a bug in the post steer valid bits sent to the TP and VC. This is fixing it

Change 127009 on 2003/10/16 by llefebvr@llefebvre_laptop_r400_emu

This fixed the pixel auto counter bug in the interpolators

Change 126957 on 2003/10/16 by llefebvr@llefebvre laptop r400 emu

Now pushing the PERFORMANCE STOP events to the RS Fixed the predicate jump bug (wasn't reading the correct bit in the control flow

Change 126833 on 2003/10/15 by dclifton@dclifton xenos linux orl

Small change to log result for numbers less than 1.0 to match HW

Change 126691 on 2003/10/15 by dclifton@dclifton_xenos_linux_orl

Another timing related change. Changed twos comp to ones comp on log post-process (effects log of number less than 1.0). Aligned inputs to high precision pipeline to reduce muxing. Improved carrysave add of multiplier results. Regenerated math tables to reclaim precision and fix roll-over mismatches.

Page 12 of 75

Change 126641 on 2003/10/14 by llefebvr@llefebvre laptop r400 emu

 $Adding\ conditional_predicate_imp\ and\ conditionnal_predicate_call.\ These\ are\ performance\ optimizations\ only\ and\ are\ not\ in\ use\ at\ the\ moment.$

Change 126483 on 2003/10/13 by mearl@mearl xenos linux orl

Fix One Prim Per Clock bug in sq.ptr_buff. Revert changes in sq.pix_ctl to make 2 prim interp changes easier. Put known primdata data on all quads across packer to iterator interface. Fix dumps for no_inc_pix_cnt signal.

Change 126362 on 2003/10/13 by rramsey@rramsey_xenos_linux_orl

Change 125881 on 2003/10/09 by llefebvr@llefebvr r400 emu montreal

Change 125617 on 2003/10/08 by llefebvr@llefebvr_r400_emu_montreal

Change sq_sp_interp dump so it contains all of the pass_count and wrap passes

Add spi_sp tracker (enabled with ENABLE_SPI_TRACKER define)

Now doing a MAX on the vector and scalar MOVA opcodes to match HW.

Now passing the ROM data at the end of each line in the dump file. This is for RSP usage in testbenches

Change 125370 on 2003/10/07 by mearl@mearl_xenos_linux_orl

Fixed the SQ bug when bad pipe exists before a good pipe. Also, updated the RT trackers in the SC testbench.

Change 125266 on 2003/10/07 by llefebvr@llefebvr_r400_emu_montreal

Added RSP fields to the dumps to allow for easier testbench integration.

Change 125023 on 2003/10/06 by llefebvr@llefebvr r400 emu montrea

Cleaned up the COND PRED EXECUTE and PRED LOOP code in the emulator. No bug fixes here, just made the code easier to read and removed dead paths.

Change 124883 on 2003/10/03 by llefebvr@llefebvr_r400_emu_montreal

Fixing issue with NANs and TRUNC,FLOOR,FRACT. Also, now SIN returns +/- 0 on

Change 124851 on 2003/10/03 by llefebvr@llefebvr_r400_emu_montreal

Interpolation precision change to meet HW and timing

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 124843 on 2003/10/03 by llefebvr@llefebvr_r400_linux_marlboro

These are register changes related to new arbitration policies for the ALU engine.

Change 124643 on 2003/10/02 by llefebvr@llefebvr_r400_emu_montreal

Fixing hang on pred_optimization test

Change 124518 on 2003/10/02 by llefebvr@llefebvr r400 emu montreal

This implements the cond_pred optimization in the emulator in order to match HW in the number of clause boundaries

Change 124434 on 2003/10/01 by mmang@mmang_xenos_linux_orl

1. Turned on 3 simds in emulator (sc interp.cpg

sq block model.cpp, and user_block_model.cpp).

Turned on 3 simds in rtl (sc_packer.v, tb_sqsp.v, and vgt.v).

3. Fixed bug in chip_vc.tree to get SQ_VC_simd_id

and TC_VC_simd hooked up correctly.

4. Fixed bug in sc_packer.v related to having a 2 bit simd_id_sel.

 $Change\ 1\,24011\ on\ 2003/09/30\ by\ llefebvr@llefebvr_r400_emu_montreal$

Autoreg change to remove the <code>_no_stalls</code> opcodes and replace them with <code>_pred_clean</code> Documentation only should not be a functionnal change. I had to remove some refrences to _no_stall in the emulator code as well.

Change 123879 on 2003/09/29 by llefebvr@llefebvr_r400_emu_montreal

Fixing some RSP problems on the Sq->TP/VC interfaces. These problems only show up when RSP is turned on (it is currently off).

Change 123610 on 2003/09/26 by llefebvr@llefebvr r400 emu montreal

Trying to FIX bad NAN handling on the scalar pipe.

Change 123497 on 2003/09/26 by llefebvr@llefebvr_r400_emu_montreal

Added the SP->SX RSP interface. Also added post steered bits to all interfaces for tracker purposes only (not HW). These are the valid bits of the SPs AFTER the data was steered to go to the RSP.

Change 123278 on 2003/09/25 by llefebvr@llefebvr_r400_emu_montreal

Added TP redundant pipe. Also renamed all redundant pipes to use SP instead of SQ.

Page 14 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 123130 on 2003/09/24 by llefebvr@llefebvr_r400_emu_montreal

First pass at redundant pipe in the emulator. For now, only on the VC->SQ and SQ->VC interfaces

Change 123082 on 2003/09/24 by mearl@mearl_crayola_linux_orl

tb files updated for ONE_PRIM_PER_CLOCK, bug fix in interpolators for ONE_PRIM_PER_CLOCK

Change 122815 on 2003/09/23 by llefebvr@llefebvr r400 linux marlboro

Added more perf counters to the SQ to account for SIMD2-3 Change 122728 on 2003/09/23 by llefebvr@llefebvr_r400_emu_montreal

Made the autocount write to all channels like the HW does. Auto count in X, 0 in all other channels

Change 122683 on 2003/09/23 by mearl@mearl crayola linux orl

One primitieve per clock changes in the back of the SC and front of the SQ. Right now, the ONE_PRIM_PER_CLOCK define in header wand SC_SQ interface.v are needed for this change. Will update this to

ONEPPC, since this already exists in

header.v. Also, the sim.cfg file does not have an ifdef, so is hardcoded to one prim per clock

Change 122677 on 2003/09/23 by dclifton@dclifton xenos linux orl

Changed initial twos comp on exp opcode to ones comp for timing improvement in

Change 121928 on 2003/09/17 by llefebvr@llefebvre laptop r400 emu

Fixing multiple SIMD related stuff.

Change 121897 on 2003/09/17 by dclifton@dclifton crayola linux orl

Change in HW structure to improve timing

Change 121632 on 2003/09/16 by liefebvr@llefebvre_laptop_r400_emu

Made the XYs be sent as floating point numbers instead of fix point so you can use them directly in the shader. Also modified regress_e tests that this change broke. Also added register fields for SIMD memory control.

Change 120731 on 2003/09/11 by llefebvr@llefebvr_r400_emu_montreal

Page 15 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

I have removed the predication optimization on waterfall from the emulator. The HW does not do it. Lines are marked with @@ OPTIMIZE so we can know what was removed in order to put it back if needs be.

Change 120546 on 2003/09/10 by llefebvr@llefebvr_r400_emu_montreal

Adding the scalar engine change. This change is currently disabled. To enable, change line #105 of sclarfunc.h from

_int64 ComputeMantissa6X(unsigned int point, unsigned int slope, unsigned int slope derivative unsigned int sloped derivative

unsigned int delta, unsigned int ddelta unsigned int dddelta, MeParam2 *para int gen_type, int new_struct = 0);

to

_int64 ComputeMantissa6X(unsigned int point, unsigned int slope, unsigned int slope derivative

unsigned int sloped derivative unsigned int delta, unsigned int ddelta, unsigned int dddelta, MeParam2 *para int gen_type, int new_struct = 1);

Change 120264 on 2003/09/09 by llefebvr@llefebvr r400 emu montreal

Now writing the channel valid mask in hex in the dumps

Change 120058 on 2003/09/08 by chammer@chammer r400 win

Changed width of dealloc from 3 to 4 bits since it can now accumulate to 8 in 1 prim per clock mode

Load prim data into 'bad pipes' to match hardware.

Change 119590 on 2003/09/05 by llefebvr@llefebvre_laptop_r400_emu

Rearranged the functions in the shader pipe for SP testbench purposes. No functionnal changes per say

Change 118543 on 2003/08/28 by llefebvr@llefebvr_r400_emu_montreal

Adding thread type to SX interfaces for memory export validation. Also made sure to invalidate the Parameter cache interface reads whenever generating a

Change 118385 on 2003/08/27 by llefebvr@llefebvr r400 emu montreal

Added the thread Id identifier to interfaces for tracking purposes of memory export tests

Page 16 of 75

Change 118345 on 2003/08/27 by llefebvr@llefebvr r400 emu montreal

Missing a file in the changelist

Change 118332 on 2003/08/27 by llefebyr@llefebyr r400 emu montreal

Massive changelist of mostly non-functionnal stuff with two exeptions

1) Now checking for INF in the DOT path and doing as per the numerics spec.
2) Changed the VC mini instruction count limit from 16 to 32 as instructed by Brian Buchner

The rest of the changelist is the first pass to correct the invalid channels in the GPRs in order for them not to be compared. This is mostly only adding bits at the end of the dumps for the trackers to have the information needed to know what's valid and what's not. Interfaces

1) Internal SP GPR

SP->SX
 SX->SP

4) SX->PA 5) SX->RB

6) SX->Interp (PC data)

7) SP interpolators

Change 118211 on 2003/08/26 by rramsey@rramsey_crayola_linux_orl

changes to get fake_last set correctly in tp_sqsp.dmp

Change 117786 on 2003/08/22 by llefebvr@llefebvre_laptop_r400_emu

The loop index clamping wasn't done correctly as I was trying to force negative values on unsigned variables.

Change 117590 on 2003/08/21 by llefebvr@llefebvre_laptop_r400_emu

I broke pretty much all waterfall tests with my previous checkin. This is a fix

Change 117545 on 2003/08/21 by llefebvr@llefebvre_laptop_r400_emu

This is an attempt to fix the bug 2515. I made sure a pixel wasn't considered in subsequent passes if it was written. I will need sunshine to test it as I can't run the app

Change 117283 on 2003/08/20 by llefebvr@llefebvre_laptop_r400_emu

For parameter cache (interpolators) exports, I was using a different function to output the results to a file. I did not bother opening up the file in this function as I suspected the position export function would open it for me. Obviously, if you export position last this doesn't work. I

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

modified the function to check for file open and open it if not. This fixes the numerous bugs the compiler guys were seing when exporting position last. This bug would only show up if dump files are activated.

Change 117162 on 2003/08/19 by llefebvr@llefebvre_laptop_r400_emu

Fixing CUBE instruction by move the *2.0 from red to blue

Change 117149 on 2003/08/19 by llefebvr@llefebvre laptop r400 emu

Now clamping to -256 if overflow of the loop index register

Change 116305 on 2003/08/13 by chammer@chammer_r400_win

Added one prim per clock to SC. This code is ifdef'd and can be enabled by uncommenting out //#define ONE_PRIM_PER_CLK in gfx/sc/sc_types.h as well as in gfx/sq/sc_sq.h

Change 115549 on 2003/08/08 by llefebvr@llefebvr_r400_emu_montreal

Now writing DEADDEAD in the parameter caches at alloc time. Any DEADDEAD pixel or vertex will go thru CLAMP unchange is it is a DEADDEAD.

Change 115328 on 2003/08/07 by llefebvr@llefebvr r400 emu montreal

The HW has a 26 bits normilizer so I increased the emulator's precision to match. This fixes r400sq_ripple_01.cpp. I had to re-goldenize 1 test in the regress_e suite.

Change 115032 on 2003/08/05 by grayc@grayc_crayola2_linux_orl

added back Laurent changes for sx performance counters modified sx.v for new performance register names

Change 114997 on 2003/08/05 by llefebvr@llefebvr_r400_emu_montreal

Forgot to flush denorms prior to check for ==0. This was causing some tests to missmatch on the SX->SP parameter sub interface.

Change 114116 on 2003/07/31 by grayc@grayc_crayola2_linux_orl

backing out changes for SX Perf Counters

Change 114066 on 2003/07/30 by llefebvr@llefebvr_r400_emu_montreal

Aligned correctly the sq_sp_interp.dmp Made a small change to generate -0 in the param_bub engine of the SX when both operands are the same and SRCA is negative. This is to match the HW algorithm.

Change 114014 on 2003/07/30 by llefebvr@ilefebvr_r400_emu_montreal

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Made the SX performance counters unified in one SX. Also added some performance counters to monitor the SX->RB performance. All of these are non-windowed yet

Change 113865 on 2003/07/29 by llefebvr@llefebvr_r400_emu_montreal

This toggles the emulator into a single/multiple SIMD engine. Can toggle on/off by undef/def line 41 of sq_block_model.cpp (#define ENABLE_MULTIPLE_SIMDS). Currently

Change 113818 on 2003/07/29 by llefebyr@llefebyr r400 emu montreal

Now routing SIMD id to the SQ and TP dumps. Added 4 GPR banks to support up to 4 SIMD engines all having the same GPR address but different data

Added 4 allocation engines to generate these addresses

The number of SIMD engines is user defined it is a #define in sq/user block model.h, current setting is 4 but only 2 are used as the SC and VGT never send more than that for now.

Change 113562 on 2003/07/28 by llefebvr@llefebvr r400 emu montreal

Cleaned and Fixed memory exports. Made the resource register pick the VC if a vertex thread is entered.

Change 112593 on 2003/07/23 by llefebvr@llefebvre_laptop_r400_emu

Fixing infinite loop problem on 0 count exec_ends because of not setting correctly the end of program flag in the SQ.

Change 112528 on 2003/07/22 by hartogs@fl_hartogs2

Made the simd id field between the VGT and the SQ two bits for up change to three or more SIMD sets

Change 112332 on 2003/07/22 by llefebvr@llefebvre_laptop_r400_emu

I had the old output order for cube: ma,faceid,sc,tc. I changed it for the new one: tc,sc,ma,faceid.

Change 112254 on 2003/07/21 by llefebvr@llefebvre_laptop_r400_emu

This is the CUBE opcode change that takes into account the recent HW change. I also modified one test case that was wrongfully picking W as the FACEID (it is Y)

Change 111835 on 2003/07/18 by llefebvr@llefebvr_r400_emu_montreal

Splitting the ALU CONSTANT perf counters into SIMD0 and 1. I have added the SIMD1 version of the counters at the end of the enumeration not to disturb again the current

Page 19 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 111444 on 2003/07/16 by llefebvr@llefebvr r400 emu montreal

Change 111399 on 2003/07/16 by llefebvr@llefebvr_r400_emu_montreal

Fixing HOS anomaly because of bad SIMD setting in the SQ. Adding the auto-generated parameter in the assert for too many parameters in the RT SQ.

Change 111005 on 2003/07/14 by llefebvr@llefebvr r400 emu montreal

Changing the RT assert to <= instead of <

Change 111001 on 2003/07/14 by llefebvr@llefebvr_r400_emu_montreal

Adding the SIN/COS opcodes in the emulator

Change 110861 on 2003/07/14 by llefebvr@llefebvr_r400_emu_montreal

SQ now only reading TP interface data when Phase == 3 AND TP SQ VALID. Also added an assert when trying to interpolate more than 4 parameters in RT mode

Change 110814 on 2003/07/14 by jhoule@jhoule_r400_win_lt

Added separate valids for TP_SQ and TP_SP data. This will eventually allow simpler HiColor data return from TP.

Change 110319 on 2003/07/10 by llefebvr@llefebvr r400 emu montreal

Wasn't setting the VC counters correctly in the SQ. Was causing a hang whenever an app would use a mini-fetch

Change 109729 on 2003/07/08 by llefebvr@llefebvr_r400_emu_montreal

Fixed the pixel counter in the SQ. This value is not used yet

Change 108547 on 2003/06/30 by Iseiler@Iseiler r400 win marlboro

Push out MemExports before processing certain events

Change 108285 on 2003/06/27 by llefebvr@llefebvre_laptop_r400_emu

Swapping write priority to a GPR. Was vector has priority over scalar, now IS scalar has priority over vector.

Change 108154 on 2003/06/26 by hartogs@fl hartogs2

Hopefully fixed VGT alloc/dealloc for multi-SIMD vector sets

Page 20 of 75

Added simd_id fields to vgt_sq interface and vgt_ccgen interface Put pipedisable comments into several dump file Put an "Assert(0)" into the sq_block_model.cpp to prevent access violation.

Change 107916 on 2003/06/25 by liefebvr@liefebvre_laptop_r400_emu

Made all the necessary changes for the color buffers to be enlarged without actually enlarging them so I don't break anything.

Change 107624 on 2003/06/24 by llefebvr@llefebvre_laptop_r400_emu

Now enlarging valid bit mask to be quad aligned for pixel vectors (in order to get LOD right to the TP).

Change 107575 on 2003/06/24 by llefebyr@llefebyre laptop r400 emu

Added back pressure ability from the VC to the SQ using the Mega and mini counters.

Change 107515 on 2003/06/23 by mzini@mzini_r400_win

Added vc_sq_sync interface

Change 107512 on 2003/06/23 by mzini@mzini r400 win

Created VC SO Sync interface

Change 107026 on 2003/06/19 by llefebvr@llefebvr r400 linux marlboro

1) Added a guard bit to the parameter sub engine of the SX in both the emulator and HW

this was causing a failure on a WQL test.

2) Fixed zero detection problem in parameter—sub engine of the HW were an explicit 1 was added all the time even when the number was 0.0. This was causing r400sx_wrapper_01.cpp to fail (this is a test that I wrote to duplicate the WQL test that was failing in order to run ii on

Change 106833 on 2003/06/18 by llefebvr@llefebvr_r400_emu_montreal

Added loop index clamping to range -256,255

Change 106809 on 2003/06/18 by llefebvr@llefebvr_r400_emu_montreal

Was using the textureCF machine for the VC incorrectly. Caused the VC to fail.

Change 106526 on 2003/06/17 by llefebvr@llefebvr_r400_emu_montreal

Was incorectly reading unitialized data.

Change 106470 on 2003/06/17 by rramsey@rramsey_crayola_linux_orl

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change interpolators so sx sp pcdata dump is not written for param_gen or gen_index passes (param cache is not actually read for those)

Change 106404 on 2003/06/16 by llefebyr@llefebyr r400 emu montreal

Initializing GPRS with DEADDEAD for ferret tracking purposes. Each thread is initialized with this at GPR allocation time.

Change 106347 on 2003/06/16 by llefebvr@llefebvr r400 emu montreal

Made the wrapping test >= instead of >

Change 106339 on 2003/06/16 by llefebvr@llefebvr r400 emu montreal

Fixing SQ->VC bad header in dump. Fixing bad mova clamping.

Change 106263 on 2003/06/16 by mzini@mzini_r400_win

Removed y and z from the index field in sq_vc.dmp file AGAIN!

Change 106093 on 2003/06/13 by llefebvr@llefebvr r400 emu montreal

Emulator now clamps the address register to the range -256...255.

Change 106000 on 2003/06/13 by llefebvr@llefebvr_r400_emu_montreal

Fixing SQ->VC dump to be correctly aligned.

Change 105865 on 2003/06/12 by llefebvr@llefebvr_r400_emu_montreal

Fixing bad write mask setup on waterfall of lots of vertexes. Also enable

Change 105795 on 2003/06/12 by llefebvr@llefebvr_r400_emu_montreal

Fixing waterfalling on a MOVA instruction.

Change 105772 on 2003/06/12 by llefebvr@llefebvr_r400_emu_montreal

Fixed a bug that caused generation of INF in the interpolators when param 0 was INF regardless of param 1 and 2. Also realigned the $sq_sp_interp.dmp$.

Change 105645 on 2003/06/11 by llefebvr@llefebvr_r400_emu_montreal

There was a problem in the way the masks were set when waterfalling. If multiple

Page 22 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 105336 on 2003/06/10 by llefebvr@llefebvr r400 emu montreal

Waterfalling wasn't tied to write mask of GPRs hence creating corruption when running

Change 105295 on 2003/06/10 by llefebvr@llefebvr r400 emu montreal

Bad initialization for optimized waterfalling that caused linux to loop indefinitelly.

Change 105276 on 2003/06/10 by llefebvr@llefebvr r400 emu montreal

Changing the order of waterfalling to match HW on the interface. Emulator was doing LSB-MSB while HW was doing MSB-LSB.

Change 105001 on 2003/06/09 by llefebvr@llefebvr r400 emu montreal

Added waterfall write masks to the emulator. Fixed the ALU instruction dump file to work with waterfall

Change 104944 on 2003/06/09 by llefebvr@ilefebvr r400 emu montreal

Modified the emulator to generate the same number of passes than the HW on a waterfall instruction. Only the number of passes is correct at this point not the write mask.

Also corrected 2 MOVA tests where the address register wasn't loaded correctly before

Change 104090 on 2003/06/04 by llefebvr@llefebvr r400 emu montreal

Made 3 different counters for fetch, cst and instructions

Change 104059 on 2003/06/04 by llefebvr@llefebvr_r400_emu_montreal

Added a RT only instruction shader dump.

Change 103964 on 2003/06/04 by llefebvr@llefebvr_r400_emu_montreal

- 1) Adding normalization stage to the SX
- Fixing unititialized loop variables in the SQ.
 Fixing RT/Normal constant and instruction loads (arbitrated on a 32 bit basis now)
- 4) Fixing cylindrical wrap problem in SI
- 5) Added performance counters for SIMD0/1

Change 103846 on 2003/06/03 by rramsey@rramsey_crayola_linux_orl

Fix a problem with the control flow dump logic that was causing ount execs to be left out of the file

Page 23 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 103806 on 2003/06/03 by rramsey@RRAMSEY_P4_r400_win

fix comment line in SaSpInterp Dump

Change 103675 on 2003/06/02 by mzini@mzini_r400_win

Added simd id to sq vc and vc sq dumps

Change 103552 on 2003/06/02 by llefebvr@llefebvr_r400_emu_montreal

Added SIMD ID to TP interfaces.

Change 103230 on 2003/05/30 by mzini@mzini_r400_win

Added simd_id to SQ_VC and VC_SQ

Change 101734 on 2003/05/20 by llefebvr@llefebvre laptop r400 emu

fixing scalar trunc problem

Change 100741 on 2003/05/13 by llefebvr@llefebvr r400 emu montreal

Fixing range undeflow check of GPRs when using loop indexing and negative step.

Change 100446 on 2003/05/12 by llefebvr@llefebvr r400 emu montreal

was not checking for < BASE for constant indexing range checking

Change 100178 on 2003/05/09 by llefebvr@llefebvr r400 emu montreal

bug with the VC arbiter

Change 99938 on 2003/05/08 by hwise@fl_hwise_r400_win

SC, SQ, & VGT Emulator Update:
- Added shader pipe disable support for multiple SIMDs

Change 99865 on 2003/05/08 by liefebvr@llefebvr r400 emu montreal

Fog changes: Serialized fog in the SP after the default settings for exports. Fixed assembler to put 0 in scalar write mask for BW compatibility with od shaders.

Change 99556 on 2003/05/07 by llefebvr@llefebvr r400 emu montreal

fixing the RT assertion

Change 99443 on 2003/05/06 by llefebvr@llefebvr r400 emu montreal

Added an assert for bad constant registry setting regarding RT.

Page 24 of 75

Change 99140 on 2003/05/05 by lseiler@lseiler_r400_win_marlboro Eliminate two vcc warning messages

Change 98355 on 2003/04/30 by hwise@fl hwise r400 win

ROM/GFX Emulator Update:
1) Removed register fields from ROM_BAD_PIPE_DISABLE_REGISTER
- DISABLE_SP_VTX
- DISABLE_SP_PIX
2) Added register ROM_SIMD_PIPE_DISABLE_REGISTER with fields
+ DISABLE_SIMDO_VTX
+ DISABLE_SIMDO_VTX
+ DISABLE_SIMDO_VTX
+ DISABLE_SIMDO_VTX
+ DISABLE_SIMDO_VTX (reserved for future use)
+ DISABLE_SIMDO_PIX (reserved for future use)
5) Fixed bug in ROM block where post write trigger function for

3) Fixed bug in ROM block where post write trigger function for ROM_BAD_PIPE_DISABLE_REGISTER was not named correctly in rom.mblk files causing function to never be called

Added post write trigger function for new register

ROM SIMD PIPE DISABLE REGISTER
5) Updated PA, SC, SQ, and VCT blocks to use new SIMD0 fields when determining bad and/ord siabled pipes
6) Added "TO DO" comment where SIMD1 logic needs to be added

7) Modified InitRomStraps() to use ROM.ROM_BAD_PIPE_FUSE_REG.devForce() to set the LASER_FUSES rather than ROM.ROM_BAD_PIPE_FUSE_REG.write() since this is a read-only register without a default setting

Change 98272 on 2003/04/30 by llefebvr@llefebvr r400 emu montreal

This should fix Ken's bug. Ken please confirm by running this in your sand box..

Change 97570 on 2003/04/25 by llefebvr@llefebvre_laptop_r400_emu

Added SIMD1 DISABLE register field. Added MEMORY_READ register field.
Added perf control to control performance dumps Fixed the overwrite I made in cf machine.cpp with previous checkin.

Change 97404 on 2003/04/24 by llefebvr@llefebvre_laptop_r400_emu

Making the SX more HW alike for memory exports. Fixing the wrapping bug in the control flow machine (related to jumping in the instruction store)

Page 25 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 97321 on 2003/04/24 by mmantor@FL mmantorLT r400 win

-fixed a bug with sx_sp_pcdata.dmp. The emulator was making the incorrect number of passes to do interpolation>

Change 97064 on 2003/04/23 by llefebyr@llefebyre laptop r400 emu

Added NO SERIAL regist

AMOVE IN ... DENIAL FEGISTET. Changed pred_set opcodes to use W instead of X (may break some SQ tests that will have to be fixed).

Change 97003 on 2003/04/22 by llefebvr@llefebvre laptop r400 emu

Added end of shader markers to shaders dump

Change 96907 on 2003/04/22 by llefebvr@llefebvre laptop r400 emu

Added comments to SX dumps Added VC dumps.

Made emulator always stop on serial so it is deterministic.

Change 96369 on 2003/04/18 by liefebvr@llefebvr_r400_emu_montreal

adding some more code t the VC Fixed thread going always back on serial.

Change 96001 on 2003/04/16 by frising@frising_r400_win_marlboro

Move computation of a mul_b_exp_flip_predict before a mul_b_exp in muladd. This e original intention and I suspect a copy/paste error at some point. In any case, it should was the original intention and I suspect a copy/paste error at some point. In any case, it sho not change the results. I checked with AndyG and apparently the HW is already doing this.

Change 95739 on 2003/04/15 by llefebyr@llefebyr r400 emu montreal

added the new performance counters in the SQ

Change 95669 on 2003/04/15 by llefebvr@llefebvr_r400_emu_montreal

New dumps with shaders and number of vertexes $\pm\,\text{pixels}$ per shader. Neede to validate load on the R500.

Change 95601 on 2003/04/15 by llefebyr@ilefebyr r400 emu montreal

The SQ now sends data to the VC. A dump: sq_vc.dmp has also been added for test bench purposes

Change 95456 on 2003/04/14 by llefebvr@llefebvr r400 emu montreal

Added the SQ->VC interface and VC->SQ interface

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 95216 on 2003/04/11 by llefebvr@llefebvr r400 emu montreal

Added a VC empty shell. Need to add the interface to it. SQ is ready.

Change 94942 on 2003/04/10 by llefebvr@llefebvr_r400_emu_montreal

changed the comment name for free_done_position to FDP

Change 94940 on 2003/04/10 by llefebvr@llefebvr_r400_emu_montreal

Adding pos free done to the sp sx.dmp for the SX testbench Change 94875 on 2003/04/10 by llefebvr@llefebvr r400 emu montreal

Sx now sends R400 NANs to the PA when VS EXPORT MODE == 7.

Added number of scalar operands to SP_in_dump Change 94729 on 2003/04/09 by llefebvr@llefebvr_r400_emu_montreal

Added the bit necessary to add the VC engine. Also modified the control flow instruction

Change 94688 on 2003/04/09 by grayc@grayc_crayola2_linux_orl

correct filename

Change 94344 on 2003/04/07 by grayc@grayc_crayola2_linux_orl

move appending of \$TestPath into dump point class for the rb,sx,sq,sc blocks

Change 94334 on 2003/04/07 by llefebvr@llefebvr_r400_emu_montrea

Fixing small discrepencies in the SP dumps. I also had a bad addressing on constants when using constant 0 on SRC B. Please Gang initiate a driver emulator drop and confirm this is fixed indeed

Change 93911 on 2003/04/04 by llefebvr@llefebvr_r400_emu_montreal

I was not pushing the IP to and from the stack in the right order whenever moving to and from the RS. Also, now using a single table line in the SX export table when doing mem-exports and finxing additional entries in CF dump.

Change 93644 on 2003/04/03 by llefebvr@llefebvr r400 emu montreal

added channel masking to the SX.

Change 93506 on 2003/04/02 by llefebvr@llefebvr r400 emu montreal

adding jump/call address to the dump

Page 27 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 93480 on 2003/04/02 by llefebvr@llefebvr r400 emu montreal

There was an error in the dump comment line for number of bits in EXEC subword.

Change 93403 on 2003/04/02 by liefebvr@llefebvr_r400_emu_montreal

Adding CONTEXT DONE events to the RS (not sending them to the CP). Fixing the problem with the SP>SX interface (was making 1 too many transfert because of the dummy line inserted in the dump).

Change 92966 on 2003/03/31 by llefebvr@llefebvr r400 emu montreal

Added the dummy free done line in case there is no export as a last clause instruction

Change 92927 on 2003/03/31 by llefebvr@llefebvr r400 emu montreal

removing the | from the CF,ALU and RS dumps, it confuses the PLI routines.

Change 92640 on 2003/03/28 by llefebvr@llefebvre laptop r400 emu

Added the instruction store read address to the CF instruction and ALU dumps.

Change 92630 on 2003/03/28 by llefebvr@llefebvre_laptop_r400_emu

Fixing MAX4 problem with NANs.

Change 92626 on 2003/03/28 by llefebvr@llefebvre_laptop_r400_emu

Fixing the write enables of the SP dumps

Change 92563 on 2003/03/28 by llefebvr@llefebvre_laptop_r400_emu

Added number of operands in the SP dumps

Change 92409 on 2003/03/27 by llefebvr@llefebvre_laptop_r400_emu

Fixing the sign extention

Change 92390 on 2003/03/27 by llefebvr@llefebvre_laptop_r400_emu

fixing more alloc problems with events that were hanging SQ and SC tests

Change 92227 on 2003/03/26 by llefebvr@llefebvre_laptop_r400_emu

This should fix that. Let me know.

Change 92184 on 2003/03/26 by llefebvr@llefebvre_laptop_r400_emu

Page 28 of 75

The SQ was not allocating in order for colors. This was causing the SX to missbehave. This is fixed. Change 89017 on 2003/03/07 by llefebvr@llefebvr r400 emu montreal Change 91585 on 2003/03/21 by llefebvr@llefebvr_r400_emu_montreal Modifiyng dumps not to exceed 32 bits/col (PLI need) Change 89007 on 2003/03/07 by llefebvr@llefebvr r400 emu montreal Fixing wrong aluId number in arbiter. Fixing mem exports some more Added control flow instruction dumps Change 91363 on 2003/03/20 by llefebvr@llefebvr r400 emu montreal Change 88898 on 2003/03/06 by rramsey@RRAMSEY_P4_r400_win fliping mask bit order Add new block level dumps to SQ for the vertex input controller (enabled with SqDump Change 91261 on 2003/03/20 by llefebvr@llefebvr_r400_emu_montreal sq_sp_visr_wr.dmp - writes to staging registers Major changes to the SQ/SX. Modified the SX to accept out of order exports and made it sq sp vec gpr.dmp - reads from staging regs/writes to gprs closer to HW. Also now matching the HW interface for allocs/deallocs in the SX sq_vec_gpr_req.dmp - gpr allocate requests from the vertex controller Change 91256 on 2003/03/20 by llefebvr@llefebvre_laptop_r400_emu Change 88859 on 2003/03/06 by llefebvr@llefebvr r400 emu montreal fixing predication bug fixing 2D bug due to GPR addressing change to match HW Change 91169 on 2003/03/20 by rramsey@RRAMSEY_P4_r400_win Change 88737 on 2003/03/06 by grayc@grayc_crayola_linux_orl fix typos in two dump file names (pix/vtx was swapped for control flow dumps) changes for dump files Change 90027 on 2003/03/13 by llefebvr@llefebvr_r400_emu_montreal Change 88687 on 2003/03/05 by llefebvr@llefebvr_r400_emu_montreal Fixed the Nan Check. Fixing +/-0 bug in emu and type setting. Added more fields to sp_sx.dmp and sx_sq_addr.dmp for Sx testbench Change 88554 on 2003/03/05 by llefebvr@llefebvr r400 emu montreal Change 89938 on 2003/03/13 by rramsey@RRAMSEY_P4_r400_win More SQ RS dumps swap order of d0,1,2 in dump header Change 88079 on 2003/03/03 by llefebvr@llefebvre laptop r400 emu Change 89768 on 2003/03/12 by llefebvr@llefebvr_r400_emu_montreal Changed vertex GPR addressing to match HW exactly changing name export to Export because of name clash on linux. Change 87922 on 2003/03/01 by mmantor@FL_mmantorLT_r400_win Change 89716 on 2003/03/12 by llefebvr@llefebvr r400 emu montreal fixed a texture wrap bug.
 fixed an sc hang for large vertices with lots of primitives culled where more than the max parameter cache space (2.5 times) could be required to operate. Put a fix that forces a partial fill of any vector being assembled if the previous vector had more than 4 outstanding deallocates out and a new vector (fpos) arrives at the packer input. This forces all the deallocates to happen on the partial fill vector which will free pe space and allow the final vertex vector to process and etc. Added outstanding deallocate count to dump files sc_sq and Change 89381 on 2003/03/10 by llefebvr@llefebvr r400 emu montreal Change 89037 on 2003/03/07 by llefebvr@llefebvr r400 emu montreal sc_pix_vect_grp_out Change 87326 on 2003/02/27 by llefebvr@llefebvre_laptop_r400_emu fixing dumps and memory export test Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Fixing clamping problem in the emulator. Added dumps for the reservation stations Change 84802 on 2003/02/17 by llefebvr@llefebvr r400 emu montreal Change 87112 on 2003/02/26 by llefebvr@llefebvre_laptop_r400_emu Code cleanup and fixing the problem with INF on the recip opcode. added predicate (export write mask) to the SP->SX interface. Also added them in emulator dump Change 84554 on 2003/02/14 by llefebvr@llefebvr r400 emu montreal fixing the clamp of the NANs to 0 and 1. They now go thru the clamp modifier Change 87027 on 2003/02/26 by llefebvr@llefebvre_laptop_r400_emu Fixed Trunc Change 84487 on 2003/02/14 by llefebvr@llefebvr_r400_emu_montreal Change 86925 on 2003/02/25 by llefebvr@llefebvre_laptop_r400_emu modified dealloc code slightly to improve debugging of deallocs. Change 84204 on 2003/02/13 by liefebvr@llefebvr r400 emu montreal Change 86890 on 2003/02/25 by llefebvr@llefebvre laptop r400 emu DOT now returns an R400_NAN instead of the NAN it was provided with. Aligning RT CONSTANTS with cleaner register boundaries. Change 83625 on 2003/02/11 by liefebvr@llefebvr r400 emu montreal Change 86634 on 2003/02/24 by mmantor@FL_mmantorLT_r400_win there was a typo in the interface. The context id was sent as the channel mask and vice added thread id to sp->sx interface dump Also added PC exports to the sp_sx.dmp file for the SQ/SP testbench. fixed sx to sp parameter data dump added sq to sx pc_ptr dump added texture cylinderical wrap control to sq Change 83566 on 2003/02/11 by hartogs@fl hartogs2 Modified dump sp_sx.dmp to be more friendly for testbench trackers. Change 86257 on 2003/02/22 by mmantor@FL mmantorLT r400 win Change 83491 on 2003/02/11 by liefebvr@liefebvr r400 emu montreal Set ClampedAddr = Addr before clamping so if no reason to clamp the address is adding first of new context arbitration restriction for position export Change 86096 on 2003/02/21 by llefebvr@llefebvr r400 emu montreal Change 83290 on 2003/02/10 by llefebvr@llefebvr r400 emu montreal

That should do it. I wasn't carefull enough about the clamping rules to the GPRs when the pointer was in fact used to read constants...

Change 85184 on 2003/02/19 by llefebvr@llefebvr_r400_emu_montreal

fixed clamping of -0 to +0.

Change 85039 on 2003/02/18 by llefebvr@llefebvr r400 emu montreal

Flushing denorms to 0 is now done on all three parameters (I forgot to do it on P0 in the

Change 84940 on 2003/02/18 by llefebvr@llefebvr_r400_emu_montreal

Page 31 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

changing default primitive type to be PRIM_NROMAL instead of RT

Change 83285 on 2003/02/10 by mmantor@FL mmantorLT r400 win

fixed a bug induced by last change that caused a the program to crash when sq_dumps

Change 83166 on 2003/02/10 by mmantor@FL mmantorLT r400 win

 added state data and missing terms to the se_packer dump.
 added a dump for the sx_sp interface that delievers attribute data to the interpolators.
 Reoganized the sq ProcessPixel and Interpolate code to enable these dumps. Still need to make futher modifications to make dump work properly for cylinderical wrap.

Page 32 of 75

Change 83000 on 2003/02/07 by sallen@sallen r400 lin marlboro Added loop relative indexing modes to texture fetches Change 81096 on 2003/01/31 by llefebvr@llefebvre_laptop_r400_emu ferret: tp_sq add ferret bits, to be unused soon clean up a few comparitor outputs The emulator was doing the AND of all channels in order to kill a pixel or not. The right Change 82812 on 2003/02/07 by llefebvr@llefebvr r400 emu montreal thing to do is the OR as specified by the DX API. $Added\ a\ new\ performance\ select\ counter\ to\ count\ the\ numbers\ of\ stalls\ due\ uniquelly\ to\ position\ export\ buffer\ full\ in\ the\ SX.$ Change 81054 on 2003/01/31 by llefebvr@llefebvre_laptop_r400_emu Enabling GPR writes on the kill instructions (where previously not writting anything). Change 82646 on 2003/02/06 by llefebvr@llefebvr r400 emu montreal Change 81015 on 2003/01/31 by llefebvr@llefebvre_laptop_r400_emu now when overflow shifting we do this signed like the HW. fixing a MOVA problem in the emulator when dealing with large primitives. Change 82206 on 2003/02/05 by llefebyr@llefebyr r400 emu montreal Change 80459 on 2003/01/29 by llefebvr@llefebvre laptop r400 emu added channel mask to the SQ->TP interface for ferret interface checking Fixing bug in SQ where SQ was reading instruction 0 when it wanted to do a NOP. Fixing overflow in DOT introduced by previous change (revert). Change 82048 on 2003/02/05 by llefebvr@llefebvr_r400_emu_montreal Masking out bits [31:24] on the read of a CF $_{\rm LOOP}$ register. Now, the emulator will always return 00 for bits [31:24] when reading such a register. Change 80400 on 2003/01/29 by lseiler@lseiler_r400_win_marlboro Change 81837 on 2003/02/04 by llefebvr@llefebvr r400 emu montreal Change 80277 on 2003/01/29 by llefebvr@llefebvre laptop r400 emu Trying to fix cyl wrapping bug. Also removed some warnings in sq_alu.h. Refined the overflow check for the DOT opcodes add Change 81790 on 2003/02/04 by llefebvr@llefebvr_r400_emu_montreal Change 80103 on 2003/01/28 by llefebvr@llefebvre_laptop_r400_emu New muladd and dot code as provided by Tom. changing the order of the processing of the DOT product to match $\operatorname{HW}.$ This does not modify the output. Change 81577 on 2003/02/03 by llefebvr@llefebvr r400 emu montreal Emulator not behaving correctly when interpolating more than 1 param (in flat shading mode). This is fixed and I am writing directed tests to make sure HW is correct as well.Change 79829 on 2003/01/27 by llefebvr@llefebvre_laptop_r400_emu Fixing the access violation exeption.

Also making RealDOT the default setting for the emulator. Emulator should now be Change 81430 on 2003/02/03 by llefebvr@llefebvr_r400_emu_montreal 100% HW accurate in the SP. New muladd code with exponent prediction. Change 79344 on 2003/01/24 by mmantor@fl_mmantorxp_r400_win Change 81246 on 2003/02/01 by sallen@sallen_r400_lin_marlboro changed order of new_vector and deallocate_pc in the 1clk transfer. The sc_random test ferret: comparitor work continues make files now supported (start to phase out cons) initial tp4 checking add emu changes for mem id, etc identified a bug where a new_vector and it's deallocate_pc can come in one transfer and the seq scheduled their execution incorrectly. Change 78935 on 2003/01/23 by llefebvr@llefebvr_r400_emu_montreal Change 81131 on 2003/01/31 by llefebvr@llefebvre laptop r400 emu Now flushing denorms resulting of the normalization at the output of the interpolators. Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Added a No_Serial bit to the alloc instruction. By seting this the SQ will not wait for Change 78889 on 2003/01/23 by llefebvr@llefebvr r400 emu montreal texture data to have returned before allowing the alloc to go thru Fixing underflow error in the interpolators Change 76862 on 2003/01/15 by llefebvr@llefebvr_r400_emu_montreal Tried to do the other opcodes as well where the denorm flushes where not done right. Change 78854 on 2003/01/23 by llefebvr@llefebvr_r400_emu_montreal These include max,min,max4,trunc,frac and floor Was overwriting the booleans at address 0 with the new ones. This is now working fine.

Change 78816 on 2003/01/23 by llefebvr@llefebvr_r400_emu_montreal

Forgot to add the CNDE.GT and DOT2ADD in the non-coissuable instructions list.

Change 78672 on 2003/01/22 by llefebvr@llefebvr_r400_emu_montreal

Change 78584 on 2003/01/22 by llefebvr@llefebvr_r400_emu_montreal

I had a bug in the read register interface for RT fetch memory. It is now resolved

Change 78324 on 2003/01/21 by llefebvr@llefebvr_r400_emu_montreal

fixing a bug with the _CONST opcodes and a memory export bug when exporting more than 1 pixel per block.

Change 77874 on 2003/01/20 by llefebvr@llefebvr_r400_emu_montreal

Fix for the scalar fract.

Change 77517 on 2003/01/17 by mmang@mmang_r400_win

fixing the Frac problem with infinities.

Added new hardware accurate sqrt function code

Change 77429 on 2003/01/17 by llefebvr@llefebvr_r400_emu_montreal

Fixing some FRAC precision issues along with MULADD problem with swizzle of

Change 77415 on 2003/01/17 by Iseiler@Iseiler_r400_win_marlboro2

fixes for more warnings

Change 77293 on 2003/01/16 by Iseiler@Iseiler r400 win marlboro2

Changed XOR to != on lines 133, 513, and 515 to eliminate VCC warning message

Change 77210 on 2003/01/16 by llefebvr@llefebvr r400 emu montreal

Page 35 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 76782 on 2003/01/15 by llefebvr@llefebvr_r400_emu_montreal

new muladd code and dot4 code. No functionnal changes cleanup only. Provided by

Change 75807 on 2003/01/10 by llefebvr@llefebvre_laptop_r400_emu

SX performance counters nomenclature change New dot product code (activated using RealDot Reg Key)

Change 75716 on 2003/01/10 by llefebvr@llefebvre_laptop_r400_emu

Fixing 2D shader bug where the sequencer was executing twice the last instruction

Change 75569 on 2003/01/09 by llefebvr@llefebvre_laptop_r400_emu

Fixing exponent underflow in the mul part of the interpolators.

Change 75305 on 2003/01/08 by llefebvr@llefebvre_laptop_r400_emu

Now using the new mul Add function

Change 75032 on 2003/01/07 by llefebvr@llefebvre_laptop_r400_emu

fixing another problem with the cylindrical wrapping.

Change 74951 on 2003/01/07 by llefebvr@llefebvre_laptop_r400_emu

adding scalar _CONST opcodes to the emulator. Not tested

Change 74888 on 2003/01/07 by llefebvr@llefebvre_laptop_r400_emu

Found a major bug in the SQ. This should fix the cyl wrapping problem. Needs to be

Change 74756 on 2003/01/06 by llefebvr@llefebvre_laptop_r400_emu

wasn't performing a denorm flush to zero on the input of the fract. Also doing it for the floor function as well now

Change 74712 on 2003/01/06 by lseiler@lseiler_r400_win_marlboro2

Page 36 of 75

eliminated VCC warning messages

Change 74397 on 2003/01/03 by llefebvr@llefebvr_r400_emu

Added Soft RBBM reset feature to the SQ.

Change 74359 on 2003/01/03 by llefebvr@llefebvr_r400_emu

Adding the additionnal restrictions on the MUL_PREV2 opcode.

Change 74297 on 2003/01/03 by sallen@sallen r400 lin marlboro

change all occurances of sbfloat<8,23,127> to proper mfloat<8,23,128>

Change 74163 on 2003/01/02 by llefebvr@llefebvr r400 emu

I removed the input modifiers on previous scalar for the _PREV scalar opcodes per

Change 74144 on 2003/01/02 by llefebvr@llefebvr r400 emu

There was a conflict between the counters of the SX and those of the SQ. I made the counters of the SX start at 0x30 to remove the conflict.

Change 73968 on 2002/12/31 by mmantor@FL_mmantorLT_r400_win

fixed for the vertex version of bad pipe to work. The sq changes corrected the steering of vertex data to the correct gpr's and the sx solved a hang when odd number of pipes were disabled and the vgt change corrected the pc deallocation generation circuit

Change 73536 on 2002/12/27 by llefebvr@llefebvre_laptop_r400_emu

New DOT code based on the newest muladd function

Change 73502 on 2002/12/27 by llefebvr@llefebvre laptop r400 emu

Changing the XY import to the SP as per Tom Frinsinger's proposal

Change 71733 on 2002/12/17 by ilefebvr@ilefebvre_laptop_r400_emu

New MulAdd has been added to the emulator. It is disabled by default. To enable please set NewMulAdd registry key or environement variable to $1. \,$

Change 71681 on 2002/12/17 by llefebvr@llefebvre_laptop_r400_emu

Flushing denorms to 0 before the SET*, CDN* instructions before doing the test.

Change 71542 on 2002/12/16 by llefebvr@tlefebvre_laptop_r400_emu

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

The SQ wasn't stuffing the vertices correctly in the GPRs when there where bad pipes.

Change 71161 on 2002/12/13 by llefebvr@llefebvre_laptop_r400_emu

Reverting the -ZERO change for the mul only. Now when doing a mul only +ZERO is added as source (

Change 70456 on 2002/12/11 by llefebvr@llefebvre laptop r400 emu

Adding -0 for straight muls in HW accurate version instead of 0 for better precision.

Change 70403 on 2002/12/11 by llefebvr@llefebvre_laptop_r400_emu

fixing flushing to 0 the denorm BEFORE the NAN check.

Change 70159 on 2002/12/10 by llefebvr@llefebvre_laptop_r400_emu

Fixing overshifting in the interpolators adder

Change 69667 on 2002/12/09 by llefebvr@llefebvre laptop r400 emu

fixing overshifting in the parameter_sub function of the SX.

Change 69637 on 2002/12/09 by llefebvr@llefebvre laptop r400 emu

Fixing underflow condition in the interpolators. Also flushing denorms for scalar table

Change 69604 on 2002/12/09 by llefebvr@llefebvre_laptop_r400_emu

Backing out the change to the muladd that broke many regression tests

Change 69176 on 2002/12/06 by llefebvr@llefebvre laptop r400 emu

Change 69158 on 2002/12/06 by llefebvr@llefebvre_laptop_r400_emu

More HW precision fixes for the interpolators. Now matches perfectly HW for regular cases. Still a problem with very large numbers (but they are not used in the regression yet).

Change 68741 on 2002/12/05 by llefebvr@llefebvre laptop r400 emu

providing read path on the RBBM for the instruction st

Change 68507 on 2002/12/04 by llefebvr@ilefebvre laptop r400 emu

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

The emulator was off by 1 bit in the adder. Need to update golds... They should not missmatch by more than I LSB

Change 68349 on 2002/12/04 by llefebvr@llefebvre_laptop_r400_emu

Error in the emulator implementation of TRUNC

Change 68191 on 2002/12/03 by llefebvr@ilefebvre laptop r400 emu

new implementation of the DOT product. Currently turned off by default. Need to set RealDOT to 1 in registry file to turn it on. Changed regular mulladd to reflect implementation changes as well.

Change 68039 on 2002/12/03 by llefebvr@llefebvr_r400_linux_marlbore

fixed a NaN propagation problem (the sign wasn't switched correctly)

Change 67086 on 2002/11/26 by llefebvr@llefebvr_r400_linux_marlboro

fixing typo

Change 67080 on 2002/11/26 by llefebvr@llefebvr_r400_linux_marlboro

fixing HW accurate boundary problems with SUB and range checking INF*0

Change 66324 on 2002/11/22 by llefebvr@flefebvre laptop r400 emu

Implemented the performance counters in the SQ and SX.

Change 65882 on 2002/11/21 by llefebvr@llefebvre laptop r400 emu

Change 65734 on 2002/11/20 by llefebvr@llefebvre laptop r400 emu

added performance counters in SQ.

Change 65556 on 2002/11/20 by llefebvr@llefebvre laptop r400 emu

Bug in the emulator dealing with large values being trunc or floored. This should fix a

Change 65367 on 2002/11/19 by llefebvr@llefebvre laptop r400 emu

This wasn't hung. Just took a lot of time. I reduced the loop count to something more reasonable. Also changed the R400_NAN to FFC00000.

Change 65261 on 2002/11/19 by llefebvr@llefebvre_laptop_r400_emu

Page 39 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Fixing the FRAC opcode error with negative numbers

Change 65199 on 2002/11/19 by llefebvr@llefebvre laptop r400 emu

There were two problems with this test:

1) The first pass pixel shader wasn't exporting anything thus the SX wasn't sending anything to the RBs hence the hang. You should never have a dummy pixel shader if there are

pixel generated.

2) The time allowed to the test was too short. I incremented it to 10000 (was 1000).

I took the opportunity to do some code cleanup as well. Rerun other memory export tests to make sure I did not break anything

Change 64957 on 2002/11/18 by llefebvr@llefebvre_laptop_r400_emu

Flipping face bit meaning in SQ (I had it backwards)

Change 64913 on 2002/11/18 by llefebvr@llefebvre_laptop_r400_emu

Fixing 2 HW accurate problems dealing with comer cases on RECIP and RECIPSQRT

Change 64795 on 2002/11/18 by mkelly@fl_mkelly_r400_win_laptop

sq block model.cpp was not adding the buffer offset for centriods when centers and centriods are sent

centrotes are sent.

* fixed gold for r400sc_msaa_8_primtypes_01

* add r400sc_sp_sample_cntl_01 to SC regress_e to lock in this test and help minimize future debugging efforts.

Change 64467 on 2002/11/15 by llefebvr@llefebvre_laptop_r400_emu

Fixing cube bug in SP

Change 64130 on 2002/11/14 by llefebvr@llefebvre laptop r400 emu

Fixing RT interpolation problem.

Change 63968 on 2002/11/14 by llefebvr@llefebvre laptop r400 emu

fixing FOG export bug in SX

Change 63642 on 2002/11/13 by llefebvr@llefebvre laptop r400 emu

fixing full absolute constant problems in the emulator

Change 63217 on 2002/11/11 by llefebvr@llefebvre laptop r400 emu

Page 40 of 75

Flipped GPR_MANAGEMENT fields to match CP. Fixing an error with loops in the SQ that caused it to loop indefinitely. Also adding some more predication tests Removed float to fix on the XY load. Modified tests that used the feature accordingly Change 63153 on 2002/11/11 by llefebvr@llefebvre_laptop_r400_emu fixing error that produces black output whenever using HW accurate mode Change 63113 on 2002/11/11 by llefebvr@llefebvre_laptop_r400_emu Submiting an example of how to use the SQ generated counters. Change 62908 on 2002/11/08 by llefebvr@llefebvre_laptop_r400_emu removed the fix to float before the auto-counters. One must now subtract 2**23 before Change 62859 on 2002/11/08 by llefebvr@llefebvre_laptop_r400_emu Fixed an exponent underflow problem in the HW accurate interpolators. Change 62797 on 2002/11/08 by llefebvr@llefebvre laptop r400 emu Added the write 0 fonctionnality to the PCs (bit 6 vector destination address). compatibility Change 62709 on 2002/11/08 by llefebvr@llefebvre laptop r400 emu Fixing the bug introduced by using the scalar address for the vector data in the GPRs. Change 62558 on 2002/11/07 by askende@andi_crayola_emu reversed the order in which the vector and scalar results are written in the GPRs. Scalar first and Vector second. Change 62485 on 2002/11/07 by llefebvr@llefebvre laptop r400 emu Fixed a predication bug where if a pred set was done last it wouldn't count toward the togeather. Change 62057 on 2002/11/06 by llefebvr@llefebvre laptop r400 emu Swapping the center/centroid sampling to reflect SC change Change 61970 on 2002/11/06 by llefebvr@llefebvre laptop r400 emu Fixing the interpolators problem. This problem only shows up in tests that change the Change 61027 on 2002/11/01 by llefebvr@llefebvre laptop r400 emu Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 60854 on 2002/10/31 by llefebvr@llefebvre_laptop_r400_emu Fixing the sending CENTERS only to the interpolators. Previously the emulator would Change 60720 on 2002/10/31 by llefebvr@llefebvre_laptop_r400_emu added 2 bits of precision to the muladd to match R300 vertex shader precision Change 60690 on 2002/10/31 by llefebvr@llefebvre_laptop_r400_emu Problem with the predicate optimization resulting in this hang Change 60388 on 2002/10/30 by llefebvr@llefebvr r400 linux marlboro fixing HW accurate bug on Linux. Change 60279 on 2002/10/30 by llefebvr@llefebvre_laptop_r400_emu Fixed the prev opcodes. Now using the getSignbit instead of isNeg for NAN Change 60038 on 2002/10/29 by llefebvr@llefebvre_laptop_r400_emu Renamed Real time parameter registers to be more explicit. Implemented ALPHA_NO_BLEND in the SX. Change 59911 on 2002/10/29 by mmantor@mmantor r400 win $sq_block_model.cpp-made seperate line counters for loading of sq pixel vector data with a buffer count for the optimized quad transfers when quads from different rows can be sent$ sx_block_mode.cpp/h seperated the quad fifo's so that even odd pairs are always read togeather to prevent reodering in the rb's sc files added bad pipe to the packer and the optimized quad xfers Change 59731 on 2002/10/28 by llefebvr@llefebvre_laptop_r400_emu Memory overrun in the interpolators that was corrupting the state of the SQ. Also change the pred_clr opcode to write MAX_FLOAT instead of 5000 in the GPRs. Change 59460 on 2002/10/25 by hartogs@fl hartogs Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Change 58052 on 2002/10/18 by llefebvr@llefebvre laptop r400 emu ABS modifier now applies to both constants.

Added apperture checks to prevent memory spills for memory exports Change 58005 on 2002/10/18 by llefebvr@llefebvre laptop r400 emu Fixing r400vgt_vtx_export_very_very_simple_04 memory export test Change 58001 on 2002/10/18 by llefebvr@llefebvre laptop r400 emu Various fixes to the assembler and the emulator to allow for debug exports Change 57713 on 2002/10/17 by llefebvr@llefebvre_laptop_r400_emu added a debug address export destination Change 57655 on 2002/10/17 by llefebvr@llefebvre_laptop_r400_emu allowing PC allocs in the debugging mode Change 57534 on 2002/10/16 by llefebvr@llefebvre laptop r400 emu allowing position allocs in debug mode. Change 57526 on 2002/10/16 by llefebvr@llefebvre_laptop_r400_emu fixing a debug export bug (wasn't letting position thru) Change 57498 on 2002/10/16 by llefebvr@llefebvre laptop r400 emu Added Predicate Exits support for loops in the emulator. Change 57434 on 2002/10/16 by llefebvr@llefebvre_laptop_r400_emu Not doing the range checking correctly for scalar ops. Was causing an error in 1 vgt test. Change 57142 on 2002/10/15 by llefebvr@llefebvre laptop r400 emu Added the IEEE compliant opcodes to the scalar pipe. Updated Primlib in consequence Change 56880 on 2002/10/14 by llefebvr@llefebvre_laptop_r400_emu

Pipe Disable Change. This change creates a separate set of ROM_SP_disable bits for the vertex shader path and the pixel shader path

Change 59417 on 2002/10/25 by llefebvr@llefebvre_laptop_r400_emu

Implemented the 4 IJ buffer performance optimization in the emulator

Change 59135 on 2002/10/24 by llefebvr@llefebvre laptop r400 emu

Using getField instead of getReal for NAN detection in hope of fixing linux HW accurate bug.

Change 59077 on 2002/10/24 by llefebvr@llefebvre_laptop_r400_emu

Fixing a problem in the SQ RS management where the call return address wasn't save correctly in some cases. Fixes the advanced test.

Change 58939 on 2002/10/23 by llefebvr@llefebvre_laptop_r400_emu

Underflow of the exponent fixed

Change 58930 on 2002/10/23 by llefebvr@llefebvre_laptop_r400_emu

Fixes in HW accurate stuff.

Change 58812 on 2002/10/23 by llefebvr@llefebvre laptop r400 emu

Added CNTX register for reading of the CST store using the RBBM bus for debug

Change 58676 on 2002/10/22 by llefebvr@ilefebvre laptop r400 emu

Fixing a problem where the predicate bits were not set correctly wich caused problems with predicated texture fetches

Change 58567 on 2002/10/22 by llefebvr@llefebvre_laptop_r400_emu

Pulsing the RB for CACHE flushes events in the VTX shader (and derivative flush events)

Change 58306 on 2002/10/21 by llefebvr@llefebvre_laptop_r400_emu

Fixed GradFills and Floor vector instruction

Change 58287 on 2002/10/21 by llefebvr@llefebvre_laptop_r400_emu

Primlib was not passing NANDs correctly for ALU constants. State changes are no more required for memory exports. I changed primlib to reflect this.

Page 43 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Loops, jumps and calls are now using a 13 bit address which allows to jump and call and loop around any control flow addresses (does not requires to be even anymore).

Change 56697 on 2002/10/11 by llefebvr@llefebvre_laptop_r400_emu

Page 44 of 75

Change 55126 on 2002/10/03 by llefebvr@llefebvre_laptop_r400_emu Added a SQ RB pulse interface for memory export synchronization Change 56607 on 2002/10/11 by llefebvr@llefebvre laptop r400 emu multiple fixes for memory exports. Widened the event interfaces from 4 to 5 bits Change 54892 on 2002/10/02 by llefebvr@llefebvre_laptop_r400_emu Change 56332 on 2002/10/10 by llefebvr@llefebvre laptop r400 emu Fixed some memory export bugs Missblending the fog in the color. Was shifting and shouldn't Change 54819 on 2002/10/02 by llefebvr@llefebvre laptop r400 emu Change 56280 on 2002/10/10 by llefebvr@llefebvre laptop r400 emu fixing sub scalar. HW accuracy problem in interpolators fixed (HOS tests) Abs is now executed before the negate. Change 54748 on 2002/10/02 by llefebvr@llefebvre_laptop_r400_emu Added a clear vertex ready counters in order to clean up the SQ counters on context Change 56093 on 2002/10/09 by llefebvr@llefebvre_laptop_r400_emu changes. Hw accurate bug fix when multiplying a number by 0 the fn was returning a very small Change 54680 on 2002/10/01 by llefebvr@llefebvre_laptop_r400_emu Fixed problems with negative numbers in the muladd HW accurate routine Fixed HW accurate problem in the TP where it was not reading from the good vertex buffer index in HW accurate mode. This changes makes the whole mini-regression work in full HW accurate mode. Change 56036 on 2002/10/09 by llefebvr@llefebvre laptop r400 emu Added the context ID to the SQ->TP interface. The name of the signal is SQ_TP_ctx_id. This is needed for multisampling resolves. Change 54604 on 2002/10/01 by llefebvr@llefebvre_laptop_r400_emu Change 56028 on 2002/10/09 by llefebvr@llefebvre_laptop_r400_emu Fixing a HW accuracy bug in the interpolators. The mantissa of the A-B and A-C was subshifted by one. Fixed Nan*0 exeption case in the HW accurate mode of the muladd. Change 55864 on 2002/10/08 by llefebvr@llefebvre_laptop_r400_emu Change 54515 on 2002/10/01 by llefebvr@llefebvre_laptop_r400_emu Fixed a hang in the SQ where if you didn't to a Tfect because of control flow the SQ would wiat forever after the TP. This enables the use of the new 2D pixel shader. Fixed HW accuracy problem in mull_add function where the wrong variable was used to shift the mantissa of the result of the mul prior to the add. Change 55794 on 2002/10/08 by llefebvr@llefebvre_laptop_r400_emu Change 54332 on 2002/09/30 by llefebvr@llefebvre_laptop_r400_emu Fixed a bug the driver's compiler found where the SQ wasn't stopping on an EXEC_END Added range check Also the test was clamping the values to infinities where clamped prior to the interface. Also fixed the arbiter's rules to make sure the new PC allocation scheme was respected. Change 55320 on 2002/10/04 by llefebvr@llefebvre_laptop_r400_emu Change 54149 on 2002/09/27 by llefebvr@llefebvre_laptop_r400_emu Updated the DOT2 ADD opcode to meet new specification Checking in the test that reproduces the driver's setup for multiple textured triangles. Fixed the Sequencer to allow for early allocation of the PC. Allowing memory exports to occur at any point Change 55267 on 2002/10/04 by llefebvr@llefebvre_laptop_r400_emu Change 54018 on 2002/09/27 by llefebvr@llefebvre_laptop_r400_emu Fixed a bug introduced in vgt400_hos_PNT_01. The arbiter wasn't setting deallocation counts right. Fixed an error in the control flow machine where the last bit was set too early. Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Change 53879 on 2002/09/26 by llefebvr@llefebvre_laptop_r400_emu Change 50231 on 2002/09/09 by llefebvr@llefebvre laptop r400 emu Fixed the SETs opcodes. Cleaned up the SX. Added an address buffer for memory exports. Corrected bad overflow handling in the HW accurate MULADD Change 53821 on 2002/09/26 by llefebvr@ilefebvre_laptop_r400_emu Change 50050 on 2002/09/06 by llefebvr@llefebvre_laptop_r400_emu Fixed SWAP error that caused missmatches with gold images Fixed the "last" bit warning that was not placed for the right condition. Added count reset capability in the SQ for multipass.

Added better comments for the PARAM_SHADE register field. Change 53670 on 2002/09/25 by llefebvr@llefebvre_laptop_r400_emu Fixed some HW accurate bugs Added new MOVA write back to GPRs feature. The SO was missreading the SO SAMPLING register wich was causing the interpolation of the data with the wrong IJs. Also fixed primlib to add the 1 parameter only SET and KILL scalar instructions. Change 49961 on 2002/09/06 by ctaylor@fl ctaylor r400 dtwin marlboro Change 53592 on 2002/09/25 by llefebvr@llefebvre_laptop_r400_emu Make MPASS PIX VEC PER PASS 20 bits since SQ auto-inc cannot be any bigger due to FIPP restrictions.

Add PA_SC_CNTL_STATUS.MPASS_OVERFLOW status flag.

Changed name and added new event for controlling MPASS pixel shaders corrected some minor errors in the vertex shader code for multiple state exports. Change 50793 on 2002/09/11 by llefebvr@llefebvre laptop r400 emu and SQ vertex and pixel counters and SQ vertex and pixel counters.

Added SC>CP VizQuery and MP PixShader dumps.

Made window_offset register fields 15 bits instead of 16.

Added SC MP PixShader logic.

Added new signal to SC>SQ interface to prevent incrementation of pixel count for "discarded" MP Pix Shader Pixel Vectors. Fixing XY reads in the shader pipe Change 50772 on 2002/09/11 by llefebvr@llefebvre_laptop_r400_emu Fixed MSAA bug where samples 4-7 were not being set to 0 when MSAA was disabled. Fixed both EMU and RTL. Fixing the CP 2D test problem. Change 50725 on 2002/09/11 by llefebvr@llefebvre_laptop_r400_emu Change 49761 on 2002/09/05 by sallen@sallen r400 lin marlboro Fixed SQ dump file to output generated parameters as well ferret: add some interfaces for gc comparitors Change 50697 on 2002/09/11 by llefebvr@llefebvre_laptop_r400_emu Change 49690 on 2002/09/05 by llefebvr@llefebvre_laptop_r400_emu Fixing the CP 2D bugs.

Change 50488 on 2002/09/10 by llefebvr@llefebvre_laptop_r400_emu

Added data dependant masks to the PCs.

Change 50464 on 2002/09/10 by llefebvr@llefebvre_laptop_r400_emu

Fixed HW accurate bug in the interpolators that caused inacuracies whenever the IJs where small.

Fixed the SP SX interface to make it more HW accurate for the SX-RBRC testbench. Made the SX more flexible for multiple pixel exports to the same location

Change 50284 on 2002/09/09 by llefebvr@llefebvre laptop r400 emu

correction to the sub-normalized number interpretation of the IJs

Page 47 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

 $Added\ HW\ accurate\ scalar\ operations\ but\ for\ the\ SQRT.\ Tested\ Log\ and\ Exp\ to\ some\ extent.\ Using\ Khan\ 6X\ Scalar\ implementation.$

Change 49621 on 2002/09/05 by llefebvr@llefebvre laptop r400 emu

Added GEN_INDEX_VTX field to the SQ_PROGRAM_CNTL register Changed name of GEN_INDEX field to GEN_INDEX_PIX

Change 49556 on 2002/09/04 by llefebvr@llefebvre_laptop_r400_emu

Fixed another Linux compilation error

Change 49549 on 2002/09/04 by llefebvr@llefebvre laptop r400 emu

removed some warnings and a Linux error

Page 48 of 75

Change 49540 on 2002/09/04 by llefebvr@llefebvre_laptop_r400_emu

Updated the SX->SQ position ready interface to add one more bit. Added code for the HW accurate scalar pipe (not used yet).

Change 49374 on 2002/09/03 by mmantor@mmantor r400 win

added sc output of centers and xy data. Also passed the xy data on the ij bus between the

Change 49353 on 2002/09/03 by llefebvr@llefebvre_laptop_r400_emu

Added Idle0 and Idle1_7 functions for SQ idle status report.

Change 49276 on 2002/09/03 by llefebvr@llefebvre_laptop_r400_emu

Added the RECIP_FF and RECIPSQ_FF scalar opcodes. Reorganized the opcode enums to match most recent HW Added a more detailed description of the EO RT control register Updated primlib to reflect the opcode changes.

Change 49038 on 2002/08/30 by llefebvr@llefebvre_laptop_r400_emu

Added debug dumps for interpolator inputs and vertex shader exports to parameter

Change 48886 on 2002/08/29 by llefebvr@llefebvre_laptop_r400_emu

Implemented the -MAX_FLOAT changes for the MUL_PREV2, LOG and EXP opcodes. Implemented the HW accurate version of DOT3,DOT4 and DOT2ADD. All vector opcodes are now HW accurate.

Change 48796 on 2002/08/29 by llefebvr@llefebvre_laptop_r400_emu

Changed to MUL_PREV2 instruction to output -infinity also if SrcC is < 0 (per Andy Gruber's request).

Change 48770 on 2002/08/29 by llefebvr@llefebvre_laptop_r400_emu

Implemented the new "9 bits constant" mode. If set we use the constant address as a real absolute address in the constant store (we do not add the VS_CONST_BASE or PS_CONST_BASE to the address specified in the instruction). Only available for constant A

Change 48237 on 2002/08/27 by llefebvr@llefebvre_laptop_r400_emu

Added Event filtering in the SQ

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Added better Idle Status reporting in the SQ that now takes the VGT interface into account (previous version was not taking the staging registers into account just the interface).

Change 48140 on 2002/08/26 by llefebvr@llefebvre_laptop_r400_emu

Fixed 3 bugs in the HW accurate interpolators: 1) Detection of I and J=0 was wrong 2) Detection of A=0 was wrong 3) Denormalization of second paramter was done in the inverse direction of what it should have been

This fixes both primlib_template_simple_triangle.cpp and milestone_tri.cpp tests

Change 48080 on 2002/08/26 by llefebvr@llefebvre_laptop_r400_emu

There was an indexing problem with the writting of the STs in the GPRs.

Change 47880 on 2002/08/23 by llefebvr@llefebvre_laptop_r400_emu

This is the real fix for bug 299. The other one created nasty side effects in the VGT.

Change 47751 on 2002/08/23 by llefebvr@llefebvre_laptop_r400_emu

There was an error in the SQ that made it wrap around when the SO PS/VS CONST.BASE value was too high. This is fixed

Change 47592 on 2002/08/22 by llefebvr@llefebvre_laptop_r400_emu

NewVector was not handled correctly when not associated with a pixel vector

Change 46827 on 2002/08/19 by llefebvr@llefebvre_laptop_r400_emu

For SX quad Fifo reasons we are now forcing memory exports to occur in order

Change 46728 on 2002/08/19 by llefebvr@llefebvre_laptop_r400_emu

Fixed another MAX GPR bug in the Vertex shader

Change 46550 on 2002/08/16 by llefebvr@llefebvre_laptop_r400_emu

Added more checks for the Idle SQ function

Change 46516 on 2002/08/16 by llefebyr@llefebyre laptop r400 emu

Fixed the maximum GPR (64) allocation problem. One can now run shaders that use 64 GPRs. The meaning of the VS/PS_NUM_REG has changed it now represents the INDEX OF THE MAXIMUM GPR NUMBER. This change will break the HW.

Change 46315 on 2002/08/15 by llefebvr@llefebvre_laptop_r400_emu

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

The SQ->SC dump file was not showing all transactions that occured. This is now corrected. Also changed the default 2D shader directory (if your \$BRANCH and \$ROOT variables aren't set).

Change 46246 on 2002/08/15 by llefebvr@llefebvre_laptop_r400_emu

Fixed an instruction wrapping problem in the SQ

Change 46140 on 2002/08/14 by llefebvr@llefebvre_laptop_r400_emu

Changed the MASK mnemonics to KILL Added DST opcode.
Added MUL. PREV2 opcode.
Recordered the opcodes in primitib and SP.
Implemented the new KILL and SET SCALAR opcodes, they are now all comparing the

ALPHA channel to 0.0f (instead of comapring against the RED channel).

Change 46049 on 2002/08/14 by sallen@sallen_r400_lin_marlboro

ferret: change bool/boolean to boolnumber & test change pix_mask to TP_SP_pix_mask, etc more sqspsx tweaks

Change 46036 on 2002/08/14 by llefebvr@llefebvre_laptop_r400_emu

Fixed the clamping problem. Note however that now there is no triangle drawn in the test because the clamping causes the triangle to be degenerate.

Change 45961 on 2002/08/14 by llefebyr@llefebyre laptop r400 emu

Now allowing one position vector to be exported in memory export mode to "ping" the PA that everything is done.

Change 45752 on 2002/08/13 by llefebvr@llefebvre_laptop_r400_emu

Signal name change on the TP_SQ interface and backup of the not yet working fully memory export in the SX.

Change 45388 on 2002/08/12 by llefebvr@llefebvre_laptop_r400_emu

Changed the SX allocation strategy to better match the HW in MRT cases. The new allocation scheme puts all MRTs in a single block instead of interleaving the MRTs together like the previous implemetation.

Change 45216 on 2002/08/09 by sallen@sallen_r400_lin_marlboro

tpc t4 changes for TP SQ interface

Change 45200 on 2002/08/09 by llefebvr@llefebvre_laptop_r400_emu

Page 51 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Corrected a bug in MUL_PREV, ADD_PREV and SUB_PREV wich where using incorect source operands.

Change 45127 on 2002/08/09 by llefebvr@llefebvre laptop r400 emu

The SQ now uses the information in state registers to allocate regular PS/VS shaders. The size field is ONLY USED for memory writes

Change 45015 on 2002/08/08 by llefebvr@llefebvre_laptop_r400_emu

Fixed the fog blend logic in the SP and added SETNEs missing opcode.

Change 44461 on 2002/08/06 by llefebvr@ilefebvre laptop r400 emu

Fixed a problem in the SQ related to the 2D shader. Now the SQ runs even when the END flag is not associated with any instruction (it adds a NOP to EXEC_ENDs with a count of

Change 44350 on 2002/08/06 by llefebvr@llefebvre laptop r400 emu

There was a bug in the SQ that made the last iteration of a loop read invalid loop indexes This is now fixed.

Change 44321 on 2002/08/05 by askende@askende_r400_linux_emu

added hardware bit accurate implementation for some of the vector instructions

Change 44252 on 2002/08/05 by llefebvr@llefebvre laptop r400 emu

New counter based predication scheme

Change 44232 on 2002/08/05 by llefebvr@llefebvre_laptop_r400_emu

Fixed a parameter generation bug in SQ wich was causing the emulator to crash for test $r400su_point_sprite_01$.

Change 44054 on 2002/08/02 by llefebyr@llefebyre laptop r400 emu

Fixed the emulator to add automatically the generated parameters to the number of interpolated parameters in order not to screw up the parameter cache pointer computation in theVGT when generating parameters.

Change 44026 on 2002/08/02 by llefebvr@llefebvre_laptop_r400_emu

Implemented the new parameter generation scheme. See SQ spec for details.

Change 43826 on 2002/08/01 by askende@askende r400 linux emu

Page 52 of 75

mods related to matching the hardware accuracy Change 41596 on 2002/07/19 by llefebvr@llefebvre laptop r400 emu Change 43756 on 2002/08/01 by askende@askende r400 linux emu Corrected the VGT->SQ event interface. Corrected the GFX_COPY_STATE problem new mod on the interpolators to get it to match hardware Change 41029 on 2002/07/17 by llefebyr@llefebyre laptop r400 emu Change 43742 on 2002/08/01 by sallen@sallen r400 lin marlboro Placed the hooks for HW accurate interpolation (not used yet)... ferret: move HW related files from test lib/tools/ferret to parts lib/src/test/ferretutils Change 40887 on 2002/07/16 by llefebvr@llefebvre_laptop_r400_emu make associated changes add interface changes for tp4 tc testbench Implemented the new bad pipe interface between the VGT and the SQ. The VGT doesn't pad anymore and so the SQ is responsible to "jump" over a bad pipe when filling the reservation stations. make some tweaks for gc testbench Change 43661 on 2002/08/01 by llefebvr@llefebvre_laptop_r400_emu Change 40867 on 2002/07/16 by llefebvr@llefebvre laptop r400 emu Change 43394 on 2002/07/31 by llefebvr@llefebvre_laptop_r400_emu Minor changes to the addressing routines of the SQ in preparation for multipass implemetation HW accurate interpolators in the SQ. To turn on, set Hardware Accurate environment $variable\ to\ 1\ (or\ HKEY_LOCAL_MACHINE \ NOFTWARE\ NATITION \ Technologies \ Emulator \ Debug \ Hardware Accurate\ to\ 1\ if\ in\ windows).$ Off by default. Change 40695 on 2002/07/15 by llefebvr@llefebvre_laptop_r400_emu Fixed the event interface in the SQ where it was using a NULL pointer as a valid mask bit field wich was then crashing the numerical library. This changes should fix both the vertex Change 43234 on 2002/07/30 by llefebyr@llefebyre laptop r400 emu and the pixel event interface. The primlib_vgt_event_initiator.cpp now works correctly The LOD correction bits are now correctly propagated to the TP Change 39443 on 2002/07/10 by hwise@fl hwise r400 win Change 43129 on 2002/07/30 by llefebvr@llefebvre_laptop_r400_emu CP, SQ, and Primlib Updates for PM4 packet format changes Initialized the staging registers to prevent the NAN error message in the interpolators to sued without a valid reason.

Corrected a typo wich prevented the control flow booleans to be written correctly Packet Changes
1) SET_CONSTANT a) Updated CONST_ID field to include "booleans" and "loop" Change 42994 on 2002/07/29 by llefebvr@llefebvre laptop r400 emu b) Removed ALU and Texture constant grouping and now use DWORD offset in packet
c) Removed CONST_WRITE_ENABLE field from ordinal 1 (the ALU and
TEX write enables are now set with the Added the register to disable HW detection of PV/PS. Fixed infinite looping problem when ending a shader on a NOP. LOAD_CONSTANT_CONTEXT Fixed the BW jump problem. packet)
d) Replaced CONST_INDEX with CONST_OFFSET because meaning changed
(offset refers to dword offset and index used to refer to
constant group. Also real-time vs. non-real-time is implied Change 41911 on 2002/07/23 by hwise@fl_hwise_r400_win Fixed type casting bug when getting eventId from by the queue from which the packet is read rather than being encoded in the index)

2) LOAD_CONSTANT_CONTEXT

a) Updated CONST_LD field to include "booleans" and "loop"

b) Removed ALU and Texture constant grouping and now use vgt_sq_verts_data.VGT_SQ_vsisr_data[0] Change 41828 on 2002/07/22 by mmantor@mmantor r400 win connected event and event id into the pa sc interface fixed misc dump files for test bench working added lod_correct values to sc_sq interface DWORD offset in packet
c) Replaced CONST_INDEX with CONST_OFFSET because meaning changed Page 54 of 75 Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Ex. 2048 --- R400 Sequencer Emulator FH --- folder history (offset refers to dword offset and index used to refer to Change 38783 on 2002/07/08 by llefebvr@llefebvre_laptop_r400_emu constant group. Also real-time vs. non-real-time is implied by the queue from which the packet is read rather than being Changed the TP SQ/SQ TP interface rs line name to thread id to match the HW. Made encoded in the index)
d) Replaced NUM_CONSTANTS ordinal with NUM_DWORDS where number of constants had to be converted into dwords via microcode the corresponding ferret change Change 38277 on 2002/07/05 by llefebvr@llefebvre_laptop_r400_emu e) Send CONST_PREFETCH packet to the Microengine rather than the LOAD_CONSTANT_CONTEXT Implemented correctly lines and points in the SQ 3) CONST_PREFETCH a) This is a new packet 4) DRAW_INDX Change 37942 on 2002/07/03 by llefebvr@llefebvre_laptop_r400_emu a) Removed INDEX offset ordinal from packet (this is now state New interpolation scheme for ST generation for points and lines. Also made the correct that must be updated prior to the draw packet) changes for flat shading of points and line CP Pre-Fetch Parser Change 37862 on 2002/07/03 by llefebvr@llefebvre_laptop_r400_emu 1) Added state to hold ALU and Texture write enables used when

parsing SET_CONSTANT and LOAD_CONSTANT_CONTEXT packets

2) When parsing LOAD_CONSTANT_CONTEXT packet, send CONST_PREFETCH
packet to the Microengine rather than the LOAD_CONSTANT_CONTEXT

CP Microengine

CP full-chip tests

1) Updated logic for reporting Microengine IDLE state
2) Added a lot of support logic for multi-context
3) Fixed IP stack popping bug when returning from subroutine

SQ Register Write Decode Logic 1) SQ no longer pads 2 dwords between groups of 6 dwords when decoding register addresses

Primlib updates for new packet formats Added BOOLEAN_CONSTANT, and LOOP_CONSTANT to enum

CONSTANT_TYPE
in render_engine.h 2) Updated RENDER. ENGINE member functions to support new PM4
SET CONSTANT packet format
a) RENDERE, ENGINE:.load_Alu_Constants()
b) RENDER_ENGINE:.load_Alu_Constants()
c) RENDER_ENGINE:.load_Texture_Constants()
c) RENDER_ENGINE:.doad_Texture_Constants()
d) Updated member_function_RENDER_ENGINE:.Load_Draw_Command() to

support new 3D_DRAW_INDX_2 and DRAW_INDX PM4 packet formats

changes Change 39130 on 2002/07/09 by llefebvr@llefebvre_laptop_r400_emu

1) Updated packet creation within tests to match the PM4 spec

Fixed scalar trunc, floor and frac opcodes.

Page 55 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

 $Changed \ the \ interpolation \ equation \ from \ C+I^*(B-C)+J^*(A-C) \ to \ A+I^*(B-A)+J^*(C-A) \ to \ match \ with \ the \ changes \ that \ occurred in \ the \ SU \ to \ do \ lines \ and \ points \ cleanly.$

Change 37822 on 2002/07/03 by llefebvr@llefebvre laptop r400 emu

Added Call stack size checks in the SQ

Change 35516 on 2002/06/21 by llefebvr@llefebvre_laptop_r400_emu

Solidified the interpolators in order to make the HW accurate transition easier.

Change 35484 on 2002/06/21 by llefebvr@llefebvre_laptop_r400_emu

Predication optimization problem fixed in Sq

Change 35105 on 2002/06/20 by llefebvr@llefebvre laptop r400 emu

corrected the sq tests to use the new primlib include

Change 34940 on 2002/06/19 by kmahler@kmahler_r400_win_devel_views

Shader assembler and SQ block changes to support new ALU packing including new absolute modifier in source operand.

This also includes syntax checking for new restrictions on export register usage. That is, the destination operands of both the vector and scalar operations must be an export if one is an export. The building of the implicit NOP had to be changed to support this restriction. Syntax checking was added to ensure that only one constant register uses an absolute modifier. The coissue delimitor must now be "j" for shader versions not equal to "1.0". Version "1.0" may use either the new delimitor, "j", or the old one, ":".

Change 34483 on 2002/06/17 by llefebvr@llefebvre laptop r400 emu

Page 56 of 75

Implemented scalar exports

Change 34451 on 2002/06/17 by llefebvr@llefebvre_laptop_r400_emu

Changed the encoding of the SQ_PROGRAM_CNTL.VS_EXPORT_CNT register. Now a value of 0 means 1 parameter and so forth. Everyone reading the register must now add 1 to have the correct number of parameters. This allows to cover the range $1 \sim 16$ with only 4 bits.

Change 34419 on 2002/06/17 by llefebvr@llefebvre_laptop_r400_emu

Added MOVA opcode to the vector path and MOVA_TRUNC opcode to the scalar

Change 34233 on 2002/06/14 by llefebvr@llefebvre_laptop_r400_emu

Implemented all the new predicate set instructions (vector and scalar)

Change 34172 on 2002/06/14 by llefebvr@llefebvre laptop r400 emu

Added/Removed vector and scalar opcodes to comply with the new ALU format as specified by Andy Gruber

Change 33840 on 2002/06/13 by llefebvr@llefebvre_laptop_r400_emu

implemented more scalar opcodes

Change 33485 on 2002/06/12 by llefebvr@llefebvre_laptop_r400_emu

Implemented most of the remaining vector opcodes. Including pixel kills. The pred_set are still not implemented since they are still changing

Change 33165 on 2002/06/11 by llefebvr@llefebvre_laptop_r400_emu

Fixed parameter cache addressing error when exporting more than one color in the VS.

Change 32964 on 2002/06/10 by llefebvr@llefebvre_laptop_r400_emu

Fix for r400vgt_hos_cubic_pos_pnt_discrete_01 crashing when vertexTail == 0.

Change 32633 on 2002/06/07 by llefebvr@llefebvre_laptop_r400_emu

added an assert for NANs in the interpolators

Change 31997 on 2002/06/05 by llefebvr@llefebvre_laptop_r400_emu

Added SQ prefix to allocation type enum because of a name clash in windows.h

Change 31843 on 2002/06/04 by llefebvr@llefebvre laptop r400 emu

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

 $\label{eq:conditional_exec_pred_no_stall} Added CONDITIONAL_EXEC_PRED_NO_STALL_END \ control flow \ opcodes \ to \ the \ SQ \ per \ Andy$

Change 31717 on 2002/06/04 by llefebvr@llefebvre_laptop_r400_emu

Fixed the ABSOLUTE/RELATIVE name clash in the SQ enum by changing the names to ABSOLUTE_ADDR/RELATIVE_haller cases in use 30 ctual by changing use finances to ABSOLUTE_ADDR/RELATIVE_ADDR. Fixed some warnings and fixed the SQ_SC_dec_cnt problem where the SQ should have pulsed twice the SC on a new vector but it was only pulsing once.

Change 31527 on 2002/06/03 by llefebvr@llefebvre_laptop_r400_emu

Updated the obiParser. Added a bypass of the interpolators if all parameters of the primitive are the same

Change 31254 on 2002/05/31 by askende@andi crayola emu w

fixed a clamping related bug. Numbers greater than 1.0 weren't being clamped when clamping is on

Change 31115 on 2002/05/31 by llefebvr@llefebvre_laptop_r400_emu

Added safety checks in the sq vertex processing

Change 30964 on 2002/05/30 by llefebvr@llefebvre laptop r400 emu

Implemented the Event interface in the SQ (for vertices)

Change 30942 on 2002/05/30 by llefebvr@llefebvre_laptop_r400_emu

updated the VGT->SQ interface (and corresponding blocks) to match HW in name and size and add the Event field.

Change 30570 on 2002/05/29 by llefebvr@llefebvre_laptop_r400_emu

fixed a parameter cache deallocation synchronization problem

Change 30311 on 2002/05/28 by llefebvr@llefebvre_laptop_r400_emu

removed useless code.

Change 30310 on 2002/05/28 by llefebvr@llefebvre_laptop_r400_emu

The CoissuedInstruction flag was not reset properly in $s_{\overline{Q}}$ alu.cpp. If one mulAdd was done in the shader the scalar path was turned off for the remainder of the shader program. This is

Page 58 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 30106 on 2002/05/26 by ctaylor@fl_ctaylor_r400_dtwin_marlboro

Remove FloatParts usage, concerned about speed/memory rqmts.

Change 30068 on 2002/05/24 by ctaylor@fl ctaylor r400 dtwin marlboro

Update SC and SP to use denormalized SE4M20 (exp bias of 6) for IJ data

Change 29937 on 2002/05/24 by llefebvr@llefebvre_laptop_r400_emu

Fixed a event related problem that would have hanged the sequencer in the future (when events are turned on)

Change 29850 on 2002/05/24 by llefebvr@llefebvre_laptop_r400_emu

 $Changed \ the \ SQ_PROGRAM_CNTL.VS_EXPORT_MODE \ register \ field \ to \ use \ this$ enumeration instead

- 0: Position (1 vector).
- 1: Position (2 vectors) Do not use second position export.

- 1: Position (2 vectors) Use point sprite size.
 2: Position (2 vectors) Use point sprite size.
 3: Position (2 vectors) Use edge flags.
 4: Position (2 vectors) Use edge flags.
 5: Position (2 vectors) Use point sprite size and kill flags.
 6: Position (2 vectors) Use edge flags and kill flags.
 7: Multimase.
- 7: Multipass

Changed all emulator files (and primlib) to match with the new setting. No impact on the RTL (not using the feature vet).

Change 29678 on 2002/05/23 by llefebvr@llefebvre laptop r400 emu

Implemented the debug features of the SQ (untested and unused at the moment).

Change 29461 on 2002/05/22 by llefebvr@llefebvre_laptop_r400_emu

Corrected the "opcode 15 not supported" error from the primlib_tex test

Change 29385 on 2002/05/21 by llefebvr@llefebvre_laptop_r400_emu

Fixed an arbitration problem in arbiter where two exporting vectors could have the same thread id (causing a hang in the SX).

Change 29075 on 2002/05/20 by llefebvr@llefebvre_laptop_r400_emu

Fixed a problem in the vertex input engine of the SQ where the SQ was invalidating the last vertex sent if the continued signal was asserted.

Change 29039 on 2002/05/20 by llefebvr@llefebvre_laptop_r400_emu

Page 59 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Added support for RECIPSQ, LOGs, EXPs. Software implementation only using the C standard funtions

Change 28843 on 2002/05/17 by llefebvr@llefebvre_laptop_r400_emu

Documented all control flow instruction types in sq.blk (and sq.desc).

Change 28778 on 2002/05/17 by askende@andi_crayola_emu_w

fixed the swizzle logic

Change 28375 on 2002/05/16 by liefebvr@llefebvre_laptop_r400_emu

Changed the Allocate_size field of the Alloc instruction to match the encoding of the HW.

The encoding is now

00 -> 1 buffer 01 -> 2 buffers

15 -> 16 buffers

Change 28208 on 2002/05/15 by llefebvr@llefebvre_laptop_r400_emu

Added the enumeration fields in autoreg for both ALU and Control Flow instructions Not a functionnal change.

Change 28110 on 2002/05/15 by llefebvr@llefebvre_laptop_r400_emu

Replaced the reduce precision delat interpolation scheme with full precision interpolation

Change 27976 on 2002/05/14 by llefebvr@llefebvre_laptop_r400_emu

New SQ register map. Added EXEC_END, CPEXEC_END. Removed the END instruction.

Change 27875 on 2002/05/14 by jhoule@jhoule r400 win marlbord

Sequencer was calling GetNewTP_SQ_pix_mask instead of GetTP_SQ_pix_mask. TP returns correct masks now (was previously all 1s to be conservative).

Change 27413 on 2002/05/10 by llefebvr@llefebvre_laptop_r400_emu

Added texture pipe predication support

Change 27370 on 2002/05/10 by jhoule@jhoule r400 win marlboro

Added pix_mask support (always returns 1111 from TP)

Page 60 of 75

Added srcSwizzle (TInstrPacked) called from the SQ (arbiter) in order to keep 3 channels SP->TP path Adapted tp dumps to represent all of those.

Change 27266 on 2002/05/09 by vliu@vliu r400 cnvliu100 win cvd

Fixed the compile error after remove of the mc block everyone, please do a clobber under emu lib and rebuild since the ar_*.* files under ar_code will still be there if not removed

Change 27260 on 2002/05/09 by llefebvr@llefebvre laptop r400 emu

Added the pixel masks to the TP->SQ interface. Implemented the JUMP opcode.

Change 27218 on 2002/05/09 by llefebyr@llefebyre laptop r400 emu

Added the W field to the SP->TP interface.
Implemented CALL, LOOP and COND opcodes in the control flow machine

Change 27011 on 2002/05/08 by llefebvr@llefebvre_laptop_r400_emu

Changed the number of bits of the event_id field from 2 to 4 in the sequencer and the corresponding interface per Mike Mantor's request.

Change 26974 on 2002/05/08 by llefebvr@llefebvre_laptop_r400_emu

Added constant relative indexing via address register support and predication support (vector 0 only) in the SP. The pred_set and mova instructions are still not implemented so this is of little use right now.

Change 26955 on 2002/05/08 by llefebvr@llefebvre_laptop_r400_emu

Added relative constant and GPR addressing capabilities to the SQ

Change 26797 on 2002/05/07 by llefebvr@ilefebvre_laptop_r400_emu

Changed the mbfloats in the interfaces for mfloats in order to use IEEE floats instead of doubles in the SP, SX, and RBs. Added the control_flow_store to the SQ.

Change 26750 on 2002/05/07 by llefebvr@llefebvre_laptop_r400_emu

Corrected a problem in the SQ when loading multiple stages in the vertex staging registers.

Change 26569 on 2002/05/06 by llefebvr@llefebvre_laptop_r400_emu

Added readState and WriteState utility functions to the control flow machine in the SQ.

Change 26522 on 2002/05/06 by llefebvr@llefebvre_laptop_r400_emu

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

There was a problem in the SQ whenever there where two EXEC instructions in a row This is now fixed. It fixed the regression and hopefully will fix all other tests using the same

Change 26466 on 2002/05/06 by llefebyr@llefebyr r400 linux marlboro

fixed linux compilation errors

Change 26365 on 2002/05/03 by llefebvr@llefebvre_laptop_r400_emu

This is the new control flow sequencer. Expect things to be a bit unstable while this major change settles in. I know I broke I regression test (#400yt index_size_01) but the integration took so long that I decided to check the change in anyways and fix the problem from the TOTT. Sorry for the inconvenience.

Change 26344 on 2002/05/03 by hartogs@fl_hartogs

Added a count the VGT_SQ interface to verify the proper operation of the interface. The added code is #ifdef'ed out and is not a functional change.

Change 24998 on 2002/04/25 by llefebvr@llefebvre_laptop_r400_emu

Small correction in the SQ again because of a bug in the flat shading control code.

Change 24929 on 2002/04/25 by llefebvr@llefebvre laptop r400 emu

Fix for the flat shading (there was a shifting problem in the SQ)

Change 23847 on 2002/04/18 by llefebvr@llefebvre_laptop_r400_emu

Fixed a small bug in the SC that made the SQ stall whenever the IJ buffers where filled up.

Change 23698 on 2002/04/17 by llefebvr@llefebvre laptop r400 emu

Updated the SQ->TP and TP->SQ interfaces to match the HW in names.

Change 23236 on 2002/04/15 by liefebvr@liefebvre_laptop_r400_emu

Added an error check in the SQ to report an error when trying to dealocate an empty parameter cache.

Change 23080 on 2002/04/12 by rramsey@RRAMSEY_P4_r400_win

Fix bug in interp bb logic Add commentline dump to sc dump class Add state dump to sc

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change SQ input to allow new_vector and pc_dealloc to happen on the same quad from the SC. Laurent L. needs to verify that this change is OK, but it fixes the scissor_rect_04 hang and passes chip regression

Change 23010 on 2002/04/12 by llefebvr@llefebvre_laptop_r400_emu

Added the #define in vgtout that makes the deallocation of the PC occur on the last primitive instead of having to add another null prim.

Change 22994 on 2002/04/12 by llefebvr@ilefebvre laptop r400 emu

Added the SQ.>SC interface dump and corrected a small bug in the other interface dumps of the SQ,SX that made the dumps slightly out of sync with what was actually sent over the interfaces.

Change 22976 on 2002/04/11 by hartogs@fl_hartogs

* sq_block_model.cpp --> Flipped #if switch to new dealloc mode. Fixed variable name typo. * interconnect.cpp, interconnect.h --> Added DumpComment() routine to the

Interconnect class to allow comments in the dump file. I used this to print packet boundary comments into the VgtPaClipP dump for easier cross-checking with the other dumps.

* vgt_pa_if.h --> Changed the "dealloc_slot" field from a Bool' to an unsigned long.
* vgtouth, vgtout.cpp --> Coded new dealloc mode.
* vgt_plock_model.cpp --> Changed deallocate_slot from bool to ulong.
* vgt_pa_clip_prim.h --> Changed deallocate_slot from bool to ulong.

* For this check-in, the dealloc value can be greater than one, however, the dealloc does NOT occur on the prim using the verts.

Change 22823 on 2002/04/11 by llefebvr@llefebvre_laptop_r400_emu

 $Added \ the \ SC_SQ_provok_vtx \ to \ the \ SC->SQ \ interface \ (Randy \ you \ must \ set \ the \ correct \ value \ if \ you \ want \ flat \ shading \ to \ work).$

Added the following interface dumps to the SX:

SX->RB_quads

Added the two ring wrapping modes for the SQ instruction store.

Change 22547 on 2002/04/09 by llefebvr@llefebvre laptop r400 emu

Added the capability to dump interfaces to a file to the SQ and SX blocks.

The SQ can now dump the following interfaces

Page 63 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

SP->SX SQ->TP

The SX can now dump the following interface

Change 22459 on 2002/04/09 by llefebvr@llefebvre laptop r400 emu

Added the auto-count to the vertex shaders. The auto-generated counter is loaded in R2.x if SQ IMPORTS EXPORTS.GEN INDEX is set.

Change 22449 on 2002/04/09 by llefebvr@llefebvre_laptop_r400_emu

Added the new PC dealloc scheme (the old one is still there and is the one active for

Change 22354 on 2002/04/08 by llefebvr@llefebvre_laptop_r400_emu

Added the cylindrical wrapping logic in the interpolators. Change 22138 on 2002/04/05 by llefebvr@llefebvre laptop r400 emu

 $Modified the SQ_IMPORTS_EXPROTS.VS_EXPORT_MODE\ register\ to\ reflect\ the\ proposed\ change\ of\ the\ PA\ review.$

Change 22048 on 2002/04/05 by llefebvr@llefebvre_laptop_r400_emu

Added the SQ_CP event interface

Added support for centers/centroid sampling

Put provok vertex to 2 if set to last in state (TEMP/ CLAY will confirm).

Change 21910 on 2002/04/04 by llefebvr@llefebvre_laptop_r400_emu

Implemented:

Real time interpolation

Auto counters for pixel vectors

4) Faceness buffers

5) XY buffers 6) Sprite texture coordinate generation

Change 21673 on 2002/04/03 by llefebvr@llefebvre_laptop_r400_emu

Change 21630 on 2002/04/03 by llefebvr@llefebvre_laptop_r400_emu

Implemented Real time and multi-state management in the SQ (not tested)

Added the setContextNumber() functions wherever it was necessary in both the SQ and the SX blocks

Page 64 of 75

Change 21539 on 2002/04/03 by llefebvr@llefebvre laptop r400 emu

Added the event pipelining from the CP (interface back to the CP not done yet).

Change 21480 on 2002/04/02 by rramsey@RRAMSEY P4 r400 win

Remove OLD_SC stuff from PA and make sure all the sc interface includes are in the new sc directory and being called from there

Change 21275 on 2002/04/01 by llefebvr@llefebvre laptop r400 emu

Now using the get functions on all context register reads from the SX and the SQ.

Change 20682 on 2002/03/27 by llefebyr@llefebyre laptop r400 emu

New interfaces between SC,SQ,SP and SX are now implemented and functionnal.

Change 20483 on 2002/03/26 by jhoule@jhoule_r400_win_marfboro

Implemented new Const/Instr classes Integrated with Primlib so that it passes regression. TFetches don't seem to pass, but VFetches are OK.

Numerous change:

- Uses const & and plain & for read/write in SQ classes
 Uses accessor methods for set() and get()
 Created new Instr/Const classes, with inheritance (no more unions)
- Created *Packed classes, which are used in the SQ

Change 20198 on 2002/03/22 by llefebvr@llefebvre_laptop_r400_emu

Added masking support for the Parameter caches. Added support to write the color buffers out of order to the Export buffer

Change 19923 on 2002/03/21 by llefebvr@liefebvre laptop r400 emu

Added pixel kill functionnality in the SX. Fixed the SP->SX interface names to match those of the HW

Change 19654 on 2002/03/19 by llefebvr@llefebvre_laptop_r400_emu

removed debug traces

Change 19617 on 2002/03/19 by llefebvr@llefebvre laptop r400 emu

Corrected a bug in the SX that was causing the last quad of the triangle to be sent twice to the Rb. Also added debug traces in the SX

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 19600 on 2002/03/19 by sallen@sallen_r400_sun_marlboro

ferret shader pipe testbench work

Change 19449 on 2002/03/18 by llefebvr@llefebvre_laptop_r400_emu

Added RC SC to chip.cpp..

Change 19434 on 2002/03/18 by jhoule@jhoule r400 win marlboro

Removed hard-coded texture addresses Changed alignment multiply from 6 to 8 in SQ.

Change 18970 on 2002/03/14 by llefebvr@llefebvre laptop r400 emu

Added the new SC_SX interface. Added SX_RB_quad interface. Added RB_SX interface. Modified SX RB to reflect the HW interface

Change 18930 on 2002/03/14 by sallen@sallen_r400_sun_marlboro

add export tweak for shader testing

Change 18463 on 2002/03/11 by sallen@sallen_r400_sun_marlboro

timing tweaks for ferret / shader pipe

Change 18443 on 2002/03/11 by liefebvr@liefebvre laptop r400 emu

Added shader type to the SP->SX data interface to simplify the life of ferret

Change 18345 on 2002/03/11 by llefebvr@llefebvre_laptop_r400_emu

Fixed a reservation station management problem in the sequencer related to pixel shader stalls.

Change 18337 on 2002/03/11 by llefebvr@llefebvre_laptop_r400_emu

Added export buffers into the SX block. Splitted the interface from the SQ/SP to the SX into 2 interfaces (data, control). Repaired compilation problems of ferret because of namespac missuses. Removed the VS_EXPORT_MASK register (replaced by a value of 0 in COUNTX registers).

Change 18326 on 2002/03/11 by sallen@sallen_r400_sun_marlboro

ferret shader pipe drive interp data in 512 chunk

Change 18033 on 2002/03/07 by sallen@sallen r400 sun marlboro

ferret update for work with shader pipe

Ex. 2048 --- R400 Sequencer Emulator FH --- folder history

Change 18029 on 2002/03/07 by askende@andi crayola emu w

updated the ALU instruction opcode enumerated type to match the latest shader spec

Change 18028 on 2002/03/07 by askende@andi_crayola_emu_w

updated the opcode enumerated types to match the latest shader spec

Change 17825 on 2002/03/07 by sallen@sallen_r400_sun_marlboro

ferret - new interface routines

- debugging - SQ_SP drives only pixel data

Change 17818 on 2002/03/07 by llefebvr@llefebvre laptop r400 emu

Changed the alu instruction packing so that it is consistant with what was done in the texture instruction packing and with the Shader pipe spec (byte $11 = \mathrm{MSB}$, byte $0 = \mathrm{LSB}$).

Change 17757 on 2002/03/06 by llefebvr@llefebvre laptop r400 emu

Added code to support the Control Flow instruction Execute. This code is not activated

Change 17676 on 2002/03/06 by sallen@sallen_r400_sun_marlboro

ferret updates - emulator building .pipe files

Change 17543 on 2002/03/05 by llefebvr@llefebvre laptop r400 emu

Changed registers writes to be uint32 instead of uint8 for texture state

Change 17503 on 2002/03/05 by llefebvr@llefebvre laptop r400 emu

Another try to solve the endianess problem

Change 17498 on 2002/03/05 by llefebvr@llefebvre laptop r400 emu

endian check for unix.

Change 17398 on 2002/03/04 by sallen@sallen_r400_sun_marlboro

re-add ferret interface class needed

Change 17385 on 2002/03/04 by sallen@sallen_r400_sun_marlboro

ferret update for new interface driven pipe model

Page 67 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 17049 on 2002/02/28 by sallen@sallen_r400_sun_marlbord

clean up places ferret was hacked ou add 1st stage of interface based file/pipe in ferret fix a few make file gotchas fix a makefile out of order build that prevented a clean build from working

Change 16800 on 2002/02/27 by hartogs@fl hartogs Split VGT into its own block

Change 16798 on 2002/02/27 by sallen@sallen r400 sun marlboro

ferret interfaces driven from run.cpp now change Interface base class to drive ferret data

Change 16466 on 2002/02/25 by jhoule@jhoule_r400_win_marlboro

Started integrating common instr/const class shared between TP and PrimLib

Change 16385 on 2002/02/22 by vliu@vliu_r400_cnvliu100_win_cvd

Added support for BUILD_CONFIG environment variable.

Change 16305 on 2002/02/22 by jhoule@jhoule_r400_win_marlboro

Changed TPConst and TPInstr to have - pack and unpack instead of writeTo and readFrom

nacking to vector<uint32>&

- DWORD granularity function calls

Change 16176 on 2002/02/21 by jhoule@jhoule_r400_win_marlboro

Changed tp_const and tp_instr to be in a library in cmn_lib/src. That way, code can be shared between emulator and primlib.

Change 15645 on 2002/02/15 by jhoule@jhoule r400 win marlboro

Removed relative paths for numbers.h (includes Charlton Wang's changelist)

Change 15436 on 2002/02/14 by llefebvr@llefebvre_laptop_r400_emu

Corrected a small bug in position export.

Change 15382 on 2002/02/13 by llefebvr@llefebvre_laptop_r400_emu

Fixed an error in the constant load of the SO.

Page 68 of 75

Change 15305 on 2002/02/12 by llefebvr@llefebvre_laptop_r400_emu There was an error in the vertex input function of the sequencer it is now fixed and you can load a partial group of vertex. Added a count++ in handle_register_fn so that the constant data is written to sq Change 14979 on 2002/02/08 by llefebvr@llefebvre_laptop_r400_emu Change 15275 on 2002/02/12 by llefebyr@llefebyre laptop r400 emu Cheking in the last modifications of the SQ SX before trying to integrate the PA block. Added valid bits between SQ and TP Change 14941 on 2002/02/08 by jhoule@jhoule_r400_win_marlboro Change 15268 on 2002/02/12 by llefebvr@llefebvre_laptop_r400_emu Was calling wrong function for filling TPInstr. Write the vertex data as bytes in the memory Change 14939 on 2002/02/08 by jhoule@jhoule r400 win marlboro Change 15243 on 2002/02/12 by sallen@sallen_r400_sun_marlboro add ferret interface class with just one shader pipe Change 14791 on 2002/02/06 by llefebvr@llefebvre laptop r400 emu Change 15221 on 2002/02/12 by llefebvr@llefebvre laptop r400 emu Removed all sequencer related texture pipe hardcoded portions of the texture request Updated SQ to take texture write masks into account Change 14783 on 2002/02/06 by llefebyr@llefebyre laptop r400 emu Change 15219 on 2002/02/12 by llefebvr@llefebvre_laptop_r400_emu Fixed the order in which the instructions are written to memory Change 14721 on 2002/02/06 by llefebyr@llefebyre laptop r400 emu Updated TP->SQ interface to add write masking capabilities Change 15218 on 2002/02/12 by llefebvr@llefebvre_laptop_r400_emu Updated the SQ->SX interface to reflect that the ParameterCaches are now in the SX Corrected an error in texture state management Change 14627 on 2002/02/05 by llefebvr@llefebvre_laptop_r400_emu Change 15217 on 2002/02/12 by llefebvr@llefebvre laptop r400 emu Created vertex.sp and pixel.sp. Simplified the shaders to their simplest expression for the 2/22 milestone. Updated the golden images to reflect the change. The SX now only exports the valid positions to the VGT. Change 15177 on 2002/02/11 by llefebvr@llefebvre laptop r400 emu Change 14530 on 2002/02/04 by llefebvr@llefebvre laptop r400 emu Interface sync problem on the PA->SQ vertex interface corrected Not seeing the correct data when using IM LOADS... Change 15149 on 2002/02/11 by ygiang@ygiang_r400_win_marlboro Change 14381 on 2002/02/01 by hwise@fl hwise r400 win Moved RBBM_CNTL and RBBM_SOFT_RESET primary register aperture addresses to match the I/O addresses
 Removed RBBM_*_GO_ASSERT registers Added: Ferret hooks to shader Pipe Change 15072 on 2002/02/11 by llefebyr@llefebyre laptop r400 emu 3) Added handleRegister Access() functions to PA and SQ block classes to catch register read/write access broadcast by RBBM (stub with small decode example)
4) More changes to PM4 decode of IM_LOAD and SET_CONSTANT Corrected a memory alignement problem that corrupted the state of the arbiter. Also modified simple_triangle to load both the pixel and the vertex shaders. Change 14992 on 2002/02/08 by llefebvr@llefebvre laptop r400 emu 5) Removed a few PM4 type3 packet definitions from primlib that will not be added to R400 as was previously thought Updated primlib pm4lib.cpp Promo4Lib constructor to Ex. 2048 --- R400 Sequencer Emulator FH --- folder history Ex. 2048 --- R400 Sequencer Emulator FH --- folder history force the disabling of CP microcode Change 13589 on 2002/01/23 by llefebvr@llefebvre laptop r400 emu Change 14318 on 2002/01/31 by llefebyr@llefebyre laptop r400 emu Added the SX block to the emulator Removed all temporary registers from the SQ (but for the _CNT registers wich are needed until we implement CF). Primilib now needs to send the correct PM4 packets to the CP in Change 13450 on 2002/01/21 by llefebvr@llefebvre_laptop_r400_emu order to adjust the SQ registers before sending the first primitive. Added the Idle function. Updated sanity. Won't regress because of framebuffer0. Ray is Change 14215 on 2002/01/30 by llefebvr@llefebvre_laptop_r400_emu working on it Added multiple triangle support in the interpolators. Also added PC allocation scheme. Change 13387 on 2002/01/21 by llefebvr@llefebvre_laptop_r400_emu Added Vertex functionnalities to the SQ. Remaining interfaces to be added are SQ->SX Change 13962 on 2002/01/28 by rbeaudin@rbeaudin_r400_win_marlboro position and SX->PA position. start of making the transaction engine working Change 13288 on 2002/01/18 by llefebvr@llefebvre laptop r400 emu Change 13934 on 2002/01/25 by llefebvr@llefebvre_laptop_r400_emu Added Texture pipe functionnality to the SQ. Added fields to the SQ SP Interp interface Change 13153 on 2002/01/16 by llefebvr@llefebvre laptop r400 emu Change 13924 on 2002/01/25 by llefebvr@llefebvre_laptop_r400_emu Added the PA->SQ vertex interface Added two SQ->SP dummy interfaces to help with HW block level testing. Change 13149 on 2002/01/16 by llefebvr@llefebvre laptop r400 emu Change 13871 on 2002/01/25 by jhoule@jhoule r400 win marlboro Refined the interfaces Now uses standard header <iostream> Change 12931 on 2002/01/11 by llefebvr@llefebvre laptop r400 emu Change 13829 on 2002/01/25 by llefebvr@llefebvre laptop r400 emu added the GPR allocation for the static mode only for both Vertices and pixel. Added SX PA interface fixed remaining bugs regarding register integration. Change 12791 on 2002/01/10 by llefebvr@llefebvre_laptop_r400_emu Change 13785 on 2002/01/24 by llefebvr@llefebvre laptop r400 emu

Fixed the registers but the writes do not go thru because of a primilib problem?

Change 13725 on 2002/01/24 by hwise@fl hwise r400 win

Integrated "play area" register spec into the emulator tree

Change 13669 on 2002/01/23 by llefebvr@llefebvre_laptop_r400_emu

 $Added \ SX{\sim}SQ \ interface. \ Updated \ the \ Arbiter \ to \ take \ into \ account \ co-issue \ exporting \ restrictions...$

Change 13592 on 2002/01/23 by llefebvr@llefebvre_laptop_r400_emu

Added File headers to all SQ and SX files.

Page 71 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Fixed an interpolation problem when using more than 2 interpolated parameters

Change 12782 on 2002/01/10 by llefebvr@llefebvre_laptop_r400_emu

Fix for Jocelyn to work on the TP. This compiles and runs but gives incorect results for

Change 12750 on 2002/01/09 by llefebvr@llefebvre_laptop_r400_emu

Added TSTATE MEM_BASE_ADDR register and TSTATE_MEM_WORD_COUNT registers in order to be able to load the texture state from memory, also added a dllexported function in the SQ to to this, Added a texture state store to the SQ.

Change 12674 on 2002/01/09 by llefebvr@llefebvre_laptop_r400_emu

Page 72 of 75

Added a condition in the arbiter that prevents groups of pixel/vertices from passing each other

Change 12633 on 2002/01/09 by llefebvr@llefebvre_laptop_r400_emu

There was a color channel alignement problem in the RB. IT is now fixed but the golden image have to be regenerated yet again. It should be in tones of red and yellow (NOT blue and green).

Change 12617 on 2002/01/08 by askende@andi_crayola_emu_w

rearranged the order of the channels (abgr or wzyx)and completed the mas k capability in the GPR write back logic.

Change 12613 on 2002/01/08 by llefebvr@llefebvre_laptop_r400_emu

channel Write Mask instruction read error in the SQ corrected

Change 12609 on 2002/01/08 by llefebvr@llefebvre_laptop_r400_emu

Changed the channel order to RGBA (R in LSB A in MSB). Emulator wise it means that R is in field 0 and A in field 3.

Change 12605 on 2002/01/08 by llefebvr@llefebvre_laptop_r400_emu

Intermediate changes compiles and runs but doesn't give the right answer

Change 12577 on 2002/01/08 by llefebvr@llefebvre_laptop_r400_emu

Added sources as const variables instead of regular.

Change 12565 on 2002/01/07 by askende@andi_crayola_emu_w

1.added support for argument selection being a constant

2.added masking capabilities for the write bacl into GPRs

Change 12554 on 2002/01/07 by askende@andi_crayola_emu_w

checking in for backup purposes

Change 12500 on 2002/01/07 by llefebvr@llefebvre_laptop_r400_emu

reduced the size of the SQ_TP interface and added some comments in arbiter.cpp

Change 12441 on 2002/01/04 by askende@andi_crayola_emu_w

Backup do not sync to this changelist it doesn't compile

Page 73 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 11581 on 2001/12/12 by rbeaudin@rbeaudin_r400_win_marlboro changing emu_lib structure

Page 75 of 75

Ex. 2048 --- R400 Sequencer Emulator FH --- folder_history

Change 12388 on 2002/01/04 by llefebvr@llefebvre_laptop_r400_emu

interleaving ALU clauses

Change 12342 on 2002/01/03 by llefebvr@llefebvre_laptop_r400_emu

added ready signal between the PA and the SQ

Change 12328 on 2002/01/03 by llefebvr@llefebvre_laptop_r400_emu

added scalar support in the sequencer. No scalar exports yet.

Change 12177 on 2001/12/21 by liefebvr@liefebvre_laptop_r400_emu

major changes in the SQ block. Now supports clauses. Not fully tested but otherwise operationnal.

Change 12084 on 2001/12/20 by llefebvr@llefebvre_laptop_r400_emu

sbfloats instead of sfloats

Change 12064 on 2001/12/19 by llefebvr@llefebvre_laptop_r400_emu

New interface definition between SQ and TP

Change 12060 on 2001/12/19 by llefebvr@llefebvre_laptop_r400_emu

constants are now working.

 $Change\ 12008\ on\ 2001/12/19\ by\ llefebvr@llefebvre_laptop_r400_emu$

Changed constants order. Added Constant read support, compiles and runs but doesn't work

Change 11940 on 2001/12/18 by llefebvr@llefebvre_laptop_r400_emu

repaired a problem with RB valid bits. Added constant support, need to load them using the MC.

Change 11912 on 2001/12/18 by llefebvr@llefebvre_laptop_r400_emu

new ALU instruction format and clamp instructions now in the performance emulator. First golden image can now be generated.

Change 11764 on 2001/12/14 by askende@andi_crayola_emu_w

rearranged the ALU instruction word definition

added the clamping for the ALU results

Page 74 of 75

Change 173774 on 2004/06/15 by donaldl@donaldl_xenos_linux_orl Change 153085 on 2004/03/05 by danh@danh xenos linux orl 1. Changed DEBUSSY PATH to VERDI ROOT in buildtb gate . Updated sq to sp trackers to not compare the shader pipe defined by ROM_SIMD_SEL[1:0] and ROM_PIPE_SEL[3:0] if rsp is enabled. Correct Virage 90nm changes and SX gate level simulation changes Change 153082 on 2004/03/05 by danh@danh r400 win Change 170775 on 2004/05/28 by bhankins@bhankins xenos linux orl Virage 90 nm changes and SX gate level simulation changes Change 152936 on 2004/03/05 by danh@danh_r400_win Change 169691 on 2004/05/24 by rramsey@rramsey_xenos_linux_orl integrated from //depot/xenos integrate xenos changes back to r400 for pa and vgt I verfied milestone_tri passed tb_pa and vgt_tb, but did not do a full block level regression. release_parts_lib passed. Change 152848 on 2004/03/05 by mmantor@mmantor_xenos_linux_test <fixed a bug in the loading of aluconst, back integrated removal of realtime space from Change 169281 on 2004/05/21 by rramsey@rramsey_xenos_linux_orl aluconst and texconst mems and control logic in rbi and all hookups, altered sq_regress pe integrate xenos changes to r400 for sq, sp/rsp, spi take top-level-registers to r400, but only sc_cp_tlr0 is instanced as an example Change 152426 on 2004/03/03 by vromaker@vromaker_r400_linux_marlboro Change 158310 on 2004/03/29 by dclifton@dclifton_r400 - bug fix for AIS update state machine: need to look at both unregistered and registered updates in state $\boldsymbol{0}$ Updates for ram and bist changes Change 152169 on 2004/03/02 by vromaker@vromaker_r400_linux_marlboro Change 154269 on 2004/03/11 by rramsey@rramsey_xenos_linux_orl - added a signal to enable/disable early thread buffer updates (it's integrate fix for constant store hang called enable early update and it's tied high) Change 153809 on 2004/03/09 by llefebyr@llefebyr r400 linux marlboro Change 152105 on 2004/03/02 by rramsey@rramsey_xenos_linux_orl Integration of the Loop rep fix Fix loop index relative addressing for negative indices and error cases Change 153542 on 2004/03/08 by donaldl@donaldl_xenos_linux_orl Change 151675 on 2004/02/27 by vromaker@vromaker r400 linux marlboro Qualified RSP comparing of data with sq vc fetch type to fix erroneous mismatches Change 153403 on 2004/03/08 by mearl@mearl_r400_linux_orl Change 151644 on 2004/02/27 by vromaker@vromaker_r400_linux_marlboro Took out LOD Correction from SC, SC/SQ interface, SQ, SQ/TP interface. fix for random 82d failure: reset ppb_exec_cnt when new CFI is passed to exec state Change 153372 on 2004/03/08 by vromaker@vromaker r400 linux marlboro exec count in a case where the pred condition failed) - removed a RT test from the sq mini regress list - hooked u0, u1, u2, and u3_TP_SP_data_valid signals up to thier respective shader pipes (instead of the version that ORed all the valids together) Change 151466 on 2004/02/27 by danh@danh_xenos_linux_orl Change 153086 on 2004/03/05 by danh@danh_xenos_linux_orl backed out change #168 removed LOD changes Change 151457 on 2004/02/27 by danh@danh_r400_win Page 2 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history This is fixing the RS FULL and GPR STALL performance counters. integration from //depot/xenos Change 151426 on 2004/02/26 by donaldl@donaldl_xenos_linux_orl Change 150374 on 2004/02/21 by mmantor@mmantor_xenos_linux_test Integrated from xenos: <fixed a synthesis error and enabled the 256 deep export buffers> 1) Took out RT stream logic in sc_packer
2) Integrated SC_B back with SC
3) Updated files to accomodate GATE level sims Change 150220 on 2004/02/20 by rramsey@rramsey_xenos_linux_orl replace the old vtx/pix tex cf trackers with a new unified tracker Change 151419 on 2004/02/26 by danh@danh r400 win add vc cf tracker move some r400-only sx signals inside an ifdef delete obsolete tracker integrated from //depot/xenos Change 151418 on 2004/02/26 by danh@danh_r400_win Change 150184 on 2004/02/20 by llefebvr@llefebvr_r400_linux_marlboro integrated from //depot/xenos Adding another minor fix on the latency counters. Change 151366 on 2004/02/26 by danh@danh_r400_win Change 150005 on 2004/02/19 by vromaker@vromaker_r400_linux_marlboro integrated from //depot/xenos - fixed a bug in the pipelined thread buffer update that was causing a failure in random testing Change 151318 on 2004/02/26 by rramsey@rramsey_xenos_linux_orl Change 149787 on 2004/02/18 by rramsey@rramsey_xenos_linux_orl Fix exec machine so it doesn't change resource or serialize bits when Add register bits for disabling arb and cfs eject.

Add clause eject capability to cfsm and logic to the thread arb to drive the eject. sending back non-exec instr (pred jump, loop_end, etc) Change 151211 on 2004/02/26 by bhankins@bhankins xenos linux orl Remove a stage from the cfs ppb and the isr from the tif in order Add support for generating event quads from sx to bc/rb to reduce the amount of work that can be ahead of the next best thread. Support is disabled for now in src/common/sx_defines.v This code supports behavioral memory only for now. Fix a bug with SQ_SP_fetch_swizzle mux between tp and vc values Swap phasing of fetch and alu instruction fetch is reads to match up better with when the cfs can deliver an instr. Change 151177 on 2004/02/25 by rramsey@rramsey_xenos_linux_orl Update control flow tracker to be able to handle clause ejection. Fix some compile warnings in tb_sqsp Change cfs eject to use bit from cf instr, and fix bug with ejection of a partially executed instr. Change 149566 on 2004/02/17 by rramsey@rramsey_xenos_linux_orl Change status reg and vtx ctl to use vgt define for fetch done fix some bad logic that synopsys was complaining about Change 151101 on 2004/02/25 by donaldl@donaldl_xenos_linux_orl Change 149537 on 2004/02/17 by jhoule@jhoule_r400_linux_marlboro Removed real-time stream reg mems in SX and removed the i/o signal SQ SX rt sel between the SQ and SX.

tp sqsp.dmp tracker update

Change 151067 on 2004/02/25 by vromaker@vromaker_r400_linux_marlboro - waterfall fix for pipelined AIS thread buffer update (found by random 80e)

Change 150962 on 2004/02/25 by llefebvr@llefebvr_r400_linux_marlboro

Page 3 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

TP_SQSP_Dump:

- Changed serialization to be exactly what the RTL spits instead of the bastardized 4x32 cycling; controlled with Use New_TP_SQSP_Dump environment variable) Added RSP data per pipe (only available when using new serialization)

Page 4 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

ATI 2049

LG v. ATI IPR2015-00325

AMD1044 0258062

Added rf_expand_enable ***RIGHT AFTER xyzw_parity*** in order to get packed formats to work properly Change 148704 on 2004/02/11 by vromaker@vromaker r400 linux marfboro TexturePipe:
- Added functions to prepare RSP data for the TP_SQSP_Dump - signal name change only in CFS (changed cfi_no_pred to cfi_pred_clean) - added reset for pc_base and export_id fields of status register Testbench Change 148410 on 2004/02/10 by vromaker@vromaker r400 linux marlboro Added rf_expand_enable *JUST AFTER* xyzw_parity (this affects the old path); was - change to handle concurrent updates from all 4 AIS's that go to an ALU State Memory - the update info from each AIS is registered, and a state machine sequences the writes Connected data_format instead of tying it to 6'h26 (FMT_32_32_32_32_FLOAT) FormatOracle Change 148380 on 2004/02/10 by bhankins@bhankins_xenos_linux_orl - Added column representing the encoded format sent to the formatter
- Added column representing the encoded format sent to the formatter
- Kept weird issue where DNN (and other formats) have 2x16 channels in TP instead of
2x8(.8). Doesn't seem to be used anyways. Send simd_id to sx from sq one clock earlier, then register and break up selects to Change 149472 on 2004/02/17 by mmantor@mmantor_xenos_linux_test Change 148246 on 2004/02/09 by donaldl@donaldl_xenos_linux_orl <back out usage of 512 export buffer locations until problem debugged> Added flat_shading signal for use in the SX parameter subtract function. (ie. if flat_shading is true, ignore infinity checks; just do subtract. Result Change 149458 on 2004/02/17 by mmantor@mmantor xenos linux orl should be zero.) <the remainder of my previous check in that got left out by error> Change 148140 on 2004/02/09 by rramsey@rramsey_xenos_linux_orl Change 149382 on 2004/02/15 by mmantor@mmantor xenos linux orl Changes to allow the thread arbiters to pick the best thread every four clocks, rather than picking one and holding it until the cf machine takes <added counter to sq for flow control of sx alloc table, hook up state control for depth of sx buffers and set the default depth to 256 and initial hook up of event quads for sq and sx> Also breaks ties between export_arb and thread_arbs by having the space allocs happen as a separate process not requiring the thread_art Change 149262 on 2004/02/13 by llefebvr@llefebvr r400 linux marlboro Change 147861 on 2004/02/06 by vromaker@vromaker_r400_linux_marlboro Adding Event performance counters - fix for non-delayed AIS update of thread buffer Change 149131 on 2004/02/13 by vromaker@vromaker_r400_linux_marlboro required that all ais update inputs to the thread buffer be qualified with thread type before being used fix for AIS update to take waterfalling into account
 only change to CFS was to assign some signals to logic expressions Change 147453 on 2004/02/05 by donaldl@donaldl_xenos_linux_orl Allow disabling of clocks to each of the vsp's in the SP. Disabling clocks is done either when redundancy is used or when disabling of a simd pipe. Change 149113 on 2004/02/13 by llefebvr@llefebvr r400 linux marlboro Fixing latency counters. They were incorectly counting event threads Change 147418 on 2004/02/05 by mearl@mearl_r400_win Change 149058 on 2004/02/13 by donaldl@donaldl xenos linux orl update status Bug fix: delay no compare flags to line up with SP to SX data Change 147410 on 2004/02/05 by amys@amys_xenos_lnxrgs_orl Change 148947 on 2004/02/12 by rramsey@rramsey_xenos_linux_orl added path for xenos path for fullchip, so trackers won't break xenos build every time an change a loop int to a unique name for synthesis Page 5 of 136 Page 6 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder history - AIS now asserts ais_update back to the thread buffer without any delays if the last Change 147378 on 2004/02/04 by danh@danh r400 win instruction of a clause is not a pred set or a kill (if it is, the update is delayed until the SP data is written back to the SO) Change 147377 on 2004/02/04 by danh@danh_xenos_linux_orl Change 146497 on 2004/01/30 by danh@danh_r400_win $Changed\ type1_export_size\ generation, now\ when\ vs_export_mode = 0\ or\ 7\ it\ will\ be\ a\ 1$ status update position expor Change 146431 on 2004/01/30 by danh@danh_r400_win Change 147106 on 2004/02/03 by danh@danh r400 win status update Change 146361 on 2004/01/30 by vromaker@vromaker_r400_linux_marlboro Change 147059 on 2004/02/03 by danh@danh_r400_win picked two tests status update Change 146353 on 2004/01/30 by danh@danh_r400_win Change 147047 on 2004/02/03 by mearl@mearl_r400_win status update undate status Change 146329 on 2004/01/30 by danh@danh r400 win Change 147045 on 2004/02/03 by danh@danh_r400_win status update Change 146132 on 2004/01/29 by danh@danh r400 win Change 146966 on 2004/02/03 by mearl@mearl_r400_win undate status Change 146066 on 2004/01/29 by rramsey@RRAMSEY_P4_r400_win Change 146945 on 2004/02/03 by danh@danh r400 win get rid of some invalid testcases Change 145994 on 2004/01/28 by danh@danh r400 win Change 146923 on 2004/02/02 by danh@danh r400 win status update status update Change 145934 on 2004/01/28 by danh@danh r400 win Change 146705 on 2004/02/01 by mmantor@mmantor xenos linux orl <moved a register from sq to sp for tc and vc fetch address so the min latency through sp is 3 clocks in prep for intrinsity and moved extra register to back of sp for either future remove</p> Change 145919 on 2004/01/28 by mearl@mearl_r400_win or use for top level routing and sent export simd sel 2 clocks later once for minimal latency and other for register movement. also changed trackers and mvoed register in rsp> update status Change 146511 on 2004/01/30 by vromaker@vromaker_r400_linux_marlboro Change 145847 on 2004/01/28 by rramsey@RRAMSEY_P4_r400_win - AIS now asserts ais done back to the thread buffer without any delays update with 1/28 regression results Page 7 of 136 Page 8 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 145615 on 2004/01/27 by bhankins@bhankins_xenos_win_orl Change 144816 on 2004/01/22 by smoss@smoss_xenos_linux_orl undate status correct brain dump Change 145611 on 2004/01/27 by smoss@smoss_crayola_linux_orl_regress Change 144711 on 2004/01/22 by rramsey@rramsey_xenos_linux_orl Add vs fetch done to SQ Fix testbench handling of vizq events again Change 145568 on 2004/01/27 by vromaker@vromaker_r400_linux_marlboro status update on r400sq_flow_control_rts_16 and _19 Change 144679 on 2004/01/22 by mearl@mearl_r400_win Change 145549 on 2004/01/27 by danh@danh_r400_win update status status update, picked new test Change 144656 on 2004/01/22 by vromaker@vromaker_r400_linux_marlboro Change 145535 on 2004/01/27 by danh@danh_xenos_linux_orl updated status and picked a test [tx_instr[4:0] is now used for the mux select of tfetch_swapped_bit Change 144611 on 2004/01/22 by llefebvr@llefebvr_r400_emu_montreal Change 145533 on 2004/01/27 by danh@danh xenos linux orl Undate status. [tx_instr[4:0] is now used for the mux select of tfetch_swapped_bit Change 144609 on 2004/01/22 by llefebvr@llefebvr_r400_linux_marlboro Change 145355 on 2004/01/26 by llefebvr@llefebvr r400 linux marlboro Putting back the fix of Dan Harmon for back to back exports inadvertly reverted by Mike $Added\ 4\ performance\ counters\ to\ the\ SQ\ to\ measure\ the\ latency\ of\ pixel\ and\ vertex$ threads from the time they enter te Sq to the time they leave. Change 144482 on 2004/01/22 by llefebvr@llefebvr_r400_emu_montreal picking up some tests. Change 145135 on 2004/01/23 by rramsey@rramsey_xenos_linux_orl Update yield_optimize test so it tests the logic better Change 144466 on 2004/01/22 by smoss@smoss_crayola_linux_orl_regress Fix cfsm clause boundary detection for yield_optimize and add setting of exsm_updating to EX_EXEC state when it is going to update updated test.cfg for some missing dumps Change 145037 on 2004/01/23 by mearl@mearl r400 win Change 144373 on 2004/01/21 by danh@danh r400 win update status picked a new test Change 144945 on 2004/01/23 by ctaylor@ctaylor_xenos_linux_orl Change 144326 on 2004/01/21 by rramsey@RRAMSEY_P4_r400_win Fixed tracker bug for update status with 1/21 results NOP,RETURN,LOOP_START,LOOP_END,COND_CALL,COND_JUMP and ALLOC where ve_request field was left out of tracker compare so all subsequent fields came from the wrong column in the dump file. Change 144186 on 2004/01/21 by danh@danh_xenos_linux_orl fixed ps_const_max typo Change 144878 on 2004/01/23 by rramsey@RRAMSEY P4 r400 win Change 144030 on 2004/01/20 by llefebvr@llefebvr r400 emu montreal update with 1/22 regression results Page 9 of 136 Page 10 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history update status for kill tests Change 143312 on 2004/01/15 by vromaker@vromaker r400 linux marlboro Change 144029 on 2004/01/20 by rramsey@rramsey_xenos_linux_orl - removed the SQ_SP thread ID and type ports from the SQ; they were conditionally compiled 'ifdef SIM, but that was not working for clean up ctl_flow_seq add ais_thread_type to ais_update snoop in cfs - the trackers now reference these signals at the SQ level Change 143983 on 2004/01/20 by vromaker@vromaker r400 linux marlboro Change 143243 on 2004/01/15 by vromaker@vromaker_r400_linux_marlboro - small update to load and hold the vtx and pix constant base registers the same - fixed input to AIQ FIFO by adding an input staging register and way as the input staging register loading it on valid transfers from the instr fetcher Change 143952 on 2004/01/20 by mearl@mearl_xenos_linux_orl Change 143160 on 2004/01/15 by vromaker@vromaker_r400_linux_marlboro 1. Added EOP to sc_pix_vec_grp_out.dmp file to keep track of RT streams for tb_sqsp testbench - fixes for unconnected ports sc dumps.cpp - had to make some changes to tb_sqsp and sim.cfg based on the removal of sc_dumps.h sc_interp.cpp SQ_SP_instruct_start - also qualified predicate and valid bit writes with waterfall mask in ais_output tb_sqsp.v 2. Fixed bug; when SIMD w/ 0 bad pipes is followed by SIMD w/ 2 bad pipes, Change 143119 on 2004/01/14 by danh@danh_r400_win wrong SP is selected. sq_vtx_ctl.v

3. Made timing fixes. Change 142926 on 2004/01/14 by rramsey@rramsey_xenos_linux_orl sc packer.v Change 143929 on 2004/01/20 by danh@danh_r400_win change tracker to look at sq port rather than connecting signal Change 142689 on 2004/01/13 by danh@danh_r400_win Change 143883 on 2004/01/20 by vromaker@vromaker r400 linux marlboro Change 142672 on 2004/01/13 by dclifton@dclifton_r400 status update, picked new test Change 143755 on 2004/01/19 by vromaker@vromaker r400 linux marlboro Update for changes in sp. status update, picked another test Change 142573 on 2004/01/13 by danh@danh_xenos_linux_orl Change 143726 on 2004/01/19 by bhankins@bhankins xenos linux orl $SQ_SP_vsr_rd_addr \ is \ now \ only \ compared \ when \ SQ_SP_gpr_input_mux = 2 \ (VSRs$ selected) Mods to support tb_sqsp testing with xenos Change 142569 on 2004/01/13 by bhankins@bhankins_xenos_win_orl Change 143618 on 2004/01/18 by rramsey@rramsey_xenos_linux_orl undate status Rework ctl flow sequencer so it can start a new thread every 4 clocks Change 142543 on 2004/01/13 by bhankins@bhankins_xenos_win_orl Change 143377 on 2004/01/16 by danh@danh_r400_win update status update Page 11 of 136 Page 12 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 142536 on 2004/01/13 by bhankins@bhankins_xenos_win_orl Add SQ_CP_vs_fetch_done to sq, tied low for now Fix the way vizq_start events are handled in tb_sqsp pick test Change 141418 on 2004/01/08 by vromaker@vromaker_r400_linux_marlboro Change 142533 on 2004/01/13 by bhankins@bhankins_xenos_win_orl updated status - picked tests undate status Change 141401 on 2004/01/08 by rramsey@RRAMSEY_P4_r400_win Change 142219 on 2004/01/12 by rramsey@RRAMSEY_P4_r400_win update with 1/8 results update with 1/11 regression results Change 141385 on 2004/01/08 by bhankins@bhankins xenos linux orl Change 142212 on 2004/01/12 by mmantor@mmantor_xenos_linux_orl Initial add of thread done/event logic in so <this is val's change for a timing fix in the pa and Vic's changes for the sq which include Change 141155 on 2004/01/07 by rramsey@rramsey_xenos_linux_orl coding of special flow control optimizations and some timing fixes for the sq Fix a bug that was sending writes to the wrong phys addr if a new pa was allocated before the write actually happened Change 142124 on 2004/01/10 by danh@danh_r400_win Status update Change 140800 on 2004/01/06 by rramsey@RRAMSEY P4 r400 win Change 141976 on 2004/01/09 by danh@danh_r400_win update with 1/6 status, pick a test Status update Change 140782 on 2004/01/06 by mmantor@mmantor_xenos_linux_orl Change 141969 on 2004/01/09 by danh@danh_xenos_linux_orl $aiq_instr[15] \ (export\ bit)\ now\ forces\ prev_vector_mask_q\ and\ prev_scalar_mask_q\ to\ 0,\ this\ allows\ back\ to\ back\ export\ instructions\ to\ work\ properly.$ Change 140701 on 2004/01/05 by rramsey@rramsey_xenos_linux_orl Change 141964 on 2004/01/09 by danh@danh_xenos_linux_orl add an sc state push for the vs_done event gen index cycle now forces a count match[3:0] Change 140615 on 2004/01/05 by vromaker@vromaker r400 linux marlboro Change 141926 on 2004/01/09 by mearl@mearl_r400_win updated status, picked new tests Change 140594 on 2004/01/05 by rramsey@RRAMSEY_P4_r400_win update status Change 141921 on 2004/01/09 by rramsey@RRAMSEY P4 r400 win update with 1/1 regression results updating status Change 140576 on 2004/01/05 by danh@danh r400 win Change 141806 on 2004/01/09 by amys@amys_xenos_linux_orl $modified \, read-back \, of \, sq_flow_control_reg \, by \, inserting \, a \, bit \, so \, that \, the \, read-back \, matches \, the \, spec$ Change 140556 on 2004/01/05 by smoss@smoss_crayola_win update with latest status Change 141650 on 2004/01/08 by rramsey@rramsey_xenos_linux_orl Change 140496 on 2004/01/04 by mmantor@mmantor_xenos_linux_orl Page 14 of 136 Page 13 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history Change 140117 on 2003/12/30 by danh@danh_r400_win <re>removed o rbi rd data from the reset clk process> Status update. Change 140451 on 2004/01/02 by mmantor@mmantor xenos linux orl Change 140051 on 2003/12/29 by mearl@mearl_r400_win update status Change 140441 on 2004/01/02 by mmantor@mmantor xenos linux orl Change 140050 on 2003/12/29 by vromaker@vromaker_r400_linux_marlboro <fixes for timing paths in the sq and pav> status update - emulator fix was made for scalar const opcodes Change 140380 on 2003/12/31 by vromaker@vromaker r400 linux marlboro Change 140036 on 2003/12/29 by jcarroll@jcarroll_r400_win - fix for dropped real_time flag: moved export_pos bit into the "flags" field (it was using a bit that was set aside for the extra_in field) Updated jcarroll status Change 140350 on 2003/12/31 by rramsey@rramsey_xenos_linux_orl Change 139909 on 2003/12/28 by mmantor@mmantor xenos linux orl Fix a bug that was allowing the texconst mem to be written when full (no phys addr <timing fixes> available) Change 139795 on 2003/12/23 by danh@danh r400 win Change 140331 on 2003/12/31 by mearl@mearl_xenos_linux_orl Status update Fixed bug; was using thread type instead of fetch type. Change 139383 on 2003/12/23 by ctaylor@ctaylor_xenos_linux_orl Change 140313 on 2003/12/31 by jcarroll@jcarroll r400 win Fixed bug in control flow sequencer where when thread was put back onto thread buffer due to alloc cfi, the no-serialize bit was being taken from bit 40 of the cfs opcode instead of the execute state machine opcode so it was the right bit from the wrong instruction. Things added latest status; picked new test Change 140270 on 2003/12/30 by danh@danh r400 win have been working mostly due to the fact that bit 40 of most of the other CFI opcodes is reserved and therefore 0. Change 139373 on 2003/12/23 by llefebvr@llefebvr_r400_emu_montreal Change 140205 on 2003/12/30 by rramsey@RRAMSEY P4 r400 win updated status for SX->PA missmatches. update test status, pick another one Change 139338 on 2003/12/23 by vromaker@vromaker_r400_linux_marlboro Change 140203 on 2003/12/30 by danh@danh_r400_win - fix for scalar const ops: y and x swizzle fields used for gpr address bits [5:4] and [3:2] were swapped Change 140174 on 2003/12/30 by rramsey@RRAMSEY_P4_r400_win Change 139327 on 2003/12/23 by rramsey@rramsey_xenos_linux_orl update status add simd_id to sp_out mismatch message make sx_rb_color tracker multi-threaded per sx/rb interface Change 140155 on 2003/12/30 by rramsey@RRAMSEY_P4_r400_win Change 139310 on 2003/12/23 by vromaker@vromaker r400 linux marlboro undate with 12/30 regression results status update - took another test Page 15 of 136 Page 16 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 138588 on 2003/12/19 by vromaker@vromaker_r400_linux_marlboro Change 139223 on 2003/12/22 by llefebyr@llefebyr r400 emu montreal - fixed a copy-paste error in the new code that generates src c sel for scalar const ops Now working on SX->PA missmatches. Change 138586 on 2003/12/19 by mearl@mearl r400 win Change 139193 on 2003/12/22 by rramsev@RRAMSEY P4 r400 win update status Change 138491 on 2003/12/18 by llefebvr@llefebvr r400 emu montreal Change 139142 on 2003/12/22 by llefebvr@llefebvr_r400_emu_montreal I'll leave the _const_add test to Vic since he is working on it with Dan. I'll focus instead The SX->RB tracker is bad. Added a comment to explain the situation on coissue frac 01 Change 139097 on 2003/12/22 by ctaylor@ctaylor_xenos_linux_orl Change 138489 on 2003/12/18 by mearl@mearl_r400_win Fixed bug related to clamping of GPR addresses which are out of range. Old code clamped to absolute zero instead of the base for the current thread. Change 138486 on 2003/12/18 by danh@danh r400 win Change 139066 on 2003/12/22 by bhankins@bhankins_xenos_linux_orl Status update. Add tbtrk sx bc quad tracker (C1 version only) Change 138455 on 2003/12/18 by mearl@mearl_r400_win Change 139057 on 2003/12/22 by rramsey@RRAMSEY_P4_r400_win update status update more tests, pick another one Change 138309 on 2003/12/18 by danh@danh_r400_win Change 139050 on 2003/12/22 by rramsey@RRAMSEY P4 r400 win Status update. Update with new regression results, pick a test Change 138289 on 2003/12/17 by rramsey@rramsey_xenos_linux_orl Change 139045 on 2003/12/22 by rramsey@rramsey_xenos_linux_orl Fix a bug with pred_override that can occur when a clause starts with two predicated alu instructions. pred_override needs to use Fix phasing of thread count in sq ais output the isr version of the pred bits in this case because the pred register can't be intiffed until after the the last instr of the prev clause has a chance to return its pred values and push them back to the thread buffer. This fixes r400sc_sp_sample_cntl_47 and hopefully many more. Fix o_gprsm_busy from sq_vtx_ctl and change thread counter to only reset on RST_VTX_CNT event. Change 138986 on 2003/12/20 by mmantor@mmantor_xenos_linux_orl <changed csim to only make one pass for param gen and gen index and write the dump files correctly, fixed a timing loop in pix thread buffer > Change 138288 on 2003/12/17 by vromaker@vromaker r400 linux marlbore - fix for scalar const opcodes: src_c_sel and gpr_read_en logic was updated Change 138662 on 2003/12/19 by mearl@mearl_r400_win Change 138212 on 2003/12/17 by mearl@mearl r400 win undate status Change 138650 on 2003/12/19 by danh@danh_r400_win Change 138152 on 2003/12/17 by danh@danh r400 win Status undate Status Update Page 17 of 136 Page 18 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 138138 on 2003/12/17 by bhankins@bhankins_xenos_linux_orl Change 137401 on 2003/12/15 by rramsey@RRAMSEY P4 r400 win $1.\,Modify$ detailed quad fifo to keep mrt quads and mem export quads together $2.\,Change\,NEW_BC$ defines to Clupdate with weekend's results Change 137238 on 2003/12/12 by vromaker@vromaker_r400_linux_marlboro Change 138087 on 2003/12/17 by rramsey@RRAMSEY P4 r400 win took a few more tests latest regression status Change 137205 on 2003/12/12 by mearl@mearl_r400_win Change 137864 on 2003/12/16 by rramsey@rramsey xenos linux orl updated status Change emulator so param cache reads for params not exported by the VS still show up in sq_sx_pcaddr.

Fix cf_resource_change logic in the cfs so it catches the clause boundary Change 137188 on 2003/12/12 by rramsey@RRAMSEY_P4_r400_win update with latest regression results where a cf instr with only tex instr gets sent to the alu cfs Change 137773 on 2003/12/16 by vromaker@vromaker_r400_linux_marlboro Change 137166 on 2003/12/12 by vromaker@vromaker_r400_linux_marlboro - fixed a predicate override bug; pred_overide is driven from the done bits if - increased the depth of the sq-vc request fifo; this is a temporary fix while the mini and mega dec signals from the VC are added to the vc_rp_sp dump file the previous operation was a waterfall, but it must only be driven for the first instruction following a waterfall. The bug occurred on back-to-back waterfalls where the pred_override was being driven for all cycles of the second waterfall.

- this fix caused r400sq_gpr_index_01 to pass Change 137165 on 2003/12/12 by mearl@mearl_r400_win updated status Change 137753 on 2003/12/16 by danh@danh r400 win Change 137146 on 2003/12/12 by vromaker@vromaker_r400_linux_marlboro Status update updated status Change 137701 on 2003/12/15 by rramsey@rramsey xenos linux orl Change 137105 on 2003/12/12 by mmantor@mmantor xenos linux orl $\label{eq:Add_new_sf} Add \ new_sf \ (single-file) \ versions \ of PLI \ routines \ that \ allow \ trackers \ to \ only \ open \ their \ dump \ files \ one \ time.$ fixed bug in the emu for redundancy control, added new input to the sq called Modify a few trackers and models to use the new sf routines to verify sx sp alloc table free they are working.

Fix a problem with the cfsm not ignoring clause boundaries for unexecuted predicate control flow instr. Change 137104 on 2003/12/12 by mmantor@mmantor_xenos_linux_orl <This changed changed SQ and SX top level ports by added thread type from sq alloc</p> Change 137566 on 2003/12/15 by donaldl@donaldl xenos linux orl through the sx so tracker at sx rb works correct and fixed some other minor bugs Added tracker for RSP to SX data Change 136917 on 2003/12/11 by mearl@mearl_r400_win Change 137560 on 2003/12/15 by danh@danh r400 win updated status Change 136893 on 2003/12/11 by mearl@mearl_r400_win Updated status. Change 137415 on 2003/12/15 by jcarroll@jcarroll r400 win updated status

Picked tests

Page 19 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

AMD1044 0258066

Change 136888 on 2003/12/11 by bhankins@bhankins xenos linux orl

Page 20 of 136

Change 136557 on 2003/12/09 by mmantor@mmantor xenos linux orl Change defined "C1" switch to "NEW BC" in sx rtl and related vcpp files -fixed allocation counter for ea and cleaned up controls for rest of the counters and fixed a bug in the spi_sp tracker by removing delay on sq_sp_simd_id because of pipelining the vertex and pixel input data> Change 136871 on 2003/12/11 by mearl@mearl_r400_win updated status Change 136424 on 2003/12/09 by mearl@mearl r400 win Change 136867 on 2003/12/11 by rramsey@rramsey_xenos_linux_orl don't reset current context at eo rt load Change 136358 on 2003/12/09 by vromaker@vromaker r400 linux mariboro Change 136773 on 2003/12/10 by danh@danh r400 win updated status for r400sq_auto_wrapping_memories_01 (test issue) Change 136334 on 2003/12/09 by rramsey@RRAMSEY P4 r400 win Change 136758 on 2003/12/10 by bhankins@bhankins xenos linux orl update dot2add status, take more tests Change 136332 on 2003/12/09 by mmantor@FL_mmantorLT_r400_win Change 136713 on 2003/12/10 by vromaker@vromaker r400 linux marlboro <took test with >2 exports> updated status Change 136326 on 2003/12/09 by mearl@mearl_r400_win Change 136691 on 2003/12/10 by bhankins@bhankins xenos linux orl 1. Add ability for both r400 and xenos versions of sx to coexist
2. Rewrite memory read mux select logic in sx_bc_ift v for better synthesis
3. Add quad_x and quad_y signals to BC interface.
4. Update 'copy_ virage_'files to reflect memory updates
5. Change 'ENABLE_SX_TO_BC' compile switch to 'C1'
6. Remove obsolete code (sx_export_buffers_common.v logic is now in sx_rb_if.v)
7. Update virage_cnt files Change 136192 on 2003/12/08 by mearl@mear1 r400 win Removed more SC pipe disable tests Change 136174 on 2003/12/08 by danh@danh_r400_win Updated r400sc * status Change 136672 on 2003/12/10 by mearl@mearl r400 win Change 136166 on 2003/12/08 by llefebvr@llefebvre_laptop_r400_emu working on r400sp_coissue_add_01.cpp Change 136596 on 2003/12/09 by vromaker@vromaker r400 linux marlboro Change 136153 on 2003/12/08 by vromaker@vromaker r400 linux marlboro added a couple wire names for ppb read data in cfs
 added fsdb dump for tbtrk_sq_vtx_rs_input in tb_sqsp
 changed checking of predicate to registered version in above trk to fix false mismatch added my name by a few tests bit 95 of vc/tp instruction was wired to 0 causing a mismatch, so
 I changed it to the actual instruction bit 95 (which is only used by the sq) Change 136141 on 2003/12/08 by mearl@mearl r400 win Removed pipe disable tests, renamed and moved to the ROM block Change 136574 on 2003/12/09 by danh@danh_r400_win Change 136135 on 2003/12/08 by rramsey@rramsey_xenos_linux_orl Undated r400sc rts * status Add a bit to pix thread counter to handle larger thread buffer Page 22 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history 3. fixed bug in alloc/dealloc block where free logic was searching all 256 locations of Change 136102 on 2003/12/08 by rramsey@RRAMSEY P4 r400 win the buffer when only 128 are enabled. 4. connect SX_SQ_free_export_address_buf to indicate last quad of memory export has been created and written to the detailed quad fifo.

5. fix minor bug in sx-rb interface logic that would have shown up with larger export update 'sorted by type' page with latest results Change 136063 on 2003/12/08 by mmantor@mmantor_xenos_linux_orl <another synthesis issue> Change 135598 on 2003/12/05 by smoss@smoss crayola linux orl regress Change 135995 on 2003/12/08 by danh@danh_r400_win removed reference to internal tracker Updated r400sc_sp_sample_cntl* status Change 135584 on 2003/12/05 by rramsey@rramsey xenos linux orl Change 135987 on 2003/12/08 by rramsey@RRAMSEY_P4_r400_win absolute address mode (const. addr. mode = 3'b001) should apply to all src constants update with status from 12/8/2003 Change 135537 on 2003/12/04 by vromaker@vromaker_r400_linux_marlboro increased size of thread buffers: vtx from 16 to 32 threads, pix from 48 to 64 thread
 fixed gpr dealloc bug that resulted in reduced performance
 testbench and tracker changes were made to support the larger number of threads Change 135983 on 2003/12/08 by dclifton@dclifton_r400 Updated for new sq rams - emualtor change (separate checkin) was also made for the bigger thread buffers Change 135975 on 2003/12/08 by mmantor@mmantor_xenos_linux_orl Change 135234 on 2003/12/04 by mmantor@mmantor xenos linux orl <fixed leda errors for synthesis> <1. wired simd2 and simd3 pipe disable vtx for proper vertex steering with 2 and 3 Change 135943 on 2003/12/07 by vromaker@vromaker r400 linux marlboro simds 2. Improved usaged of gpr input (Interp/Vtx data) port by pipline the vtx input connected resource management register to thread buffers data and changing input arbiter. Still need to make a changed in sq. pix ctl to (programmable thread buffer size) - fixed typo and leda error in sq_vtx_ctl remove busy signal on last 4clockcycle so interleaving can be tighter and in both machines Change 135932 on 2003/12/07 by rramsey@rramsey xenos linux orl 3. changed SIMD2_PRESENT_TMP to SIMD2_PRESENT in sq code, still needs to be removed from to the thread buffer sooner once commmitted fix a problem with vizq_start events and how they cause state locks in the tb. this should fix the vgt_event tests $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_$ tb_sqsp and check other parts of the design such as the sp and rsp.> Change 135879 on 2003/12/05 by mmantor@mmantor_xenos_linux_orl Change 135151 on 2003/12/03 by mearl@mearl xenos linux or -fixed a synthesis problem during elaboration in the sq_input_arb.v and fixed a problem with redunancy so that both vertex and pixel input controllers would send simd_id with there respective request to the spi. This change reamed a top level port between the sq and sp sq_sp_interp_simd_id changed to sq_sp_simd_id> Took out the SC_SP_last_quad signal from the top of the SC Change 135088 on 2003/12/03 by rramsey@rramsey_xenos_linux_orl Change 135600 on 2003/12/05 by bhankins@bhankins xenos linux orl Add a unique vc/tp update for pending bits to the thread status regs so they don't clobber each other.

Don't compare fetch constants for VC mini_fetches. 1. add behavioral support for sx to bc interface. Disabled fixed bug in alloc/dealloc block to hold off resetting alloc bit until the last bank of memory is read for a particular address. Change tex_instr_seq so fetch type (vc/tp) is determined based on the fetch opcode rather than thread type

Page 23 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Page 24 of 136

AMD1044 0258067

Fix a problem in sx export control when a pos free done happened on the same clk as a pos dec when exporting aux vectors. Change 133815 on 2003/11/25 by bhankins@bhankins xenos linux orl Change 134818 on 2003/12/02 by llefebvr@llefebvr_r400_linux_marlboro Increase depth of color buffer to 256. Only the first 128 locations are enabled for now Now using the $sq_aiq_bX_rts$ signal to drive the alu active counter. It used to be driven by ais_busy which was also high when doing TP and VC fetches. Change 133588 on 2003/11/24 by dclifton@dclifton r400 Removed delay chain I/O from SP's Change 134653 on 2003/12/02 by bhankins@bhankins xenos linux orl Change 133300 on 2003/11/21 by vromaker@vromaker_r400_linux_marlboro - replace rf implementation of the quad buffer fifo from the sc with an implementation using hs ram
- add new star processor to support hs ram timing fix - stopped using any unregistered status read bits Change 133275 on 2003/11/21 by mearl@mearl_xenos_linux_orl Change 134460 on 2003/12/01 by smoss@smoss cravola linux orl regress 1. Took out delay chain in the SC and SC_B blocks removed bad path for sx_defines.v chip_sc.tree chip_sc_b.tree Change 134408 on 2003/12/01 by rramsey@rramsey_xenos_linux_orl sc_b.v tb_sqsp_sc_iter.v 2. Timing related changes. sc_packer.v Fix HI/LO instruction solit Change 134404 on 2003/12/01 by bhankins@bhankins_xenos_linux_orl sc packer pkg.v $1.\ Added\ SX_INDEX_SIZE\ and\ SX_INDEX_SIZE_EQ_8\ defines\ to\ the\ rtl,\ defined\ in$ Real-Time tracker changes
 sc_block_model.cpp
 sc_interp.cpp sx_defines.v and set equal t
2. Moved sx_defines.v to parts_lib/src/common
3. Renamed sx inputs that connect to the STAR processors to match the names in the sc types.h TST module out compare.v Change 134359 on 2003/11/30 by mmantor@mmantor_xenos_linux_orl tbtrk_sc.v Change 133264 on 2003/11/21 by bhankins@bhankins xenos linux orl <re>removed delay in/outs from tb sqsp> Restructured sx to have an sx-rb interface block sx_rb_if, readying it for a similar sx_bc_if block for xenos.

 Removed delay chain Change 134302 on 2003/11/28 by mmantor@mmantor_xenos_linux_orl <re>move delay chain from sq> 3. Changed input quad fifo to dum_mem for now Removed some unused signals.
 Changed pav.tree per Vivian's request to change test signal name. Change 134126 on 2003/11/26 by donaldl@donaldl xenos linux orl Updated tbmod_fake_rb to create multiple file pointers based on thread_id[5:0] and thread_type. Needed because the quad_index[7:0] can come in out of order from the Change 132894 on 2003/11/19 by rramsey@rramsey_xenos_linux_orl SX. The quad_index[7:0] and op bit are stored in a fifo and eventually sent back Fix SQ_VC dec signals in tb_sqsp. Change tbtrk_sqvc so it does not compare fetch addr for mini fetches. Fix problem in tex_instr_seq that was allowing mini fetches to start Change 134100 on 2003/11/26 by donaldl@donaldl_xenos_linux_orl out of phase Removed pred kill_type and pred kill_valid input signals since no longer used. (ie. they are being delayed internally. Add more info to msgs from pedata tracker to tell which set of pe data is mismatching. Also turn off sx1 compare since it is redundant now that Page 25 of 136 Page 26 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history all the sx data comes from usx_0 Add capability to dump Cadence shm instead of fsdb. Enabled by defining Change 132675 on 2003/11/18 by danh@danh xenos linux orl DUMP_SHM in tb_sqsp/vcsopts.f file Added the tbtrk sq sx pcaddr tracker Change 131537 on 2003/11/12 by llefebvr@llefebvr_r400_linux_marlboro Change 132667 on 2003/11/18 by danh@danh xenos linux orl 1) added register stage to line up pred_override bits with SP phase 2) made the waterfall/predicated override an or instead of an and. Initial Release Change 131465 on 2003/11/11 by donaldl@donaldl xenos_linux_orl Change 132649 on 2003/11/18 by vromaker@vromaker r400 linux marlboro When in the VS_EVENT state and going to IDLE, update d_sp_sel[3:0] as a default based on disable vtx 3.2.1.0 instead of 0. This is to fix a bug where the correct - alu_instr_seq timing fixes for constant store read: first the register stage on the offset was moved after the sum2 adder, then the init_done_bits signal was changed from a combinational ACS state machine output to a registered one-bit state machine output to help the path to the new sum2 register based on disable vtx 3,2,1,0 instead of 0. This, is to fix a bug where the correct o sp_vsr_valid bit was not being set because the disable simd flags were not being considered (when going from VS_EVENT to IDLE). - thread buff status read timing fix - moved the status read back one cycle by sending the unregistered, rotated request vector to the arbiter and registering the winner out of the arbiter, the output of the status read mux was Change 131241 on 2003/11/11 by kmeekins@kmeekins xenos linux orl Removed event window from VC counters then registered Change 131082 on 2003/11/10 by kmeekins@kmeekins xenos linux orl Change 132516 on 2003/11/18 by rramsey@rramsey_xenos_linux_orl Add a mova test to the sq regression. Change no_inc in pix_ctl to use sr version instead of nxt value Fixed instantiation of vc now that delay is removed. out of the ppb.

Fix instr base calc in rbbm_if so rt/nrt determination is correct.

Stop vec_grp tracker from comparing pix auto_count cycles. sq_fetch_arb.v Changed the bus width of vc mini count q to accomidate the +2 modification Change 132219 on 2003/11/16 by smoss@smoss_crayola_linux_orl_regress <Orlando Hardware Regression Results > Increased the uvcmi_input_fifo FIFO depth to 8. Change 132123 on 2003/11/14 by rramsey@rramsey_xenos_linux_orl Added the FIFO full to the performance monitor Fix a bug in aluconst_mem related to rt constant reads.
Fix const_map_cntl so deallocate_cnt gets updated correctly when alloc and tp.blk. context_done happen on same clk. tb_sqsp was missing some primitive boundaries in the pkr for RT prims. vc perf config.txt. vc_perfmon.v, vcmi.v Change 131826 on 2003/11/13 by rramsey@rramsey xenos linux orl Added the FIFO full for the vcmi_input_fifo to the performance monitor get rid of ifindefs so vcs will compile Change 130763 on 2003/11/07 by llefebvr@llefebvr r400 linux marlboro Change 131814 on 2003/11/13 by dclifton@dclifton_xenos_linux_orl Reverting timing fix that broke r400sq_const_index_04.cpp test. Added register for undriven signal Change 130661 on 2003/11/07 by rramsey@rramsey_xenos_linux_orl Change 131722 on 2003/11/13 by rramsey@rramsey_xenos_linux_orl

Page 27 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Page 28 of 136

Another attempt to keep the pc out ppb from overflowing

Change 130571 on 2003/11/06 by llefebvr@llefebvr r400 linux marlboro

This fixes the bad pix/vtx GPR input arbitration performance counter

Change 130421 on 2003/11/06 by bhankins@bhankins xenos linux orl

- sq-sx thread id added to sq output and into and through the sx
- updated sx-rb trackers to use sq-sx thread id
- removed obsolete code from sx
- fixed sx bug where an ea from one export to memory was resetting the valid bits for the other export to memory

Change 130346 on 2003/11/05 by danh@danh xenos linux orl

Removed spi delay_in and delay_out ports

Change 130127 on 2003/11/04 by vromaker@vromaker_r400_linux_marlboro

instruction writes to the different SIMD memories now happen independently and no longer wait for all SIMD memories to be available

Change 130094 on 2003/11/04 by rramsey@rramsey_xenos_linux_orl

Fix scalar tracker so it compares all 128 bits based on write masks It was only comparing the lower 32 bits based on bit 0 of the write mask

Change 130079 on 2003/11/04 by rramsey@rramsey_xenos_linux_orl

Couple of timing fixes for aiq and cfs Fix a bug in the rbbm if that was allowing map copies to happen before memory writes Fix a problem in the testbench that was causing some incompletes

Change 130072 on 2003/11/04 by rramsey@rramsey_xenos_linux_orl

Update tracker to work with new sp_sx dump file that has all free-done entries as unique lines between exports

Change 129980 on 2003/11/03 by smoss@smoss cravola linux orl regress

some housekeeping and removed bad path

Change 129723 on 2003/11/01 by vromaker@vromaker_r400_linux_marlboro

- fixed pix ctl output buffer overwrite bug
- backed timing fix out of status reg and pix thread buff

Page 29 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Change 129444 on 2003/10/30 by llefebvr@llefebvr r400 linux marlboro

Fixing dangling wires in the sq related to performance module. Fixing shader due to Kill opcode assembler change. Fixing trakeer problem in the TB_SQSP when autocount vtx is on.

Change 129408 on 2003/10/30 by rramsey@rramsey_xenos_linux_orl

Move some continuous assignments into always blocks to help sim time Rework cfs rtr/arb xfc path to help timing Fix a problem with detecting serialize for the cf state machine

Change 129348 on 2003/10/30 by mearl@mearl_xenos_linux_orl

Added two primitive interpolation back in

Change 129259 on 2003/10/29 by danh@danh xenos linux orl

- spi interp ctl IJ buffer changed from one 16x200 memory to two 16x100 memories - added additional SQ_SP_interp_qd[0:1]_prim_sela signals to improve spi input

Change 129213 on 2003/10/29 by llefebvr@llefebvr r400 linux marlboro

Added VC_PERF_ACTUAL_STARVED performance counter in the SQ.

Change 129150 on 2003/10/29 by llefebvr@llefebvr_r400_linux_marlboro

Increasing VC mini count to 11 fifo size +2.

Change 129066 on 2003/10/28 by vromaker@vromaker_r400_linux_marlboro

- added vtx input optimization for autocount on and continued off
- added vor influence of fixed initialization problem for vix autocount
 made pix thread buff timing fixes: reduced load on status read data bit 19, which is the event bit, and also tried to reduce the load on pop thread (part of the same path) in the status register
- backed out a timing fix in alu_instr_seq that was causing a mova
- fixed the AUTO_COUNT_SIZE definition

Change 128816 on 2003/10/27 by llefebvr@llefebvr_r400_linux_marlboro

Adding VC performance counters in the SQ. Removed the SX->RB warnings on non-initialized GPR channels.

Change 128675 on 2003/10/27 by smoss@smoss xenos linux orl

Ex. 2049 --- Sequencer Parts Development FH --- folder history

combined neverilog and vcs simulators to one build

Change 128659 on 2003/10/27 by donaldl@donaldl_xenos_linux_orl

Delayed rom rsp shift* * mux shift selects 1 clk to fix synthesis timing.

Change 128656 on 2003/10/27 by donaldl@donaldl xenos linux orl

Change 128647 on 2003/10/27 by rramsey@rramsey_xenos_linux_orf

Changed vc_req's and tex_req's dependencies on vc_pending_q and

Change ais so PS src sel gets priority over PV Add predicated jumps and calls to cfs Fix fetch_type connection in sq and tex_instr_seq

Change 128645 on 2003/10/27 by llefebvr@llefebvr_r400_linux_marlboro

Incrementing the number of in flight testure requests from 6 to 7.

Change 128601 on 2003/10/27 by mmantor@mmantor_xenos_linux_orl

Enable SQ use of 128 locations in export memmory instead of 112 locations. Also added counters in sq arbiter to give priority to instruction pipe that has the fewest instructions when both control flow machines are available. This changlist reguires both an emulator and hardware rtl code updates>

Change 128592 on 2003/10/26 by danh@danh xenos linux orl

 $Changed\ sc_rt_valid\ to\ fix\ the\ condition\ when\ end_of_prim\ and\ end_of_vector\ do\ not\ occur\ at\ the\ same\ time,\ the\ sc_packer\ will\ send\ real\ time\ fill\ quads.$

Change 128526 on 2003/10/24 by mearl@mearl xenos linux orl

Took out two prim per clock to get regression to pass

Change 128393 on 2003/10/24 by llefebvr@llefebvr r400 linux marlboro

This should fix the instruction count being off. The bad machine (cfs) was used to determine the thread type and hence some pixel shader instructions were counted as vertex ones and vice versa

Change 128365 on 2003/10/24 by mearl@mearl_xenos_linux_orl

Added 2 primitive interpolation in SQ and SPI. Fixed a bug in sx_parameter_cache. Fixed synthesis bugs in SC

Page 31 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 128209 on 2003/10/23 by vromaker@vromaker_r400_linux_marlboro

- timing fixes for constant store read address

Change 128195 on 2003/10/23 by rramsey@rramsey xenos linux orl

Fix a problem with yield optimize

Change 128048 on 2003/10/23 by llefebvr@llefebvr_r400_linux_marlboro

Fixed problem in the active counters when both pixels and vertexes were processing at the same tim

Change 128019 on 2003/10/23 by rramsey@rramsey_xenos_linux_orl

go back to prev version

Change 127895 on 2003/10/22 by vromaker@vromaker_r400_linux_marlboro

- timing fixes for gpr alloc

Change 127872 on 2003/10/22 by rramsey@rramsey_xenos_linux_orl

fixes for MT3 functions

Change 127861 on 2003/10/22 by llefebvr@llefebvr r400 linux marlboro

Fixing TP and VC sync stalls for both pixel and vertex threads

Change 127742 on 2003/10/22 by llefebyr@llefebyr r400 linux marlboro

Removed the warnings from the sp->sx trackers and sx->sp Now emulator is always executing the scalar instruction even in the case of a 3 operand vector opcode. This is to match with random shaders.

Change 127730 on 2003/10/22 by rramsey@rramsey_xenos_linux_orl

Fix a bug with start of clause

Change 127580 on 2003/10/21 by danh@danh_xenos_linux_orl

Changed any_pred_hi and any_pred_lo generation, now the predicate and valid bits are now related to the thread that the CFS is working on.

Change 127397 on 2003/10/20 by llefebvr@llefebvr_r400_linux_marlboro

Added an event window for pixels. There was a problem in the global event window as if both pixels and vertexes were turned on at the same time, as soon as one went off it was turning off the whole window. This fixes pixel counters being 0 for some tests.

Page 32 of 136

Change 127325 on 2003/10/20 by vromaker@vromaker_r400_linux_marlboro

updated VC injector to handle multi-cycle returns (the number of cycles, 1 to 4, is read from the vc_rp_sp.dmp file)

Change 127313 on 2003/10/20 by dclifton@dclifton_r400

Change 127269 on 2003/10/19 by rramsey@rramsey_xenos_linux_orl

Change behave mem_model in spi so its read dly matches the real mem Send interp_valid and ij_line 1 clk early to account for 2 clk read dly Fix spi_sp tracker so it works with early valid Change thread buf and cfs machines so only fetches can modify the fetch pending bit. The alu machines only read the value out of the buffer. Get rid of a bunch of extra 'else' clauses

Change 127091 on 2003/10/17 by rramsey@RRAMSEY P4 r400 win

udpate spreadsheet with 10/17/03 results modify script so it automatically handles reports with/without runtime

Change 127079 on 2003/10/17 by smoss@smoss_xenos_linux_orl

initialized memory controller for sc and sx to allow real memories to work in tb sqsp

Change 126983 on 2003/10/16 by vromaker@vromaker_r400_linux_marlboro

fixed code that was causing a latch in synthesis

Change 126908 on 2003/10/16 by rramsey@rramsey xenos linux orl

absolute modifier for constants should apply to all source constants

Change 126823 on 2003/10/15 by rramsey@rramsey_xenos_linux_orl

Add saye tracker to ge testbench when running with orlando trackers Rework some of the alu/tex constant logic to get rid of the bug that was allowing threads to start processing before all of the constants for their context had been loaded.

Change 126796 on 2003/10/15 by vromaker@vromaker_r400_linux_marlboro

- hooked up the new alu_arb_policy and tx_cache_sel register bits (but temporarily tied the tx cache sel input to the vtx thread buff low since it is being incorrectly set to 1 by Primlib)

Page 33 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Change 126483 on 2003/10/13 by mearl@mearl_xenos_linux_orl

Fix One Prim Per Clock bug in sq_ptr_buff. Revert changes in sq_pix_ctl to make 2 prim interp changes easier. Put known primdata data on all quads across packer to iterator interface. Fix dumps for no_inc_pix_cnt signal.

Change 126450 on 2003/10/13 by donaldl@donaldl_xenos_linux_orl

Delayed SQ SX sp simd id an extra clock to line up for reduduncy use

Change 126362 on 2003/10/13 by rramsey@rramsey_xenos_linux_orl

Change sq_sp_interp dump so it contains all of the pass_count and wrap passes through the interpolator Add spi sp tracker (enabled with ENABLE SPI TRACKER define)

Change 126324 on 2003/10/13 by dougd@dougd_r400_linux_marlboro

Added logic to generate read enables for the 4 map rams in sq. aluconst. rams.x Added SQ_CONTEXT_MISC_YEILD_OPTIMIZE register to sq_rbbm_interface.v

Change 126234 on 2003/10/10 by vromaker@vromaker_r400_linux_marlboro

- added export arbiter module that will limit the number of color buffer export threads to one every 4 clocks
- hooked up the export blocker outputs and commented out the previous export blocking code
 added export alloc arbiter inputs to exp_alloc_ctl module so that the buf_avail
- counter will be updated by the export affocs
 added logic to support the export arbiter to the vertex and pixel thread buffers
 added logic to support the export arbiter to the thread arbiter
 separated the export alloc request out of the afu request logic in the status register,

- and added an output for the export alloc request

Change 126226 on 2003/10/10 by cbrennan@cbrennan_r400_emu

Release from my emu branch: texture stacks for TP as well. Leda rule tweaks add more .rg files

Change 125806 on 2003/10/09 by cbrennan@cbrennan_r400_release

Temporarily reduce the num SQ_TP vectors in flight back to 6 until fifo overflows can be

Change 125780 on 2003/10/09 by bhankins@bhankins_xenos_linux_orl

update sx test inputs to match the established convention

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Change 125697 on 2003/10/08 by dougd@dougd_r400_linux_marlboro

fixed bug in eqn for *sync alu stall

Change 125660 on 2003/10/08 by rramsey@rramsey xenos linux orl

Fix compile warnings for sq (several missing ports) Fix compile warning in sx_parameter_caches
Fix SQ_SP_fetch_simd_sel so it lines up with the data coming out of the GPRs

Change 125598 on 2003/10/08 by dougd@dougd r400 linux marlboro

Expanded the read back mux for rbbm diagnostic reads to include the extra memories for SIMD2 and SIMD3.

Change 125550 on 2003/10/08 by rramsey@rramsey_xenos_linux_orl

Increase sq_tp_maxcount from 6 to 7
Fix a problem with the simd mux for vtx_alloc_size in export_alloc Fix a problem with pc_alloc_free_cnt in export_alloc (alloc and dealloc on same clk was broken) Make alu ctl_flow and instr trackers work with multiple simd's
Also change these trackers to use common code for pix/vtx by selecting the type with

a parameter

Change 125540 on 2003/10/08 by dclifton@dclifton r400

Added needed include files. Strange how these compiled before this.

Change 125509 on 2003/10/07 by dougd@dougd r400 linux marlboro

change perfcounters alu(0/1)_fifo_empty_simd* to count alu(0/1)_stall_simd* instead.

Change 125370 on 2003/10/07 by mearl@mearl_xenos_linux_orl

Fixed the SQ bug when bad pipe exists before a good pipe. Also, updated the RT trackers in the SC testbench.

Change 125278 on 2003/10/07 by dougd@dougd_r400_linux_marlboro

Added a new state register, vc_fifo_depths_l1_req_fifo_depth to sq rbbm interface.v and wired it up to the compare logic for vc_mini_count_q in sq_fetch_arb.v.

Corrected a typo in sq_vtx_ctl.v that affected synthesis.

Change 125260 on 2003/10/07 by dclifton@dclifton_r400

Page 35 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Updates for a couple of fifos in sq and new block in sp

Change 125059 on 2003/10/06 by rramsey@rramsey xenos linux orl

Fix sq_sx file read in tb_sqsp Add new tracker for shader writes to gpr Add myself to failing regression email list

Change 124864 on 2003/10/03 by rramsey@rramsey_xenos_linux_orl

add some missing wire declarations

Change 124850 on 2003/10/03 by rramsey@rramsey_xenos_linux_orl

move an adder in front of a register and change to a fifo with registered outputs to help timing

Change 124792 on 2003/10/03 by dougd@dougd_r400_linux_marlboro

Removed all references to SIMD1 DISABLE in sq.v and sq rbbm interface.v.

Added 32 new performance counters: many are for SIMD2 and SIMD3 but other existing counters were expanded to differentiate between vertex and pixel counts. There are now 95 performance counters in the sq.

Change 124774 on 2003/10/03 by smoss@smoss crayola linux orl regress

re-enabled behavioral memories until real memories are working

Change 124741 on 2003/10/03 by bhankins@bhankins xenos linux orl

Change 124738 on 2003/10/03 by smoss@smoss_crayola_linux_orl_regress

<Orlando Hardware Regression Results >

Change 124634 on 2003/10/02 by rramsey@rramsey xenos linux orl

adding cond_pred optimize to control flow seq

Change 124434 on 2003/10/01 by mmang@mmang_xenos_linux_orl

- 1. Turned on 3 simds in emulator (sc interp.cpp sq_block_model.cpp, and user_block_model.cpp)

 2. Turned on 3 simds in rtl (sc_packer.v,
- tb_sqsp.v, and vgt.v). 3. Fixed bug in chip vc.tree to get SQ VC simd id

and TC_VC_simd hooked up correctly.

Page 36 of 136

4. Fixed bug in sc packer.v related to having a 2 bit simd id sel

Change 124292 on 2003/10/01 by rramsey@rramsey_xenos_linux_orl

Change sq_vgt_rtr to be driven based on fifo full, rather than by the vsr

Change 124203 on 2003/10/01 by dougd@dougd r400 linux marlboro

The four existing SYNC_STALL counters were separated into (8) pix and vx stall counters.

The two ALU INSTRUCTION ISSUED counters were made to increment by 1,2,3 or 4.

The two CF INSTRUCTION ISSUED counters were made to increment

by 1,2,3,4,5 or 6.

Added 'ifdef's to sq_perfmon_wrapper for SIMD1, SIMD2, SIMD3.

perfmon event window

An enable for the performance counters is generated by events received from the VGT and/or SC which create a window of time when the counters will be active. All of the perf counters are now controlled by this enable.

Change 123984 on 2003/09/30 by bhankins@bhankins xenos linux orl

change names of sx i/o ROM MCn disable signals

Change 123966 on 2003/09/30 by smoss@smoss_xenos_linux_orl

using real memories for sqsp

Change 123952 on 2003/09/30 by mmantor@mmantor xenos linux orl

<added changes for 2 prim interpolation to the spi and sq and all top level interconnects, and sq_sx_sp_simd_id for redundancy control, and all changes to test bench as well as some neverilog error messages. Some other misc top level clean up>

Change 123918 on 2003/09/29 by rramsey@rramsey_xenos_linux_orl

Change tp_sqsp dump to use FMT_32_32_32_32_FLOAT Remove a monitor from tbtrk_sc for now since it is broken for ONEPPC Need to register the fi inputs to aiq since they are put in the fifo one clk after the transfer. Fix the exce, gas no it is 4 clks even when switching clauses Remove one clk of latency on tp_dec from fetch_arb Fix the trap bits in sq. v so the tp and vc cfs and if machines get two read cycles out of 8 when we have two instruction stores Change the tp_sq dec input and force the tp_sp format in tb_sqsp

Page 37 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Fix the tif so its state machine is 4 clks between clauses and change it so 0 count execs can be merged into the instruction ahead of them Fix the tex_instr_seq for the case where tp_dec happens on the same clk the fcs state machine kicks off (instr were getting dropped)
Check in Scott's vgt change to clamp vtx_reuse based on good pipes

Change 123798 on 2003/09/29 by donaldl@donaldl xenos linux orl

Temporary hook-up of SQ_SX_interp_2prim to zero going to SX until SQ changes for 2 prims is complete.

Change 123755 on 2003/09/29 by mearl@mearl xenos linux orl

Fix for timing problems, submitting new memories, using real memories for regressions.

Change 123528 on 2003/09/26 by llefebvr@llefebvr r400 linux marlboro

The sp>sx, sq>tp and sq>vc trackers now all use the post steered valid bits to know what is valid. Thus they are now compatible with the redundant pipe. They should track correctly in any bad pipe configuration. They however don't compare the RSP data for now (waits for the HW implementation)

Change 123515 on 2003/09/26 by bhankins@bhankins_xenos_linux_orl

- add sx_redundancy.v to hierarchy to try and improve on timing
- add EXP_BUF_112_DEEP switch. comment out in sx_defines.v to enable
all 128 locations of the color export buffer to be used
- add ONE_STAR_PROCESSOR switch. comment out in sx_defines.v to use

two star processors

add support for thread id and thread type for debug.
 misc changes for timing which don't change the logic

Change 123485 on 2003/09/26 by dougd@dougd r400 linux marlboro

I removed these files prematurely

Change 123462 on 2003/09/26 by dclifton@dclifton_r400

disabled USE BEHAVE MEM. Changed 8x104 ram in sq to 8x105.

adding the x105 virage memories and deleting the x104 used in the sq vc skid buf

Change 123331 on 2003/09/25 by dougd@dougd r400 linux marlbord

Change 123343 on 2003/09/25 by dougd@dougd_r400_linux_marlboro

usq alu01 state mem is used twice as the instance name so I changed the 2nd one to usq_alu23_state_mem.

Page 38 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Change 123260 on 2003/09/25 by mmang@mmang_xenos_linux_orl

- For Vivian E., added new simd memories and star patch in/out wires.
- 2. In vertex thread buffer, fixed bug in simd3 alu state registers.
 3. In pixel thread buffer, fixed bug in simd2/3 cf state read data.
 4. Adjusted simd id bus width for sq to tp tracker.
- 5. In sq.v, added vertex shader and pixel shader constant base and size connections to simd2/3 alu instruction sequencers

Change 123113 on 2003/09/24 by llefebvr@llefebvr_r400_linux_marlboro

Fixed the autocount pixel timing by removing 5 pipeline registers in the SQ control path. Also fixed the counter's with back to 17 bits (from 19) int both the vertex and pixel path such that when it hist the SP it is of the cornect 35 bits width (17 bits count +2 bits phase +4 bits index). This fixes +40 bits index). This fixes +40 bits index +40 bit

Change 123082 on 2003/09/24 by mearl@mearl crayola linux orl

th files updated for ONE_PRIM_PER_CLOCK, bug fix in interpolators for ONE_PRIM_PER_CLOCK

Change 123076 on 2003/09/24 by donaldl@donaldl_xenos_linux_orl

Connected ROM block redundancy signals. Added sq export address buffer support.

Change 122865 on 2003/09/23 by dougd@dougd_r400_linux_marlboro

Change 122699 on 2003/09/23 by dougd@dougd_r400_linux_marlboro

fix typo (change blocking to non-blocking assignment)

Change 122683 on 2003/09/23 by mearl@mearl crayola linux orl

One primitieve per clock changes in the back of the SC and front of the SQ. Right now, the ONE_PRIM_PER_CLOCK define in header v and SC_SQ_interface.v are needed for this change. Will update this to ONEPPC, since this already exists in _______.

header.v. Also, the sim.cfg file does not have an ifdef, so is hardcoded to one prim

 $Change~122558~on~2003/09/22~by~dougd@dougd_r400_linux_marlboro$

1. changed sq_stdrfsdks2p8x104cm1sw0 to sq_stdrfsdks2p8x105cm1sw0 in

2. added timing fixes to sq_aluconst_mem.v, sq_aluconst_rams.v and sq_instruction_store.v

Page 39 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 122520 on 2003/09/22 by vromaker@vromaker r400 linux marlboro

timing fixes - added registers for vs and ps base and size after the

Change 122402 on 2003/09/20 by mmang@mmang_crayola_linux_orl

- 1. Added simd2 and simd3 to code
- 1. Added simd2 and simd3 to code.
 2. Added simd2 to synthesized code.
 3. In sq.blk and sq.rbbm_interface, added
 DB_READ_MEMORY_DB_WEN_MEMORY_2, and DB_WEN_MEMORY_3
 to SQ_MISC_DEBUG register.
 4. In header v, turned on SIMD2 PRESENT.
 5. In se packerv, turned on SIMD2 but don't use it
 with SIMD2_PRESENT_TEMP.

- with SIMOZ_FROSTN_TEMP.

 6. In sq. aluconst, mem.v, sq. aluconst, top.v, sq. cfc.v, and sq. instruction store.v, hooked up DB_WEN_MEMORY_2 and DB_WEN_MEMORY_3 to appropriate SIMD2/3 memories.

 7. In sq. export_alloc.v, handle position/main export id and parameter cache thread base for simd2/3. Be able

- and parameter cache thread base for simd2/3. Be able to handle one type down simd0/1 and a different type down simd2/3 on the same clock.

 8. In sq_pix_ctl.v and sq_vtx_ctl.v, multiple simd gpr_alloc blocks return different acks, gpr bases, and gpr maxes.

 9. In sq_cxy_alloc_ctrl.v, handle position/main export buffer management. Be able handle one type down simd0/1 and a different type down simd2/3 on the same clock. clock.
- 10. In sq. pix_thread_buff.v and sq. vtx_pix_thread_buff.v, added muxing and memories to handle status bits, cfs state, and alu state. Simd2 mirrors simd0, while simd3 mirrors simd1.
- simd3 mirrors simd1.

 11. In sq. status reg. v, added simd2/3 arb requests and status bit writing from simd2/3.

 12. In tb_sqsp.v, fixed some bugs related to pspv_wr_en, pred_override, const_addr, and const_valid hook ups.

 13. In btrk_spsx.v, SIMD_PRESENT conditional delaying
- and management of thread_id and thread_type for tracker.

 14. In tbtrk_sq_pix_rs_input.v and tbtrk_sq_vtx_rs_input.v,
- temporary klug to hook up b0b1_predicate instead or
- predicate.

 15. In tbrk_sq_sp_vec_gpr.v, added simd2/3 tracking of gpr_int_wen interface.

 16. In sq_tex_instr_queue.v, get gpr_max from appropriate
- simd data.<enter description here

Page 40 of 136

Change 121731 on 2003/09/17 by rramsey@RRAMSEY_P4_r400_win xenos updates add runtime to report update spreadsheet with 9/17/2003 results Change 121065 on 2003/09/12 by donaldl@donaldl crayola linux orl Registered ROM_EN_RSP and ROM_PIPE_SEL[3:0]. Change 121629 on 2003/09/16 by danh@danh_crayola1_linux_orl Change 120910 on 2003/09/12 by donaldl@donaldl crayola linux orl Removed XY pipe delay, XY data is now processed by the interpolators Removed SPtoSQ kill_type and kill_valid signals and added them internally in the SQ. Done to save some gates and also to avoid having to add Change 121559 on 2003/09/16 by tien@tien_r500_emu redundancy logic to them. Reverse order of TP (vfetch and tfetch) const Change 120887 on 2003/09/12 by bhankins@bhankins_crayola_linux_orl Change 121537 on 2003/09/16 by smoss@smoss_crayola_linux_orl_regress Add sx_mem_export.v module to capture pixel addresses and calculate rb id values for use in export to memory.
Add support for redundancy logic. Inputs are currently tied low in the steps v. and chip sx tree.
Add non-synthesizable logic to route thread id and thread the forest thread in the control of the steps. increasing interface idle timeout for randoms Change 121348 on 2003/09/15 by dougd@dougd_r400_linux_marlboro corrected the trigger events for VTX SWAP IN, VTX SWAP OUT. type from sq through sx and out to rb for test. Allows PIX_SWAP_IN, PIX_SWAP_OUT, CONSTANTS_USED_SIMD0 and CONSTANTS_USED_SIMD0.

2. made event counters for these used multibit increment values tracker to identify export to memories, and to distinguish between them. Tied low in chip_sx.tree and tb_sqsp.v. All associated I/O and logic is qualified on 'ifdef SIM. 3. added "+incdir+\$PARTS LIB/src/gfx/sp" to vcs top.ini to pick up - Remove the register in sx_export_control_common.v that was requiring some signals on the sq alloc interface to be present one clock before the valid. Now, all sq sx exp signals are expected to be valid only when sq sx exp valid = 1. Add a register in the generation of the final pixel address sp_defines.v included in sq_ais_output.v Change 121332 on 2003/09/15 by rramsey@rramsey crayola linux orl Change pix ctl so deallocs with real pixel vectors don't free param value for export to memory, to try and improve on timing cache space until interpolation is almost c Wire up the vc_sp valid signals correctly Fix sx_sp_pcdata tracker Change 120645 on 2003/09/11 by rramsey@rramsey_crayola_linux_orl Remove some unused defines Add reset condition for primdata pipe stages in qdpr_proc Fix a bug with tp_count in fetch_arb when running with the VC Increase loop_cnt for vc inject in tb_sqsp Change 121292 on 2003/09/15 by vromaker@vromaker r400 linux marlboro fixed incorrect loading of loop indices from the thread buffer into the ctl flow sequencer, this was causing a problem with the test r400sq_const_index_07 Change 120592 on 2003/09/10 by vromaker@vromaker_r400_linux_marlboro changed SQ_hs_bclk, TST_SQ_rf_star_wrck, TST_SQ_hs_star_wrck so they are defined without the $[0\!:\!0]$ range Change 121278 on 2003/09/15 by dclifton@dclifton_r400 Added to SQ include directory list Change 120510 on 2003/09/10 by vromaker@vromaker_r400_linux_marlboro Change 121219 on 2003/09/14 by smoss@smoss_crayola_linux_orl_regress <Orlando Hardware Regression Results > Change 120426 on 2003/09/10 by donaldl@donaldl_crayola_linux_orl Change 121157 on 2003/09/13 by smoss@smoss_crayola_linux_orl_regress Added redundancy logic. Page 41 of 136 Page 42 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 119733 on 2003/09/05 by danh@danh crayola1 linux orl Change 120423 on 2003/09/10 by donaldl@donaldl crayola linux orl removed SQ_SP_interp_mode, added SQ_SP_interp_simd_id for Redundant SP Added redundancy logic. capability Change 120397 on 2003/09/10 by rramsey@rramsey_crayola_linux_orl Change 119457 on 2003/09/04 by dclifton@dclifton_r400 Add code to keep the vc and tp inject routines from clobbering each other Fix vc inject routine so it handles formats that require double returns added sq_export_blocker to makefile Fixed TP_SP_data_valid signal Change 120296 on 2003/09/09 by dougd@dougd r400 linux marlboro Change 119422 on 2003/09/04 by mmang@mmang_crayola_linux_orl added 'include "register addr.v' Change 120270 on 2003/09/09 by llefebvr@llefebvr_r400_linux_marlboro Change 119294 on 2003/09/03 by vromaker@vromaker r400 linux marlboro Now reading the SIMD_ID from the dump in the tracker. Not doing anything with it however. It is just read in order to get to the valid data after it. - instatiation of sq export blocker at sq top level - thread buffer timing fix related to status read/export count update Change 120190 on 2003/09/09 by dougd@dougd r400 linux marlboro Change 119195 on 2003/09/03 by vromaker@vromaker r400 linux marlboro changed SQ_RB_event to SQ_RB_event_pulse and declared as output from sq.v new file for arbitrating between exporting threads Change 120087 on 2003/09/08 by dougd@dougd_r400_linux_marlboro Change 119127 on 2003/09/02 by dougd@dougd_r400_linux_marlboro Fixed 2 bugs in Real Time address logic in alucons Fixed 2 dogs in Kear I line address logic in audouss.

Added correct default value for INST BASE_VTX in sq_rbbm_interface.v

Fixed bug in Real Time write data buffer in sq_instruction_store.v

Added missing input/output declarations for SIMD2 & SIMD3 signals to Added the extra memories and their support to the instruction and constant stores to support 4 SIMD's. These memories and their required wiring and control are instantiated with 'ifdef and use sq_aluconst top.v the SIMDn PRESENT macros defined in header.v Clean up missing SIMD2, SIMD3 wire declarations in sq.v for the aluconst, is and cfc Removed the use of SIMD1 macro Change 119982 on 2003/09/08 by vromaker@vromaker_r400_linux_marlboro Change 118878 on 2003/08/30 by rramsey@rramsey_crayola_linux_orl added defaults to case statements fix a deadlock condition between the input arb and vtx input controller Change 119853 on 2003/09/06 by rramsey@rramsey_crayola_linux_orl Change 118743 on 2003/08/29 by viviana@viviana_crayola2_syn Changes to make quad processing resources programmable Configuration file to build the virage memories with a register in the

Change 119747 on 2003/09/05 by danh@danh crayola1 linux orl

Change 119736 on 2003/09/05 by danh@danh_crayola1_linux_orl

ports/connections

for Redundant SP

Removed SQ_SP_interp_mode, SQ_SP_interp_buff_swap, added all SPI Redundant SP

 $removed \ SQ_SP_interp_mode, SQ_SP_interp_buff_swap, \ added \ SQ_SP_interp_simd_id$

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Page 43 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

320x32 cfc memory.

changes for random backpressure

Change 118694 on 2003/08/29 by rramsey@rramsey_crayola_linux_orl

Change 118622 on 2003/08/28 by llefebvr@llefebvr_r400_emu_montreal

Page 44 of 136

Modified the Orlando trackers to only compare valid channels. This replaces the 0xDEADDEAD values we had previously. Note that any uninitialized channel will generate a

Modified interfaces are

1) SX->SP parameter cache data

2) SP->SX 3) SX->RB

I left alone the SX->PA interface as we did not have problems over it. The qualifiers are there however if anyone wants to do it.

Change 118589 on 2003/08/28 by vromaker@vromaker_r400_linux_marlboro

- fix for loop index clamping and constant address generation (both index and offset relative)

changed the connection of the real time bit such that it now goes directly from the AIQ

AIS output mux (and not thru the AIS)

- sq_tests.simple_reg_indexing tests now pass Change 118581 on 2003/08/28 by dclifton@dclifton_r400

tied the upper bit of sq tp trk simd id low

Change 118490 on 2003/08/28 by dclifton@dclifton_r400

Clean up of unused signals, fix of STAR signals in sp.v

Change 118397 on 2003/08/27 by smoss@smoss crayola linux orl regress

<Orlando Hardware Regression Results >

Change 118215 on 2003/08/26 by vromaker@vromaker r400 linux marlboro

changed define for SQ VC MINI MAXCOUNT from 16 to 32

Change 118200 on 2003/08/26 by rramsey@rramsey_crayola_linux_orl

Increase number of clks the tp_sq inject routine can loop through input data Fix a problem with the sx_rb color tracker when the sx sends 0 mask quads, or the rb kills quads

Change 118130 on 2003/08/26 by dclifton@dclifton_r400

Added tbtrk_sqvc, fixed vector engine assignments

Change 118128 on 2003/08/26 by dclifton@dclifton r400

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Added definable # of sim d's to sp

Change 117957 on 2003/08/25 by dougd@dougd r400 linux marlboro

Fixed some wiring errors in the wrapper that prevented some counters from working.

Change 117706 on 2003/08/22 by mmantor@mmantor crayola linux orl

<a href="<a href="<a href="<a href="<a href=" and pa for simd_id with modifications to their test benches and added"

ifdefs with bad pipe signals to input of vgt, replaced SIMD1 macro with SIMD1_PRESENT macro in the SC files>

Change 117704 on 2003/08/22 by mmantor@mmantor_crayola_linux_orl

<Fixed conflict between vec_3op_no_swap and scalar_const_op to control swizzle correctly for the scalar engine and deliever the special gpr read_address_created in the sq_ais_output block>

Change 117631 on 2003/08/21 by vromaker@vromaker_r400_linux_marlboro

fix for VC_SQ_data_rdy (this was being asserted too often, but did not cause any of the tests to fail...)

Change 117627 on 2003/08/21 by vromaker@vromaker_r400_linux_marlboro

Change 117504 on 2003/08/21 by mmang@mmang_crayola_linux_orl

- Increased simd_id wires to 2 bits throughout SQ. SQ external interfaces are still only 1 bit.
 Made SQ simd 1 blocks conditional based on SIMD1_PRESENT in
- header.v. Realigned some code in anticipation of SIMD2 and SIMD3

Change 117311 on 2003/08/20 by rramsey@rramsey_crayola_linux_orl

Changes to sc for 4 qd/clk picker in KILL ALL PIXELS mode Check in se memory updates for Vivian
Add some missing connections in sqsp to fix compile warnings
Go to a global define for all trackers to control x vs 0 mismatch/warning (MISMATCH_X_VS_0)

Change 116887 on 2003/08/18 by dougd@dougd_r400_linux_marlboro

restore the 'ifdef USE_BEHAVE_MEM that was removed for testing of virage behavioral models.

Change 116795 on 2003/08/15 by vromaker@vromaker_r400_linux_marlboro

Page 46 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

adding sq-vc tracker (not debugged yet - just checking in working copy)

Change 116380 on 2003/08/13 by mmang@mmang_crayola_linux_orl

- 1. Added separate gpr allocation/deallocation management for multiple simds (sq_gpr_alloc, sq_exit_sm, sq_pix, thread buff, sq_status_reg sq_vtx_thread_buff, sq_pix_ctl, and sq_vtx_ctl.

 2. Made thread_arb poll cfs_rtr on a 4 clock interval in order to ensure the arbiters
- staved in phase between simds.
- Created new interface signal between thread_arb and export_alloc to lock export_id and parameter cache base for each simd. In addition, created registers for these values
- acounton, created registers for these vanues for each sim di norder to ensure they got allocated in order.

 In ais output, used simd to mask pix_ctl gpr writes to different simds.

 In the supp, added simd_id and gpr write address to texture latency fife to help trackers and read inject return files.

 In the single course, and according on may
- 6. In tex_instr_queue, grab appropriate gpr_max based on simd id.

Change 116303 on 2003/08/13 by danh@danh_r400_win

Updated failing tests status.

Change 115781 on 2003/08/11 by rramsey@RRAMSEY_P4_r400_win

update sq status add runtime column to report so it works with the spreadsheet script

Change 115728 on 2003/08/10 by rramsey@rramsey_crayola_linux_orl

Change SQ to hold off popping the RBBM skid fifo while map copies are in Change SQ to hold off popping the RBBM skid fife while map copies are in progress. This fixes the problem where gfx_copy writes were being missed if they were less than 8 clks apart. Get rid of extra write into RBBM skid fife for reads, and instead zero out we and re out of fife if it's empty. The fife was overflowing if the filling entry was a read, since one additional entry was getting pushed: sx_sp_pcdata tracker now ignores 4fSeaddf (unwritten pc locations)
Fix a problem in the saps testbench that was causing rbbm writes to be dropped if the sq exerted back pressure.

Change 115620 on 2003/08/08 by dougd@dougd_r400_linux_marlboro

Page 47 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

1. change all hs virage memories & files to have subword size in name 2. added diagnostic write enable from rbbm interface register to the modules with extra memories to support multiple SIMDs

Change 115595 on 2003/08/08 by dougd@dougd_r400_linux_marlboro

fixed the path for the real time bit down the alu pipeline to reach the constant and instruction stores

Change 115581 on 2003/08/08 by rramsey@RRAMSEY_P4_r400_win

update so status

Change 115492 on 2003/08/07 by mmang@mmang_crayola_linux_orl

change order of include paths for register addr.v

Change 115430 on 2003/08/07 by danh@danh_r400_win

Updated status (lines 271-284).

Change 115426 on 2003/08/07 by dclifton@dclifton_r400

Change 115274 on 2003/08/06 by smoss@smoss crayola win

monitor strange nesim errors

Change 115254 on 2003/08/06 by smoss@smoss crayola win

fixing deaddead

Change 115241 on 2003/08/06 by dougd@dougd r400 linux marlboro

 $1.\ corrected$ the connections to sq_perfmon_wrapper to enable the

2. changed a few 1 bit vector declarations ([0:0]) to scalar on SQ outputs because it caused errors in synthes

Change 115159 on 2003/08/06 by rramsey@rramsey_crayola_linux_orl

Change $sq_alu_instr_seq$ so gpr_rd_en is not asserted when reading constants Changes to thread_arb, ctl_flow_seq , and $status_reg$ to get mem exports flowing

Change 115122 on 2003/08/06 by rramsey@RRAMSEY P4 r400 win

Page 48 of 136

Change 114167 on 2003/07/31 by danh@danh_r400_win Update with Aug6 sanity results and add a new worksheet that has failures sorted by failure type Updated the r400sq * status. Change 115115 on 2003/08/06 by smoss@smoss_crayola_linux_orl_regress Change 114159 on 2003/07/31 by rramsey@RRAMSEY_P4_r400_win Randy's keeping me honest undate status, remove some CP tests that don't anything at sosp Change 115114 on 2003/08/06 by rramsey@rramsey_crayola_linux_orl Change 113990 on 2003/07/30 by rramsey@rramsey_crayola_linux_orl add some missing dummy dump files Changes to support real time prims Tests that draw rt only now drive sc inputs
RBBM stream is held off while each rt prim processes so
rt code/const/params are not clobbered Change 115049 on 2003/08/05 by rramsey@RRAMSEY_P4_r400_win Put some comments on all of the failing tests so we can try to bin the issues for Change 113953 on 2003/07/30 by danh@danh_r400_win Change 115047 on 2003/08/05 by rramsey@rramsey_crayola_linux_orl Updated r400sq * status. Add register to hold pipe disable bits to tb_sqsp Hook sx instance up to correct set of RBBM signals in tb_sqsp Change 113550 on 2003/07/28 by dougd@dougd_r400_linux_marlboro Increase depth of sc state avail fifo since some events need to go through that path

Change sx pa tracker to always opens its files so it doesn't added define+virage_ignore_read_addx to support virage behavoral models cause hangs when the files are empty
Add deaddead and a selectable x_vs_0 mismatch disable (reports Change 113548 on 2003/07/28 by dougd@dougd r400 linux marlboro a warning rather than a mismatch) to tbtrk_sx_rb.v Added missing register stage in memory address path that caused memory failures only with the virage behavoral model. Change 114774 on 2003/08/04 by rramsey@RRAMSEY_P4_r400_win Change 113503 on 2003/07/28 by rramsey@RRAMSEY_P4_r400_win update sqspsx status update sq stats Change 114706 on 2003/08/04 by danh@danh_r400_win Change 113302 on 2003/07/25 by danh@danh r400 win Updated r400sq * status Updated r400sq_* status. Change 114427 on 2003/08/01 by smoss@smoss_crayola_linux_orl_regress Change 113293 on 2003/07/25 by rramsey@RRAMSEY_P4_r400_win added rb sx dump update sq status Change 114404 on 2003/08/01 by amys@amys_r400_regress_linux Change 113286 on 2003/07/25 by vromaker@vromaker_r400_linux_marlboro changes made to fix running nesim using Orlando trackers - a few more fixes for SQ_VC/TP interfaces; the sq mini-regress now passes Change 114305 on 2003/07/31 by vromaker@vromaker_r400_linux_marlboro cleaned up the path of ism_state down through the Change 113223 on 2003/07/25 by rramsey@rramsey_crayola_linux_orl instruction pipelines and removed the defparams used in the multiple instantiations of several modules uncomment driver for SQ SP interp xyline Page 49 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 113207 on 2003/07/25 by danh@danh_r400_win Change vcs build script so cover is off by default Get rid of some compile warnings in tb_sqsp
Change sx_rb color tracker so it doesn't use the sx_rb_quad dump
to get pixel masks Updated the r400sq * status. Change 113039 on 2003/07/24 by danh@danh_crayola1_linux_orl Change 111986 on 2003/07/18 by dougd@dougd r400 linux marlboro Changed src c const addr rel generation so it matches the emulator code. Added dummy mems for all virage memorie that didn't already have them. Moved memory data output register in sq_cfc.v into the memory and dummy memory. Replaced all virage memories, etc. to get the memory needed for sq_cfc.v Change 112899 on 2003/07/24 by danh@danh_crayola1_linux_orl Changed src_c_const_addr_rel generation Change 112882 on 2003/07/24 by rramsey@RRAMSEY_P4_r400_win Change 111905 on 2003/07/18 by ygiang@ygiang_r400_pv2_marlboro added: new perf counters for sq hardware update sqspsx status Change 112600 on 2003/07/23 by rramsey@rramsey_crayola_linux_orl Change 111807 on 2003/07/18 by mmantor@mmantor_crayola_linux_orl Change sx-rb trackers so they always open their files at time 0 <added new dummy file for test cases that needed it> that way they don't cause hangs for tests that don't hit any quads Hook up the real pixel mask in the sx_rb color tracker Change 111736 on 2003/07/17 by mmang@mmang crayola linux orl Added sp.>sx export arbitration between multiple simd engines. Added register after instr_start OR of multiple simd engines by taking unregistered signal out of sq_ais_output. Change 112375 on 2003/07/22 by vromaker@vromaker_r400_linux_marlboro - fixed VC interface counter Change 112335 on 2003/07/22 by danh@danh_r400_win Change 111732 on 2003/07/17 by rramsey@RRAMSEY_P4_r400_win Updated the r400sq* status. Update with regression results, plus a couple of my own Change 111726 on 2003/07/17 by smoss@smoss_crayofa_linux_orf_regress Change 112289 on 2003/07/22 by dclifton@dclifton_r400 Updated staging registers in sp_macc. modified \$value\$plusargs to keep cadence happy Revised sp_scalar_lut. Test signals connected. Change 111692 on 2003/07/17 by danh@danh r400 win Change 112108 on 2003/07/21 by rramsey@RRAMSEY_P4_r400_win Updated the r400sq# status update with 07/21 status and some comments on the failing tests Change 111650 on 2003/07/17 by rramsey@rramsey_crayola_linux_orl Change 112073 on 2003/07/21 by vromaker@vromaker_r400_linux_marlboro Add pasx done to testbench timeout logic - fix for SQ VC interface Change 111628 on 2003/07/17 by smoss@smoss_crayola_linux_orl_regress - TP_SQ_dec was hooked up to the interface counter
- timing fix in vtx thread buffer
- simd_num connected thru ptr buff and pix ctl to pix thread buff changed tbmod_fake_pa for nesim because all requests weren't occurring this was also true for vcs but sim was passing. changed buildt for nc to not run a sim after a compile - performance fix in pix ctl Change 111612 on 2003/07/17 by moev@moev2 r400 linux marlboro Change 112034 on 2003/07/19 by rramsey@rramsey_crayola_linux_orl Page 51 of 136 Page 52 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Clean up files no longer used by the verification flow add SX BLOCK SIM so the sx trackers know where they are running Change 111603 on 2003/07/17 by moev@moev2 r400 linux marlboro Change 111132 on 2003/07/15 by smoss@smoss_crayola_linux_orl SQ changes to test Virage's HS memories just copying randy Change 111419 on 2003/07/16 by rramsey@rramsey_crayola_linux_orl Change 111123 on 2003/07/15 by rramsey@rramsey_crayola_linux_orl Connect TST awt enable to vc skid buf and wire it up to the top level had a typo in the vc pending logic Change 111381 on 2003/07/16 by rramsey@rramsey_crayola_linux_orl Change 111107 on 2003/07/15 by smoss@smoss crayola linux orl Fix compile result check in buildtb Tie off sx related done signals when the sx is not there and spit them out if it is there and the tb hangs Don't source sx_sp_pcdata stimulus when using live sx Remove extra ifdef Change 111093 on 2003/07/15 by smoss@smoss_crayola_linux_orl Change 111353 on 2003/07/16 by bhankins@bhankins_crayola_linux_orl Change 111008 on 2003/07/14 by dougd@dougd_r400_linux_marlboro when the sx is present, include the sx trackers in on the decision to stop the simulation added logic to support programmable memory size for texconst and Change 111345 on 2003/07/16 by rramsey@RRAMSEY P4 r400 win Fix the update script to handle 'run time' being reported Redo the last status update to the spreadsheet since 'run time' caused all the fields to get shifted Change 110899 on 2003/07/14 by rramsey@rramsey_crayola_linux_orl change tp/vc pending bits so they look at tgt_instr_str_vc_q bits to determine what type of fetch is being issued Change 111342 on 2003/07/16 by smoss@smoss_crayola_linux_orl_regress Change 110886 on 2003/07/14 by rramsey@rramsey_crayola_linux_orl <Orlando Hardware Regression Results > mask off serial bit for first instruction of a clause Change 111317 on 2003/07/15 by mmang@mmang crayola linux orl this change fixes e2blit src 8888 and probably some other hanging e2/cp tests Blocking/non-blocking fix found by synthesis Change 110884 on 2003/07/14 by rramsey@RRAMSEY P4 r400 win Change 111305 on 2003/07/15 by smoss@smoss_crayola_win update with latest regression results update Change 110880 on 2003/07/14 by rramsey@rramsey_crayola_linux_orl Change 111303 on 2003/07/15 by rramsey@rramsey_crayola_linux_orl Add back in a signal declaration to fix the no SX build allow pa/sx requests before the rbbm file is empty Move some signals to the other half of a REMOVE_SX ifdef Change 111280 on 2003/07/15 by rramsey@rramsey_crayola_linux_orl Change 110669 on 2003/07/12 by smoss@smoss_crayola_linux_orl_regress need to wait for vc done if serialize and vc pending removed errant else Change 111275 on 2003/07/15 by rramsey@rramsey_crayola_linux_orl Change 110640 on 2003/07/12 by mmantor@mmantor_crayola_linux_orl Page 53 of 136 Page 54 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history for RBBM diagnostic reads. The mux is controlled by a rbbm register bit in the SQ_DEBUG_MISC register. Enlarge export memories for performance fill rate (emulator, sq, sx, rb, ferret gc, tb sqsp, tb sx) 2. Fix Sx diff engine (interpolators) for shift bug with added guard bit 3. Fix compile/src code problem with s-blocks memories 4. Added the sx to tb_sqsp by default, can still disable by macro Change 110066 on 2003/07/09 by vromaker@vromaker_r400_linux_marlboro - fixed a bug in tex instr seq related to back-to-back constant reads 5. Added mode to the steps and the set to run interfaces at max rate
6. Initialized state in ve to allow cp surface synchronizer micro code to invalidate tc/vc
7. Added test signals to sc.v, sc.b.v, sq. sp. spi, sx and testbenches
THIS CHANGES REQUIRES THE RELEASE OF SC, SC_B, SQ, SPI, SP, SX, RB, src/chip/chip_**.tree files, Change 110035 on 2003/07/09 by moev@moev2 r400 linux marlboro Changed the HS Star Processor connections to match the clients. In particular BiraFail & Err pip or parts_lib/sim/test/gc/vcs_top.ini, gc/tb_sqsp/tb_sx updates and the emulator togeather Change 109951 on 2003/07/09 by llefebvr@llefebvr_r400_emu_montreal Change 110512 on 2003/07/11 by mmang@mmang_crayola_linux_orl Fixing yet another mova problem when the mova is not back to back with it's use and there is only one waterfall pass, PVPS detection wasn't re-enabled correctly. Fixes Fix for Vivian for synthesis in loop i07 and i15. mova_tests.cpp TEST_CASE=mova512_nop_check Change 110467 on 2003/07/11 by llefebyr@llefebyr r400 emu montreal Change 109814 on 2003/07/08 by vromaker@vromaker r400 linux marlboro Disabling the COND EXEC PRED optimization, a COND EXEC PRED in the SO is - contains RT bit connection from pix input ctl to pix thread buff now threated like a regular EXEC. We can re-enable this optimization in the future by putting the thread back to the RS BEFORE making the predicate compare because now we are comparing a ditry predicate bit set and it causes corruptions. This fixes mora test, cap - added SQ_TP_simd_id output to top level Change 109777 on 2003/07/08 by vromaker@vromaker_r400_linux_marlboro TEST CASE=pMova const. Change 110451 on 2003/07/11 by dclifton@dclifton_r400 Change 109679 on 2003/07/08 by llefebvr@llefebvr_r400_emu_montreal Fixed typo for spi ram compile Fixed r400sp mova tests.cpp TEST CASE=mova512 Change 110401 on 2003/07/11 by viviana@viviana_crayola2_syn

Changed the sq/vc 103 memory to 104.

Change 110310 on 2003/07/10 by viviana@viviana_crayola2_syn

Changed the vc memory to 104 bits wide, deleted the 103 memory and rebuilt all memories with latest version of virage.

Change 110177 on 2003/07/10 by rramsey@rramsey_crayola_linux_orl

Changes to get simd_id piped down the vertex side and into the thread buffer. Also only write the active simd's gprs and mux pipe_disable bits.
The memory in sq_vc_skid_buf increased by 1 bit, so this will require
a new memory to be checked in before running without USE_BEHAVE_MEM.

Change 110083 on 2003/07/09 by dougd@dougd r400 linux marlboro

added data output mux to select between the two memories (SIMD1, SIMD0)

Page 55 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

The PVPS detection was rightly disabled during the waterfall but wasn't re-enabled for the following instructions of the clause. I used the waterfall_done signal to re-enable the PVPS detection after the waterfalling

Change 109671 on 2003/07/08 by vromaker@vromaker r400 linux marlboro

updated tex instr seq to sync to the texconst phase - changed fetch arb to output both the mega grant and the mini grant to the tex instr seq

Change 109590 on 2003/07/07 by viviana@viviana crayola2 syn

Corrected another non-blocking assignment to blocking in a combinational logic block

Change 109565 on 2003/07/07 by viviana@viviana_crayola2_syn

Corrected non-blocking assignments to blocking in combinational block

Change 109466 on 2003/07/07 by dougd@dougd_r400_linux_marlboro

Page 56 of 136

fixed error in bit width of ais real time

Change 109126 on 2003/07/03 by dougd@dougd_r400_linux_marlboro

pipelined the Real Time bit from the pix thread buffer down through both arbiters, the vc, tex and alu instruction pipelines to the alu, tex and cfc constant stores to enable reading the real time constants.

Change 109043 on 2003/07/03 by vromaker@vromaker_r400_linux_marlboro

made all loop counter variables unique for sythesis

Change 108947 on 2003/07/02 by dclifton@dclifton r400

Updated makefile for latest changes. Fixed testbench test signals into SP and SPI

Change 108763 on 2003/07/01 by llefebvr@llefebvr r400 emu montreal

Updates for r400sq_const_index_0x.cpp

Change 108760 on 2003/07/01 by llefebvr@llefebvr_r400_linux_marlboro

Fixed r400sq_const_index_03.cpp. Now works on the SQSP testbench. Still has issues on the GC because of bad ferret/cp ring buffer synchronization.

1) Bad clamping of the address register in the SP

2) Bad error handling of an out of range address in the SQ.

Change 108744 on 2003/07/01 by vromaker@vromaker r400 linux marlboro

- registered winner ack out of thread arb for timing

registed winning act out of threat as not infining connected correct instruction store read output based on SIMD1 for VC ctl flow instruction reads; now SQ_VC interface appears to be driven correctly

- min or change to tb sqsp (commented out random stall for TP SQ fetch stall, which no longer exists)

Change 108676 on 2003/07/01 by dougd@dougd_r400_linux_marlboro generated trigger signals for SIMD0,SIMD1 perfmon counters

Change 108585 on 2003/06/30 by rramsey@rramsey_crayola_linux_orl

hook up the sx rb quad mask signals to the fake rb's not sure how this was working at all with the live SX

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Change 108536 on 2003/06/30 by smoss@smoss_crayofa_linux_orl_regress

removed rand function warning

Change 108524 on 2003/06/30 by dougd@dougd_r400_linux_marlboro

generate read enable for sq_hs_sms_sq_shsdl_320x96cm4 in sq_texconst_mem and read enable for sq_stdrfsdks2p64x32cm4sw0 in sq_texconst_rams

Change 108511 on 2003/06/30 by rramsey@rramsey_crayola_linux_orl

changes for new sp top level

Change 108315 on 2003/06/27 by mmang@mmang_crayola_linux_orl

Qualify constant address register write using constant waterfalling mask

Change 108250 on 2003/06/27 by rramsey@rramsey_crayola_linux_orl

left some signals out of a sensitivity list

Change 108222 on 2003/06/27 by smoss@smoss_crayola_linux_orf_regress

I have too many i's

Change 108208 on 2003/06/26 by dclifton@dclifton_r400

Changes to get the tb_sqsp to work in modelsim

 $Change\ 108188\ on\ 2003/06/26\ by\ mmang@mmang_crayola_linux_orl$

For pixel quads, enable all pixels of a quad when any pixel is hit for gpr write enables and constant address waterfalling sequencing Another update will fix constant address register writing

Change 108140 on 2003/06/26 by rramsey@rramsey_crayola_linux_orl

Split src swizzle out of SQ_SP_instr bus so fetch swizzle can be driven during unused phase
Add interp xyline from SQ to SPI to drive read address for xy buffer
Clean up some compile warnings in sc. iter
Change the existing macc to handle the swizzle being driven for all Aphases and add the fetch address swizzling
Fix param_gen and gen_index pipeline length around the interpolators
Replace src_eswizzle_with src_eswizzlex for all instructions
other then MULADD and CNDx Fix the generation of init_cycle_cnt_q in sq_pix_ctl for interpolation involving param_gen and gen_index params
Add compares for SQ_SX_export_mask_we and SQ_SX_kill_mask to tbtrk_spsx

Page 58 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Fix the fetch_addr swizzle generation for vertex fetches (need to use [31:30] instead of [27:26]) Fix a bug in sq_vtx_ctl related to gpr allocation (size requested was off by a clock)

Change 108063 on 2003/06/26 by viviana@viviana_crayola2_syn

Regenerated the high speed memories to add two instances of the 1280x128 and two

Change 108024 on 2003/06/26 by mmantor@FL_mmantorLT_r400_win

remove template file having problems in neverilog

Change 107822 on 2003/06/25 by rramsey@RRAMSEY P4 r400 win

and another syntax error

Change 107820 on 2003/06/25 by rramsey@RRAMSEY P4 r400 win

fix decimal vs hex problem Change 107817 on 2003/06/25 by fhsien@fhsien_r400_LT

correct syntax error

Change 107801 on 2003/06/25 by grayc@grayc_crayola2_linux_orl fix syntax

Change 107757 on 2003/06/25 by mmantor@mmantor_crayola_linux_orl

< 1. sq alu instr seq.v - Use the Queue pop signal to qualify last in clause

and last in_stader out of the queue.

2. sq target_instruct_fetch v - Fixed a buf in the the target_instruct_fetch write to the queue to prevent dropping last_in_shader and last_in_clause if the queue is full when first trying to send instruction. >

Change 107717 on 2003/06/24 by mmantor@mmantor_crayola_linux_orl

<added new regression test for cyl_wrap and changed vcs for texconst mem and fixed wrap bug in controller during interpolation and added a dum mem config for the texconst

Change 107579 on 2003/06/24 by dougd@dougd_r400_linux_marlboro

neverilog will error with output [0:0] SQ_SP_instruct_start

Page 59 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

wire SQ_SP_instruct_start because it considers the 1st declaration a vector and the 2nd one a scalar.

Change 107389 on 2003/06/22 by mmang@mmang crayola linux orl

made change sp. vector.v to grab pred/kill results a clock sooner since Vic a register delay to sp. scalar_lut.bvrl. May have to change back later.
 Took away register delay in sq. ais. output to account for extra register needed for muxing and registering back in the square for So. Vic. or can also.

both simd engines for SQ_SX_sp signals.

3. In sq_alu_instr_seq.v, backed out Laurent's previous fix for constant waterfalling and made different change where ism registers are loaded based on ais_start. instead of ais rtr. With waterfalling, the ais rts does not happen early enough for ism registers to be available for AIS state machine.

In sq. export, alloc. v, added connections for second simd engine to handle sx export allocation and deallocation.

5. In sq.v, added muxing between simd0 and simd1

5. In sq.v, added muxing between smd0 and simd1 sq.ais. output for SQ. SX signals.
6. In sq. exp. alloc_ctrl.v, added simd1 connections for sx export control logic.
7. In sq. pix_thread_buff.v and sq_vtx_thread_buff.v, added A) Simd1 logic for ALU memory write (register delayed simd1 information to avoid overlap with simd0)

B) Appropriate read mux for simd0/simd1 for control flow memory (hased on status simd num).

flow memory (based on status simd num).

C) Added simdl status register write data connections.

8. In sq_status reg.v, added connections and muxing for second simd engine status bits write.

9. Added a variety of connections for simdl to tb_sqsp.v.

10. Added delay pipe for thread_id and thread_type for simdl in order to correctly track sp to sx interface. (btrk. spsx.v) 11. Fixed bug in sx related to using correct export id during free done process of pixel to rb buffers (sx export control common.v)

Change 107266 on 2003/06/20 by vromaker@vromaker r400 linux marlboro

reverted a change that was made for VC testing (and that did not work correctly)

Change 107174 on 2003/06/20 by vromaker@vromaker r400 linux marlboro

- swapped PS and ID gpr write phases

Change 107015 on 2003/06/19 by viviana@viviana crayola2 syn

Page 60 of 136

Change 106273 on 2003/06/16 by danh@danh_crayola1_linux_orl Re-ran cover on the high speed memories to add fuse box318 files previously deleted Also deleted fuse_box29 files no longer used. Changed TB_TP_REQ_FIFO_DEPTH (128 to 256) & TB_TP_REQ_FIFO_ADDR_WIDTH (7 to 8) to resolve fifo overflow Change 107009 on 2003/06/19 by smoss@smoss_crayola_linux_orl_regress Change 106191 on 2003/06/14 by viviana@viviana cravola2 syn update Change 106949 on 2003/06/19 by smoss@smoss_crayola_linux_orl_regress 48x154 memory changed to 48x155. removed sq_tp_stall signal in anticipation of new sq_tp interface Change 106190 on 2003/06/14 by viviana@viviana_crayola2_syn Change 106751 on 2003/06/18 by danh@danh r400 win Changed the width of the state memory to 155 bits. Updated r400sq_* status Change 106078 on 2003/06/13 by rramsey@RRAMSEY_P4_r400_win Change 106611 on 2003/06/17 by danh@danh_crayola1_linux_orl more status undates $Changed \ the \ cfs_return_addrs_q[51:0] \ generation \ so \ the \ correct \ cfs_return_addr[3:0]_q$ Change 105982 on 2003/06/13 by bhankins@bhankins crayola linux orl order will be written into the thread buffer CFS mem when a thread is returned to the thread advance sq-sx control signals by one clock to solve sx timing issues buffer. add support for updated sx hierarchy Change 106597 on 2003/06/17 by rramsey@RRAMSEY_P4_r400_win Change 105943 on 2003/06/12 by dougd@dougd_r400_linux_marlboro Added a 2nd write buffer to aluconst, texconst and instruction store to handle real time writes from cp mixed with non real time writes. This code passes the mini-regress on tb_sqsp and cp_lcc_tex, cp_lcc_alu, cp_im_load_basic on the gc testbench but fails cp_lcc_tex_rt and cp_lcc_alu_rt. It appears work for non-realtime. Change 106528 on 2003/06/17 by rramsey@rramsey_crayola_linux_orl hook up iterator SP cntx0 so realtime works correctly Added real time prim bit from pix_ctl to ISM in pix_thread_buff when loading a pixel thread. This bit will allow reading real time constants from the constant stor Change 106375 on 2003/06/16 by danh@danh_r400_win Updated the r400sq* status. Added VC wake up logic. Change 106357 on 2003/06/16 by rramsey@rramsey_crayola_linux_orl Change 105924 on 2003/06/12 by vromaker@vromaker_r400_linux_marlboro fix latency of tp/sp signals in tb_sqsp after tp_formatter change timing fixes clean up the fetch swizzle warning msg in tb_sqsp add new memory to sq/tb.f fix fech_swizzle signal width in tex_instr_seq Change 105914 on 2003/06/12 by danh@danh r400 win Updated r400cl* status Change 106293 on 2003/06/16 by vromaker@vromaker_r400_linux_marlboro Change 105891 on 2003/06/12 by rramsey@RRAMSEY_P4_r400_win code fix to prevent latches Change 106277 on 2003/06/16 by viviana@viviana_crayola2_syn Change 105889 on 2003/06/12 by danh@danh crayola1 linux orl Extra bit added to pixel state data. Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Changed the "pix: check for buf avail and export count < 16" section of the alu_req - recoded a few lines in gpr alloc to see if it will help timing generation added parentheses around the alloc size q & sx buf avail logic. Change 105457 on 2003/06/10 by danh@danh r400 win Change 105811 on 2003/06/12 by rramsey@rramsey crayola linux orl Made changes in regards to my simulation results Change 105437 on 2003/06/10 by rramsey@RRAMSEY P4 r400 win update spsx tracker so msg signal names match the rtl signal names fix a typo in a pix_rs_input msg picking some tests to debug Change 105809 on 2003/06/12 by rramsey@rramsey_crayola_linux_orl Change 105417 on 2003/06/10 by rramsey@RRAMSEY P4 r400 win some of the compares had not been updated with the new vc field in the dump file update status for jun 9 regression Change 105784 on 2003/06/12 by rramsey@rramsey_crayola_linux_orl Change 105283 on 2003/06/10 by llefebvr@llefebvr_r400_linux_marlboro fix width of num params q I have added the write enables to qualify the data sent to the SX. This is needed when doing predicated exports or constant waterfalling on exports. This fixed r400sq_const_index_01.cpp test. Change 105770 on 2003/06/12 by rramsey@RRAMSEY_P4_r400_win picking more tests, adding comments to tests with known issues Change 105277 on 2003/06/10 by dougd@dougd_r400_linux_marlboro Change 105750 on 2003/06/12 by smoss@smoss_crayola_linux_orl_regress added output VC_clk_en to sq_rbbm_interface.v and wired it to SQ_VC_wake_up in sq.v removed sq sp simd1 instruct start to coincide with @105565 Change 105052 on 2003/06/09 by smoss@smoss crayola linux orl regress Change 105592 on 2003/06/11 by llefebvr@llefebvr_r400_linux_marlboro a few cadence related changes Added storage element in the SQ to store the valid addresses of the mova so that they can 1) moved rbbm_event_type to occur after the read of rbbm_re 2) temporarily disabled randomization on the clock for the tb_sqsp dump file de restored at any instruction that uses the address register. The way it was currently would only work if the use of the address was directly following the MOVA instruction. This fixes r400sq_const_index_02.cpp. Change 104848 on 2003/06/08 by grayc@grayc crayola2 linux orl Change 105537 on 2003/06/11 by vromaker@vromaker r400 linux marlboro fix simd1 valid -> simd1 const valid - added sq_fetch_arb to and removed $sq_thread_buff_cntl$ from $system_sq.vcpp$ - made a timing fix to gpr alloc Change 104797 on 2003/06/07 by grayc@grayc_crayola2_linux_orl add VC ports modify SP-SQ port names Change 105525 on 2003/06/11 by rramsey@RRAMSEY P4 r400 win Change 104715 on 2003/06/06 by danh@danh_r400_win

Change 105465 on 2003/06/10 by vromaker@vromaker r400 linux marlboro

- timing fix in pix_thread_buff -VC interface is connected to vc instruction seq -TP_SQ_fetch stall replaced by TP_SQ_dec (but not tested at GC level) -SQ_TP_gpr_wr_addr and SQ_TP_clause removed from top level (and tb updated) -fetch arbitration for VC and TP_updated

Page 63 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Updated per simulation results.

fixed typo

Change 104661 on 2003/06/06 by dougd@dougd_r400_linux_marlboro

Change 104616 on 2003/06/06 by llefebvr@llefebvr_r400_linux_marlboro

Page 64 of 136

fixed bug in the loading of the write data buffer HW was clamping to 0 on a GPR addressing error. It should clamp to GPR_base of the shader Change 104075 on 2003/06/04 by dclifton@dclifton r400 Change 104600 on 2003/06/06 by dougd@dougd_r400_linux_marlboro added missing case value that was causing synopsys to infer latches Change 104046 on 2003/06/04 by smoss@smoss_crayola_linux_orl_regress Change 104555 on 2003/06/06 by danh@danh r400 win Made changes per simulation results. Change 104031 on 2003/06/04 by rramsey@rramsey_crayola_linux_orl Change 104554 on 2003/06/06 by dougd@dougd_r400_linux_marlboro Fix trackers so they actually compare, and compare the correct data Change 104026 on 2003/06/04 by rramsey@RRAMSEY P4 r400 win fixed typo d rd0 addr was assigned in two process blocks and d_rdl_addr was not being assigned at all update makefile with spi block, memory changes, etc Change 104302 on 2003/06/05 by ashishs@fl_ashishs_r400_win Change 103932 on 2003/06/03 by mmantor@mmantor_crayola_linux_orl upadted the script since it was just fetching data till 4000 rows. Now it will fetch data till 10000 rows (break after it finds null rows) and then sort them accordingly.... update for new pipe disable routing Change 103931 on 2003/06/03 by danh@danh_r400_win Change 104261 on 2003/06/05 by rramsey@rramsey crayola linux orl Undated per simulation results Fix some wiring issues in tb_sqsp Add warning msg to tb_sqsp to tell when a test is trying to swizzle fetch addresses since this is not supported yet in the SP Change 103849 on 2003/06/03 by rramsey@rramsey_crayola_linux_orl (didn't make it a failure since some tests are passing with swizzle Fix a bug in sq_input_arb that was allowing the state machine to go they must have the same value in all channels)

Fix predicate compare in pix_rs_input tracker fetch_swizzle bit of instr needed to be muxed based on thread_type to IDLE even though a pixel thread was active. This could allow a vtx and pix thread to try and write into the GPRs at the same time.

Turn tex cliflow trackers back on in tb_sqsp in sqtp tracker Fix TP SP data valid connections in tb sqsp Modify alu ctlflow trackers so they can skip over expected instr Change 104211 on 2003/06/05 by rramsey@RRAMSEY_P4_r400_win with serialize bits set if the rtl does not serialize them Change 103379 on 2003/05/30 by danh@danh_r400_win status from 6 4 2003 Change 104159 on 2003/06/04 by danh@danh_crayola1_linux_orl updated per simulation results. Changed count_match[3:0] generation, when param_gen_cycle is high all Change 103369 on 2003/05/30 by vromaker@vromaker_r400_linux_marlboro count match[3:0] bits will now go high. - fix for width mismatch on thread id input of vtx TB status reg: Change 104139 on 2003/06/04 by rramsey@rramsey_crayola_linux_orl - initial pass of VC/TP fetch arbiter (not instantiated in Change 103365 on 2003/05/30 by dougd@dougd_r400_linux_marlboro turn off debug print for this one too Change 104076 on 2003/06/04 by dougd@dougd r400 linux marlbore Added missing wire declaration for param wrap 0 set Page 65 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 103256 on 2003/05/30 by dougd@dougd_r400_linux_marlboro Update with 5/17/03 status fixed bug in wrapping logic for rtn_ptr, read_ptr and stop_ptr for addressing the mapping Change 102095 on 2003/05/22 by dougd@dougd_r400_linux_marlboro table address freelist Added the following new fields to control registers in the rbbm interface: SQ_CONTEXT_MISC_PERFCOUNTER_REF_SQ_CONTEXT_MISC_YELLO_OPTIMIZE_SQ_ELOW_CONTROL_YEARBITRATION_POLICY_SQ_FLOW_CONTROL_SIMDI_DISABLE_SQ_DEBUG_MISC_DB_READ_MEMORY Change 103204 on 2003/05/29 by dougd@dougd_r400_linux_marlboro initial submit of a submodule to count and bin pixels for perfmon Change 103141 on 2003/05/29 by vromaker@vromaker_r400_linux_marlboro - added simd num input to the thread buffers (tied low in sq.v) and connected Change 102052 on 2003/05/22 by danh@danh_crayola1_linux_orl it down to the status regs

- added simd_num to the staging registers in the CFS

- connected simd_num thru the target_instr_fetch and tex_instr_queue instr ptr and instr ptr q are now only compared when event vld q is low Change 102042 on 2003/05/22 by danh@danh_r400_win modules (so it is an output of the tex instr queue) Change 103074 on 2003/05/29 by viviana@viviana_crayola2_syn updated per simulation results. Added a 'include of sq reg.v for synthesis purposes Change 102039 on 2003/05/22 by dougd@dougd r400 linux marlboro Change 102924 on 2003/05/28 by viviana@viviana_crayola2_syn Added an additional 48x170 and 16x170 and rebuilt the memories. the last submit Change 102411 on 2003/05/23 by dougd@dougd_r400_linux_marlboro Change 102013 on 2003/05/21 by danh@danh r400 win Simulation only protocol checking logic was moved to a clock process block Made changes per the simulations I ran today. to prevent a difference in order of evaluation between vcs and neverilog from causing a false error assertion due to a race condition in simulation Change 101908 on 2003/05/21 by mmang@mmang crayola linux orl Fixed bug in waterfalling by grabbing register input of done_bits instead of registered value when performing init_done_bits operation. Change 102365 on 2003/05/23 by vromaker@vromaker r400 linux marlbord moved wire declaration of sx exp buff full 0 (and others) before the instantiation of the status registers to fix neverilog warning Change 101906 on 2003/05/21 by dougd@dougd_r400_linux_marlboro

Change 102264 on 2003/05/23 by vromaker@vromaker_r400_linux_marlboro

- updated pix thread buffer for simd1 (and removed ctl sub module and redundant logic)
- renamed state_read_phase to arb_phase fixed CFSM serialize detection (had to add case of fetch initiated by current clause) - removed reference to sq_thread_buff_cntl in tracker

Change 102193 on 2003/05/22 by danh@danh r400 win

updated per simulation results.

Change 102154 on 2003/05/22 by rramsey@RRAMSEY P4 r400 win

Page 67 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

added a 2nd read port for VC to texconst and redesigned sq_texconst_wrt_buff to perform opportunistic writes because the write access slot was given up for VC reads

Change 101883 on 2003/05/21 by rramsey@rramsey_crayola_linux_orl

fix pc write addr generation in ais_output fix cf state machine so unexecuted conditionals don't cause a thread to end turn off cf trackers for now fix a problem in the test bench related to draw pkts with no draw inits (some cp tests do this)

Change 101881 on 2003/05/21 by danh@danh_crayola1_linux_orl

Page 68 of 136

Changed PB_READ_3 state, it now uses pi_interp_cnt_q instead of interp_cnt_q. $Change~100885~on~2003/05/14~by~rramsey @RRAMSEY_P4_r400_win$ Change 101841 on 2003/05/20 by askende@askende_r400_linux_marlboro update validation report checking in the interpolator control latency changes in SQ and SP Change 100881 on 2003/05/14 by danh@danh r400 win Change 101642 on 2003/05/19 by vromaker@vromaker_r400_linux_marlboro nged the lines of the simulations that I have run - made top level SQ signal changes/additions for SP simd0 and simd1 added an alu thread arbiter, pairs of alu ctl flow seq, instr fetch, instr que, and instr seq modules, and sis_output for simd1 thread buff cnl sub module removed from vts thread buffer, and its logic moved up to the thread buff level (this still needs to be done Change 100877 on 2003/05/14 by rramsey@rramsey_crayola_linux_orl Fix 3 issues related to parameter cache allocation/deallocation 1) Move allocate subtract for pc. free_cnt so it happens when an allocating vtx thread wins arbitration instead of when the thread is sent to the CFS. This puts the arbitration/ for the pix thread buffer) only one status reg read mux and arb request shifter is needed in the thread buffer to support 4 arbiters (since the state mem can only be read by one arbiter per cycle), so the duplicates were removed allocate path at four clks (from six) so we can correctly allocate every four clocks.

2) Deallocs were being dropped in sq_ptr_buff on back to back every troops if the first of the opinions of the lost services. row transfers if the first of the pair was the last row (end of buffer) and the second of the pair had dealloc.
3) Deallocs need to be accumulated in a put_buff since multiple row transfers of a pixel vector can be marked with dealloc Change 101575 on 2003/05/19 by smoss@smoss_crayola_linux_orl_regress changed delay on tp_sp signals Change 101378 on 2003/05/16 by smoss@smoss cravola linux orl regress and the deallocs are put in the event fifo at end of buffer Clean up some duplicate code in tb_sqsp and set the default dump level back to 1 (instead of 3). added field for TP_SP_rf_expand_enable Change 101314 on 2003/05/16 by moev@moev_r400_linux_marlboro Change 100801 on 2003/05/13 by dougd@dougd_r400_linux_marlboro updates corrected port width mismatches in sq_aluconst_top; removed unused input and output from sq_const_map_cntl and in it's instantiations in sq_aluconst_top and sq_texconst_top Change 101168 on 2003/05/15 by rramsey@rramsey_crayota_linux_orl fix a problem with my param cache allocate fix and fill the hole in our spsx tracker that let the problem slip through my regressions (pc write addr was not being checked) Change 100795 on 2003/05/13 by dougd@dougd_r400_linux_marlboro corrected signal names to b1 ports of sq cfc Change 101103 on 2003/05/14 by smoss@smoss_crayola_linux_orl_regress Change 100748 on 2003/05/13 by danh@danh_crayofal_linux_orl <Orlando Hardware Regression Results > instr_ptr and instr_ptr_q are now only compared when event_vld_q is low Change 101064 on 2003/05/14 by danh@danh r400 win Change 100631 on 2003/05/13 by dougd@dougd r400 linux marlboro Updated fields in regards to my simulation results Added 'define SIMD1 to header v and corrected connections for SIMD1 in sq.v Change 101009 on 2003/05/14 by rramsey@rramsey_crayola_linux_orl Change 100629 on 2003/05/13 by rramsey@rramsey_crayola_linux_orl Changes for parameter cache deallocation. Need to multiply dealloc Update tb_sqsp for latest SP top level changes Zero out rbbm fifo data when writing for re_dly count by (vs_export_count +1) so the correct number of lines are Page 69 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Add a couple of missing wire declarations to sq Change 100468 on 2003/05/12 by dougd@dougd r400 linux marlboro removed incorrect bit width assignments to eo rt aluconst and eo rt texconst to prevent compile errors with neverilog sx export control.v - removed dead clock on rb and pa data fetch interface and client Change 100453 on 2003/05/12 by rramsey@rramsey_crayola_linux_orl and made arbiter behave as round robin and removed unecessary second input register, added support for z render targets and multiple render targets and clean up items except alloc dealloc.v-enabled channel mask, kill mask, export_mask, and apha test conditioning of valid bitsa doubled the free rate> Update for top level sp changes Change 100310 on 2003/05/10 by smoss@smoss_crayola_linux_orl_regress Change 99918 on 2003/05/08 by dougd@dougd_r400_linux_marlboro

Change 100167 on 2003/05/09 by rramsey@RRAMSEY P4 r400 win

Updating status

Change 100164 on 2003/05/09 by dougd@dougd r400 linux marlboro

ifdef'd connections in sq.v to sq_aluconst_top.v for the extra SIMD1 memory

Change 100154 on 2003/05/09 by rramsey@rramsey_crayola_linux_orl

Changes for instruction store addressing (wrapping and absolute) Add absolute addressing for of and exce addresses to cfs Add wrapping for jumps and calls to cfs Add wrapping for execute addresses to cfs Fix wrapping in instr_fetch (vtx wrap at pix_base-1)

These changes fix cp event timestamp instruction loading stall at tb sqsp

Change 100118 on 2003/05/09 by dougd@dougd r400 linux marlboro

added 2nd memory to sq_cfc to support SIMD1 and ifdef'd the connections in sq_cfc and

Change 100015 on 2003/05/08 by mmantor@mmantor_crayola_linux_orl

<code><sq_ais_output</code> - re-ordered kill_mask going to the sx so bits flow in order msb->lsg <code>sp2(v3-v0)sp0(v3-v0))</code> to match <code>exp_mask</code>

0)sp0(v3-v0)) to match exp. mask.
- removed improper final update of kill mask with predication mask.
- enable export mask for all exports
SX_PA_interfaces.v - fixed checker for back to back transfers
SX_RB_interfaces.v - hooked up to 7 bit ss_rb_index and rb_sx_index instead of incorrect 8 bits

sx.v - changed interfaces for sx_rb and rb_sx interfaces to become 7 bits instead of 8

Page 71 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

tb_sx.v - changed sx inputs to be 7 bits instead of 8 bits on the above index interfaces thmod_fake_spv_reordered the kill mask and enabled channel mask for exports sx_export_buffers v - moved register after export mems and only load when memory read, mimized client read muxes added input rotate muxes for export to memory operations and indival write address for each memory and set up predication, kill_mask, alpha kill, and channel mask in the determination of writing data into the export buffers

Change 99912 on 2003/05/08 by dougd@dougd_r400_linux_marlboro

doubled the instruction store memory, changed the access allocation to accomdate SIMD1 and VC, and 'ifdef'd the connections for SIMD1 in sq.v

Change 99520 on 2003/05/07 by mmang@mmang_crayola_linux_orl

Bug occurred where first_in_clause was getting lost when instr_queue was full. Previously, internal first in clause register was cleared with tif_rts. Had to delay clearing to tif_rts & tiq_rtr.

Change 99346 on 2003/05/06 by mmang@mmang_crayola_linux_orl

Fixed bug (I created) related to initializing the constant address register valids at the beginning of a clause. I used ais init pred which in some cases was too late. Created new ais init const_addr that is 3 clocks sooner

Change 99315 on 2003/05/06 by vromaker@vromaker r400 linux marlboro

fixed typos that were causing cp_e2polyscanlines_simple to fail

Change 99123 on 2003/05/05 by rramsey@rramsey crayola linux orl

Add some control to hold off inputs at vs/ps done events Increase utb_tp_req_fifo depth Change writes into vtx/pix done fifos so they only happen on the first draw init for a context

Change 99043 on 2003/05/05 by vromaker@vromaker_r400_linux_marlboro

- added VC ctl flow seq, instr fetch, instr que and instr seq, and top level IOs

Page 72 of 136

- added non time multiplexed gpr write address output to VC and TP (gpr_dst_addr[6:0]) reverting changes due to over-engineered process Change 99041 on 2003/05/05 by rramsey@RRAMSEY P4 r400 win Change 98571 on 2003/05/01 by smoss@smoss_crayola_linux_orl_regress Regression results from 5/4/03 3451 tests: 66% Pass, 12% Fail, 23% incomplete sometime it helps when you save the file first Change 98569 on 2003/05/01 by smoss@smoss_crayola_linux_orl_regress Change 98861 on 2003/05/02 by smoss@smoss_crayola_linux_orl_regress added FSDB DUMP option for VCS more sq stuff Change 98509 on 2003/05/01 by smoss@smoss_crayola_linux_orl_regress Change 98818 on 2003/05/02 by smoss@smoss_crayola_linux_orl_regress removed tb_sqsp added missing dump Change 98462 on 2003/05/01 by vromaker@vromaker r400 linux marlboro Change 98793 on 2003/05/02 by rramsey@rramsey_crayola_linux_orl - added bits and re-arranged the order of bits in the status register - added VC support in thread buffers (vc request from status register, read muxes, connections to other modules, etc.) Check in Dan's fixes for the control flow trackers Turn internal trackers back on in tb_sqsp removed is_subphase and made is_phase 3 bits removed of phase expanded state read phase to 2 bits changed the strapping and phase relationships on the ctl flow seqs - SQ_SP_fetch_swizzle and SQ_SP_fetch_resource outputs added Change 98773 on 2003/05/02 by mmang@mmang_crayola_linux_orl 1. Added constant address register valids to validate the address register data. The valid is set when address register is written. If valid is not set, sequencer will not waterfall those vertices or pixels. This disables waterfalling for predicated off writes and improperly initialized contant disabled internal SQ trackers and changed to DEBUG_PRINT ifdef in tb_sqsp.v Change 98398 on 2003/04/30 by smoss@smoss_crayola_linux_orl_regress address registers. 2. Fixed bug in sqs_alu_instr_seq for phase 3 snooping of new sq stuff constant address registers bus. Previously, this snooping did not account for predication of those registers.

Fixed bug where ais load_done_bits was not hooked up. This Change 98397 on 2003/04/30 by grayc@grayc_crayola2_linux_orl signal disables previous vector/scalar management which needs new tb signaturable performs received an image interference to be turned off during constant waterfalling. With bug, pvps logic went unknown which caused unknowns to eventually propagate in and out of the gprs.

4. Fixed bug where non-optimized offset was not being determined Change 98367 on 2003/04/30 by rramsey@rramsey_crayola_linux_orl these trackers were looking at the wrong register stage to determine properly, non_opt_offset is determined by a priority encoder of p0_done, p1_done, p2_done, and p3_done. With advent of constant address register valids, created waterfull_active_q1o properly init and avoid re-initing of different pixel and vertex done bits. thread_id and thread_type Change 98343 on 2003/04/30 by ashishs@fl_ashishs_r400_win Correcting an error from script since it wasn't updating the user's comments and locked by user correctly. Also adding an empty XLS file which is used by the script to add and merge Change 98750 on 2003/05/02 by viviana@viviana_crayola2_syn Memory increased from 48x155 to 48x170. Change 98307 on 2003/04/30 by ashishs@fl_ashishs_r400_win Change 98577 on 2003/05/01 by smoss@smoss_crayola_linux_orl_regress fixed a small error in the script because of which it wasnt getting the comments from the Page 73 of 136 Page 74 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 98283 on 2003/04/30 by viviana@viviana crayola2 syn Change 97962 on 2003/04/28 by danh@danh crayola linux orl Made signal changes in regards to .dmp file changes. Files no longer used in the SQ Change 98274 on 2003/04/30 by rramsey@rramsey_crayola_linux_orl Change 97961 on 2003/04/28 by danh@danh_crayola_linux_orl change if('DEBUG_PRINT) to 'ifdef DEBUG_PRINT so trackers Made signal name changes in regards to .dmp file changes. Change 97958 on 2003/04/28 by danh@danh_crayola_linux_orl Change 98261 on 2003/04/30 by ashishs@fl ashishs r400 win Made signal changes in regards to the .dmp file changes added the script for updating the XLS hadware regression data. Can have more enhancements depending on requirements Change 97956 on 2003/04/28 by danh@danh_crayola_linux_orl Change 98144 on 2003/04/29 by rramsey@rramsey_crayola_linux_orl Added jump call addr registers. Add internal trackers to tb_sqsp, clean up memory files listed in tb.f Remove DEBUG_PRINT from tb.f, it should be specified in vcsopts.f Change 97892 on 2003/04/28 by danh@danh_crayola_linux_orl no changes made Change 98142 on 2003/04/29 by rramsey@rramsey_crayola_linux_orl Change 97732 on 2003/04/25 by danh@danh_crayola_linux_orl timing fix for rbi addr Changed signal names per sq_pix_control_flow_alu.dmp Change 98140 on 2003/04/29 by rramsey@rramsey_crayola_linux_orl Change 97708 on 2003/04/25 by rramsey@rramsey_crayola_linux_orl fix a typo in a signal path Move inc for event thread count to front of event fife Change 98132 on 2003/04/29 by rramsey@rramsey crayola linux orl They were still happening on the same clk as real threads update trackers for new fields in dump files and make them Change 97670 on 2003/04/25 by rramsey@rramsey_crayola_linux_orl Change buildtb and buildkdb to use tb.f for libraries and compile options Change 98079 on 2003/04/29 by rramsey@rramsey_crayola_linux_orl to keep from having to add files in two places Couple of bug fixes/enhancements for tb_sqsp Fix path define for sp_macc tracker when running tb_sqsp Fix a bug with alu1's trigger Add define control for comment printing Change 97538 on 2003/04/24 by ygiang@ygiang_r400_pv2_marlboro Change 98067 on 2003/04/29 by danh@danh crayola linux orl added: more sq perf counters Made type serialize 1 and vc request 1 changes Change 97402 on 2003/04/24 by kmeekins@kmeekins_crayola_linux_orl

Change 97992 on 2003/04/28 by dougd@dougd_r400_linux_marlboro

Change 97991 on 2003/04/28 by dougd@dougd r400 linux marlboro

Page 75 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

added R500 dual read ports and extra memories

fixed some Leda reported problems

Tracker used to test the inputs and outputs of all MACC units within the shader pipes.

Change 97152 on 2003/04/23 by dougd@dougd_r400_linux_marlboro

Page 76 of 136

added logic to control vtx perf counters to sq. vtx. ctl.v and sq.v; fixed bug in write logic in sq aluconst wrt buf.v Change 96445 on 2003/04/18 by rramsey@rramsey_crayola_linux_orl Change 96990 on 2003/04/22 by viviana@viviana_crayola2_syn Move compares into a task, add a flag to enable marking x vs 0 compares as warnings Ran cover on the sq. rf.cnt to add the new 16x170 and 48x170 memories. Change 96389 on 2003/04/18 by mzini@mzini_crayola_linux_orl Change 96981 on 2003/04/22 by viviana@viviana_crayola2_syn Temporarily removed the checking of control bits until the hardware catches up Added TST_awt_enable to the interfaces with ss/sq_pix_thread_buff.v and ss/sq vtx thread buff.v Change 96318 on 2003/04/17 by rramsey@rramsey_crayola_linux_orl Replaced the 16x155 and 48x155 memories with 16x170 and 48x170 respectively. Replaced the memory to be compiled in buildtb from the 155 to the 170 change Openning to Opening Change 96948 on 2003/04/22 by viviana@viviana cravola2 syn Change 96278 on 2003/04/17 by scamlin@scamlin crayola unix orl Changed the name of the FIFO. Change 96947 on 2003/04/22 by viviana@viviana_crayola2_syn Change 96252 on 2003/04/17 by rramsey@rramsey_crayola_linux_orl Add new signal between sq_vtx_ctl and sq_input_arb to mark gpr_ld_busy which fixes a deadlock condition where gpr_ld state machine is waiting on an ack from the arb, which is waiting on vsr_ld machine not busy, which is waiting on the gpr_ld machine to finish. Removed width from parameter definitions Change 96946 on 2003/04/22 by viviana@viviana_crayola2_syn Add a reset for sp_sel in sq_vtx_ct when the vsr_ld machine goes from ld to idle. This is needed if there is valid data sitting in the vgt fifo since a vsr load will happen on the following clock.

Connect pred_kill_valid bits in tb_sqsp. Added done vector to sensitivity list at line 902 Removed 'SQ_SRCB_PHASE from sensitivity list at line 1018.
Added isr_thread_type_q to sensitivity list at line 1233. Change 96876 on 2003/04/22 by rramsey@rramsey_crayola_linux_orl Fix typo in visr_wr tracker. only compare if one of the vector unit bits is valid Change 95859 on 2003/04/16 by rramsey@rramsey_crayola_linux_orl Change 96738 on 2003/04/21 by mmang@mmang cravola linux orl fix width Fixed bug in sq_ais_output.v related to address register write and predication. Fixed a variety of tests to not use uninitialized gpr or address registers. 2 tests still fail because of previous vector scalar swizzle bug, 1 test still fails because of MOVA hardware bug, and Change 95847 on 2003/04/16 by rramsey@rramsey_crayola_linux_orl script to build the verdi kdb for tb sqsp 1 test still fails because of predicated address register write causes XXXXXX which causes waterfalling to hang. Change 95839 on 2003/04/16 by rramsey@rramsey_crayola_linux_orl Multiple changes throughout the SQ to get tb_sqsp working, and to fix bugs Change 96623 on 2003/04/21 by bhankins@bhankins crayola linux orl uncovered by the new testbench sq_gpr_alloc - wrap was broken for vertex side if ptr wrapped exactly at max sq_rbbm_interface - context/new_ld sent to constant mems was being pulled from add support for including SX units into tb_sqsp.v Change 96455 on 2003/04/18 by bhankins@bhankins_crayola_linux_orl side of skid buffer sq_pix_thread_buff - change to send context_done event back to CP on the pixel side buildtb, tb_sqsp, tbtrk_* - changes for new sp/spi configuration and new dump file fields initial checkin to optionally include (not included by default) two SX units with associated support logic and trackers Page 77 of 136 Page 78 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history 2. top level changes to support 8 SP instances Change 95810 on 2003/04/16 by dougd@dougd r400 linux marlboro 3. tracker changes to support a few IO name changes fixed bug in the pix_cntx counter increment signal where both event and pix were trying to increment during the same cycle Change 94834 on 2003/04/09 by mmantor@mmantor_crayola_linux_orl <fixed a problem in ptr_buff where he hangs on an event that is not a pixel event> Change 95623 on 2003/04/15 by mzini@mzini_crayola_linux_orl Change 94830 on 2003/04/09 by mmantor@mmantor_crayola_linux_orl New SQ trackers <SQ/SX/SP out of order thread completion and remove redundant storage in sp for sq/sx Change 95621 on 2003/04/15 by mzini@mzini crayola linux orl communitaations some sq cfs bug fixed and texture kill mask generation and other misc things> Using an unregistered data-ready signal now to trigger compare Change 94724 on 2003/04/09 by mzini@mzini_crayola_linux_orl Change 95490 on 2003/04/14 by vromaker@vromaker_r400_linux_marlboro fix for CFSM end-of-clause detection Change 94718 on 2003/04/09 by viviana@viviana crayola linux orl Change 95457 on 2003/04/14 by danh@danh_crayola_linux_orl SQ trackers for the sequencer control flow instructions Initial Release. Change 94518 on 2003/04/08 by vromaker@vromaker r400 linux marlboro Change 95404 on 2003/04/14 by rramsey@rramsey_crayola_linux_orl fix for bug caused by resource change between EXEC control flow Temporary fix to let flush events flow through the SC if they are not Preceded by a draw init.

Note flushes are still broken if you want to use them for syncing state changes, for example changing bad_pipe. Change 94505 on 2003/04/08 by rramsey@rramsey_crayola_linux_orl don't inc vtx thread counter if thread is an event Change 95391 on 2003/04/14 by rramsey@rramsey_crayola_linux_orl Change 94211 on 2003/04/07 by hartogs@fl hartogs Change SQ_DEBUSSY option to control only SQ dumping Template Debussy waveform file

Change SQ_DEBUSSY option to control only SQ dumpin Add SP_DEBUSSY option to control dumping of SPs Add some internal trackers Fix width on tp_sqsp_thread_id

Change 95174 on 2003/04/11 by hartogs@fl_hartogs

 $Added\ hooked\ up\ new\ "thread_type"\ signal\ from\ SQ\ module.\ Enhanced\ timeout\ detection.$

Change 94999 on 2003/04/10 by ygiang@ygiang_r400_pv2_marlboro

 $fixed: sq.perf.counter."sq_vertex_vectors_sub"$

Change 94873 on 2003/04/10 by askende@askende_r400_linux_marlboro

releasing the following changes: 1. creation of the new SPI block

Page 79 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 93959 on 2003/04/04 by vromaker@vromaker_r400_linux_marlboro

temporarily disabled PVPS src select swizzle because it was causing SP tests from Andi's mini_regress to fail

Change 93788 on 2003/04/03 by dougd@dougd_r400_linux_marlboro

added event_context register to correctly capture context when sending a vtx event to the thread buffer.

Change 93640 on 2003/04/03 by hartogs@fl_hartogs

Added include file "vgt_reg.v" to prevent compiler errors during Modelsim compile. Fixed wire definition to match output port definition.

Change 93585 on 2003/04/03 by dougd@dougd_r400_linux_marlboro

Page 80 of 136

move event filters to inputs of SQ in ptr_buff and vtx_cdl and remove from thread_buff_cntl, modify cntx0-17 busy counters in ptr_buff to use new event logic, add RST_VTX_CNT functionality to sq_vtx_cdl, add SQ_CP_event and SQ_RB event functionality to pix_thread_buff and vtx_thread_buff, remove obsolete SQ_CP_event functionality from thread buff cntl.

Change 93489 on 2003/04/02 by vromaker@vromaker_r400_linux_marlboro

added end of clause detection for serialization and resource change to CFSM; fix for first in_clause related to PVPS detection; added SQ_SP thread_type and SQ_TP thread_type outputs to sq_v; added predicate to Tex IQ - now predicate goes from TCFS, thru TIF, thru TIQ, to the

removed q1 pipeline stage for SP predicate data in AIS Output;

Change 93099 on 2003/04/01 by hartogs@fl_hartogs

Fixed logic that holds off SC injector.

Fixed bug in threaded empty signal for tp_sqsp_dmp_not_empty.

Hacked logic that frees state contexts so that it sorta works.

Change 93054 on 2003/04/01 by rramsey@rramsey_crayola_linux_orl

PV/PS determinations need to be made on post-swizzled component selects

Change 93053 on 2003/04/01 by dougd@dougd_r400_linux_marlboro

added context_id or state to event info stored in the status_reg to correct a bug in the state logic supporting cntx0 and cntx17 busy

Change 93026 on 2003/03/31 by grayc@grayc_crayola_linux_orl

minor changes for gc testbench

Change 92970 on 2003/03/31 by dougd@dougd_r400_linux_marlboro

added pix event_id to qualify events to increment the cntx17 busy counter. Also added `include "vgt_reg.v" and removed hard coded parameters.

Change 92904 on 2003/03/31 by hartogs@fl_hartogs

Added TP SP latency controls requested by Mantor.

Change 92884 on 2003/03/31 by hartogs@fl hartogs

Cleaned-up some "TODO" items

Change 92679 on 2003/03/28 by hartogs@fl_hartogs

Page 81 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Hooked-up new thread-id ports on SQ. Testbench should now handle most tests

Change 92451 on 2003/03/27 by hartogs@fl_hartogs

Change 92428 on 2003/03/27 by hartogs@fl_hartogs

Added several missing input ports to sub-modules

Deleted reduntant wire declaration that was causing an error in modelsim.

Added explicit declarations for a bunch of implicitly used wires. The lack of the explicit declarations was causing warnings in Modelsim.

Change 92324 on 2003/03/27 by dougd@dougd_r400_linux_marlboro

fixed bug with address wrapping in the gpr wr addr generation for pix and vtx

Change 92303 on 2003/03/27 by mmantor@mmantor_crayola_linux_orl

export_id expanded from one to four bit, end_of_clause added to CFS-TIF interface and last_in_clause flag passed down with instruction to eventually trigger a free_done. thread_id outputs added to the SQ_SP and SQ_TP interfaces for testbench, and added sq_sx control signals for exp_table read >

Change 92262 on 2003/03/26 by hartogs@fl_hartogs

Added untested code for random backpressure on the SQ_TP interface.

Added untested code for random starve pressure on the TP_SP interface.

Change 92142 on 2003/03/25 by hartogs@fl_hartogs

This version passes milestone_tri. Trackers and injectors are ready for multi-threading when those signals become available.

Change 92139 on 2003/03/25 by hartogs@fl_hartogs

This version passes the "milestone_tri" test completely. First working version for texture fetch.

Change 91978 on 2003/03/25 by hartogs@fl_hartogs

Incremental check-in. This version will run "milestone_tri" to completion (including injecting the texture fetch data); however the simulation mismatches on the SPSX tracker.

Change 91977 on 2003/03/25 by hartogs@fl hartogs

Changed "check flags" on one of the SQ memories to minimize garbage output during simulation.

Page 82 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

Change 91976 on 2003/03/25 by hartogs@fl_hartogs

Changed dump file name from tp_sq.dmp to tp_sqsp.dmp

Change 91763 on 2003/03/24 by hartogs@fl_hartogs

 $\label{eq:controller} Qualified use of "q_skid_rbbm_a" with "lq_skid_empty". This was done to avoid X's on "sel_gK_vgt_draw initiator" which corrupted a counter "map_copy_cnt". The corruption of "map_copy_cnt" could only be corrected by reset.$

Change 91754 on 2003/03/24 by rramsey@rramsey_crayola_linux_orl

Fix for gpr write tracker

Change 91569 on 2003/03/21 by dougd@dougd_r400_linux_marlboro

added Real Time input to each of the constant store to enable the correct addressing of RT constants from the $\ensuremath{\mathrm{SQ}}$

Change 91422 on 2003/03/20 by dougd@dougd r400 linux marlboro

fixed bugs in the rbi_rd_state machine

Change 91219 on 2003/03/20 by dougd@dougd_r400_linux_marlboro

fix bug in real time write address logic

Change 91126 on 2003/03/19 by dougd@dougd_r400_linux_marlboro

fixed bug in incrementing pix cntx17 cnt with back to back events

Change 90960 on 2003/03/19 by smoss@smoss_crayola_linux_orl

added new sq trackers

Change 90915 on 2003/03/19 by dougd@dougd_r400_linux_marlboro

added I/O TEST PORTS for bist and scan

Change 90861 on 2003/03/19 by rramsey@rramsey_crayola_linux_orl

Changes to sp_sel and valid logic to get bad_pipe working

Change 90773 on 2003/03/18 by dougd@dougd_r400_linux_marlboro

added logic to drive SQ_CNTX0_BUSY, SQ_CNTX17_BUSY. This change should complete this functionality.

Change 90733 on 2003/03/18 by dougd@dougd_r400_linux_marlboro

Page 83 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

added counters and control for pix cntx0, cntx17 busy

Change 90622 on 2003/03/17 by hartogs@fl_hartogs_linux

First crack at VCS build script for tb_sqsp

Change 90551 on 2003/03/17 by dougd@dougd_r400_linux_marlboro

added code in sq_status_reg to decement the thread counters in sq_vtx_cntl used for $SQ_CNTX0_busy,$ SQ_CNTX17_busy

Change 90313 on 2003/03/14 by hartogs@fl_hartogs

 $\label{eq:condition} Added multi-threaded code to thirk_sqtp.v. (Thread id and type are hard-coded to 0 and 1, respectively, until these signals are available from Fixed port name typos in thirk_spx.)$

Change 90002 on 2003/03/13 by viviana@viviana_crayola_linux_orl

Corrected some signal paths to work at the gc level testench

Change 89954 on 2003/03/13 by viviana@viviana_crayola_linux_orl

Tracker to test the interface between the Vertex Input Control of the sq and the VSR's of the SP, during a write.

Change 89810 on 2003/03/12 by hartogs@fl_hartogs

Minor corrections to tbtrk_sqtp. Modularized the SP/SX tracker.

Change 89746 on 2003/03/12 by hartogs@fl_hartogs

Modularized the SQTP tracker (per Chris Gray's request)

Change 89740 on 2003/03/12 by hartogs@fl_hartogs

Somehow this one slipped through the cracks. This one should have been changed when the "pc_free_cnt_q" signal width was increased from 7 to 8 bits.

Change 89588 on 2003/03/11 by hartogs@fl hartogs

Added tp_sq.dmp to list.

Change 89538 on 2003/03/11 by hartogs@fl_hartogs

Interim Check-in

Page 84 of 136

Change 89518 on 2003/03/11 by hartogs@fl hartogs

Dummy files currently uses by tb_sqsp testbench

Change 89516 on 2003/03/11 by hartogs@fl hartogs

Interim check-in

Change 89515 on 2003/03/11 by hartogs@fl_hartogs

Changed "pc_free_cnt_q" to 8 bits so that it could represent the maximum free count of 128. Propagated this change to
ss/sq_status_reg.v and to ss/sq_vtx_thread_buff.v. Added ifdef SIM code to check for

overflow and underflow of this

Added condition for simultaneous occurrance of pc_alloc and pb_dealloc_vld.

Change 89474 on 2003/03/11 by vromaker@vromaker_r400_linux_marlboro

change to make texture requests wait on alu instr pending

Change 89448 on 2003/03/10 by mmantor@mmantor_crayola_linux_orl

 Added timestamp to dum mem read and write from same location error message. An Accord missaging to diministration within the man in the counter from the said volume from the said worked on ptr instead of data 3. Added control for the texture cylinderical wrapsubcycling. 4. Add rt parameter cache ptr selection in sq. 5. Clamped and wrapped pc_ptrs in sq. 6. Added support for points and lines in the parameter cache ptr determination. 7. prep seperate write address for export to memory 8. tmp fix for deallocation of export memory deallocation. 9. remove some old comment out code and redundant logic >

Change 89039 on 2003/03/07 by dougd@dougd r400 linux marlboro

added 'include "register addr.v"

Change 88929 on 2003/03/06 by vromaker@vromaker_r400_linux_marlboro

fix to CFS that prevents a new thread from entering when the thread ID in the input pipe stage is different than the thread ID in the output pipe stage; also changed triangle size to 150 for sq_tests test case pred_eq_vec

Change 88816 on 2003/03/06 by dougd@dougd_r400_linux_marlboro

added ports to support cntx0 busy, cntx17 busy

Change 88639 on 2003/03/05 by vromaker@vromaker r400 linux marlboro

a few minor updates, mostly comment related; added q2 verison of

Page 85 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

state head ptr for use in state read addr calcualtion in vtx thread buff

Change 88552 on 2003/03/05 by dougd@dougd r400 linux marlboro

needed to subtract RT base address ('SQ FETCH RT 0) from incoming address for RT

Change 88512 on 2003/03/05 by rramsey@rramsey_crayola_linux_orl

Fix a bug with the valid bit inits that was causing tri128_pix4 to fail Change the vsr_ld machine to alternate between buf0 and buf1 so pattern is deterministic and can be compared vs emulator

Change 88400 on 2003/03/04 by vromaker@vromaker_r400_linux_marlboro

fix for dealloc space width; status register and thread buffer updates for in for dealing_space within, same register and under a duriter updates for status register writes, status register for clearing the event_valid (and all other bits) on a pop; new_thread flag now generated in the instr fetch module and send down thru the AIQ; fix for the setting of thread_valid status

Change 88117 on 2003/03/03 by hartogs@fl_hartogs

Added dum_mem_p2 model back into the code with USE_BEHAVE_MEM compiler

Change 87997 on 2003/03/03 by dougd@dougd_r400_linux_marlboro

missing term in eqn for skid_re_hold for tex_rt_rd caused tex_rt_rd_req to assert for only 1 cycle and not wait for the data ack

Change 87726 on 2003/02/28 by vromaker@vromaker_r400_linux_marlboro

another merge fix

Change 87675 on 2003/02/28 by rramsey@rramsey_crayola_linux_orl

Change of machine to use program_base derived off of isr, and then register that value on load osr for sending to the tip

Change 87632 on 2003/02/28 by vromaker@vromaker_r400_linux_marlboro

another merge fix

Change 87622 on 2003/02/28 by vromaker@vromaker_r400_linux_marlboro

bad merge - retry...

Change 87620 on 2003/02/28 by vromaker@vromaker r400 linux marlboro

Page 86 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

MOVA related change - due to the extra cycle required by SP for timing, had to conditionally mux the interface register on the last phase of the address load into the constant waterfalling logic (to be used instead of last quarter of the address register since the start of the CWF logic now overlaps the address register load by one cycle)

Change 87440 on 2003/02/27 by mmang@mmang_crayola_linux_orl

Predicated parameter cache writes.

Change 87408 on 2003/02/27 by vromaker@vromaker r400 linux marlboro

Change 87398 on 2003/02/27 by donaldi@donaldi crayola linux orl

Created early version of pix_winner_q going from sq_alu_thread_arb to sq_pix_thread_buff in order to create a registered version of alu_winner_final. Done to reduce critical path of the allocation_available signals in sq_exp_alloc_ctrl.v

Change 87269 on 2003/02/27 by donaldl@donaldl crayola linux orl

Removed allocation of 48 locations for vtx pass thru

Change 87207 on 2003/02/26 by hartogs@fl hartogs

Added comments that question a few lines of code.

Added ifdef SIM check for overflow and underflow on the the pc_free_cnt_q signal.

Change 87206 on 2003/02/26 by hartogs@fl hartogs

Changed dealloc_cnt signal going into the event fifo so that it is masked-out (zeroed) for two_clock_xfer that is not end_of_builfer. This change was made because I observed the logic push the new signal into the event fifo with the dealloc count, and then pushing the dealloc count

in again with he pix vector yald signal later.

Changed ef_pop signal so that it will not pop a non-zero dealloc unless the new bit is not set. This change was made because the absence of the change above allowed a new signal to go in with a non-zero dealloc_cnt which was then permaturely popped instead of waiting for the vertex vector to be done

Added some TODO comments for some hardcoded parameters that should come from autoreg include files.

Added some ifdef SIM code that checks for under flow of vtx_sync_cnt_q (which was

an observable result of the problems above)

Change 87184 on 2003/02/26 by dougd@dougd_r400_linux_marlboro

when vgt end of vector occurs on the 1st and only data, the data sent to the SP is delayed by 1 cycle but the vsr wrt addr was not. Fixed

Page 87 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 86670 on 2003/02/25 by vromaker@vromaker_r400_linux_marlboro

fixed gor address calculation for CONST scalar opcodes

Change 86509 on 2003/02/24 by dougd@dougd r400 linux marlboro

corrected error introduced in the last version

Change 86412 on 2003/02/24 by dougd@dougd_r400_linux_marlboro

fixed bit width mismatch in the wrt addr assignment when doing RT

Change 86136 on 2003/02/21 by dougd@dougd_r400_linux_marlbore

fixed bug in o_vector_valid - it counted a single vert as two when there was only one vert in the vector and end_of_vector was also asserted.

Change 86121 on 2003/02/21 by vromaker@vromaker_r400_linux_marlboro

changed context id (state) used for CFC reads to be that from the input

Change 86092 on 2003/02/21 by vromaker@vromaker r400 linux marlboro

added code to disable PVPS detection on 2nd thru last iterations of a const waterfall loop; added last in_shader output from CFS that is separate from the cfs_last_instr status bit that is sent back to the thread buffer

Change 85975 on 2003/02/21 by hartogs@fl hartogs

The version has code in the testench to track the SX buffer availability and to free buffers

the SP has exported the data to the SX. It also has the SQ/SP instruction interface time de-multiplexed and split out by field.

Change 85737 on 2003/02/20 by donaldl@donaldl_crayola_linux_orl

Fixed alu_req equation for handling last_instr_q and first_thread_q. Changed nxt_pix_last_alloc counter to nxt_pix_last counter.

Change 85660 on 2003/02/20 by vromaker@vromaker_r400_linux_marlboro

updated fifo ctl to output a registered count, and changed the ctl logic to use the counter for full, empty, etc.

Change 85659 on 2003/02/20 by vromaker@vromaker r400 linux mariboro

now enable PVPS detection only on 2nd to last consective instructions

Page 88 of 136

of a thread; also added more support for MUL_CONST (force src_c_sel.x to GPR) Added nxt pix alloc and nxt pix last alloc counters. Change 85653 on 2003/02/20 by vromaker@vromaker r400 linux marlboro Change 85031 on 2003/02/18 by vromaker@vromaker_r400_linux_marlboro fixed so that only vertex valid bits are swapped (pixel valid bits are 'last' optimization within EXEC END added; also fixed last so that without swapped on input from SC) optimization, it will be set on the last target instruction in the EXEC_END (was setting it on the first instruction of an EXEC_END, which for the majority of our tests is the same as the last instruction of an EXEC_END) Change 85650 on 2003/02/20 by vromaker@vromaker_r400_linux_marlboro fixed thread changed detection logic - the first_in_group and last_in_group outputs now mark the start and end of an uninterrupted stream of target instructions Change 84707 on 2003/02/16 by vromaker@vromaker r400 linux marlboro from the same thread the EXSM was draining valid instructions from the exec ppb on a thread buffer update -Change 85640 on 2003/02/20 by vromaker@vromaker_r400_linux_marlboro fixed by adding the thread id to the ppb, then checking it to see if it is the same as the thread that's being updated before removing it (if the thread id is different then it is not removed and the drain is complete) reorderd LOD correction bits to match valid bits Change 85595 on 2003/02/20 by scamlin@scamlin crayola unix orl Change 84689 on 2003/02/16 by vromaker@vromaker r400 linux marlboro added testreg another CFS fix - this time for subroutine calls, but in general it should affect all flow Change 85525 on 2003/02/20 by scamlin@scamlin_crayota_unix_orl Change 84625 on 2003/02/15 by vromaker@vromaker r400 linux marlboro change test port name Change 85487 on 2003/02/20 by dougd@dougd_r400_linux_marlboro fix for loops - was using nest_level from the register that was changed to the output pipe fixed bug in "double mode" vsr address generation. Also added logic to choose correct SP from the IDLE state when some SP's have been disabled by the BAD_SP bits Change 84577 on 2003/02/14 by ygiang@ygiang_r400_pv2_marlboro Change 85405 on 2003/02/19 by dougd@dougd_r400_linux_marlboro added: more sq performance counters modified system sq.vcpp and vcs.ini to find the new virage hs memories. Backed out the Change 84449 on 2003/02/14 by mmang@mmang cravola linux orl new hs ram in texconst because it doesn't work Made init_pred dependent upon new_thread instead of first_in_group. Change 85398 on 2003/02/19 by pmitchel@pmitchel_r400_laptop Change 84438 on 2003/02/14 by dougd@dougd r400 linux marlboro recovering deleted file changed logic for \exp_buf_empty to used only the buffer counts and not their control (update) signals. This signal is used to turn off the clocks for the SP,SX and TP. Change 85337 on 2003/02/19 by scamlin@scamlin_crayola_unix_orl Change 84436 on 2003/02/14 by dougd@dougd_r400_linux_marlboro delete these files and use the rtl.v versions Change 85336 on 2003/02/19 by scamlin@scamlin_crayola_unix_orl added logic and wires up to sq to provide events to trigger the perfmon counters Change 84405 on 2003/02/14 by vromaker@vromaker_r400_linux_marlboro new virage hs memories modified default parameter values to work around a synthesis hang minor updates: some comments added/removed; also removed winner ack input from Change 85215 on 2003/02/19 by donaldl@donaldl_crayola_linux_orl Page 89 of 136 Page 90 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history fix for bug 1255 - src c z swizzle set to src c x swizzle for dot2add Change 84304 on 2003/02/13 by vromaker@vromaker r400 linux marlboro Change 83159 on 2003/02/09 by dougd@dougd r400 linux marlboro removed some commented out code from ais_output; added a pipeline stage to the ctl_flow_seq and decoupled the CFS and EXEC state machines - the arbiters now issue a thread every four cycles Change 83028 on 2003/02/08 by vromaker@vromaker r400 linux marlboro Change 84229 on 2003/02/13 by ygiang@ygiang_r400_pv2_marlboro fixed pos and pc alloc terms by using winner_sel instead of winner_ack added: more sq perf counters Change 83012 on 2003/02/07 by donaldl@donaldl crayola linux orl Change 84111 on 2003/02/13 by dougd@dougd r400 linux marlboro Added next parameter cache allocation counter fixed a bug in the VGT_SQ interface to allow both <code>_indx_valid</code> and <code>_end_of_vector</code> on the first and only data transfer of a vector. Also added a simulation only protocol monitor to Change 83008 on 2003/02/07 by vromaker@vromaker_r400_linux_marlboro detect _end_of_vector when no data at all had been sent for the vector some kill/pred fixes Change 83696 on 2003/02/11 by ygiang@ygiang_r400_pv2_marlboro Change 83001 on 2003/02/07 by dougd@dougd_r400_linux_marlboro added: more performance counters for sq rbi addr in was shifted down by two bits incorrectly Change 83645 on 2003/02/11 by hartogs@fl_hartogs Change 82694 on 2003/02/06 by dougd@dougd_r400_linux_marlboro Update. Testbench can run non-fetch tests. brought signals up to sq for perfmon Change 83482 on 2003/02/11 by dougd@dougd_r400_linux_marlboro Change 82630 on 2003/02/06 by donaldl@donaldl_crayola_linux_orl changed sq_vtx_thread_buffer to use the status_reg at state_head_ptr_q for events instead Created exp_buf_empty signal to indicate the export buffers are empty. This replaces the old SX-SQ export buffer interface signals with the new ones. of always using status_data_0 Change 83434 on 2003/02/10 by donaldl@donaldl crayola linux orl Change 82515 on 2003/02/06 by vromaker@vromaker_r400_linux_marlboro Updated nxt_pos_alloc_incr and nxt_pc_alloc_incr equations to use thread_valid_q instead of alu reg to validate them ALU IQ gpr address wrapping; MUL CONST support; DOT2ADD fix Change 83323 on 2003/02/10 by hartogs@fl_hartogs Change 82428 on 2003/02/06 by donaldl@donaldl_crayola_linux_orl Updated... still in progress. Created next position allocation counter to determine if all positions have been allocated for the previous threads Change 83322 on 2003/02/10 by hartogs@fl hartogs Change 82207 on 2003/02/05 by vromaker@vromaker_r400_linux_marlboro Added unconnected port to modules with new perfmon signals

Change 83315 on 2003/02/10 by vromaker@vromaker r400 linux marlboro

Change 83246 on 2003/02/10 by vromaker@vromaker r400 linux marlboro

minor updates (a few comment changes, insignificant code change)

Page 91 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

tex IQ gpr address wrapping; removal of pop pending logic

Page 92 of 136

Change 82200 on 2003/02/05 by scamlin@scamlin_crayola_unix_orl

forgot these fuseboxes

Change 82192 on 2003/02/05 by hartogs@fl_hartogs

Changed wire declaration to match associated port declaration. misc updates - need latest merged versions of files... Change 82190 on 2003/02/05 by hartogs@fl_hartogs Change 81227 on 2003/01/31 by vromaker@vromaker_r400_linux_marlboro inverted kill mask data from SP Changed to reflect changes in unit under test. Change 82186 on 2003/02/05 by hartogs@fl_hartogs Change 81099 on 2003/01/31 by rramsey@rramsey_crayola_linux_orl Deleted extra comma at the end of the argument list. THis comma was creating a port change arbitration policy for sq instruction store so each client has mis-match during sim load. its own phase in the 8 clock cycle, with CP accesses happening opportunistically Change 82113 on 2003/02/05 by dougd@dougd_r400_linux_marlboro Change 80876 on 2003/01/30 by vromaker@vromaker_r400_linux_marlboro internal module signals brought up to sq level for perfmon pred override update (for waterfall); instr store read requests output from CFS and TIF Change 81944 on 2003/02/04 by donaldl@donaldl_crayola_linux_orl Change 80801 on 2003/01/30 by dougd@dougd_r400_linux_marlboro Changes for new SX-SQ export buffer availability interface. fixed typos that caused warnings in synopsys Change 81943 on 2003/02/04 by donaldl@donaldl crayola linux orl Change 80742 on 2003/01/30 by dougd@dougd_r400_linux_marlboro Changes for new SX-SQ export buffer availability interface. removed reset from the register for VGT_send and VGT_event to comply with convention of block input going only to input of one register and no gates $\frac{1}{2} \frac{1}{2} \frac{1}{2}$ Change 81893 on 2003/02/04 by dougd@dougd_r400_linux_marlboro Change 80731 on 2003/01/30 by dougd@dougd_r400_linux_marlboro Change 81633 on 2003/02/03 by vromaker@vromaker_r400_linux_marlboro added ati dff in to ROM SPx disable vtx, TP SQ data rdy, TP SQ type Change 80540 on 2003/01/29 by hartogs@fl_hartogs fixed alu phase for ld_pred Change 81624 on 2003/02/03 by vromaker@vromaker r400 linux marlboro Added SC tracker (tbtrk sc) to the tb sqsp testbench. new one-clk ld_pred signal Change 80494 on 2003/01/29 by donaldl@donaldl_crayola_linux_orl Change 81559 on 2003/02/03 by vromaker@vromaker_r400_linux_marlboro misc updates Change 80177 on 2003/01/28 by mmantor@FL mmantorLT r400 win Change 81558 on 2003/02/03 by dougd@dougd_r400_linux_marlboro got basic sc stimulas to work for sq/sp test bench and reset multipass counter during reset corrected a typo to the last submit Change 80168 on 2003/01/28 by vromaker@vromaker_r400_linux_marlboro Change 81528 on 2003/02/03 by dougd@dougd r400 linux marlbord added input regs to TP SQ thread id and TP SQ stall Change 80102 on 2003/01/28 by hartogs@fl hartogs Change 81249 on 2003/02/01 by vromaker@vromaker_r400_linux_marlboro Added sc_iterator module wrapped specifically for sqsp testbench. Page 93 of 136 Page 94 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 80057 on 2003/01/28 by vromaker@vromaker r400 linux marlboro Change 78924 on 2003/01/23 by donaldl@donaldl crayola linux orl updates for mova, kill mask, absolute constants Change 79927 on 2003/01/28 by dougd@dougd_r400_linux_marlboro Change 78850 on 2003/01/23 by scamlin@scamlin_crayola_unix_orl fixed bug in vsr_ld_state VSR_LD add rtl versions Change 79871 on 2003/01/28 by dougd@dougd_r400_linux_marlboro Change 78849 on 2003/01/23 by scamlin@scamlin_crayola_unix_orl corrected range on sp_prd_data_q[15:0] from [i] to [i-48] in for loop add rtl version Change 79731 on 2003/01/27 by dougd@dougd_r400_linux_marlboro Change 78805 on 2003/01/23 by dougd@dougd_r400_linux_marlboro fixes bug where vsr ld state gets stuck in state VSR LD replaced latest version of this virage rf ram with the one from previous virage compiler because latest version doesn't work Change 79716 on 2003/01/27 by vromaker@vromaker_r400_linux_marlboro Change 78788 on 2003/01/23 by mmantor@mmantor_crayola_linux_orl fix for thread arbiter priority encoder; updates to kill mask and predicate loading from SP $<\!\!f$ ixed bugs created by seperation of alloc machine and interp machine to align all data to the sx and sp interfaces and moved thread counter after delay pipe> Change 79542 on 2003/01/26 by dougd@dougd_r400_linux_marlboro added inputs i_rbi_rt_rd_req and address logic to support diagnostic read support for Real Change 78700 on 2003/01/22 by vromaker@vromaker_r400_linux_marlboro Time fixes for pred_set/kill; tex_arb_policy added Change 79540 on 2003/01/26 by dougd@dougd_r400_linux_marlboro Change 78428 on 2003/01/22 by scamlin@scamlin_crayola_unix_orl fixed typo that produced latches in synthesis virage a04 new register files Change 79498 on 2003/01/25 by vromaker@vromaker_r400_linux_marlboro Change 78427 on 2003/01/22 by scamlin@scamlin crayola win mod for a04 Change 79443 on 2003/01/25 by hartogs@fl hartogs Change 78248 on 2003/01/21 by hartogs@fl_hartogs Made two wire declarations match their associated port declarations Updated for VGT and RBBM stimulus Change 79383 on 2003/01/24 by dougd@dougd r400 linux marlboro Updated for changes in unit under test. Change 78247 on 2003/01/21 by hartogs@fl_hartogs changes to SQ_FLOW_CONTROL register Added this port to the instance "uscalar" to file sp/vector/sp_vector.v.

OPRED_SET_EXECUTE(), // TODO -- added unconnected output port to avoid warnings during sim load

Apparently the sp_scalar_lut module added an output port (single bit). Change 79347 on 2003/01/24 by dougd@dougd_r400_linux_marlboro fixed bug in vgt interface (end_of_vtx_vector can be valid when indx_valid is not)

Change 78932 on 2003/01/23 by dougd@dougd r400 linux marlbord

changes necessary to simulate with rf rams from latest virage compiler Page 95 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Also added these ports to the instance "u \underline{sq} tex_ctl_flow_seq" in \underline{sq} .v ... \underline{ais} update(), // \underline{fisted} unconnected port to avoid load warning

Page 96 of 136

ais_update is single bit, and ais_thread_id is 6 bits. Change 77199 on 2003/01/16 by vromaker@vromaker_r400_linux_marlboro Change 78147 on 2003/01/21 by ygiang@ygiang_r400_pv2_marlboro update for mova interface added: SO performance counters Change 77182 on 2003/01/16 by vromaker@vromaker_r400_linux_marlboro Change 77896 on 2003/01/20 by vromaker@vromaker r400 linux marlboro Change 77173 on 2003/01/16 by vromaker@vromaker r400 linux marlboro fix for opt, const waterfall (const sel delayed one cycle) Change 77794 on 2003/01/19 by vromaker@vromaker_r400_linux_marlboro Change 77133 on 2003/01/16 by scamlin@scamlin_crayola_win fix for const waterfall optimization (decode signal was missing a bit); also fix for multiple free_done Change 77751 on 2003/01/18 by mmantor@mmantor_crayola_linux_orl Change 77107 on 2003/01/16 by mmantor@mmantor crayola linux orl <fixed a bug with sc_sample_entrl by adding an isr register version to mantain during interpolation while the alloc machine moves ahead. Also fixed the context_id in the event fifo</p> <Fixed performance bug preventing at rate interpolation with two interpolants> Change 76992 on 2003/01/15 by fhsien@fhsien_r400_linux_marlboro Change 77460 on 2003/01/17 by vromaker@vromaker r400 linux marlboro Change MES ALL parameter for more virage memory fix for early push into exec ppb - was pushing conditional executes without testing the Change 76991 on 2003/01/15 by dougd@dougd_r400_linux_marlboro condition. fixed typo in last submit of this file Change 77449 on 2003/01/17 by mmantor@mmantor_crayola_linux_orl Change 76949 on 2003/01/15 by askende@askende_r400_linux_marlboro -fixed a buf with ij read address generation when using centers and centroids, sent free_buff a clock earlier so they (cneters and centroids can run at rate continously and added releasing top IO changes related to the new Export Status Control interface between SQ flow control to the alloc sm for max pass rd cnt independant of pb rts > Change 77428 on 2003/01/17 by vromaker@vromaker_r400_linux_marlboro Change 76829 on 2003/01/15 by dougd@dougd_r400_linux_marlboro fix for Exec SM state EX_NEXT_CFI - if ppb_op is not ALLOC, assumes it's some type added SX_SP_exp_buf_avail, SX_SQ_exp_count_rdy to support clock gating of EXEC and jumps to EXEC Change 76813 on 2003/01/15 by vromaker@vromaker_r400_linux_marlboro Change 77426 on 2003/01/17 by vromaker@vromaker_r400_linux_marlboro CFS now looks at ais_update to clear alu_instr_pending; also const waterfall fixes another fix for tmp max rd pass cnt (had to be delared as 2 bits before the PPB) Change 76810 on 2003/01/15 by fhsien@fhsien r400 linux marlboro Change 77421 on 2003/01/17 by dougd@dougd_r400_linux_marlboro Change MES ALL parameter to OFF added ports to sq_rbbm_interface and wires to support rbbm access for the new Change 76802 on 2003/01/15 by scamlin@fl regress p4j crayola win sq perfmon module Change 77419 on 2003/01/17 by vromaker@vromaker_r400_linux_marlboro Page 97 of 136 Page 98 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history changed "input [0:0] sclk_global" to "input sclk_global" to prevent problems with Change 76791 on 2003/01/15 by dougd@dougd r400 linux marlboro synopsys Change 75456 on 2003/01/09 by vromaker@vromaker_r400_linux_marlboro some of the TP,SP,SX clock gating logic added Change 76773 on 2003/01/15 by dougd@dougd_r400_linux_marlboro re-release of AIQ, AIS, and CFS; mova dependency stall added delete obsolete files Change 75419 on 2003/01/08 by hartogs@fl hartogs Change 76676 on 2003/01/14 by scamlin@scamlin_crayola_win First submission -- no trackers / no injector / no synchro-nothing. Just an SQ and four update hs ports Change 75418 on 2003/01/08 by hartogs@fl_hartogs Change 76588 on 2003/01/14 by scamlin@scamlin_crayola_win Fixed not-smart compiler error that shows up in Modelsim (but presumably not in VCS) virage star simulation Change 75417 on 2003/01/08 by vromaker@vromaker r400 linux marlboro Change 76327 on 2003/01/13 by vromaker@vromaker_r400_linux_marlboro Change 76236 on 2003/01/13 by dougd@dougd r400 linux marlboro Change 75416 on 2003/01/08 by vromaker@vromaker r400 linux marlboro fixed bug that loaded v_gpr_addr and v_gpr_base too early Change 76086 on 2003/01/12 by dougd@dougd_r400_linux_marlboro Change 75398 on 2003/01/08 by vromaker@vromaker r400 linux marlboro adding missing signal to sensitivity list what the heck again Change 76016 on 2003/01/11 by vromaker@vromaker r400 linux marlboro Change 75397 on 2003/01/08 by vromaker@vromaker r400 linux mariboro what the heck is going on with sq_alu_instr_seq.v fixes for constant waterfalling Change 75344 on 2003/01/08 by dougd@dougd_r400_linux_marlboro Change 75969 on 2003/01/10 by hartogs@fl_hartogs Added unconnected ports in instantiations to avoid warning message while loading into edit comments the simulato Change 75343 on 2003/01/08 by dougd@dougd_r400_linux_marlboro Change 75887 on 2003/01/10 by dougd@dougd r400 linux marlboro changes for vgt-sq-sp vertex vector loading performance improvement routed gated clocks from sq_rbbm_interface up to sq.v and then back to get around a problem with Power Compiler Change 75340 on 2003/01/08 by vromaker@vromaker_r400_linux_marlboro Change 75798 on 2003/01/10 by dougd@dougd_r400_linux_marlboro fix for NOP in CFS; reduced triangle size in sq tests fixed bug with fifo control when the SP GPRs are full Change 75023 on 2003/01/07 by dougd@dougd_r400_linux_marlboro Change 75472 on 2003/01/09 by dougd@dougd r400 linux marlboro fixed bug in d rtr when data cnt == 2 Change 74776 on 2003/01/06 by vromaker@vromaker_r400_linux_marlboro Page 100 of 136 Page 99 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history

fix for max_rd_pass count

.ais thread id(),

warning

// listed unconnected port to avoid load

Change 72720 on 2002/12/20 by vromaker@vromaker_r400_linux_marlboro fix for bug1035: tgt instr fetch updated to pass last in group correctly input arb fix for pix req while pix busy; renamed pism to pix_ctl and vism to vtx_ctl and make new directories pc and vc Change 74489 on 2003/01/04 by dougd@dougd_r400_linux_marlboro "interp cnt q =" was changed to "interp cnt q <=" Change 72632 on 2002/12/19 by dougd@dougd r400 linux marlboro Change 74435 on 2003/01/03 by dougd@dougd_r400_linux_marlboro fixed bug in loading texture constants when there are stalls in the data stream from the rbbm removed unused signal from port lists Change 72217 on 2002/12/18 by vromaker@vromaker r400 linux marlboro Change 74403 on 2003/01/03 by vromaker@vromaker r400 linux marlboro fix for CFC read from ALU CFS 1 fix for bug 1011 (last_in_group/last_in_shader issues with multiple consecutive EXEC's, and multiple instr's in the last EXEC) Change 71817 on 2002/12/17 by vromaker@vromaker r400 linux marlboro Change 74242 on 2003/01/02 by vromaker@vromaker_r400_linux_marlboro Change 71495 on 2002/12/16 by vromaker@vromaker r400 linux marlbord added last optimiztion enable to exec ppb Change 74199 on 2003/01/02 by vromaker@vromaker r400 linux marlboro Change 71347 on 2002/12/16 by dougd@dougd r400 linux marlboro more fixes for milestone_tri (gpr_base was off for both gpr read and write) Changes for synthesis: added a register stage to sq_const_map_cntl to improve timing; changed direction of TST_SQ_rf_star_fb_out_fusebox in sq.v to output because fusebox Change 74166 on 2003/01/02 by vromaker@vromaker r400 linux marlboro internal to so Change 71059 on 2002/12/13 by vromaker@vromaker r400 linux marlbord Change 74008 on 2003/01/01 by vromaker@vromaker_r400_linux_marlboro fix for SC packer optimization (quad ctl interface to SQ) Change 70462 on 2002/12/11 by dougd@dougd_r400_linux_marlboro split the pixel input state machine in two Change 73136 on 2002/12/23 by dougd@dougd r400 linux marlboro made integer variable names unique for each process block added output o_sq_soft_srst to sq_rbbm_interface Change 70353 on 2002/12/11 by dougd@dougd_r400_linux_marlboro Change 72904 on 2002/12/20 by vromaker@vromaker_r400_linux_marlboro default clause in case statement was 1st in list of cases - it must be last (or synopsys chokes) fix for pix ctl (buff swap used instead of free buff in ptr buff) Change 70341 on 2002/12/11 by vromaker@vromaker_r400_linux_marlboro Change 72839 on 2002/12/20 by vromaker@vromaker_r400_linux_marlboro fix for lod correct bit width change $more\ pix_ctl\ (pc)\ and\ vtx_ctl\ (vc)\ stuff;\ added\ some\ _q's\ to\ registered\ signal\ names;\ made\ performance\ chages\ to\ pix_ctl\ (pism)$ Change 70330 on 2002/12/11 by dougd@dougd_r400_linux_marlboro Change 72723 on 2002/12/20 by vromaker@vromaker_r400_linux_marlboro added 1 bit to the width of isr_loop_index_q to make it match it's connections more updates for pism name change to pix ctl (PC) Change 70179 on 2002/12/10 by vromaker@vromaker r400 linux marlboro Page 102 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history type in port name of unused input Change 70178 on 2002/12/10 by vromaker@vromaker r400 linux mariboro Change 67098 on 2002/11/26 by vromaker@vromaker_r400_linux_marlboro fix for consts; top level changes Change 69908 on 2002/12/10 by dougd@dougd r400 linux marlboro Change 67077 on 2002/11/26 by vromaker@vromaker r400 linux marlboro brought SQ_hs_<signals> to gc level and tied to logic low there fixes for milestone_event bugs, functional changes to ctl flow Change 69710 on 2002/12/09 by vromaker@vromaker_r400_linux_marlboro Change 66948 on 2002/11/26 by dougd@dougd r400 linux marlboro more const waterfall fixes initial submit of sq rf proc and fusebox Change 69670 on 2002/12/09 by vromaker@vromaker_r400_linux_marlboro Change 66939 on 2002/11/26 by dougd@dougd_r400_linux_marlboro misc fixes for vcs compile STAR RF memories for synthesis and simulation: includes the rf proc and fuse_box in sq.v and all of the necessary wiring Change 69656 on 2002/12/09 by dougd@dougd_r400_linux_marlboro Change 66739 on 2002/11/25 by vromaker@vromaker_r400_linux_marlboro add hs wrapper files Change 69651 on 2002/12/09 by vromaker@vromaker r400 linux marlboro constant waterfalling code added to AIQ, AIS, and AIO Change 66458 on 2002/11/23 by vromaker@vromaker r400 linux marlboro Change 69125 on 2002/12/06 by dougd@dougd_r400_linux_marlboro fix for thread buffer read address wrapping added hs memories and processors to perforce, added gc level connections to sq.v. ifdef Change 66229 on 2002/11/22 by dougd@dougd r400 linux marlboro in solv to enable he behavorial memories for simulation added missing connections between sq rbbm interface and the constant store modules Change 68379 on 2002/12/04 by dougd@dougd_r400_linux_marlboro Change 66186 on 2002/11/22 by vromaker@vromaker_r400_linux_marlboro instantiated STAR hs processor, fuse box and wiring fix for predicate0 q Change 68158 on 2002/12/03 by vromaker@vromaker_r400_linux_marlboro Change 66177 on 2002/11/22 by dougd@dougd_r400_linux_marlboro fix for event id to CP (4 to 5 bits); vism fix for continued & end of vector; addition of ij buffer optimization for centers only/centroids onl fixed synopsys warning of cip_q[0] not being in the event list: changed it to cip_q Change 67902 on 2002/12/02 by vromaker@vromaker_r400_linux_marlboro Change 66043 on 2002/11/21 by vromaker@vromaker_r400_linux_marlboro control flow updates; thread buff/status register clean-up fix for bug 818 (thread buffer head and tail ptr wrap problem) Change 67336 on 2002/11/27 by dougd@dougd_r400_linux_marlboro Change 66017 on 2002/11/21 by dougd@dougd_r400_linux_marlboro

fixed typo

Change 67331 on 2002/11/27 by dougd@dougd_r400_linux_marlboro

Page 103 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

add the new Virage STAR rf memories (.v and .ctmc)

Change 65839 on 2002/11/21 by dougd@dougd_r400_linux_marlboro

Page 104 of 136

fix bugs for synthesis, replaced dum_mem_p2 on Virage rf with Virage verilog models dot2add srcC.z swizzle = x for simulation Change 64003 on 2002/11/14 by dougd@dougd_r400_linux_marlboro Change 65700 on 2002/11/20 by vromaker@vromaker_r400_linux_marlboro allow the mapping tables to be copied only on the 1st draw command after a fix for bug 799 - a typo in the generation of pvps disable was causing the problem Change 65386 on 2002/11/19 by dougd@dougd r400 linux marlbord Change 63931 on 2002/11/14 by dougd@dougd r400 linux marlboro fix minor coding error introduced in last version fixed bug in sq_rd_addr remapping Change 65321 on 2002/11/19 by dougd@dougd_r400_linux_marlboro Change 63882 on 2002/11/13 by dougd@dougd_r400_linux_marlboro fixed a bug in new clock gating logic and changed the clock to the sq. phase, gen module fixed connection errors introduced by merge of files modified to add new Virage STAR from sclk, sq to sclk, const. men to generate is phase when the instruction, store is being loaded from the RBBM and sclk, sq has not yet been turned on, sq_vtx_thread had a port size mismatch on the read add in input. memories Change 63879 on 2002/11/13 by desiree@desiree r400 sun marlboro Change 65065 on 2002/11/18 by dougd@dougd_r400_linux_marlboro added Virage STAR memories and interconnections to them added scan test bus, divided sq modules into 9 groups and generated a reset in the $rbbm_interface$ for each group Change 63878 on 2002/11/13 by desiree@desiree_r400_sun_marlboro added connections for Virage STAR memory in vism skid buf Change 65064 on 2002/11/18 by dougd@dougd r400 linux marlboro Change 63877 on 2002/11/13 by desiree@desiree_r400_sun_marlboro changed default value of parameters to prevent errors in synthesis added Virage STAR memory Change 65063 on 2002/11/18 by dougd@dougd_r400_linux_marlboro Change 63876 on 2002/11/13 by desiree@desiree r400 sun marlboro correct coding errors in the instantiations of the virage memories added connections to Virage STAR memory in rbbm_skid_but Change 64944 on 2002/11/18 by vromaker@vromaker r400 linux marlboro Change 63875 on 2002/11/13 by desiree@desiree r400 sun marlbord fix for simple_loop Change 64899 on 2002/11/18 by vromaker@vromaker_r400_linux_marlboro Change 63874 on 2002/11/13 by desiree@desiree r400 sun marlboro misc bug fixes added Virage STAR memory and interconnect Change 64341 on 2002/11/15 by dougd@dougd_r400_linux_marlboro Change 63873 on 2002/11/13 by desiree@desiree r400 sun marlboro fixed bug in clk gater enable signal added Virage STAR memory Change 64304 on 2002/11/15 by dougd@dougd r400 linux marlbord Change 63870 on 2002/11/13 by desiree@desiree_r400_sun_marlboro the ROM SPx disable vtx inputs were not connected to sq vism.v added Virage STAR memories and interconnect Change 64138 on 2002/11/14 by vromaker@vromaker_r400_linux_marlboro Page 105 of 136 Page 106 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 63869 on 2002/11/13 by desiree@desiree_r400_sun_marlboro input arbitration fix - added pipelined pix_wr_busy to PISM added Virage STAR memories and interconnect Change 61975 on 2002/11/06 by vromaker@vromaker r400 linux marlboro Change 63865 on 2002/11/13 by desiree@desiree_r400_sun_marlboro updates for new gpr write enables added STAR Virage memories Change 61827 on 2002/11/05 by dougd@dougd_r400_linux_marlboro make o_sp_vsr_read assert 1 tick earlier to correct a problem with changes in the SQ_SP Change 63828 on 2002/11/13 by vromaker@vromaker_r400_linux_marlboro fix for tri32 pix4 (pism was asserting RTR to ptr_buff incorrectly) Change 61651 on 2002/11/05 by vromaker@vromaker_r400_linux_marlboro Change 63824 on 2002/11/13 by dougd@dougd_r400_linux_marlboro more predicate updates including pred_override, and delayed thread buffer added bad SP disable logic Change 63821 on 2002/11/13 by dougd@dougd r400 linux marlboro Change 61285 on 2002/11/03 by vromaker@vromaker r400 linux marlboro added rbbm diag read support and fixed RT operation had to move vtx input grant out one cycle to get the VSR grp writes lined up with the correct phase Change 63820 on 2002/11/13 by dougd@dougd r400 linux marlboro Change 60956 on 2002/11/01 by vromaker@vromaker_r400_linux_marlboro numerous changes to add rbbm read diagnostic feature. Also: corrected the - removed special case for scalar PREV opcodes map_copy_context in the const_map_cntl; made all non-constant store rbbm accesses decode before going thru skid buffer. - removed old gpr write enable from SQ SP interface Change 63494 on 2002/11/12 by vromaker@vromaker_r400_linux_marlboro Change 60919 on 2002/11/01 by vromaker@vromaker_r400_linux_marlboro removed forcing of PS on PREV opcodes predicate and SP write enable updates Change 63373 on 2002/11/12 by vromaker@vromaker r400 linux marlboro Change 60678 on 2002/10/31 by dougd@dougd r400 linux marlboro remove wire declarations that use 'defines for real time paramater registers another fix for pspv_wr_en - alu_phase swapped for loading of pipeline registers Change 63245 on 2002/11/11 by vromaker@vromaker_r400_linux_marlboro Change 60544 on 2002/10/30 by dougd@dougd_r400_linux_marlboro delayed mask and predicate input to pspv_gpr_we by two cycles instead of delaying the remove _rt_param* regs to coincide with new emulator alu phase mux select two cycles Change 60095 on 2002/10/29 by vromaker@vromaker r400 linux marlboro Change 62913 on 2002/11/08 by vromaker@vromaker_r400_linux_marlboro - added special case for scalar PREV opcodes fix for valid bits (they were swapped in ais_output) - started predicate updates

Page 107 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 62866 on 2002/11/08 by vromaker@vromaker r400 linux mariboro

Change 62309 on 2002/11/07 by vromaker@vromaker_r400_linux_marlboro

fixed pspv_gpr write enables

Page 108 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 59942 on 2002/10/29 by dougd@dougd_r400_linux_marlboro

Change 59546 on 2002/10/26 by dougd@dougd r400 linux marlboro

added "'ifdef" for virage memories

Change 57379 on 2002/10/16 by dougd@dougd_r400_linux_marlboro added clock gaters and flops for resets Change 59428 on 2002/10/25 by vromaker@vromaker r400 linux marlboro fixed bug in decoding GFX COPY STATE updates Change 57210 on 2002/10/15 by vromaker@vromaker_r400_linux_marlboro Change 59279 on 2002/10/25 by vromaker@vromaker_r400_linux_marlboro CFS: added control flow instructions Change 56923 on 2002/10/14 by dougd@dougd_r400_linux_marlboro Change 59186 on 2002/10/24 by dougd@dougd_r400_linux_marlboro added barrel shifter and arbitration winner translation logic needed to remove shifting function of sq_status_reg many changes to support RBBM diagnostic read access to the constant memories in aluconst and texconst $\,$ Change 56824 on 2002/10/13 by dougd@dougd_r400_linux_marlboro Change 59171 on 2002/10/24 by vromaker@vromaker_r400_linux_marlboro increase size of pix thread buffer from 16 to 48: fixed bugs in the arbitration winner address translation delayed const to SP by one cycle Change 56409 on 2002/10/10 by vromaker@vromaker_r400_linux_marlboro Change 59080 on 2002/10/24 by vromaker@vromaker_r400_linux_marlboro update to cond exec - big update for pv/ps detection (it was moved from in front of the AIQ to after the AIQ) Change 56155 on 2002/10/09 by vromaker@vromaker_r400_linux_marlboro constants fixed to properly add base and index (no waterfalling yet) - constants fixed to properly map src A,B,C onto c0 and c1
- ALU instr queue uses new reg storage (also, controller was renamed) undates for conditional execution Change 56142 on 2002/10/09 by vromaker@vromaker_r400_linux_marlboro Change 58116 on 2002/10/18 by vromaker@vromaker_r400_linux_marlboro - fix for tp_done/ais_pop collision - added conditional execution to CFS new Instr Oueue files Change 57672 on 2002/10/17 by vromaker@vromaker_r400_linux_marlboro Change 55772 on 2002/10/08 by dougd@dougd_r400_linux_marlboro minor fixes related to CFS state mem expansion changed sq cfc to have three sets of read ports controlled by i is sub-phase Change 57639 on 2002/10/17 by vromaker@vromaker_r400_linux_marlboro Change 55732 on 2002/10/07 by dougd@dougd_r400_linux_marlboro - more control flow updates modified port list of instantiations of sq_status_register to match latest version of that - output rotated requests from vtx thread buffer module Change 57520 on 2002/10/16 by dougd@dougd_r400_linux_marlboro Change 55670 on 2002/10/07 by dougd@dougd_r400_linux_marlboro add 1 bit to size of vsim event id increased number of status registers from 16 to 48 Change 57405 on 2002/10/16 by dougd@dougd_r400_linux_marlboro Change 55666 on 2002/10/07 by dougd@dougd_r400_linux_marlboro fix bug introduced in the previous version that caused o_new_context_ld to go to "X" just changed output name of alu(tex)_req_q to alu(tex)_req_out_q on sq_pix_thread_buff after reset Change 55620 on 2002/10/07 by vromaker@vromaker_r400_linux_marlboro Page 109 of 136 Page 110 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 54445 on 2002/09/30 by dougd@dougd r400 linux marlboro - fixes to param cache write ptr, and param cache free counter changed bit fields on i_addr_in to match rbbm $_addr$ to make a direct match of bit fields (just to make it easier to understand) Change 55389 on 2002/10/04 by vromaker@vromaker_r400_linux_marlboro param cache write and dealloc update Change 54212 on 2002/09/28 by dougd@dougd r400 linux marlboro Change 55202 on 2002/10/03 by dougd@dougd_r400_linux_marlboro corrected bit widths on some signals that caused errors in synthesis fixes bug reported in Bugzilla: Bug 405 where wrong data was written to Change 54202 on 2002/09/28 by dougd@dougd r400 linux marlboro sq_instruction_store memory due to interruption or pause of write data on rbbm bus Change 55025 on 2002/10/03 by dougd@dougd_r400_linux_marlboro increased size of vtx_alloc_space because vs_num_reg is 1 less than the actual value we want to req add FIFO_NAME to skid buffer ati_fifo_cntl in rbbm and vism Change 54201 on 2002/09/28 by dougd@dougd_r400_linux_marlboro Change 55017 on 2002/10/03 by dougd@dougd_r400_linux_marlboro corrected the 'defines in the parameter list of the instantiation of sq_thread_buff_cntl from those for "vtx" to those for "pix" added "FIFO_NAME" to skid buffer ati_fifo_cntl in rbbm and vism Change 54932 on 2002/10/02 by vromaker@vromaker r400 linux marlboro Change 54166 on 2002/09/27 by vromaker@vromaker_r400_linux_marlboro pism updated for case when param gen and gen index detected - SC_SQ interface updates
- also connected VGT_SQ_event to sq_vism Change 54925 on 2002/10/02 by dougd@dougd r400 linux marlboro Change 53873 on 2002/09/26 by dougd@dougd_r400_linux_marlboro added the following rbbm register outputs from rbbm_interface: context_misc_sc_output_screen_xy_set, context_misc_sc_sample_cntl_set, gen_index_pix_set defined wires for vss and vdd for virage memories and gen index vtx set Change 53800 on 2002/09/26 by vromaker@vromaker_r400_linux_marlboro Change 54872 on 2002/10/02 by vromaker@vromaker_r400_linux_marlboro - fixes for events flowing thru SQ - double buffer for dealloc space added to exit SM so it can handle cleared up issues with making individial vtx and pix thread buffers (and shared a second dealloc request while the first one is still in progress thread buff cntl) - fixed PV,PS bugs Change 54688 on 2002/10/01 by vromaker@vromaker_r400_linux_marlboro Change 53737 on 2002/09/25 by dougd@dougd_r400_linux_marlboro event vld was collideing with cfs update : fixed reduced size of cfc constant store Change 54647 on 2002/10/01 by vromaker@vromaker_r400_linux_marlboro Change 53736 on 2002/09/25 by dougd@dougd r400 linux marlboro - exp_cnt_q (export count) added to sq_export_alloc added 2 bits to width of vism skid buffer - pc_we fixed (export_pc fixed - added thread_type into logic) Change 53735 on 2002/09/25 by dougd@dougd_r400_linux_marlboro Change 54498 on 2002/10/01 by dougd@dougd_r400_linux_marlboro changed sizes of virage rams for mapping tables changed the REN input on the single portuse of dum_mem_p2 from $1^\prime b1$ to $\sim\!\!$ wen to prevent the warning messages displayed during simulation Change 53730 on 2002/09/25 by dougd@dougd_r400_linux_marlboro

Page 111 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Page 112 of 136

set all generate flags to "true" Change 53434 on 2002/09/24 by vromaker@vromaker_r400_linux_marlboro a few port mismatch fixes Change 53376 on 2002/09/24 by dougd@dougd_r400_linux_marlboro removed redundant declaration that caused synopsys compile error Change 53375 on 2002/09/24 by vromaker@vromaker r400 linux marlboro fixes for moving event thru the SQ - fixes for dealloc, and state diff in thread buffers

Change 53204 on 2002/09/23 by dougd@dougd_r400_linux_marlboro corrected mix of assignments: next_old_context <= old_context_q; // synopsys doesn't like "<=" mixed with "

Change 53136 on 2002/09/23 by dougd@dougd_r400_linux_marlboro remove "wire [7:0] temp6 = i addr in/6;" which cause synthesis error

Change 53039 on 2002/09/23 by dougd@dougd_r400_linux_marlboro new modules to increase size of pixel thread buffer

Change 52738 on 2002/09/20 by vromaker@vromaker r400 linux marlboro event fifo to pism/ptb fixes

Change 52350 on 2002/09/18 by vromaker@vromaker r400 linux marlboro ptr buff fix to work correctly with split 2-cycle transfers

Change 52270 on 2002/09/18 by dougd@dougd_r400_linux_marlboro corrected width of constant assigned to alloc_size_q from 2 to 4

Change 52212 on 2002/09/18 by dougd@dougd r400 linux marlboro modified fix to sq_valid_2_q that was entered in the previous version Change 52164 on 2002/09/17 by dougd@dougd_r400_linux_marlboro

added more to fix for sq_qual_2_q of previous version

Page 113 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

make sc_valid_2_q stay asserted until there is a SC_SQ_valid Change 51789 on 2002/09/16 by dougd@dougd_r400_linux_marlboro

fixed bug with SQ_RBB_rs outputting x's; fixed bug with code added to support rbbm

Change 51740 on 2002/09/16 by tien@tien_r400_devel_marlboro

Change 52160 on 2002/09/17 by dougd@dougd_r400_linux_marlboro

Interface change for post-June 15th inst/const

Change 51675 on 2002/09/15 by dougd@dougd_r400_linux_marlboro

fixed bug in rbbm diagnostic read interface

Change 51559 on 2002/09/13 by dougd@dougd r400 linux marlboro

connect acs_rd_req to sq_aluconst_top (that input was floating)

Change 51526 on 2002/09/13 by vromaker@vromaker_r400_linux_marlboro

- gpr dealloc connected

- static gpr allocation added (but not enabled) - ppb btwn pism and ptb added

Change 51368 on 2002/09/13 by dougd@dougd_r400_linux_marlboro

added some of the port connections necessary to support RBBM reading of the constant

Change 50967 on 2002/09/12 by dougd@dougd r400 linux marlboro

changed port name "i_context_switch" to "i_map_copy_start" for aluconst and texconst; changed "i_state_change flag" to "i_read_base_ld" and added ports based on state change based on gfx_copy_state to sq_cfc

Change 50916 on 2002/09/11 by dougd@dougd_r400_linux_marlboro

onnect context_switch based on gfx_copy_state in rbi; connect loading mechanism for eo rt start addresses for aluconst and texcons

Change 50806 on 2002/09/11 by vromaker@vromaker_r400_linux_marlboro

fixes for bug326 and 329 - tests still fail, but for different reasons

Change 50723 on 2002/09/11 by dougd@dougd_r400_linux_marlboro

Page 114 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder history

added support for real time mode

Change 50564 on 2002/09/10 by vromaker@vromaker r400 linux marlboro

Change 50503 on 2002/09/10 by vromaker@vromaker r400 linux marlboro

another PV/PS phase swap bug fix

Change 50458 on 2002/09/10 by dougd@dougd r400 linux marlboro

these files moved to directory where they are used

Change 50294 on 2002/09/09 by vromaker@vromaker_r400_linux_marlboro

update to write enables due to PV, PS cycle swap

Change 50193 on 2002/09/09 by vromaker@vromaker_r400_linux_marlboro updated kill mask out to SX

Change 50165 on 2002/09/09 by vromaker@vromaker_r400_linux_marlboro

fix for pc write one cycle early

Change 50034 on 2002/09/06 by dougd@dougd_r400_linux_marlboro

initial submission of skid buf ram for sq rbbm interface

Change 49970 on 2002/09/06 by vromaker@vromaker r400 linux marlboro

Change 49848 on 2002/09/05 by vromaker@vromaker_r400_linux_marlboro

added predicate, kill mask, pv/ps detection

- swapped PV and PS write gpr phase

Change 49671 on 2002/09/05 by dougd@dougd_r400_sun_marlboro

changed sizes of new_map_ram, map_ram and freelist to cover full size of texconst_mem

Change 49291 on 2002/09/03 by dougd@dougd_r400_linux_marlboro

 $removed \ context_misc_screen_xy_in_gpr0_set\ from\ sq.v\ and\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ added\ address\ decoding\ for\ real\ time\ constants\ in\ sq_rbbm_interface.v.\ address\ decoding\ for\ real\ time\ constants\ decoding\ for\ time\ constants\ de$

Change 49226 on 2002/09/02 by dougd@dougd_r400_sun_marlboro

Page 115 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

initial checkin

Change 49220 on 2002/09/02 by dougd@dougd_r400_linux_marlbord

brought in 3 more bits of rbi_addr and divide it by 6 to get the correct texture constant address because the 6 Dwords in each constant are no longer packed on boundaries of 8 Dwords but on boundaries of 6 Dwords

Change 49065 on 2002/08/30 by dougd@dougd_r400_linux_marlboro

add "vs num reg + 1" logic and increase port size by 1 bit

Change 49059 on 2002/08/30 by vromaker@vromaker_r400_linux_marlboro

fixed a few typos for the new SP instruction decode

Change 48976 on 2002/08/30 by dougd@dougd_r400_linux_marlboro

make o v ld cntl pkt deassert the next clk after receiving i vtb rtr

Change 48974 on 2002/08/30 by vromaker@vromaker_r400_linux_marlboro - needed to drive acfs_reading one cycle earlier for ACFS IS read

updated/added new SQ SP instruction interface

Change 48932 on 2002/08/29 by dougd@dougd_r400_linux_marlboro

replaced address constant with value defined in sq reg.v

Change 48844 on 2002/08/29 by dougd@dougd_r400_linux_marlboro

added support for gen_index (auto-count), vgt events and fixed some bugs

Change 48558 on 2002/08/28 by vromaker@vromaker r400 linux marlboro

- fix for out-of-order thread processing: the 2 alu ctl flow sequencers now share one instr store read slot instead of alternating between two different slots (which allowed one to get ahead opf the other)

thread counts from VISM and PISM to ais output added at SQ level

Change 48384 on 2002/08/27 by vromaker@vromaker_r400_linux_marlboro

- updates for $ptr_buff/pism$ to align quad mask correctly - additions for thread_count

Change 48164 on 2002/08/26 by vromaker@vromaker r400 linux marlboro

- fixes for individual macc write enables

Page 116 of 136

Change 46574 on 2002/08/16 by vromaker@vromaker_r400_linux_marlboro - added the prev pos alloc inputs to the status regs (and logic to generate them in the tread buffer) fix for SQ SX export id (was connected to wrong signal) Change 47553 on 2002/08/22 by vromaker@vromaker_r400_linux_marlboro Change 46517 on 2002/08/16 by vromaker@vromaker_r400_linux_marlboro - ptr buff changed for out-of-order quads pism: now add 1 to ps_num_reg to get the number of GPRs to alloc fixed thread read state machine type Change 47160 on 2002/08/20 by vromaker@vromaker r400 linux marlboro Change 46382 on 2002/08/15 by vromaker@vromaker r400 linux marlboro connected param_gen_pos to pism fixed pop thread to be only one cycle Change 47110 on 2002/08/20 by dougd@dougd_r400_linux_marlboro Change 46251 on 2002/08/15 by vromaker@vromaker_r400_linux_marlboro added the two rbbm registers that were missed in the last version updates for pop/winner ack status reg conflict Change 47072 on 2002/08/20 by vromaker@vromaker_r400_linux_marlboro Change 45784 on 2002/08/13 by dougd@dougd_r400_linux_marlboro updated param wrap wires fixed synchronization of writes to RAM by removing input flop on i_texconst_phase to be compatible with same change made in sq_texconst_mem.v sometime ago. Also updated local Change 46976 on 2002/08/20 by dougd@dougd_r400_linux_marlboro testbench for sq_texconst block. adding the remaining rbbm register outputs to sq_rbbm_interface and wired them up in Change 45466 on 2002/08/12 by askende@askende_r400_sun_marlboro checking in with Vic's permission changes related to vsr vu valid Change 46800 on 2002/08/19 by vromaker@vromaker_r400_linux_marlboro Change 45406 on 2002/08/12 by dougd@dougd r400 linux marlbord updated pism connections to local registers add change to deassert q_ins_sel when i_ins_rtr is returned. Change 46714 on 2002/08/19 by vromaker@vromaker r400 linux marlboro Change 45291 on 2002/08/09 by dougd@dougd_r400_linux_marlboro updated local register inputs to PISM removed "[0:0]" from "input [0:0] clk;" in sq. status reg.v to prevent synopsys tel script Change 46643 on 2002/08/16 by dougd@dougd_r400_linux_marlboro error during synthesis. Removed divide-by-3 code in sq_instruction_store.v to prevent synthesis Change 45271 on 2002/08/09 by dougd@dougd_r400_linux_marlboro Change 46642 on 2002/08/16 by dougd@dougd_r400_linux_marlboro add i texconst rtr to deassert q tex sel added register outputs from rbbm_interface and vgt_event from sq_vism Change 45079 on 2002/08/08 by efong@efong_crayola_linux_cvd Change 46637 on 2002/08/16 by vromaker@vromaker r400 linux marlboro removed all the hacked files Change 44548 on 2002/08/06 by vromaker@vromaker r400 linux marlboro Change 46629 on 2002/08/16 by vromaker@vromaker_r400_linux_marlboro - status register shift connection bug fixed more fixes for alloc size Change 44376 on 2002/08/06 by dougd@dougd_r400_linux_marlboro Page 117 of 136 Page 118 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history changed default parameter values STATE_WIDTH =64; CFS_STATE_WIDTH = 32; Change 42996 on 2002/07/29 by vromaker@vromaker r400 linux marlboro STATUS WIDTH = 32; to prevent index select errors in synthesis - fixed priority encoders (was reversed) Change 44356 on 2002/08/06 by dougd@dougd_r400_linux_marlboro Change 42684 on 2002/07/26 by vromaker@vromaker_r400_linux_marlboro changed default parameter value of 16 to STATUS WIDTH = 32; to prevent error: slice direction does not match array direction in synthesis - reverted valid_bits to go from lsb to msb Change 44355 on 2002/08/06 by dougd@dougd_r400_linux_marlboro Change 42415 on 2002/07/25 by dougd@dougd_r400_linux_marlboro changed default parameter values (was 8): STATE_WIDTH = 64; STATUS_WIDTH = 32; so that select index would not be out of bounds and cause synthesis to error added at irbbm intf to complete the RBB rd path Change 42246 on 2002/07/24 by vromaker@vromaker_r400_linux_marlboro Change 44314 on 2002/08/05 by vromaker@vromaker_r400_linux_marlboro - fixed thread id width (caused 2nd pix vector to be same as 1st) more delay for free done Change 42150 on 2002/07/24 by vromaker@vromaker_r400_linux_marlboro Change 44294 on 2002/08/05 by vromaker@vromaker_r400_linux_marlboro - fixed ais acs rd addr for synthesis - 3 cycle delay added for free done port width fixes Change 42144 on 2002/07/24 by vromaker@vromaker_r400_linux_marlboro Change 44234 on 2002/08/05 by sallen@sallen_r400_lin_marlboro - thread id width fixes ferret: finish up backdoor ucode loading, pli changes, etc Change 42107 on 2002/07/23 by markf@markf r400 linux marlboro Change 44201 on 2002/08/05 by vromaker@vromaker_r400_linux_marlboro Updated SC->SQ interface - free_done fix: don't send on param_cache (vtx shdr) done Change 42096 on 2002/07/23 by vromaker@vromaker r400 linux marlboro - sq: added SQ_SP_vsr_vu_valid - updates to VISM to handle end_of_vector with invalid data - forced sq-tp pix mask to 0xF Change 44010 on 2002/08/02 by vromaker@vromaker r400 linux marlboro Change 42084 on 2002/07/23 by vromaker@vromaker r400 linux marlboro - multi pixel vector fixes - VISM fixed for 32 vertex test - fixed SQ_SC interface connections Change 42069 on 2002/07/23 by vromaker@vromaker r400 linux marlboro Change 43237 on 2002/07/30 by vromaker@vromaker r400 linux marlboro - reversed order of valid bits (aka pix mask) - temp fix to ptr buff to delay free_buff to SC Change 41959 on 2002/07/23 by vromaker@vromaker_r400_linux_marlboro - re-enabled alu interleaving - right shift 1 into MSB of valid bit string (instead of left shift into LSB) Change 42997 on 2002/07/29 by vromaker@vromaker_r400_linux_marlboro Change 41839 on 2002/07/22 by vromaker@vromaker_r400_linux_marlboro - input arb now grants pix while pix is busy pism skips idle if request is present - new, wider SC interface - interleaving disabled in sq.v

Page 119 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Page 120 of 136

Change 41838 on 2002/07/22 by vromaker@vromaker_r400_linux_marlboro - fixed cfs_export_id_q to load global_export_id_q only when allocating - or'd more signals together in TIF to get a solid busy output delete Change 41297 on 2002/07/18 by dougd@dougd_r400_linux_marlboro Change 41831 on 2002/07/22 by dougd@dougd_r400_linux_marlboro fix typo in previous checkin added 'include "./misc/so defs.v" Change 41259 on 2002/07/18 by dougd@dougd_r400_linux_marlboro Change 41826 on 2002/07/22 by dougd@dougd r400 linux marlbord intitial checkin of skid buffer used in sq_vism.v changed parameter STATUS_WIDTH value from 4 to 16 to prevent compilation problems in synthesis Change 41218 on 2002/07/18 by dougd@dougd r400 linux marlboro Change 41823 on 2002/07/22 by dougd@dougd_r400_linux_marlboro more changes to support synthesis changed order of output declarations to come before their reg declarations so that Change 41217 on 2002/07/18 by vromaker@vromaker_r400_linux_marlboro Change 41804 on 2002/07/22 by dougd@dougd_r400_linux_marlboro Change 41188 on 2002/07/17 by efong@efong crayola linux cvd created sq rbbm skid buf with virage mem to replace ati skid buff put in 'endif' Change 41796 on 2002/07/22 by vromaker@vromaker r400 linux marlboro Change 40943 on 2002/07/16 by dougd@dougd r400 linux marlboro - make the thread id width consistent at 6 bits (except at the state mem address port) - updated the SQ_TP and TP_SQ interface (got rid of SQ_TP_clause_num) original submission of virage memory *.ctmc files. The *.v files were modified to Change 41748 on 2002/07/22 by vromaker@vromaker_r400_linux_marlboro Change 40937 on 2002/07/16 by vromaker@vromaker r400 linux marlboro fixed state width for sythesis - added alu_instr_pending status bit - added new SQ_SX_exp and SQ_SX_free interfaces (free is not functional) Change 41592 on 2002/07/19 by vromaker@vromaker_r400_linux_marlboro - interleaving is enabled Change 40686 on 2002/07/15 by vromaker@vromaker r400 linux marlboro fix for interleaving: cfs_type strap on ALU CFS 1 corrected to 2 updated decode for exports to be the same as in the AIQ: this fixes extraneous GPR writes Change 41459 on 2002/07/19 by vromaker@vromaker_r400_linux_marlboro - more thread id updates due to new location of thread id in status register Change 40659 on 2002/07/15 by vromaker@vromaker r400 linux marlboro Change 41453 on 2002/07/19 by vromaker@vromaker_r400_linux_marlboro - added 2nd alu cfs update interface to thread buff state read addr now status thread id[winner] as it should have been - reg'd cfs_phase in thread buff to match reg'd update data fixed updated field position of thread_id w/in status (was causing a state_mem read address error since SMRA = winner[status[thread_id]] Change 39972 on 2002/07/12 by vromaker@vromaker_r400_linux_marlboro Change 41326 on 2002/07/18 by vromaker@vromaker_r400_linux_marlboro fixes for 2 pixel vectors - corrected exp_type for pix w/o z Change 39731 on 2002/07/11 by vromaker@vromaker_r400_linux_marlboro Page 122 of 136 Page 121 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder history Ex. 2049 --- Sequencer Parts Development FH --- folder history Change 34778 on 2002/06/18 by vromaker@vromaker_r400_linux_marlboro fixes for 2 pix vectors fix for pix shader alu instruction Change 39002 on 2002/07/09 by vromaker@vromaker_r400_linux_marlboro Change 34632 on 2002/06/17 by dougd@dougd_r400_linux_marlboro misc added a full subtract of the instruction store base address from the rbi addr before doing Change 38998 on 2002/07/09 by vromaker@vromaker r400 linux marlboro the divide by 3 to get the memory addr Change 34631 on 2002/06/17 by vromaker@vromaker_r400_linux_marlboro Change 38997 on 2002/07/09 by vromaker@vromaker r400 linux mariboro hack to delay SC input 16 cycles not sure - checked in due to clean up Change 34606 on 2002/06/17 by dougd@dougd r400 linux marlboro Change 36278 on 2002/06/25 by dougd@dougd r400 linux marlboro commented out the change made in the last version because it needs to be released at the same time as another change in the sq to work properly added input VGT_SQ_event ; changed $VGT_SQ_vsisr_double$ to $VGT_SQ_vsisr_continued$ Change 34588 on 2002/06/17 by vromaker@vromaker_r400_linux_marlboro added delays for SQ SP interp ctl and SQ SP gpr write for interp data Change 36192 on 2002/06/25 by dougd@dougd r400 linux marlboro added connections and function to support SQ_RBBM_cntx17_busy & SQ_RBBM_cntx0_busy, however, at this time both of these signals are the same Change 34547 on 2002/06/17 by dougd@dougd_r400_linux_marlboro fixed bug in o vector valid where it was setting one too many bits Change 36176 on 2002/06/25 by markf@markf r400 linux marlboro Change 34539 on 2002/06/17 by vromaker@vromaker_r400_linux_marlboro Tied SQ RBBM_nrtrtr to SQ RBBM_rtr temp hack to param cache write addr and enable to move them out 1 cycle Change 35120 on 2002/06/20 by vromaker@vromaker r400 linux marlboro Change 34347 on 2002/06/15 by vromaker@vromaker r400 linux marlboro changes for latest emulator fixes for sending interp ctl to SX/SP Change 35005 on 2002/06/19 by vromaker@vromaker r400 linux marlboro Change 34111 on 2002/06/14 by vromaker@vromaker_r400_linux_marlboro more busy bits got rid of temp hack Change 34969 on 2002/06/19 by vromaker@vromaker r400 linux marlboro Change 34086 on 2002/06/14 by rbell@crayola misc linux fix for CFI fetch (alloc had to update CFI ptr); added a few busy signals Fixed runsim to return rc no larger than 255. Fixes for the full chip build Change 34833 on 2002/06/18 by vromaker@vromaker_r400_linux_marlboro fix for wrong thread type Change 34083 on 2002/06/14 by vromaker@vromaker r400 linux marlboro Change 34806 on 2002/06/18 by vromaker@vromaker_r400_linux_marlboro sending correct export address in SP instruction took away 4 cycles of delay on pix gpr wr{addr, en} Change 34062 on 2002/06/14 by dougd@dougd_r400_linux_marlboro Page 123 of 136 Page 124 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

changed polarity of exp_pix SX exp added; tgt instr cnt from CFS to TIF fixed; alloc stuff added Change 33940 on 2002/06/13 by vromaker@vromaker r400 linux marlboro Change 32898 on 2002/06/10 by vromaker@vromaker r400 linux marlboro many updates... some v2k removal fixed sq-sp gpr rd en; changed "state" to "context id" in instr pipes Change 33853 on 2002/06/13 by rbell@rbell crayola sun cvd Change 32795 on 2002/06/07 by vromaker@vromaker_r400_linux_marlboro Had to create more "hacked" files...port mismatches. Must be fixed later Change 33801 on 2002/06/13 by rbell@rbell crayola sun cvd Change 32774 on 2002/06/07 by dougd@dougd_r400_linux_marlboro Fixes/hacks to get the first chip integration compile to work. fix typo bug in last version Change 33723 on 2002/06/13 by dougd@dougd_r400_linux_marlboro Change 32767 on 2002/06/07 by dougd@dougd_r400_linux_marlboro $added\ context_valid\ from\ aluconst_top\ to\ sq_vism\ to\ enable/stall\ loading\ of\ control\ packet\ from\ vgt\ until\ the\ alu\ constant\ store\ has\ been\ loaded\ for\ this\ state.$ added input i vtb rtr to complement o v ld cntl pkt to form handshake Change 32678 on 2002/06/07 by dougd@dougd_r400_linux_marlboro Change 33615 on 2002/06/12 by vromaker@vromaker r400 linux marlboro fix bug in address decode logic misc updates... alu_req logic updated in sq_status_reg Change 32472 on 2002/06/06 by vromaker@vromaker r400 linux marlboro Change 33554 on 2002/06/12 by vromaker@vromaker_r400_linux_marlboro thread buff - arb interface updates moved gpr rd en one cycle earlier for srcA Change 32366 on 2002/06/06 by dougd@dougd_r400_linux_marlboro Change 33536 on 2002/06/12 by vromaker@vromaker_r400_linux_marlboro initial checkin sending srcA gpr read addr one cycle earlier Change 32295 on 2002/06/06 by vromaker@vromaker_r400_linux_marlboro Change 33519 on 2002/06/12 by dougd@dougd r400 linux marlboro commented out fsdbdumpmern fix bug in o context valid being set correctly Change 32275 on 2002/06/06 by vromaker@vromaker r400 linux marlboro Change 33509 on 2002/06/12 by vromaker@vromaker_r400_linux_marlboro updated tex instr const_index field to the new format fixed exporting bit by putting pred sel bit in correctly Change 32269 on 2002/06/06 by dougd@dougd r400 linux marlboro Change 33492 on 2002/06/12 by vromaker@vromaker_r400_linux_marlboro remove input register on i texconst phase to sync data xfer to sq various updates - instr start asserted to SP Change 32225 on 2002/06/06 by dougd@dougd r400 linux marlboro Change 33348 on 2002/06/11 by vromaker@vromaker r400 linux marlboro Page 126 of 136 Page 125 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder history fix bug in o_context_switch in sq_rbbm_interface and set map_copy_cntr to 3'd7 at reset Change 31805 on 2002/06/04 by dougd@dougd_r400_linux_marlboro in sq const map entl connected o is data to read data Change 32159 on 2002/06/05 by dougd@dougd_r400_linux_marlboro Change 31700 on 2002/06/04 by dougd@dougd_r400_linux_marlboro add decode of gfx_draw_initiator to rbbm_interface to generate context switch to force a changed <= to = in combinatorial blocks to satisfy Leda map_copy operation in const_map_cntl Change 32104 on 2002/06/05 by vromaker@vromaker_r400_linux_marlboro Change 31699 on 2002/06/04 by dougd@dougd_r400_linux_marlboro connected SQ TP send to internal SQ TP vld initial checkin of useful files Change 31996 on 2002/06/05 by dougd@dougd_r400_linux_marlboro Change 31693 on 2002/06/04 by vromaker@vromaker_r400_linux_marlboro o_v_grp_addr was being incremented 1 cycle too early. Fixed. Change 31953 on 2002/06/05 by vromaker@vromaker r400 linux marlboro Change 31621 on 2002/06/03 by vromaker@vromaker r400 linux marlboro updated texture pipe output format Change 31884 on 2002/06/04 by dougd@dougd_r400_linux_marlboro Change 31586 on 2002/06/03 by vromaker@vromaker r400 linux marlboro Change 31883 on 2002/06/04 by dougd@dougd_r400_linux_marlboro Change 31449 on 2002/06/03 by dougd@dougd_r400_linux_marlboro made temporary fix (marked with FIXME comment) to continue using TP_SQ_clause_num in the port list instead of the newer (replacement) TP_SQ_thread_id which was declared a wire set to "0" to keep gc_test.v working. fixed bug Change 31880 on 2002/06/04 by dougd@dougd r400 linux marlboro changed the timing of the CP write to use the same non-registered input address mux as Change 31428 on 2002/06/03 by dougd@dougd r400 linux marlboro added tempory wire o_vs_base_set = o_vs_program_base_set; Change 31875 on 2002/06/04 by vromaker@vromaker r400 linux marlboro Change 31427 on 2002/06/03 by dougd@dougd_r400_linux_marlboro updates replaced i_cf_addr with i_alu0_cf_addr, i_alu1_cf_addr, i_tex_cf_addr and replaced Change 31866 on 2002/06/04 by dougd@dougd r400 linux marlboro i alu phase with i is sub phase added connections to o inst base vtx and o inst base pix Change 31389 on 2002/06/03 by vromaker@vromaker_r400_linux_marlboro Change 31821 on 2002/06/04 by dougd@dougd_r400_linux_marlboro fix bug in previous version Change 31361 on 2002/06/02 by vromaker@vromaker r400 linux marlboro Change 31818 on 2002/06/04 by dougd@dougd_r400_linux_marlboro removed register stage for address into RAM Change 31279 on 2002/05/31 by vromaker@vromaker r400 linux marlboro Page 127 of 136 Page 128 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history

fixed tex instruction read pointer

Change 33233 on 2002/06/11 by vromaker@vromaker r400 linux marlboro

replaced the v2k indexed part select implementation with muxes

Change 33977 on 2002/06/13 by vromaker@vromaker r400 linux marlboro

updates added output "o context switch" to sq rbbm interface and connected it to sq_aluconst_top and sq_texconst_top in sq.v Change 31031 on 2002/05/31 by dougd@dougd r400 linux marlboro <enter description here> added functionality for o_vs_first_thread Change 30286 on 2002/05/28 by vromaker@vromaker_r400_linux_marlboro Change 30987 on 2002/05/30 by dougd@dougd r400 linux marlboro added vs instr ptr, vs resource and vs first thread as outputs from sq vism Change 30284 on 2002/05/28 by vromaker@vromaker_r400_linux_marlboro Change 30971 on 2002/05/30 by vromaker@vromaker r400 linux marlboro moved file from tis to cfs updates Change 30282 on 2002/05/28 by vromaker@vromaker_r400_linux_marlboro Change 30816 on 2002/05/30 by vromaker@vromaker r400 linux marlboro fixed blocking assignment on SQ_SP_gpr_wr_en Change 30159 on 2002/05/27 by vromaker@vromaker_r400_linux_marlboro Change 30762 on 2002/05/29 by dougd@dougd_r400_linux_marlboro updates fixed various bues $Change\ 30053\ on\ 2002/05/24\ by\ dougd@dougd_r400_linux_marlboro$ Change 30562 on 2002/05/29 by vromaker@vromaker_r400_linux_marlboro rbi_acs_rts was wired to both o_aluconst_rts and o_texconst_rts from sq_rbbm_interface: fixed input-sel output Change 30048 on 2002/05/24 by vromaker@vromaker_r400_linux_marlboro Change 30559 on 2002/05/29 by vromaker@vromaker r400 linux marlboro checkpoint update connected the gpr input mux sel Change 30021 on 2002/05/24 by dougd@dougd_r400_linux_marlboro Change 30516 on 2002/05/29 by dougd@dougd_r400_linux_marlboro extended duration of i_map_copy_active to hold rtr inactive 1 more tick to allow pa to be added connection to gen index set output from sq rbbm interface Change 30462 on 2002/05/28 by dougd@dougd_r400_linux_marlboro Change 29966 on 2002/05/24 by dougd@dougd_r400_linux_marlboro o_v_gpr_we was "X" so hardwired o_v_gpr_we = 1'b1; as a temporary fix. changed include file Change 30458 on 2002/05/28 by vromaker@vromaker r400 linux marlboro Change 29948 on 2002/05/24 by dougd@dougd_r400_linux_marlboro updates sq_rbbm_interface supports both old and new register 'defines and has all the new state registers. sq.v instantiates this sq_rbbm_interface Change 30340 on 2002/05/28 by dougd@dougd_r400_linux_marlboro Change 29802 on 2002/05/23 by dougd@dougd_r400_linux_marlboro wired up outputs from new registers to old versions of same outputs. This is tempory until we switch over completely to the new register spec. fixed various bugs Change 30289 on 2002/05/28 by dougd@dougd_r400_linux_marlboro Change 29768 on 2002/05/23 by vromaker@vromaker r400 linux marlboro Page 129 of 136 Page 130 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history added fifo regs ctl to sq/misc Change 29767 on 2002/05/23 by vromaker@vromaker_r400_linux_marlboro Change 27332 on 2002/05/10 by dougd@dougd_r400_sun_marlboro added a divide by 3 to the incoming RBI address to generate the correct instruction Change 29750 on 2002/05/23 by vromaker@vromaker r400 linux marlboro memory address updates.. now has clk and reset inputs.. Change 27179 on 2002/05/09 by dougd@dougd_r400_sun_marlboro Change 29311 on 2002/05/21 by vromaker@vromaker r400 linux marlboro changed size of outputs o inst base vtx and o inst base pix from 8x because they are added SQ CTL PKT WIDTH back in Change 27099 on 2002/05/08 by dougd@dougd_r400_sun_marlboro Change 29136 on 2002/05/20 by vromaker@vromaker_r400_linux_marlboro added outputs for the initial set of state registers in sq.v Change 27093 on 2002/05/08 by dougd@dougd_r400_sun_marlboro Change 28916 on 2002/05/17 by vromaker@vromaker_r400_linux_marlboro changed the values assigned to i is phase new so files for clause-less state management; initial, not complete, versions Change 27092 on 2002/05/08 by dougd@dougd_r400_sun_marlboro Change 28866 on 2002/05/17 by dougd@dougd_r400_linux_marlboro added sq_ as prefix to module and file names minor logic fixes Change 27088 on 2002/05/08 by dougd@dougd_r400_sun_marlboro Change 28533 on 2002/05/16 by dougd@dougd_r400_linux_marlboro added sq_ as prefix to module and file tempory use to allow compile until new register spec is implemented Change 27087 on 2002/05/08 by dougd@dougd_r400_sun_marlboro Change 28531 on 2002/05/16 by dougd@dougd r400 linux marlboro added sq. prefix to module and file names added temporary include of ./sq_reg_old.v to allow compile until the new register spec is implemented Change 27050 on 2002/05/08 by vromaker@vromaker r400 linux marlboro Change 27919 on 2002/05/14 by dougd@dougd_r400_linux_marlboro updates this is the old register spec which is needed while we are still using rtl based on this spec Change 26913 on 2002/05/08 by dougd@dougd r400 sun marlboro Change 27917 on 2002/05/14 by dougd@dougd r400 sun mariboro this module was renamed to sq instruction store.v changed `include "register_addr.v to `include "./sq_register_addr.v to allow compilation Change 26907 on 2002/05/08 by dougd@dougd_r400_sun_marlboro of rtl based on old register spec this file was renamed to sq_vism.v Change 27837 on 2002/05/14 by dougd@dougd_r400_linux_marlboro Change 26905 on 2002/05/08 by dougd@dougd_r400_sun_marlboro added prefix sq to module and file name changed some IO names Change 27828 on 2002/05/14 by vromaker@vromaker_r400_linux_marlboro Page 132 of 136 Page 131 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 26903 on 2002/05/08 by dougd@dougd_r400_sun_mariboro Change 26217 on 2002/05/03 by dougd@dougd_r400_sun_marlboro changed module name from vism to sq vism, changed some IO names. initial submit for so/cfc rtl Change 26852 on 2002/05/07 by dougd@dougd_r400_sun_marlboro Change 26216 on 2002/05/03 by dougd@dougd_r400_sun_marlboro renamed module from is.v to sq instruction store.v initial submit for so/tex const rtl Change 26214 on 2002/05/03 by dougd@dougd_r400_sun_marlboro Change 26785 on 2002/05/07 by dougd@dougd_r400_sun_marlboro initial version is incomplete and in development initial submit for sq/aluconst rtl Change 26731 on 2002/05/07 by vromaker@vromaker_r400_linux_marlboro Change 26208 on 2002/05/03 by dougd@dougd_r400_sun_marlboro intitial submit. Change 26729 on 2002/05/07 by vromaker@vromaker_r400_linux_marlboro Change 25779 on 2002/05/01 by vromaker@vromaker_r400_sun_marlboro latest updates Change 26726 on 2002/05/07 by vromaker@vromaker r400 sun marlboro Change 25625 on 2002/04/30 by vromaker@vromaker r400 sun mariboro Change 26717 on 2002/05/07 by vromaker@vromaker r400 sun marlboro Change 25183 on 2002/04/26 by vromaker@vromaker_r400_sun_marlboro Change 26716 on 2002/05/07 by vromaker@vromaker r400 sun marlboro Change 24711 on 2002/04/24 by vromaker@vromaker r400 sun marlboro ping-pong buffer (ctl and storage, width parameterized) Change 26713 on 2002/05/07 by vromaker@vromaker_r400_sun_marlboro Change 24469 on 2002/04/23 by vromaker@vromaker_r400_sun_mariboro mux to select gfx register data based on state (context) Change 26584 on 2002/05/06 by dougd@dougd_r400_sun_mariboro Change 24081 on 2002/04/19 by vromaker@vromaker_r400_sun_marlboro added outputs o $_$ vism $_$ busy (to arbiter) and o $_$ sp $_$ vsr $_$ read to shader pipe to control reading VSR during GPR loading. Removed input i $_$ gpr $_$ phase $_$ mux as it was unused. initial versions Change 23514 on 2002/04/16 by vromaker@vromaker_r400_sun_mariboro Change 26219 on 2002/05/03 by dougd@dougd_r400_sun_marlboro undating with latest versions initial submit for sq/vism rtl Change 21716 on 2002/04/03 by vromaker@vromaker_r400_sun_mariboro Change 26218 on 2002/05/03 by dougd@dougd_r400_sun_marlboro initial submit for sa/is rtl Change 21714 on 2002/04/03 by vromaker@vromaker_r400_sun_marlboro Page 133 of 136 Page 134 of 136 Ex. 2049 --- Sequencer Parts Development FH --- folder_history Ex. 2049 --- Sequencer Parts Development FH --- folder_history Change 20654 on 2002/03/27 by vromaker@vromaker_r400_sun_marlboro update Change 21642 on 2002/04/03 by vromaker@vromaker_r400_sun_marlboro $un_SQ_TP_pmask -> un_SQ_TP_pix_mask \ (for \ n=0..3)$ SP TP const to 48 bits Change 20652 on 2002/03/27 by vromaker@vromaker_r400_sun_marlboro Change 21626 on 2002/04/03 by vromaker@vromaker r400 sun mariboro latest version - renamed from sequencer top.v Change 19789 on 2002/03/20 by vromaker@vromaker_r400_sun_marlboro re-added SQ_SP_ijline, fixed SP_TP instr and const widths Change 21468 on 2002/04/02 by vromaker@vromaker r400 sun marlboro Change 19752 on 2002/03/20 by vromaker@vromaker_r400_sun_marlboro Change 21425 on 2002/04/02 by vromaker@vromaker r400 sun marlboro put SQ SP stall back in latest fixes Change 19726 on 2002/03/20 by vromaker@vromaker_r400_sun_marlboro Change 21081 on 2002/03/29 by vromaker@vromaker_r400_sun_marlboro updates Change 19653 on 2002/03/19 by vromaker@vromaker_r400_sun_marlboro Change 21079 on 2002/03/29 by vromaker@vromaker_r400_sun_marlboro updated sq top initial version Change 18260 on 2002/03/08 by vromaker@vromaker r400 sun marfboro Change 21075 on 2002/03/29 by vromaker@vromaker_r400_sun_marlboro initial version Change 18257 on 2002/03/08 by vromaker@vromaker r400 sun marlboro Change 21074 on 2002/03/29 by vromaker@vromaker_r400_sun_marlboro Change 18256 on 2002/03/08 by vromaker@vromaker r400 sun marlboro Change 21073 on 2002/03/29 by vromaker@vromaker r400 sun mariboro initial version Change 11107 on 2001/12/03 by pmitchel@pmitchel_r400_win_marlboro Change 20660 on 2002/03/27 by vromaker@vromaker_r400_sun_marlboro my block dirs to gfx module name updated to sq Change 20657 on 2002/03/27 by vromaker@vromaker r400 sun marlboro $position_space -> pos_avail, buffer_space -> buf_avail$ Change 20655 on 2002/03/27 by vromaker@vromaker_r400_sun_mariboro added SQ_TP_type, SQ_TP_send, un_TP_SQ_type, TP_SQ_rdy Page 135 of 136 Page 136 of 136

Ex. 2049 --- Sequencer Parts Development FH --- folder_history

Change 216876 on 2005/04/08 by vromaker@MA_VIC_P4 Updates related to CP_MEQ undated overview, removed some out-of-data info Change 136302 on 2003/12/08 by fliliero@fl frank Change 216874 on 2005/04/08 by vromaker@MA_VIC_P4 Updates to MEQ related registers & busy signals Change 135746 on 2003/12/05 by fliliero@fl knarf Change 191268 on 2004/10/12 by rramsey@rramsey_xenos_win_orl Updated CP Interrupt packet for performance Add a page for newCurCnt table Change 134564 on 2003/12/01 by fliljero@fl_knarf Change 188248 on 2004/09/17 by lseiler@lseiler_win_1_r400 Max Buffer Size in Indirect Buffer Packets is [19:0]...Spec had [22:0] Fixed a minor bug in the stencil function table Change 133990 on 2003/11/25 by ihoule@ihoule doc lt Change 149989 on 2004/02/19 by lseiler@lseiler_r400_win_marlboro1 v1.80 - Indicated that NO_ZERO srf mode is unsupported for Xenos (will currently only work in the VC path) Fixed bug in Zplane figure Change 133807 on 2003/11/25 by alleng@alleng_r400_win_marlboro_8200 Change 138566 on 2003/12/19 by fliljero@fl frank Deleting old files... Added 3 new packets for improved type-0 packet processing: Change 133806 on 2003/11/25 by alleng@alleng r400 win marlboro 8200 Incremental Update State/Const/Inst Change 137750 on 2003/12/16 by fliljero@fl_knarf Deleted old files. Added optimized Event_Write* packets & new opcodes Change 133805 on 2003/11/25 by alleng@alleng_r400_win_marlboro_8200 Change 137101 on 2003/12/12 by fliliero@fl frank Deleted old files... Added Wait_Reg_Eq & Wait_Reg_Gte PM4 packet descriptions Change 132833 on 2003/11/19 by fliljero@fl_knarf Change 137025 on 2003/12/11 by fliliero@fl knarf changed R400 reference to Xenos updated documentation on error checking and removed reference to type-1 packet. Change 131864 on 2003/11/13 by frising@frising_r400_win_marlboro Change 136800 on 2003/12/10 by fliljero@fl_knarf -For cube instruction SrcA swizzle is now .zzxy. Also tried to clarify the differences between what's shown in the numerics doc and what actually happens in the HW for cube Updated description for MEM_WRITE_CNTR to include how to change the core clock interval from 1 <--> 16. Change 130982 on 2003/11/10 by mpersaud@mpersaud r400 win tor Change 136780 on 2003/12/10 by fliljero@fl_knarf Submit delta doc for R400_R500 tvout changes $Up dated \ Me_Init\ packet\ for\ Header\ Dumps\ \&\ Error\ checking... added\ note\ about\ recompiling\ microcode\ to\ enable\ these\ debug\ only\ features.$ Change 130037 on 2003/11/04 by fliljero@fl_knarf Change 136762 on 2003/12/10 by fliljero@fl_knarf Added registers and PM4 packet changes related to the Software Managed Instruction Page 2 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 129511 on 2003/10/30 by tien@ma spinach Added description and restrictions on RB->MH and MH->RB requests routed through Some additional info on perf and debug regs Change 125904 on 2003/10/09 by jhoule@jhoule_doc_lt Change 128832 on 2003/10/27 by tien@ma_spinach v1.79 Added info to perf and debug regs. Added stack map support
 Changed SIZE packing for 2D to allow for common decoding between stack maps and Change 127821 on 2003/10/22 by bbuchner@fl_bbuchner_r400_win 2D maps - Stated that SIZE values must contain w-1, h-1, and d-1 - Added "Stack" line to the maximum texture sizes Change 127682 on 2003/10/21 by tien@ma_spinach Change 125618 on 2003/10/08 by jiezhou@jiezhou_r400_win A little more one perf regs New debug regs doc small updating Change 127599 on 2003/10/21 by tien@ma_spinach Change 125614 on 2003/10/08 by jiezhou@jiezhou_r400_win fix Hyperlink, add DTO description, Test counter description Added some info the the perf counters for TP/TPC This is tough :-) but kinda fun :-) Change 124923 on 2003/10/03 by jhoule@jhoule_doc_lt Change 127541 on 2003/10/21 by tien@ma_spinach v1.78 Filled in results for all cases TFetchInstr:
- Removed unsupported opcodes for the sake of clarity Added z_{n}^{\dagger} frac = 0 case Will define perf counters for TPC/TP here for the heck of it... TFetchConst Moved DIM field to last DWORD (kept the old one temporarily)
 Added ANISO_BIAS field Change 126714 on 2003/10/15 by jayw@ma_jayw_lt old update with John's change - Added FMT_DXT3A_AS_1_1_1_1 Change 126588 on 2003/10/14 by tien@ma_spinach Deprecated the ARBITRARY_FILTER fields from TFetch instr+const. Filled in numbers for a bunch of cases Change 124599 on 2003/10/02 by fliljero@fl_knarf Change 126058 on 2003/10/10 by frising@frising_r400_win_marlboro -update scalar mova instructions to return MAX_S(SrcC) Change 124344 on 2003/10/01 by Iseiler@Iseiler r400 win marlboro Change 125972 on 2003/10/09 by frising@frising_r400_win_marlboro Changes to depth formats to make HW more efficient -update vector mova instruction to be two operand with result to GPR being max of operands. Scalar mova instructions were updated to always return srcC.w. Change 124325 on 2003/10/01 by fliljero@fl knarf Change 125952 on 2003/10/09 by beiwang@bei_pc added 2nd interrupt from MC to RBBM Page 4 of 441 Page 3 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

> LG v. ATI IPR2015-00325

AMD1044 0258096

ATI 2050

made drawing change to reflect changes to SRC0 & SRC1 removal of MICROM, MRL & MRM as possible sources. also removed the BOOLEANs as a possible source for SRC1. Change 124280 on 2003/10/01 by fliljero@fl knarf added MC0|MC1_RBBM_int signals Change 122794 on 2003/09/23 by jhoule@jhoule_doc_lt Change 123990 on 2003/09/30 by fliljero@fl_knarf Update for the new Ws which has 11b mantissa (12b total) added changes to set_state and load_constant_context Change 122741 on 2003/09/23 by csampayo@fl csampayo r400 Change 123796 on 2003/09/29 by vbhatia@vbhatia_r400_win_marlboro Closed bug# 117. Some housekeeping Slight update of fmt49, to reflect changes in tp_fmt_encode hardware Change 122572 on 2003/09/22 by efong@efong_r400_win_tor_doc Change 123793 on 2003/09/29 by tien@ma_spinach added in dglen Change 121971 on 2003/09/18 by efong@efong_r400_win_tor_doc Change 123764 on 2003/09/29 by vgoel@fl_vgoel2 New update to remove people who have left and new PEYs closed bug 104 Change 121907 on 2003/09/17 by alleng@alleng_r400_win_marlboro_8200 Change 123315 on 2003/09/25 by fliljero@fl_knarf Minor fixes, rearranged, added SC efficiency, vector ratios, etc... Updated Const. Prefetch packet to issue only once per LCC packet. When the LCC ordinals repeat, they also repeat in the Const_Prefetch packet. Formerly, there was a new Const_Prefetch packet for each repeat of the ordinals. Change 121820 on 2003/09/17 by vliu@vliu r400 cnnbdv3 win cvd Change 123064 on 2003/09/24 by fliljero@fl_knarf Change 121788 on 2003/09/17 by tien@ma_spinach Updated Subblk_Prefetch packet to send the Header only once, followed optionally by Updates for the week Change 123059 on 2003/09/24 by ashishs@fl ashishs r400 win Change 121752 on 2003/09/17 by koyu@kyu closing bug 40 and 116 added SQ spreadsheet, added -optimize to pm4opt redundant LCC and SET_CONST pkts Change 123057 on 2003/09/24 by tien@ma_spinach Change 121616 on 2003/09/16 by alleng@alleng_r400_win_marlboro_8200 Upadted for the week 9/24 Added new perl script to go direct from phantom.csv to the file.xls file Change 123011 on 2003/09/24 by csampayo@fl_csampayo_r400 Currently need to take this file, phantom_template.xls (in pv), and the phantom.csv and test_sum.txt files created by running the test in one directory and execute this script (perl Closed bug #s 121, 123 perf2xls.pl). Change 122955 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop Cannot be run on linux and requires the OLE32 perl module installed.. Change 121318 on 2003/09/15 by ctaylor@fl ctaylor r400 win marlboro Closed bugs 90 and 91.. Change 122800 on 2003/09/23 by fliljero@fl_knarf Removed as these were redundant drawings. Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Change 119726 on 2003/09/05 by fliljero@fl_knarf Change 121306 on 2003/09/15 by vliu@vliu r400 cnnbdv3 win cvd added predicate disable bit to CP DEBUG Test tiling library Change 119667 on 2003/09/05 by fliljero@fl_knarf Change 120795 on 2003/09/11 by fliljero@fl_knarf removed DATA ordinal from the MEM_WRITE_CNTR packet description added zpass done info to the event write packet Change 119663 on 2003/09/05 by fliljero@fl_knarf Change 120701 on 2003/09/11 by lkang@lkang_r400_win_tor added MEM_WRITE_CNTR opcode moved SET_BIN_MASK/SELECT opcodes to unused locations Change 120508 on 2003/09/10 by tien@ma_spinach Change 119540 on 2003/09/04 by tien@ma_spinach More updates afetr email from JOcelyn UPdated some missing fields Change 120486 on 2003/09/10 by tien@ma_spinach Change 119483 on 2003/09/04 by frising@frising_r400_win_marlboro Updates for the week Added new compressed texture formats: FMT DXT3A, FMT DXT5A and FMT CTXI along with associated documentation.

-all these formats support degamma
-DXN now also supports degamma Change 120303 on 2003/09/09 by fliljero@fl knarf added predicated bin test results (RT/nRT) to State Management register w/index=0xD -removed some cruft :) Change 120271 on 2003/09/09 by fliljero@fl knarf -closed open question on supporting color keying Update Event Write packet for new functionality for the zpass_done event ... clears the context valid flag, which in turn will cause the context to be rolled on the next state packet. Change 119460 on 2003/09/04 by mkelly@fl_mkelly_r400_win_laptop Branching example slides. Change 120048 on 2003/09/08 by jayw@ma_jayw_l Change 119373 on 2003/09/04 by fghodrat@ma_fghodrat changed pmask order in cache for 4-sample John found better arrangement. one read for pmask and stencil update todo list no ram line overlap. Change 119321 on 2003/09/03 by tien@ma_spinach Change 119978 on 2003/09/08 by fghodrat@ma_fghodrat MOre changes moved to xenos tree Change 119315 on 2003/09/03 by tien@ma spinach Change 119939 on 2003/09/08 by fliljero@fl_knarf Something wacky with the clientspec, need to check in to re-update, plus some more added 128-bit write enable to the MH field to the CP DEBUG register updates form mtg Change 119760 on 2003/09/05 by alleng@alleng_r400_win_marlboro_8200 Change 119301 on 2003/09/03 by fliljero@fl_knarf Added new tests to pv results made updates to the event write packet and added new associated register: Added VGT and PA rates to the phantom template CP ME CF EVENT SRC Page 7 of 441 Page 8 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258097

Rename cg_pm_r500.doc To cg_pm_xenos.doc updated/added coherency registers and interface updated/added predicate registers and description Change 119259 on 2003/09/03 by tien@ma_spinach Undated for this week Change 118393 on 2003/08/27 by tien@ma_spinach Updated the list Merged c1 and non-c1 rtl tasks Change 119253 on 2003/09/03 by bbloemer@ma_bbloemer Added new document. Change 118362 on 2003/08/27 by fliljero@fl knarf Change 119223 on 2003/09/03 by fliljero@fl_knarf added type-3 predicated packet related information added CP_PROG_COUNTER, related update to CP_ME_CNTL, related update to EVENT_WRITE packet, & related new PM4 packet MEM_WRITE_CNTR Change 117997 on 2003/08/25 by lkang@lkang r400 win tor incremental update for physical partition Change 119196 on 2003/09/03 by fghodrat@ma_fghodrat Change 117602 on 2003/08/21 by tien@ma_spinach cg and pm spec for xenos Change 118796 on 2003/08/29 by keli@keli r400 win tor Change 117591 on 2003/08/21 by mkelly@fl mkelly r400 win laptop Slides for Perforce Branching presentation Change 118786 on 2003/08/29 by keli@keli_r400_win_tor Change 117496 on 2003/08/21 by frising@frising_r400_win_marlboro Toronto Virage Memories Generation -changed polarity of INDEX_ROUND bit in vertex fetch instruction Change 118771 on 2003/08/29 by llefebvr@llefebvr_r400_montreal Change 117394 on 2003/08/20 by tien@ma_spinach Fixing number of bits in the auto-count Gradient task added Change 118731 on 2003/08/29 by keli@keli r400 win tor Change 117320 on 2003/08/20 by jyarasca@jyarasca_r400_win_cvd Document for Code coverage, formal verification, leda and synthesis report and web page Updated scheduling information on 247 Linux and 247 Chip Linux Change 118709 on 2003/08/29 by fliljero@fl_fliljeros Change 117312 on 2003/08/20 by tien@ma_spinach added real-time versions of the predicate registers: BIN MASK & BIN SELECT Change 117236 on 2003/08/20 by tien@ma_spinach Change 118570 on 2003/08/28 by kryan@kryan_r400_win_marlboro_DOCS - Clean up Added some more tasks to list - Update some references and outdated facts Change 117002 on 2003/08/18 by tien@ma_spinach Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Added to Perforce so I can edit it on multiple machines :-) Adding.. Change 116974 on 2003/08/18 by tien@ma spinach Change 116699 on 2003/08/15 by jayw@ma_jayw_lt Fixed the encoding. 16_EXPAND are going to need their own :-) visio bugs present Change 116968 on 2003/08/18 by tien@ma_spinach Change 116634 on 2003/08/14 by ashishs@fl ashishs r400 win updated the tracker with 5 more ALU instruction tests. Also updated the total count on ALU instructions thereby increasing the project overall % complete Describes how DATA_FORMAT is encoded to reduce logic after walker. Change 116959 on 2003/08/18 by tien@ma_spinach Change 116622 on 2003/08/14 by mkelly@fl_mkelly_r400_win_laptop Filled in more stuff for test list Update comment in _11 Added to-do list Copy_11 to _12 and use 144 vertices per packet Update test_list and tracker accordingly. Change 116958 on 2003/08/18 by ctaylor@fl ctaylor r400 win marlboro Added SC block diagrams from Mike Mantor Change 116617 on 2003/08/14 by csampayo@fl_csampayo_r400 Change 116957 on 2003/08/18 by jayw@MA JAYW Renamend sheet1, updated schedule updated pmask and stencil Change 116407 on 2003/08/13 by jasif@jasif_r400_win_tor Made some additions. Will add some more tomorrow Change 116952 on 2003/08/18 by beiwang@bei pc Added reminder for tPDEX test during Dynamic CKE test Change 116385 on 2003/08/13 by ygiang@ygiang_r400_win_marlboro_p4 Change 116866 on 2003/08/18 by jayw@ma jayw It updated:pv results Change 116378 on 2003/08/13 by ygiang@ygiang_r400_win_marlboro_p4 Change 116789 on 2003/08/15 by jayw@MA_JAYW updated: performance excel sheets 1 and 4 sample cache line arrangement updated Change 116369 on 2003/08/13 by frising@frising_r400_win_marlboro Change 116785 on 2003/08/15 by tmartin@tmartin_r400_win no changes, just a test. added r400vc fetch mode 01 and r400vc array size 01 Change 116347 on 2003/08/13 by jimmylau@jimmylau r400 win tor Add a section on clock muxing conditions to the R500 BIF implementation specs. Add a table of R500 pin and ROM straps. Change 116764 on 2003/08/15 by tien@ma_spinach Added info Change 116338 on 2003/08/13 by jcox@FL JCOX3 Change 116749 on 2003/08/15 by tien@ma_spinach Make ready to post test plan status on web Added some info. Change 116194 on 2003/08/12 by tmartin@tmartin_r400_win Change 116748 on 2003/08/15 by tien@ma spinach Page 11 of 441 Page 12 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 118408 on 2003/08/27 by fliljero@fl_knarf

Change 119277 on 2003/09/03 by fghodrat@ma_fghodrat

added r400vc_endian_swap_01 and r400vc_endian_swap_02 updating the tracker for all the tests added in last week and current week Change 115764 on 2003/08/11 by ashishs@fl ashishs r400 win Change 115373 on 2003/08/07 by csampayo@fl_csampayo_r400 updated Updated status for the test r400sx vtx export full sequential 01 Change 115683 on 2003/08/08 by koyu@kyuCA Change 115276 on 2003/08/06 by jhoule@jhoule_doc_lt added cycles/inst for vertex shader and pixel shader Changed the weights to give less pointy tents. This forces a multiplier instead of a shifter, but quality is deemed important enough to Change 115607 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop warrant those. Negative ALU VS constant clamping, negative index clamping with negative stepping Change 115225 on 2003/08/06 by jhoule@jhoule_doc_lt Change 115561 on 2003/08/08 by fliljero@fl knarf Document describing the new HiColor accumulation scheme renamed references from R400 to Crayola Change 115185 on 2003/08/06 by kevino@kevino r400 win marlboro Change 115547 on 2003/08/08 by fliljero@fl_knarf Updated document to reflect what is in RTL code for tca regs Removed all references to PIO/Push mode and its associated registers: Change 115176 on 2003/08/06 by mzhu@mzhu_crayola_win_tor CP_'RING|INDIRECT1|INDIRECT2|REAL_TIME|IB_ST|RT_ST'_PUSH Add 3.4.9.21 for the cases right edge of icon/cursor is aligned with right edge of graphics Change 115546 on 2003/08/08 by fliljero@fl knarf window renamed to use Crayola rather than R400 Change 115166 on 2003/08/06 by koyu@kyuCA Change 115480 on 2003/08/07 by mkelly@fl_mkelly_r400_win_laptop added new fields for SQ First test of series which checks positive alu constant index clamping Change 115088 on 2003/08/05 by jimmylau@jimmylau_r400_win_tor Change 115463 on 2003/08/07 by fliljero@fl_knarf rename scan ports from *BIF_* to *BIF_TOP_* Baseline for the PM4 Spec (after the start of Xenos) Change 114954 on 2003/08/05 by mkelly@fl_mkelly_r400_win_laptop Change 115462 on 2003/08/07 by fliljero@fl_knarf Add 3 simple tests added note to cover to see PM4 Spec Crayola for the latest PM4 data Change 114824 on 2003/08/04 by alleng@alleng_r400_win_marlboro_8200 Change 115461 on 2003/08/07 by fliljero@fl knarf Fixed hyperlinks Baseline for Crayola CP Spec (after the start of Xenos) Change 114814 on 2003/08/04 by alleng@alleng_r400_win_marlboro_8200 Change 115460 on 2003/08/07 by fliljero@fl knarf added note on cover to see CP Spec Cravola for the latest CP data Change 114724 on 2003/08/04 by llefebvr@llefebvr r400 montreal Change 115388 on 2003/08/07 by ashishs@fl_ashishs_r400_win2 Corrected the max number for mem exports to be 5 instead of 9 Page 13 of 441 Page 14 of 441 Ex. 2050 --- R400 Document Library FH --- folder history Ex. 2050 --- R400 Document Library FH --- folder history Change 114564 on 2003/08/01 by aashkar@aashkar2 crayola win Run with updated hw Updated Spec with the addition of bit 19 in the interrupt registers for the software interrupt (SW_INT). This interrupt is moving to the CP from the MH. Change 114063 on 2003/07/30 by tmartin@tmartin_r400_win moved the section of the clamping test Change 114555 on 2003/08/01 by tmartin@tmartin r400 win Change 114059 on 2003/07/30 by jhoule@jhoule doc lt fixed the total test count because some tests were left out Hardcoded weights for anisotropy fix (not yet official). Change 114550 on 2003/08/01 by tmartin@tmartin r400 win Change 114044 on 2003/07/30 by csampayo@fl csampayo r400 added r400vc_fetch_mode_01 and r400vc_fetch_mode_02 Updated description of section 1.2.7 Change 114343 on 2003/07/31 by csampayo@fl_csampayo_r400 Change 114018 on 2003/07/30 by tmartin@tmartin r400 win Add memory export test, update test list and tracker added strides/offsets tests Change 114314 on 2003/07/31 by kryan@kryan_r400_win_marlboro_DOCS Change 113992 on 2003/07/30 by csampayo@fl csampayo r400 Update with latest changes to Shader Assembler Update individual requirements based on combined interaction - Update CUBE Vector ALU operation opcode syntax to take two source Change 113980 on 2003/07/30 by jimmylau@jimmylau_r400_win_tor Remove ROM_strap_vcoref & ROM_strap_calref from the interface with strap block because they are shared with ROM_strap_pad_rx_manual_impedance & $ROM_strap_pad_tx_manual_impedance.$ operands. - VFETCH instruction modifications Add ROM strap B_PRX_LBACK_EN, which shares with bit 0 of ROM strap PAD CURRENT . Update offset field in VFETCH instruction to be 23 bit signed value Change 113956 on 2003/07/30 by jiezhou@jiezhou_r400_win instead of unsigned 8 bits from previous definition. Initial release Modified syntax to add FETCH_TYPE (MEGA/MINI) and COUNT Change 113883 on 2003/07/29 by alleng@alleng_r400_win_marlboro_8200 optional fields from Vfetch instruction. Included initial idle and busy counts. Change 114266 on 2003/07/31 by tmartin@tmartin_r400_win Change 113792 on 2003/07/29 by csampayo@fl_csampayo_r400 added r400vc addr spanning 01 Adjusted block schedules as per latest plan Change 114220 on 2003/07/31 by jiezhou@jiezhou_r400_win Change 113761 on 2003/07/29 by mzhu@mzhu_crayola_win_tor add description of fcp clock Test data clamping in test case 3 for fix point alpha format in 3.4.9.18 64bpp graphics Change 114162 on 2003/07/31 by alleng@alleng_r400_win_marlboro_8200 with graphics and overlay alpha blending mode 1 Page 15 of 441 Page 16 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 112655 on 2003/07/23 by kevino@kevino_r400_win_marlboro Change 113507 on 2003/07/28 by csampayo@fl csampayo r400 Made table titles captions and updated table of tables Some housekeeping Change 112640 on 2003/07/23 by kevino@kevino_r400_win_marlboro Change 113483 on 2003/07/28 by ashishs@fl_ashishs_r400_win Added fetch gen and TCD debug tables Change 112628 on 2003/07/23 by efong@efong_r400_win_tor_doc Change 113282 on 2003/07/25 by csampayo@fl_csampayo_r400 updated visio diagrams $Updated\ status\ for\ tests\ r400sx_vtx_point_size_export_01-04\ and\ added\ them\ to\ test_list$ Change 112627 on 2003/07/23 by efong@efong_r400_win_tor_doc Change 113280 on 2003/07/25 by jayw@ma_jayw_lt Updated the test_control section of the document Working document for register read allocation across RB and DBs. Change 112623 on 2003/07/23 by jowang@jowang_R400_win Change 113262 on 2003/07/25 by tmartin@tmartin_r400_win submit for kaleidoscope snapshot no new tests just some updates Change 112603 on 2003/07/23 by jimmylau@jimmylau_r400_win_tor Change 113136 on 2003/07/25 by bbloemer@ma_bbloemer Elaborate when the strap valid signals should be asserted in the ROM straps section. Updated test descriptions. Change 112518 on 2003/07/22 by tmartin@tmartin r400 win Change 113130 on 2003/07/25 by mkelly@fl_mkelly_r400_win_laptop added r400vc base addr range agp 01 Update... Change 112513 on 2003/07/22 by cbrennan@cbrennan r400 win marlboro Change 113128 on 2003/07/25 by kevino@kevino_r400_win_marlboro Allocated most of Ray's ports. Added headings for more stuff to come. updated tables with reg addresses Change 112980 on 2003/07/24 by mkelly@fl mkelly r400 win laptop Change 112496 on 2003/07/22 by brianf@ma bfavela Updated performance numbers with "better" architecture Change 112914 on 2003/07/24 by alleng@alleng r400 win marlboro 8200 Change 112470 on 2003/07/22 by paulv@MA PVELLA Bringing the R400 docs up to date and checking in pm4play.bat Fixed Table 22 to include the MH_TC_mcNsource bit. Change 112872 on 2003/07/24 by tmartin@tmartin_r400_win Change 112465 on 2003/07/22 by mkelly@fl_mkelly_r400_win_laptop added r400vc_base_addr_range_pci_01 Change 112683 on 2003/07/23 by chwang@chwang_r400_doc_win Change 112329 on 2003/07/22 by jhoule@jhoule_doc_lt Undate. Updated notes below in order to explain the 16.2 and 32.2 precision decision. Page 18 of 441 Page 17 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 112321 on 2003/07/22 by jhoule@jhoule_doc_lt Change 111957 on 2003/07/18 by frising@frising_r400_win_marlboro Updated with full channel separation, meaning that the 8b can now be OR'd together to create Mid and HiColor v.1.74
-Give a real explanation of how FMT_1_REVERSE differs from FMT_1 Change 112257 on 2003/07/21 by frising@frising_r400_win_marlboro Change 111949 on 2003/07/18 by frising@frising r400 win marlboro -fixed small typo in CUBE instruction comments -fix MAX4 instruction. Had comparision order backwards. Change 112232 on 2003/07/21 by tmartin@tmartin_r400_win Change 111666 on 2003/07/17 by immylau@iimmylau r400 win tor Added 5 tests. All test the dynamic addressing range of the VC when vertex buffers are Minor changes to fix typos and to reword some paragraphs slightly. Change 111558 on 2003/07/16 by jimmylau@jimmylau r400 win tor Change 112229 on 2003/07/21 by cbrennan@cbrennan r400 win marlboro Add the beginnings of a TC debug registers document for review Initial Revision Change 112227 on 2003/07/21 by enewman@enewman_r400_linux_marlboro Change 111554 on 2003/07/16 by csampayo@fl_csampayo_r400 Some housekeeping fixed port matcher command line switches and p4 label command line switches Change 112113 on 2003/07/21 by rthambim@rthambim_r400_win_tor Change 111517 on 2003/07/16 by lseiler@lseiler_r400_win_marlboro Modified top level diagram and added comments. Minor fixes, additional test routines Change 112100 on 2003/07/21 by frising@frising_r400_win_marlboro Change 111482 on 2003/07/16 by tmartin@tmartin_r400_win added r400vc addr alignment 01 -remove per-quad value for USE_REG_LOD since we can do it per-pixel full speed. Note that value 1 is now the only 'Yes'. Change 111413 on 2003/07/16 by smburu@smburu_r400_win_marlboro Change 112085 on 2003/07/21 by jyarasca@jyarasca_r400_win_cvd tp ch blend update. Change 111386 on 2003/07/16 by frising@frising_r400_win_marlboro Updated times Change 112078 on 2003/07/21 by jimmylau@jimmylau_r400_win_tor -add scalar sin and cos instructions Updates on sections about slave interface changes and ROM strap location table, after Change 111385 on 2003/07/16 by frising@frising_r400_win_marlboro Change 112077 on 2003/07/21 by jasif@jasif r400 win tor add scalar sin and cos instructions Updated schedules for simulation regressions. Change 111285 on 2003/07/15 by gregs@gregs_r400_win_marlboro Change 111975 on 2003/07/18 by csampayo@fl_csampayo_r400 typo in a signal name - corrected Adding point size export mode test. Updated test list and test tracker accordingly Page 19 of 441 Page 20 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258100

Change 111281 on 2003/07/15 by brianf@ma_bfavela Change 110825 on 2003/07/14 by jacarey@fl_jcarey2 More changes Fix Typo in RBBM Spec Diagram Change 111229 on 2003/07/15 by brianf@ma_bfavela Change 110516 on 2003/07/11 by jiezhou@jiezhou_r400_win Undated summary to include MH. Update PLL dividers' values Change 111206 on 2003/07/15 by alleng@alleng_r400_win_marlboro_8200 Change 110504 on 2003/07/11 by jiezhou@jiezhou_r400_win Added a couple more tidbits regarding capture update pll divider's value Change 111200 on 2003/07/15 by brianf@ma_bfavela Change 110337 on 2003/07/10 by vbhatia@vbhatia_r400_win_marlboro Fixed hyperlinks Updated to and vc path formatter status Change 111187 on 2003/07/15 by ashishs@fl_ashishs_r400_win Change 110255 on 2003/07/10 by lseiler@lseiler_r400_win_marlboro2 updated test tracker Minor text edits, updated pdf version Change 111168 on 2003/07/15 by paulv@MA PVELLA Change 110230 on 2003/07/10 by mzhu@mzhu crayola win tor Updates concerning the MHS. Add Multiplying overlay alpha with global alpha in 11.10 Overlay Keyer. It is used for overlay per-pixel alpha blending mode. Change 111147 on 2003/07/15 by ashishs@fl_ashishs_r400_win Change 110173 on 2003/07/10 by dglen@dglen_r400 Deleted file Superceded by R500 Display Colour Spaces.xls Change 111109 on 2003/07/15 by brianf@ma bfavela Change 110159 on 2003/07/10 by dglen@dglen_r400 More performance updates Change 111030 on 2003/07/14 by alleng@alleng_r400_win_marlboro_8200 Spreadsheet for matrix, gamma and color conversions in R500 display path (DCP and TV out) Added more data to the results tab. Change 109959 on 2003/07/09 by jimmylau@jimmylau_r400_win_tor Change 110917 on 2003/07/14 by mzhu@mzhu_crayola_win_tor Update to the BIF slave interface specs after the review meeting Add 3.4.9.20 Multiply overlay alpha with global alpha for per pixel overlay alpha blend Change 109954 on 2003/07/09 by llefebvr@llefebvr_r400_montreal Change 110885 on 2003/07/14 by brianf@ma bfavela Fixing VC table. Fixed DC so it doesn't error Change 109817 on 2003/07/08 by rthambim@rthambim_r400_win_tor Change 110883 on 2003/07/14 by brianf@ma_bfavela Fixed naming convention. Updated performance Change 109812 on 2003/07/08 by jhoule@jhoule doc It Page 22 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Major change, with left-alignment instead or right shifts. Updated with specific registry settings for capture Change 109715 on 2003/07/08 by rthambim@rthambim r400 win tor Change 108939 on 2003/07/02 by ashishs@fl ashishs r400 win Updated the spec with review feedback corrected small error with SU Change 109709 on 2003/07/08 by rthambim@rthambim r400 win tor Change 108933 on 2003/07/02 by ashishs@fl ashishs r400 win updated the spec with review feedback - included ordering info to read req. modified timing diags; added comments to unused ports. updated the tracker to include author for CL/VTE tests so that its easy for debugging the number of tests in each block Change 109670 on 2003/07/08 by jimmylau@jimmylau_r400_win_tor Change 108927 on 2003/07/02 by ashishs@fl ashishs r400 win Fix typo in the MH-BIF signal in the master specs updated tracker to include this weeks PA tests Change 109493 on 2003/07/07 by csampayo@fl_csampayo_r400 Change 108905 on 2003/07/02 by ygiang@ygiang_r400_win_marlboro_p4 Some housekeeping added: Test list for Perfsuite performace tests Change 108866 on 2003/07/02 by ashishs@fl_ashishs_r400_win Change 109402 on 2003/07/06 by gregs@laptop1 updated for some bugs Change 109352 on 2003/07/04 by jimmylau@jimmylau_r400_win_tor Change 108861 on 2003/07/02 by rthambim@rthambim_r400_win_tor Update the section on strap interface after the review meeting. Added source/frequency information for clock signals. Change 109187 on 2003/07/03 by jowang@jowang_R400_win Change 108824 on 2003/07/02 by jacarey@fl_jcarey_desktop Update Min / Max functions in emulator to match hardware. Hardware produces a 32-bit signed extended result of 16-bit comparision value. Includes 30bpp for twin single and dual-link TMDS Change 109175 on 2003/07/03 by ashishs@fl_ashishs_r400_win Change 108746 on 2003/07/01 by smburu@smburu_r400_win_marlboro updated test list and trackers tp hicolor update. Change 109106 on 2003/07/03 by alleng@alleng_r400_win_marlboro_8200 Change 108740 on 2003/07/01 by paulv@MA_PVELLA Removed one of the RB tabs Fixed a mistake about the size of the RB queue. It is 2, not 4, Change 109104 on 2003/07/03 by alleng@afleng r400 win marlboro 8200 Change 108736 on 2003/07/01 by smburu@smburu_r400_win_marlboro Added a few minor updates from Ko.. tp hicolor update. Change 109094 on 2003/07/03 by moev@moev Change 108702 on 2003/07/01 by alleng@alleng_r400_win_marlboro_8200 updates to the status of the tests Added RB(C1) tab, added tests to vtx tab, et al Change 108965 on 2003/07/02 by alleng@alleng_r400_win_marlboro_8200 Change 108692 on 2003/07/01 by georgev@devel_georgevh2_r400_win_marlboro Page 23 of 441 Page 24 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Add section documenting CP Idling before writing certain control registers. v.0.99j -misc updates and clean-up Change 108579 on 2003/06/30 by jasif@jasif_r400_win_tor Change 108322 on 2003/06/27 by rthambim@rthambim_r400_win_tor Updated. Change 108520 on 2003/06/30 by ashishs@fl ashishs r400 win Initial revision for R500. Change 108317 on 2003/06/27 by brianf@ma_bfavela Change 108516 on 2003/06/30 by frising@frising_r400_win_marlboro MCMH Performance Spreadsheet v.0.99k -remove references to R400_TP_NAN Change 108311 on 2003/06/27 by rthambim@rthambim_r400_win_tor Added pci-express changes. Initial revision for R500. Change 108514 on 2003/06/30 by gregs@gregs_r400_win_marlboro Change 108284 on 2003/06/27 by gregs@gregs_r400_win_marlboro fixed bug in PMESTBCLY macro Change 108418 on 2003/06/27 by jiezhou@jiezhou_r400_win Change 108282 on 2003/06/27 by jiezhou@jiezhou_r400_win add pclk as a slave mode for one-shot debug control Change 108407 on 2003/06/27 by frising@frising_r400_win_marlboro Change 108273 on 2003/06/27 by jimmylau@jimmylau_r400_win_tor -fixed small typo, no version bump Update BIF slave interface specs for R500. Change 108406 on 2003/06/27 by frising@frising_r400_win_marlboro Change 108167 on 2003/06/26 by vbhatia@vbhatia_r400_win_marlboro -Add FMT_32_32_32_FLOAT vertex only format Change 108103 on 2003/06/26 by sbagshaw@sbagshaw -remove TP NAN support Change 108359 on 2003/06/27 by gregs@gregs_r400_win_marlboro Programming Guide updated for R500. Includes information on the Scaler added CG VC pm enb register bit Change 107862 on 2003/06/25 by smburu@smburu_r400_win_marlboro Change 108350 on 2003/06/27 by sbagshaw@sbagshaw minor updates to contents & table of contents Change 107724 on 2003/06/24 by csampayo@fl csampayo r400 Change 108338 on 2003/06/27 by frising@frising_r400_win_marlboro Add footer (this time saved update) Page 26 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 107722 on 2003/06/24 by csampayo@fl csampayo r400 Change 107419 on 2003/06/23 by ashishs@fl ashishs r400 win updating trackers and test_list Added footes Change 107709 on 2003/06/24 by frising@frising_r400_win_marlboro Change 107282 on 2003/06/20 by moev@moev Status as of 6/20/03 of its typos with set* scalar instructions
-document correct behavior with not equal predicate instructions and NaNs Change 107253 on 2003/06/20 by llefebvr@llefebvr_r400_montreal Change 107687 on 2003/06/24 by frising@frising_r400_win_marlboro Backup, no major changes. Change 107197 on 2003/06/20 by vbhatia@vbhatia_r400_win_marlboro -add cube instruction updates (two operand, etc) Status update for formatter Change 107637 on 2003/06/24 by moev@moev Change 107080 on 2003/06/19 by bbuchner@fl_bbuchner_r400_win update to current state of testing ADDed MI block diagram and description. Minor fixes Change 107634 on 2003/06/24 by bbuchner@fl bbuchner r400 win Change 106800 on 2003/06/18 by mkelly@fl_mkelly_r400_win_laptop updated slides First VC test documented... Change 107630 on 2003/06/24 by frising@frising_r400_win_marlboro Change 106777 on 2003/06/18 by smburu@smburu r400 win marlboro -update cube instruction to take two operands. Output produced in a different order too. tp_hicolor status update. Change 106696 on 2003/06/18 by smburu@smburu_r400_win_marlboro Change 107622 on 2003/06/24 by smburu@smburu r400 win marlboro hicolor status update. Update of tp_hicolor tests. Change 107617 on 2003/06/24 by georgev@devel_georgevh2_r400_win_marlboro Change 106645 on 2003/06/17 by csampayo@fl_csampayo_r400 Added "nodump" message to instructions. Updated FC column to contain selected test counter Change 106643 on 2003/06/17 by csampayo@fl_csampayo_r400 Change 107537 on 2003/06/23 by georgev@devel georgevh2 r400 win marfboro Added new way of doing things Added full chip column Change 107536 on 2003/06/23 by bbuchner@fl_bbuchner_r400_win Change 106642 on 2003/06/17 by csampayo@fl_csampayo_r400 added review Updated schedule, added full chip column updated block diagram of cache Change 106640 on 2003/06/17 by csampayo@fl_csampayo_r400 Change 107479 on 2003/06/23 by bbuchner@fl_bbuchner_r400_win Added full chip column added RP block diagrams for L1 and L2 request processing Page 27 of 441 Page 28 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Added bsub run options

Change 108680 on 2003/07/01 by jacarey@fl_jcarey_desktop

show scalar instructions SUB_CONST_0 and SUB_CONST_1 as negated adds to be

consistent with other subtraction instructions

Change 108325 on 2003/06/27 by frising@frising_r400_win_marlboro

Change 106634 on 2003/06/17 by csampayo@fl_csampayo_r400 Updates to standalone playback info Updated schedule, added full chip column Change 106395 on 2003/06/16 by jasif@jasif_r400_win_tor Change 106631 on 2003/06/17 by csampayo@fl_csampayo_r400 DAC Report. Undated schedule, added full chip column Change 106329 on 2003/06/16 by alleng@alleng_r400_win_marlboro_8200 Change 106623 on 2003/06/17 by georgev@devel_georgevh2_r400_win_marlboro Initial submission Added changes from TP meeting. Change 106294 on 2003/06/16 by ashishs@fl ashishs r400 win Change 106525 on 2003/06/17 by csampayo@fl_csampayo_r400 Update header Change 106291 on 2003/06/16 by ashishs@fl_ashishs_r400_win Change 106524 on 2003/06/17 by csampayo@fl_csampayo_r400 Update header Change 105958 on 2003/06/12 by vbhatia@vbhatia r400 win marlboro Change 106523 on 2003/06/17 by csampayo@fl csampayo r400 Updated weekly regression status for deriv and aniso Change 105882 on 2003/06/12 by jbrady@jbrady_r400_win Change 106521 on 2003/06/17 by csampayo@fl_csampayo_r400 Remove border color, add thread_type Change 105862 on 2003/06/12 by jbrady@jbrady_r400_win Change 106519 on 2003/06/17 by csampayo@fl_csampayo_r400 Update to reflect current vcrg partitioning Header update Change 106516 on 2003/06/17 by csampayo@fl_csampayo_r400 Change 105849 on 2003/06/12 by ashishs@fl ashishs r400 win Some housekeeping adding place holder for some of the tests that will be planned for later Change 106509 on 2003/06/17 by csampayo@fl_csampayo_r400 Change 105838 on 2003/06/12 by ashishs@fl_ashishs_r400_win Some housekeeping added 2 bugs that were currently found in SQ waterfalling Change 106493 on 2003/06/17 by csampayo@fl_csampayo_r400 Change 105834 on 2003/06/12 by alleng@alleng_r400_win_marlboro_8200 Some housekeeping Added miscellaneous test, added results column for a couple of sheets Change 106436 on 2003/06/16 by ashishs@fl_ashishs_r400_win Change 105776 on 2003/06/12 by smburu@smburu r400 win marlbord minor updates tp hicolor status. Change 106410 on 2003/06/16 by alleng@alleng_r400_win_marlboro_8200 Change 105768 on 2003/06/12 by sbagshaw@sbagshaw Page 29 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Presentation for R500 DCDO Debug bus included. Change 105310 on 2003/06/10 by moev@moev Changes started to R400 Debug Bus specification document to describe changes to debug required for DC/DO split. Updated tested blocks Change 105676 on 2003/06/11 by csampayo@fl_csampayo_r400 Change 105299 on 2003/06/10 by ygiang@ygiang_r400_win_marlboro_p4 Update tests reqs and to include more functionality updated:pv Xsheet Change 105633 on 2003/06/11 by jowang@jowang_R400_win Change 105286 on 2003/06/10 by pmitchel@pmitchel_entire_depot_win moving results to doc lib/pv results programming guide: bypass mode only Change 105615 on 2003/06/11 by beiwang@bei_pc Change 105058 on 2003/06/09 by csampayo@fl_csampayo_r400 Added items left from line coverage. Updated header. Some housekeeping Change 105476 on 2003/06/10 by csampayo@fl_csampayo_r400 Change 105039 on 2003/06/09 by ashishs@fl_ashishs_r400_win Initial check in updated Change 105436 on 2003/06/10 by bbuchner@fl_bbuchner_r400_win Change 105017 on 2003/06/09 by mzhu@mzhu_crayola_win_tor removed null request from L2A FIFO when clamping is true Update clamping and rounding for PWL LUT mode in 11.8 Change 105426 on 2003/06/10 by bbuchner@fl bbuchner r400 win Change 104949 on 2003/06/09 by mzhu@mzhu crayola win tor updated all external I/O modified clamping Update floating point LUT fill pattern in 3.4.4. Change 104946 on 2003/06/09 by bbloemer@ma bbloemer Change 105407 on 2003/06/10 by georgev@devel_georgevh2_r400_win_marfboro Updated test descriptions. Added things to check test descriptions. Change 104736 on 2003/06/06 by ashishs@fl ashishs r400 win Change 105349 on 2003/06/10 by ygiang@ygiang_r400_win_marlboro_p4 updated the tracker and test_list for the newly added 4 tests added: excel perf results template Change 104633 on 2003/06/06 by jacarey@fl jcarey desktop Change 105347 on 2003/06/10 by mzhu@mzhu crayola win tor Document resetting of read registers to zero on reset Add 3.4.9.19 data clamping in LUT PWL mode Change 104629 on 2003/06/06 by paulv@MA_PVELLA Change 105335 on 2003/06/10 by ygiang@ygiang_r400_win_marlboro_p4 Updates to the MHS. testing auto update for web Change 104557 on 2003/06/06 by efong@efong_r400_win_tor_doc Change 105333 on 2003/06/10 by ygiang@ygiang_r400_win_marlboro_p4 Updated Linux machines assignments removed auto update

Page 31 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258103

Page 32 of 441

Change 104473 on 2003/06/05 by jowang@jowang_R400_win Change 104244 on 2003/06/05 by mzhu@mzhu_crayola_win_tor added/modified after test plan review Update alpha pattern in 3.4.9.18 Change 104460 on 2003/06/05 by vbhatia@vbhatia_r400_win_marlboro Change 104156 on 2003/06/04 by ashishs@fl_ashishs_r400_win Undate LodDeriv and LodAniso status of 06/05/03 Also added latest tcd status as mentioned by Kevin O. Change 104154 on 2003/06/04 by bbuchner@fl bbuchner r400 win Change 104360 on 2003/06/05 by ygiang@ygiang_r400_win_marlboro_p4 updated L1 and L2 request fifo contents added: new pv sheet Change 104036 on 2003/06/04 by rfevreau@rfevreau_r400_win Change 104355 on 2003/06/05 by ygiang@ygiang_r400_win_marlboro_p4 Updates relocated: pef excel sheets Change 104014 on 2003/06/04 by jacarey@fl_jcarey_desktop Change 104347 on 2003/06/05 by ygiang@ygiang_r400_win_marlboro_p4 Documentation for new debug bit in the CP. relocating files Change 103838 on 2003/06/03 by mzhu@mzhu crayola win tor Change 104338 on 2003/06/05 by moev@moev Rename 2 LUT modes: 256-entry table mode and piece wise linear mode Add clamping and rounding for PWL LUT mode changed WSO connectivity to WSO P Change 104330 on 2003/06/05 by ygiang@ygiang_r400_win_marlboro_p4 Change 103836 on 2003/06/03 by mzhu@mzhu_crayola_win_tor Rename 2 LUT modes: 256-entry table mode and piece wise linear mode Change 104325 on 2003/06/05 by ygiang@ygiang_r400_win_marlboro_p4 Change 103818 on 2003/06/03 by jhoule@jhoule_doc_lt added: performance excel sheets to perforce Updated RF expand table Negative indices indicate added precision (8.8 -> 7..-8, 16.8 -> 15..-8, 32.8 -> 31..-8). Change 104324 on 2003/06/05 by jacarey@fl jcarey desktop Change 103794 on 2003/06/03 by tien@ma_spinach Reset VS & PS De-alloc fifos when ME overwrites the * Avail Count counters Added a litte bit more info Change 104320 on 2003/06/05 by smburu@smburu r400 win marlboro Change 103783 on 2003/06/03 by tien@ma_spinach Updated status fot tp_hicolor. Change 104298 on 2003/06/05 by kcorrell@kcorrell r400 docs mariboro nb Change 103568 on 2003/06/02 by mzhu@mzhu crayola win tor documented change in DC tag definition - increased request sequence field Update 3.4.9.18 for 64bpp graphics with graphics and overlay alpha blending mode 1 (per pixel graphics alpha mode) Change 104273 on 2003/06/05 by jmarsano@MA_JMARSANO Added ATPG and DBIST sections Change 103567 on 2003/06/02 by mzhu@mzhu crayola win tor Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Update for 64 bpp graphics bit depth and graphics/overlay blend using per-pixel alpha from graphics channel (chapter 11.9 Graphic Keyer). Change 103063 on 2003/05/29 by csampayo@fl csampayo r400 Updated status for r400sq_const_index_03 Change 103433 on 2003/05/30 by ashishs@fl_ashishs_r400_win Change 103060 on 2003/05/29 by csampayo@fl_csampayo_r400 Change 103432 on 2003/05/30 by ashishs@fl ashishs r400 win Added max constant memory addrs reg indexing test. Updated test_list and test tracker accordingly Change 103041 on 2003/05/29 by ashishs@fl ashishs r400 win Change 103380 on 2003/05/30 by omesh@ma omesh updated some description as well as TBD's Mostly complete spreadsheet. What is missing is:

1) Tests yet to be written: HiC and RB Register Read tests. Change 103035 on 2003/05/29 by ashishs@fl_ashishs_r400_win 2) The correct test writer information for some of the tests 3) Filenames and testcases for some of Frank Hsien's tests. added the r400sq_trunc_01 test bug However, I believe the counts are accurate of the existing tests. Change 103033 on 2003/05/29 by ashishs@fl_ashishs_r400_win Change 103349 on 2003/05/30 by khabbari@khabbari2 r400 win added r400sq floor 01 test to the tracker Change 103025 on 2003/05/29 by ashishs@fl_ashishs_r400_win Change 103343 on 2003/05/30 by gregs@gregs_r400_win_marlboro corrected the schedule. Had incorrectly put the new 7 tests under APril20 when they were supposed to be in May25 added two signals for DC/DO debug bus connections Change 103018 on 2003/05/29 by ashishs@fl_ashishs_r400_win Change 103310 on 2003/05/30 by llefebvr@llefebvr r400 montreal added 6 new tests to the tracker Added comments about address register Change 102980 on 2003/05/28 by jowang@jowang_R400_win Change 103185 on 2003/05/29 by khabbari@khabbari2_r400_win add dual-link TMDS tests (not complete) r500 test plan added Change 102957 on 2003/05/28 by gregs@gregs_r400_win_marlboro Change 103148 on 2003/05/29 by kmahler@kmahler_r400_doc_lib Undates for Random Shader Generator Change 102954 on 2003/05/28 by omesh@ma_omesh Change 103144 on 2003/05/29 by omesh@ma_omesh Updated atleast some more of the RB Test plan spreadsheet. Will try to finish by Made some more updates to reflect current status. Still need to update Frank Hsien and tommorow Mark's tests into the spreadsheet, along with Hier Stencil and Hier Z tests. Other categories to add include the ZPASS counter tests, etc. Change 102893 on 2003/05/28 by mdesai@MA_MDESAI Change 103099 on 2003/05/29 by jacarey@fl jcarey desktop Added status for week ending 5/30

Added oper=comp to document

Page 35 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 102744 on 2003/05/27 by jiezhou@jiezhou_r400_win

Page 36 of 441

Change 102326 on 2003/05/23 by mdesai@MA_MDESAI new fb divider slip test Added addresser section Change 102708 on 2003/05/27 by smburu@smburu_r400_win_marfboro Change 102323 on 2003/05/23 by imuskatb@imuskatb_r400_win_cnimuskatb First tp_ch_blend status report. Change 102686 on 2003/05/27 by mpersaud@mpersaud_r400_win_tor Change 102292 on 2003/05/23 by mzhu@mzhu_crayola_win_tor Rev 0.2 Mahendra Persaud Add GRPH/OVL_SURFACE_OFFSET programming in 3.4.9.17 for 8K virtual desktop Update test flow section plus other general clean up. Change 102623 on 2003/05/26 by mpersaud@mpersaud_r400_win_tor Change 102205 on 2003/05/22 by mzhu@mzhu_crayola_win_tor $Add\ 3.4.9.17\ for\ 8K\ virtual\ desktop\ support\\ Add\ 3.4.9.18\ for\ 64bpp\ graphics\ with\ graphics\ and\ overlay\ alpha\ blending\ mode\ 1\ (per\ pixel\ graphics\ alpha\ mode)$ Added new tests for R500. Change 102613 on 2003/05/26 by mpersaud@mpersaud_r400_win_tor Initial Rev. Change 102146 on 2003/05/22 by mkelly@fl_mkelly_r400_win_laptop Change 102612 on 2003/05/26 by rfevreau@rfevreau_r400_win Final, 4 textures on an RT rectangle.. Change 102113 on 2003/05/22 by rfevreau@rfevreau r400 win Updated with due dates Change 102610 on 2003/05/26 by jasif@jasif_r400_win_tor Change 102018 on 2003/05/21 by csampayo@fl_csampayo_r400 Updated. Change 102608 on 2003/05/26 by chwang@chwang r400 doc win Updated test description, test_list and test tracker Latest update Change 102016 on 2003/05/21 by mzhu@mzhu_crayola_win_tor Add support for 64 bpp graphics bit depth and graphics/overlay blend using per-pixel alpha from graphics channel (chapter 11.9 Graphic Keyer).

Increase GRPH/OVL_X/Y_END from 13 bits to 14 bits to support 8K virtual desktop Change 102603 on 2003/05/26 by mpersaud@mpersaud_r400_win_tor Change 102413 on 2003/05/23 by mzhu@mzhu crayola win tor Change 102014 on 2003/05/21 by mzhu@mzhu_crayola_win_tor Update 3.4.9.17 for 8K virtual desktop support Increase GRPH/OVL_X_END registers from 13 bits to 14 bits to support 8K virtual Add registers DxGRPH_16BIT_ALPHA_MODE and DxGRPH_16BIT_FIXED_ALPHA_RANGE for 64 bpp graphics bit depth and graphics/overlay blend using per-pixel alpha from graphics channel. Change 102406 on 2003/05/23 by georgev@devel georgevh2 r400 win marlboro Documented gnuzip feature for mcmh test bench. Change 102376 on 2003/05/23 by enewman@enewman_r400_linux_marlboro Change 102004 on 2003/05/21 by vbhatia@vbhatia_r400_win_marlboro initial p4 submission TP/TC Standalone testbenches weekly progress spreadsheet Page 37 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Change 101984 on 2003/05/21 by llefebvr@llefebvre_laptop_r400 Miscellaneous Corrections to documents w.r.t. 2D Coherency Rectangle Updates more precisions on XYST generated register. Change 101602 on 2003/05/19 by bbuchner@fl bbuchner r400 win Change 101957 on 2003/05/21 by khabbari@khabbari2_r400_win Change 101476 on 2003/05/17 by gregs@gregs_r400_win_cc r500 changes Change 101939 on 2003/05/21 by bbuchner@fl_bbuchner_r400_win memory interface changes cleaned up interface names Change 101380 on 2003/05/16 by jacarey@fl jcarey desktop added 8 Dword L1 changes Clarifications to pre-write-timer and pre-write-limit usage. Change 101923 on 2003/05/21 by jacarey@fl_jcarey_desktop Change 101350 on 2003/05/16 by bbuchner@fl_bbuchner_r400_win Clarification that Isync flushing occurs only before the first "draw" packet after the undate L2 drawing update snoop signals Change 101917 on 2003/05/21 by mzhu@mzhu_crayola_win_tor Change 101317 on 2003/05/16 by csampayo@fl_csampayo_r400 Add a new test (test 28) in chapter 3.4.8.4 for the case moving cursor hot spot from outside of cursor image size to inside and only capture the second frame. Update tests req counts Change 101892 on 2003/05/21 by imuskatb@imuskatb_r400_win_cnimuskatb Change 101315 on 2003/05/16 by csampayo@fl_csampayo_r400 updated R500DVwork.xls Update test req counts Change 101800 on 2003/05/20 by jacarey@fl_jcarey_desktop Change 101307 on 2003/05/16 by csampayo@fl_csampayo_r400 Correction to Gradfill prim type for rectangles Initial check-in Change 101688 on 2003/05/19 by csampayo@fl_csampayo_r400 Change 101304 on 2003/05/16 by bbuchner@fl_bbuchner_r400_win Added bug#116 fixed L2 raddr and waddr signal names Change 101680 on 2003/05/19 by llefebvr@llefebvre_laptop_r400 Change 101278 on 2003/05/16 by mkelly@fl_mkelly_r400_win_laptop

Page 39 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

added arbiter to TP/VC output control flow machines.

minor changes to the sq_vc interface drawing

updated for the new perspective tests added...

Change 101625 on 2003/05/19 by jacarey@fl_jcarey_desktop

Change 101630 on 2003/05/19 by ashishs@fl ashishs r400 win

Change 101645 on 2003/05/19 by mmantor@FL_mmantorLT_r400_win

Page 40 of 441

Update.

Change 101259 on 2003/05/15 by ashishs@fl_ashishs_r400_win

Change 101256 on 2003/05/15 by csampayo@fl csampayo r400

Updated status for test r400sq_pressure_context_combo_01

Change 101247 on 2003/05/15 by gabarca@gabarca_crayola_win_cvd

updated for r400sq_trunc_01

Updated Change 101225 on 2003/05/15 by bbuchner@fl_bbuchner_r400_win Change 100975 on 2003/05/14 by ashishs@fl_ashishs_r400_win Added C1 changes, modifications to drawings. Describe the RG index processor updated the tracker and test_list add L1 drawing add clamping interface Change 100964 on 2003/05/14 by mkelly@fl mkelly r400 win laptop Change 101205 on 2003/05/15 by gregs@gregs_r400_win_marlboro Change 100945 on 2003/05/14 by jacarey@fl_jcarey_desktop $Clarifications \ to \ Set_Constant \ and \ LCC \ packets \ w.r.t. \ write \ enables \ for \ each \ CONST_ID$ Change 101188 on 2003/05/15 by mkelly@fl_mkelly_r400_win_laptop Update.. $Change\ 100888\ on\ 2003/05/14\ by\ mkelly@fl_mkelly_r400_win_laptop$ Change 101155 on 2003/05/15 by ashishs@fl_ashishs_r400_win labeled myself in the owner column of some tests Change 100832 on 2003/05/13 by jasif@jasif_r400_win_tor Change 101137 on 2003/05/15 by csampayo@fl_csampayo_r400 Updated request state machine diagram Updated test status for tests: r400sq_auto_wrapping_memories_01 Change 100802 on 2003/05/13 by jasif@jasif_r400_win_tor r400sq_vs_memory_wrap_01 Sorted test_list Expanded forcible signals section Change 101040 on 2003/05/14 by jasif@jasif_r400_win_tor Change 100704 on 2003/05/13 by frising@frising_r400_win_marlboro Added section on random delays -GRAD_EXP_ADJUST_HV only exists in texture constant now -SetFIlter4Weights marked as not supported on r400 Change 101037 on 2003/05/14 by llefebvr@llefebvr_r400_montreal -Add 1024 bit option to REQUEST_SIZE for C1 Fixing the spec some more to match R500. Added some diagrams (SQ internals) Change 100627 on 2003/05/13 by kcorrell@kcorrell_r400_docs_marlboro_nb Change 101033 on 2003/05/14 by chwang@chwang_r400_doc_win Fixed info field width and vc field width in TC/MH interface tables Change 100583 on 2003/05/12 by gabarca@gabarca_crayola_win_cvd Change 100995 on 2003/05/14 by jasif@jasif r400 win tor R500 interface changes Updated state diagrams and errors that the model will print. Change 100549 on 2003/05/12 by jacarey@fl_jcarey_desktop Change 100993 on 2003/05/14 by chwang@chwang_r400_doc_win Page 42 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Added SAMPLE instruction to list Microcode Update for 2D surface coherency Change 100274 on 2003/05/09 by jowang@jowang R400 win Change 99916 on 2003/05/08 by bbuchner@fl bbuchner r400 win updated hot-plug detection logic to support dual-link Change 100246 on 2003/05/09 by ashishs@fl ashishs r400 win updated external interface signals updated the excel tracker sheet and the test_list up-to-date Change 99909 on 2003/05/08 by mkelly@fl_mkelly_r400_win_laptop Change 100222 on 2003/05/09 by gregs@gregs r400 win marlboro Update with some more useful info on control flow looping... Change 99782 on 2003/05/07 by mdoggett@mdoggett_r400_win_platypus Change 100163 on 2003/05/09 by rramsey@RRAMSEY_P4_r400_win Format 22, 23 moved to 32BPP in format conversion table. Interlace selection bit changed from Z0 to C drawing to describe instruction store address wrapping in the $control_flow_seq$ and $target_instr_fetch$ blocks Format 40 moved with Format 11 and 12 in format conversion table. SM4 removed.
Completed updates to R500 version of TC. Change 100159 on 2003/05/09 by jacarey@fl jcarey desktop Many unlisted changes Document setting of bit 20 in 2D Booleans as Default Sel Change 99777 on 2003/05/07 by frising@frising_r400_win_marlboro Change 100132 on 2003/05/09 by alleng@alleng_r400_win_marlboro_8200 -update rules for masking with Color/Fog export. Updated these two files with new information Change 99536 on 2003/05/07 by csampayo@fl_csampayo_r400 Change 100004 on 2003/05/08 by llefebvr@llefebvr_r400_montreal Updated tests status Some interface updates. Change 99510 on 2003/05/07 by jacarey@fl_jcarey_desktop Change 99995 on 2003/05/08 by mkelly@fl_mkelly_r400_win_laptop Updates to document for usage of "flush done" flag in the microcode Checkpoint.. Change 99502 on 2003/05/07 by jmarsano@MA JMARSANO Change 99985 on 2003/05/08 by lseiler@lseiler_r400_win_marlboro2 TST validation documents New 2D tiling formats Change 99471 on 2003/05/06 by csampayo@fl_csampayo_r400 Change 99957 on 2003/05/08 by lseiler@lseiler_r400_win_marlboro2 Initial check-in Update HierStencil description Change 99456 on 2003/05/06 by ashishs@fl ashishs r400 win Change 99927 on 2003/05/08 by moev@moev removed the modules from the excel sheet Virage Star Memory System verification test plan (block level) Change 99452 on 2003/05/06 by frising@frising_r400_win_marlboro Change 99921 on 2003/05/08 by jmarsano@MA JMARSANO v.1.95 Page 43 of 441 Page 44 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

TMDS update spec.

Change 100991 on 2003/05/14 by chwang@chwang_r400_doc_win

Added clear to the new interface

Change 101236 on 2003/05/15 by jasif@jasif r400 win tor

-Update spec to show that masking of exports is allowed for all exports now (possible Change 98628 on 2003/05/01 by frising@frising_r400_win_marlboro only exception fog - TBD). Change 99445 on 2003/05/06 by ashishs@fl_ashishs_r400_win -fixed typo in float16<->float32 conversion table Change 98626 on 2003/05/01 by mkelly@fl_mkelly_r400_win_laptop removing the button from the sheet, since it wasn't enabled Change 99433 on 2003/05/06 by csampayo@fl_csampayo_r400 Some housekeeping Change 98544 on 2003/05/01 by mkelly@fl_mkelly_r400_win_laptop Added detail on loop Change 99386 on 2003/05/06 by jacarey@fl_jcarey_desktop Change 98539 on 2003/05/01 by kmahler@kmahler_r400_doc_lib Change 99385 on 2003/05/06 by mkelly@fl mkelly r400 win laptop Some minor updates Update comments, new tests checking RT Constant indexing.. Change 98518 on 2003/05/01 by enewman@enewman_r400_linux_marlboro Change 99380 on 2003/05/06 by jacarey@fl_jcarey_desktop fixed typos, cleaned up some stuff Fix for 2D Coherency (Flushing TC) Change 98500 on 2003/05/01 by liefebvr@llefebvr_r400_montreal Change 99190 on 2003/05/05 by gregs@gregs r400 win marlboro Refreshing the interfaces per Andi's last mail Change 98409 on 2003/04/30 by gregs@gregs_r400_win_marlboro Change 99076 on 2003/05/05 by kcorrell@kcorrell_r400_docs_marlboro_nb First update for R500. Includes changes to AIC and TC interface for R500 feature Change 98401 on 2003/04/30 by llefebvr@llefebvr r400 montreal Updated the SQ->SP interfaces for the R500 Change 99068 on 2003/05/05 by mkelly@fl mkelly r400 win lapton Change 98394 on 2003/04/30 by bbloemer@ma_bbloemer SQ RT constants and flow control testing Updated description of DRAM software command unit Change 98890 on 2003/05/02 by gregs@gregs_r400_win_marlboro Change 98305 on 2003/04/30 by moev@moev names changes again Updated Tile Enable control register to match verilog Change 98760 on 2003/05/02 by llefebvr@llefebvr_r400_montreal Change 98296 on 2003/04/30 by javw@ma javw lt forgot to remove 1 waterfall signal. minor updates Change 98670 on 2003/05/01 by jbrady@jbrady_r400_win Change 98285 on 2003/04/30 by fliljero@fl_frank Add signals to SQ interface for flow control, count_lo, fetch_type. Add L1_request signal first instr of vv latest updates Page 45 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Change 98162 on 2003/04/29 by mkelly@fl_mkelly_r400_win_laptop de split update Maximum pixel shader nested, control flow subroutines in RTS, with Change 97523 on 2003/04/24 by bbuchner@fl bbuchner r400 win non-RTS in front and back containing simple pixel and vertex shaders. added top level cache controller Updated SQ doc with RTS tests needed Change 97450 on 2003/04/24 by llefebvr@llefebvre laptop r400 Change 97906 on 2003/04/28 by ashishs@fl ashishs r400 win Updated stall conditions Made swizzle changes. Added more R500 specifics. added a bug for the 2 failing CL tests Change 97768 on 2003/04/25 by gregs@laptop1 Change 97441 on 2003/04/24 by mpersaud@mpersaud_r400_win_tor all names on DC interface changed. Rev 0.01 Mahendra Persaud Change 97727 on 2003/04/25 by mzhu@mzhu crayola win tor Date: April 24, 2003 Initial revision. Update 11.2.1 DCP Window Controller for DCP_DMIF_SIZE Change 97440 on 2003/04/24 by mpersaud@mpersaud_r400_win_tor Change 97706 on 2003/04/25 by jacarey@fl jcarey desktop Rev 0.05 Mahendra Persaud Date: April 24, 2003
Added CLIENT_DCCIF_wc?_reg_align64byte signal to interface.
Fixed some signal descriptions and updated some of the timing diagrams Add RBBM_DB_soft_reset to RBBM Change 97673 on 2003/04/25 by mpersaud@mpersaud_r400_win_tor Rev 0.06 Mahendra Persaud Change 97403 on 2003/04/24 by jacarey@fl_jcarey_desktop Date: April 25, 2003
Expanded CLIENT_DCCIF_wc?_reg_align64byte to 2 bits RBBM Document Updates for DB Change 97672 on 2003/04/25 by mpersaud@mpersaud_r400_win_tor Change 97280 on 2003/04/23 by jowang@jowang R400 win Rev 0.02 Mahendra Persaud Date: April 25, 2003 Updated CLIENT_DCCIF_reg_wc?_align64byte functionality. Expanded on some block descriptions Updated diagrams try to update diagram so that it looks nice after rotate didn't work. Change 97278 on 2003/04/23 by jowang@jowang R400 win modified after design review 04/23/03 Change 97636 on 2003/04/25 by bbuchner@fl_bbuchner_r400_win Change 97277 on 2003/04/23 by jowang@jowang R400 win added L2 cache drawing fixed cache tag size (stored) to 22 bits fixed memory request to include 26 bits of address and sec. mask updated after the design review 04/23/03 Change 97272 on 2003/04/23 by frising@frising_r400_win_marlboro Change 97613 on 2003/04/25 by khabbari@khabbari2 r400 win Spazzed out on that last check-in. Should have read that 1 bpp textures are filterable. No version bump. not_last_line_pair is added Change 97525 on 2003/04/24 by lkang@lkang_r400_win_tor Change 97261 on 2003/04/23 by frising@frising_r400_win_marlboro Page 47 of 441 Page 48 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history -show that 1D textures formats are filterable -remove REQUEST LATENCY fields

Change 97254 on 2003/04/23 by bbuchner@fl_bbuchner_r400_win

added Request Generator Drawing

Change 97181 on 2003/04/23 by bbuchner@fl_bbuchner_r400_win

0.1 of Vertex cache document

Change 97161 on 2003/04/23 by llefebvr@llefebvre_laptop_r400

interface name changes for the SQ->SP fetch swizzles.

Change 97140 on 2003/04/23 by csampayo@fl_csampayo_r400

Update using Laurent's inputs

Change 97092 on 2003/04/23 by llefebvr@llefebvre_laptop_r400

Added SP stall conditions to the SQ spec

Change 97084 on 2003/04/23 by mpersaud@mpersaud_r400_win_tor

Rev 0.04 Mahendra Persaud Fixed some of the port names to make them more consistent.

Change 97077 on 2003/04/23 by mkelly@fl_mkelly_r400_win_laptop

Change 97063 on 2003/04/23 by kcorrell@kcorrell_r400_docs_marlboro_nb

update MH_TCn_rtr signal description

Change 97033 on 2003/04/22 by frising@frising_r400_win_marlboro

-update mova* instructions to return SrcA (like a mov) on the vector side and SrcC.W replicated on the scalar side.

-update pred* instructions to only use W channel of operands.

-update GPR write-back table to show that scalar component is used when both scalar

and vector write masks are enabled.

Change 97032 on 2003/04/22 by frising@frising_r400_win_marlboro

Page 49 of 441

Ex. 2050 --- R400 Document Library FH --- folder history

v.0.99f -misc updates/corrections/clean-up

Change 97009 on 2003/04/22 by lchen@lchen_crayola0

Change 96906 on 2003/04/22 by bbuchner@fl_bbuchner_r400_win

Change 96888 on 2003/04/22 by jasif@jasif_r400_win_tor

Keep track of R500 DV work

Change 96884 on 2003/04/22 by jasif@jasif_r400_win_tor

Keep track of outstanding DV work.

Change 96881 on 2003/04/22 by jiezhou@jiezhou_r400_win

Change 96875 on 2003/04/22 by fliljero@fl frank

changed data from one pass to the next to better insure proper validation

Change 96872 on 2003/04/22 by jiezhou@jiezhou_r400_win

delete old diagram

Change 96860 on 2003/04/22 by mpersaud@mpersaud r400 win tor

New delta doc Updated test list

Change 96854 on 2003/04/22 by mpersaud@mpersaud_r400_win_tor

Rev 0.03 Mahendra Persaud Date: April 21, 2003 Update after interface review

general description cleanup

update interface names moved surface number to address bits [5:4] during surface register write

added functionality to rcd signal(not wired to zero anymore) removed client id's from read return interface.

update timing diagrams

Page 50 of 441

Ex. 2050 --- R400 Document Library FH --- folder history

Change 96851 on 2003/04/22 by jacarey@fl jcarey desktop

Add detection of Type-0/1 Packets in IBs if Enabled in ME_INIT Packet.
 Unit-Level Test Added to verify.
 Update to PM4 Spec to document addition.

Change 96715 on 2003/04/21 by jowang@jowang_R400_win

Rotate the diagram by 90 degrees for r500_tmds_dual_link.doc

Change 96713 on 2003/04/21 by jowang@jowang R400 win

updated dataSynchronizer document for R500

Change 96699 on 2003/04/21 by mkelly@fl mkelly r400 win laptop

Test all 32 RTS boolean bits in the pixel shader..

Change 96592 on 2003/04/20 by gregs@gregs r400 win cc

Change 96572 on 2003/04/19 by llefebvr@llefebvr_r400_montreal

Documentation changes for R500.

Change 96524 on 2003/04/18 by jhoule@jhoule_doc_lt

Changed GetCompTexLOD and SetTexLOD opcodes to work with a single LOD

Removed 1D restriction for FMT_1* formats.

Indicated that arbitrary filters are now unsupported Realigned every row with auto-fit to fix incomplete last lines.

Change 96500 on 2003/04/18 by fliljero@fl_frank

latest updates

Change 96403 on 2003/04/18 by jacarey@fl_jcarey_desktop

Type 0/1 Error Checking in IBs (ME_INIT, Interrupt Registers) Un-Link Diagrams from PM4 Spec

Change 96286 on 2003/04/17 by jacarey@fl_jcarey_desktop

1. Add INVALID_TAG to bit 31 of CP_MIU_TAG_STAT2 register

2. Added enumeration for the perforance counter selects in the CP and RBBM

Page 51 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 96284 on 2003/04/17 by georgev@devel_georgevh2_r400_win_marlboro

Added MCMH coverage.

Change 96130 on 2003/04/17 by mpersaud@mpersaud_r400_win_tor

Update port names to match R500 naming convention

Change 96064 on 2003/04/16 by gregs@gregs_r400_win_marlboro

update

Change 95964 on 2003/04/16 by jacarey@fl_jcarey_desktop

Add new debug registers that record when read tags are outstanding to the CP.

Change 95946 on 2003/04/16 by jacarey@fl_jcarey2

Removed Snooping Connections to DMA Engine from Diagram

Change 95802 on 2003/04/16 by mpersaud@mpersaud_r400_win_tor

Change 95773 on 2003/04/15 by jowang@jowang R400 win

First rev of dual link TMDS block diagram

Change 95760 on 2003/04/15 by sbagshaw@sbagshaw

added detail that power management for DC block must be enabled to use "one shot" clock or clock branch stopping feature of test debug circuitry $% \left(\frac{1}{2}\right) =0$

Change 95740 on 2003/04/15 by gregs@gregs_r400_win_marlboro

Change 95666 on 2003/04/15 by csampayo@fl csampayo r400

Change 95655 on 2003/04/15 by csampayo@fl_csampayo_r400

Add "Owner" column

Change 95625 on 2003/04/15 by jacarey@fl_jcarey2

Updates to Document

Page 52 of 441

Test smallest Z offset and scale to produce a discernable difference Baseline of Ideas for Pre-emptive Ring Hardware in CP in the Zbuffer (1 Isb) Change 95542 on 2003/04/14 by sbagshaw@sbagshaw Change 95068 on 2003/04/10 by gregs@iaptop1 Changed references to PIXCLK to refer to pixel PLL source clock branch instead of a particular display controller's pixel clock branch.

Changed all references of DISP1_PCLK to PIX1CLK.

Changed all references of DISP2_PCLK to PIX2CLK. Change 95039 on 2003/04/10 by gabarca@gabarca_crayola_win_cvd All prior references to "Primary display controller pixel clock" changed to "Primary pixel Fixed case c6 of crtc display parameters tests PLL source clock". Similarly, all prior references to "Secondary display controller pixel clock" changed to "Secondary pixel PLL source clock". Change 95022 on 2003/04/10 by khabbari@khabbari2_r400_win Change 95512 on 2003/04/14 by jacarey@fl_jcarey2 r500 changes Miscellaneous Updates Change 94731 on 2003/04/09 by rfevreau@rfevreau_r400_win Change 95471 on 2003/04/14 by jacarey@fl_jcarey2 Took out dispout_gpios from block level regression Added some packet restrictions for BitBlt and HostDataBlt: Change 94703 on 2003/04/09 by jasif@jasif r400 win tor For HostData_Blt: Never identify a brush even though the ROP code is set to 0xCC For BitBlt:Never do a simple BitBlt with a mono opaque source, SRC_TYPE=0, or a mono transparent source, SRC_TYPE=1, and a ROP code set to source copy, 0xCC. Change 94683 on 2003/04/09 by jasif@jasif_r400_win_tor Change 95460 on 2003/04/14 by frising@frising_r400_win_marlboro Change 94680 on 2003/04/09 by jasif@jasif r400 win tor -Add fields to vertex fetch instruction to support mega/mini fetches. Added section on managing devel and desplit branch Change 95443 on 2003/04/14 by jasif@jasif_r400_win_tor Change 94556 on 2003/04/08 by gregs@gregs r400 win marlboro Fixed section on integration. Change 95223 on 2003/04/11 by gregs@gregs_r400_win_marlboro Change 94544 on 2003/04/08 by rfevreau@rfevreau_r400_win update Updates to xls files and Makefile Change 95214 on 2003/04/11 by jacarey@fl_jcarey2 Change 94458 on 2003/04/08 by jasif@jasif_r400_win_tor Baseline CP Review Slides Describes how to use perforce branching mechanism for dc split changes. Change 95139 on 2003/04/11 by jiezhou@jiezhou_r400_win Change 94419 on 2003/04/08 by jacarey@fl_jcarey2 for sclk_r_vga_rst Proposal #2 for test interface Change 95109 on 2003/04/11 by mkelly@fl_mkelly_r400_win_laptop Change 94395 on 2003/04/08 by rramsey@RRAMSEY_P4_r400_win Page 54 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Change 93520 on 2003/04/02 by jowang@jowang R400 win update Change 94342 on 2003/04/07 by sbagshaw@sbagshaw no dithering done in blank pixel for DVOA Added new test, "DISPOUT_INTERFACES_powerstate", to verify the Display Output Change 93501 on 2003/04/02 by ashishs@fl_ashishs_r400_win data output interfaces function properly in different power states updated Change 94201 on 2003/04/07 by jacarey@fl_jcarey2 Change 93481 on 2003/04/02 by csampayo@fl_csampayo_r400 Test Bus Proposal Initial check-in Change 94195 on 2003/04/07 by ashishs@fl_ashishs_r400_win Change 93465 on 2003/04/02 by jacarey@fl_jcarey_desktop 1. Move RB CLRCMP MSK HI and RB CLRCMP DST HI initialization for 2D to Change 94183 on 2003/04/07 by vgoel@fl_vgoel2 the 2D Indirect Buffer

2. Mask for RB_CLRCMP_MSK_LO is dependant on the pixel type

3. Updated PM4 Spec Accordingly

4. Updated CP Unit-Level Tests Accordingly updated bug status Change 94179 on 2003/04/07 by ashishs@fl ashishs r400 win Change 93456 on 2003/04/02 by llefebvr@llefebvr_r400_montreal update to the control flow instruction.

Adding timing diagram for the SQ->VC/TP transfers. Change 94030 on 2003/04/04 by paulv@MA PVELLA Updates to the MHS section. Change 93409 on 2003/04/02 by ygiang@ygiang_r400_win_marlboro_p4 Change 93969 on 2003/04/04 by gregs@gregs r400 win marlboro updated sp test excel sheet Change 93373 on 2003/04/02 by ashishs@fl_ashishs_r400_win Change 93958 on 2003/04/04 by sbagshaw@sbagshaw filed bug for SQ tests failing due to Laurent's change # 92966 $R400\,DC$ Test Debug document put into proper documentation template. Section explaining how to specify clock domain for each bit of DC_TEST_DEBUG_DATA added. Change 93269 on 2003/04/01 by gabarca@gabarca_crayola_win_cvd fixed horz parameters cases c8, c9, still don't know why c7 does not emulate properly Change 93888 on 2003/04/04 by jacarey@fl jcarey desktop Change 93211 on 2003/04/01 by paulv@MA PVELLA Updated Documentation for addition of Pre-Fetch Matching for Loop and Boolean Change 93199 on 2003/04/01 by gregs@gregs_r400_win_marlboro Change 93733 on 2003/04/03 by vgoel@fl_vgoel2 closed a bug Change 93664 on 2003/04/03 by fliljero@fl_frank Change 93176 on 2003/04/01 by gregs@gregs r400 win marlboro latest passing updates first power estimate Page 55 of 441 Page 56 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 95606 on 2003/04/15 by jacarey@fl_jcarey2

Change 93130 on 2003/04/01 by nbarbier@nbarbier_r400_win_tor initial release Updated Power Management Section Change 92381 on 2003/03/27 by dwong@cndwong2 Change 93121 on 2003/04/01 by vgoel@fl vgoel2 Added CP RBBM dma busy to Bit 2 of the RT discrete signals updated to remove bug 788 Change 92378 on 2003/03/27 by mkelly@fl_mkelly_r400_win_laptop Change 93110 on 2003/04/01 by jiezhou@jiezhou_r400_win Add test requirement... undating table Change 92370 on 2003/03/27 by jacarey@fl_jcarey_desktop Change 93065 on 2003/04/01 by jiezhou@jiezhou_r400_win Fix typo in RB_BUFSZ equation in the CP_RB_CNTL register updating in pclk src selection Change 92347 on 2003/03/27 by jiezhou@jiezhou r400 win Change 92948 on 2003/03/31 by jiezhou@jiezhou_r400_win take debug test out from test plan. Change 92330 on 2003/03/27 by ashishs@fl ashishs r400 win Change 92850 on 2003/03/31 by efong@efong_r400_win_tor_doc filed bug for the hang caused by Laurent's change #92184 Change 92325 on 2003/03/27 by kcorrell@kcorrell r400 docs mariboro nb Added in Verdi Training docs updated address translation diagram for rom reads, removed summary of registers in favor of a reference to the block file Change 92846 on 2003/03/31 by ashishs@fl_ashishs_r400_win updated Change 92272 on 2003/03/26 by rfevreau@rfevreau r400 win Change 92637 on 2003/03/28 by fliljero@fl frank Updated numbers added dummy writes to instruction memory so that it does not return unknowns when Change 92265 on 2003/03/26 by jimmylau@jimmylau r400 win tor Change 92627 on 2003/03/28 by alleng@alleng_r400_win_marlboro_8200 Initial revision of BIF test plan Change 92238 on 2003/03/26 by jiezhou@cn_jiezhou Change 92587 on 2003/03/28 by llefebvr@llefebvre laptop r400 updating added swizzle codes to the spec Change 92204 on 2003/03/26 by ashishs@fl_ashishs_r400_win Change 92433 on 2003/03/27 by mpersaud@mpersaud_r400_win_tor documented the SO bug by Laurent Rev 0.98 Mahendra Persaud Change 92175 on 2003/03/26 by gregs@laptop1 Update section 4.1 with new display parameters and formulas. reverted ROM AP SIZE definition Change 92425 on 2003/03/27 by jiezhou@jiezhou_r400_win Change 92174 on 2003/03/26 by mkelly@fl_mkelly_r400_win_laptop Page 58 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Update with SC test coverage. Made additional change to trnds hpd override test Change 92165 on 2003/03/26 by jacarey@fl_jcarey_desktop Change 91582 on 2003/03/21 by gregs@gregs_r400_win_marlboro Visio Updates to Scratch Register Interrupt Function in the CP various minor changes Change 92090 on 2003/03/25 by rfevreau@rfevreau r400 win Change 91540 on 2003/03/21 by jacarey@fl jcarey2 Scratch Compare Interrupt Diagram for R400 Change 92030 on 2003/03/25 by abeaudin@abeaudin_r400_win_marlboro This is the same logic that is being added for R390 as requested by Jeffrey Cheng. The difference from R390 is the location of the interrupt control and status bits. This is indicated on the diagram. added build sequence Change 91514 on 2003/03/21 by abeaudin@abeaudin r400 win marlboro Change 91961 on 2003/03/25 by bbloemer@ma bbloemer Updated test plan with more test description and effort estimate. added directory description Change 91495 on 2003/03/21 by csampayo@fl csampayo r400 Change 91878 on 2003/03/24 by jacarey@fl jcarey desktop Updated status for the following tests: r400sq_flow_control_02 r400sq_flow_control_03 Add Test_Select to R400 documentation for the scratch register compare interrupt Change 91821 on 2003/03/24 by jacarey@fl_jcarey_desktop Scratch Register Interrupt Change 91489 on 2003/03/21 by csampayo@fl_csampayo_r400 Change 91812 on 2003/03/24 by mzhu@mzhu_crayola_win_tor Some housekeeping Change 91474 on 2003/03/21 by jacarey@fl_jcarey_desktop Double MCLK frequency to reduce MH latency to less than 40% of HTOTAL for MH DC LATENCY1 tes Set SCLK to 440MHz for all MH_DMIF_DCP tests
Force dmif model rts delay signals to 0 on block level simulation for all MH_DMIF_DCP 1. Removed PREFETCH_DISABLE_OVERRIDE from CP_DEBUG register in CP 2. Updated PFP pseudocode for Indirect_Buffer and Indirect_Buffer_PFD packets. Change 91806 on 2003/03/24 by jacarey@fl_jcarey_desktop Change 91438 on 2003/03/20 by csampayo@fl_csampayo3 Fix typo in section 7.2 VGT output path stress tests Change 91790 on 2003/03/24 by ashishs@fl_ashishs_r400_win Change 91354 on 2003/03/20 by dwong@cndwong2 include descriptions on FDCT compression Change 91783 on 2003/03/24 by kcorrell@kcorrell r400 docs marlboro nb Change 91347 on 2003/03/20 by mdoggett@mdoggett_r400_win_platypus Update to reflect changes to address decision tree and that primary target is now pci-Major change to cache design. Partial spec update to new design L1 removed, L2 replaced with 4 read port 128 word memories Added new Set, Halfline, Slice creation in Cacheline Formats section, removed old L1 Change 91625 on 2003/03/21 by nbarbier@nbarbier_r400_win_tor Page 59 of 441 Page 60 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 91332 on 2003/03/20 by jhoule@jhoule doc It Change 90871 on 2003/03/19 by abeaudin@abeaudin_r400_win_marlboro Minor correction to the Numbers table. uINT gamma'd gave values from 0 to 15, but the 'range' entry was [-8..8) instead of [0, remove doc (reported by Daniel Willhite) No version bump. Change 90870 on 2003/03/19 by abeaudin@abeaudin_r400_win_marlboro new emulator emulator information Change 91280 on 2003/03/20 by abeaudin@abeaudin r400 win marlboro Change 90869 on 2003/03/19 by abeaudin@abeaudin r400 win marlboro added gfx engine description Change 91277 on 2003/03/20 by gregs@gregs_r400_win_marlboro Change 90785 on 2003/03/18 by sbagshaw@sbagshaw iodft insertion complete DMIF System and Stress tests (section 3.3 and 4.3) modified to utilize real display mode Change 91262 on 2003/03/20 by dglen@dglen_r400 timings and clock speeds Updated with R500 line buffer size and core clock speed Change 90763 on 2003/03/18 by abeaudin@abeaudin r400 win marlboro Change 91227 on 2003/03/20 by mzhu@mzhu_crayola_win_tor answers to software questions For MH_DC_LATENCY tests in chapter 3.3, force_read_delay_busy is forced to be less than or equal to force_read_delay_idle. This makes dmif model to send overlay data not later than graphics data for the first chunk of each line Change 90744 on 2003/03/18 by mkelly@fl mkelly r400 win laptop Test para enable bit, update register coverage. Change 90739 on 2003/03/18 by jacarey@fl_jcarey_desktop Change 91209 on 2003/03/20 by jacarey@fl_jcarey_desktop 1. Updated bit width of Non-Prefetch counters in the CP_Non_Prefetch_Cntrs register in Add stall conditions for IB2D init w.r.t. in-flight indirect buffer inits. CP Spec.

2. Addition of INDIRECT_BUFFER_PFD packet to the PM4 Spec. Change 90715 on 2003/03/18 by vgoel@fl_vgoel2 Change 91124 on 2003/03/19 by gregs@laptop1 added r400vgt_hos_pnt_adaptive_complex bug differential pads dft + clean-up Change 90699 on 2003/03/18 by gregs@gregs_r400_win_marlboro Change 90952 on 2003/03/19 by sbagshaw@sbagshaw DRAM RST, TEST YCLK, TEST MCLK pads DMIF tests clarified to use maximum pixel clock of 400 MHz. MH-DMIF latency tests Change 90670 on 2003/03/18 by mdoggett@MA_MDOGGETT_LT modified so some use graphics & overlay surfaces whereas others only use a graphics surface
Details and procedure for CRTC interrupt test clarified. some modifications towards version 0.5 version 0.5 not yet completed Change 90883 on 2003/03/19 by mkelly@fl_mkelly_r400_win_laptop Change 90659 on 2003/03/18 by mkelly@fl_mkelly_r400_win_laptop SC debug register coverage... Update.. Change 90874 on 2003/03/19 by abeaudin@abeaudin_r400_win_marlboro Page 61 of 441 Page 62 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Change 90613 on 2003/03/17 by csampayo@fl_csampayo_r400 Change 90102 on 2003/03/13 by georgev@devel_georgevh2_r400_win_marlboro Control flow, predicate and multi-context and multi-prim test. Upfdated test list Updated sheets. accordingly Change 90076 on 2003/03/13 by gregs@gregs_r400_win_marlboro Change 90606 on 2003/03/17 by gabarca@gabarca_crayola_win_cvd update added timin lines Change 90033 on 2003/03/13 by mkelly@fl_mkelly_r400_win_laptop Change 90592 on 2003/03/17 by moev@moev sc sp sampling through interpolators, parameters 3 - 8 updates to include dbist Change 90005 on 2003/03/13 by jacarey@fl_jcarey_desktop Change 90492 on 2003/03/17 by khabbari@khabbari_r400_win Updates for Prefetch-Disable Mode to Fetching Indirect Buffers r400 last release Change 89973 on 2003/03/13 by georgev@devel georgevh2 r400 win marlboro Change 90257 on 2003/03/14 by gregs@gregs_r400_win_marlboro memory strobe signals' names back to MnWDQSn and MnRQDSn Change 89959 on 2003/03/13 by georgev@ma_georgev Change 90251 on 2003/03/14 by mkelly@fl_mkelly_r400_win_laptop Empty for first rev. sc_sp centers/centroids parameters 13, 14, 15 Change 89951 on 2003/03/13 by mkelly@fl_mkelly_r400_win_laptop Change 90225 on 2003/03/14 by rthambim@rthambim r400 win tor Prim type detection on gpr position 0, and 9 - 15 $\,$ Added pci/agp address expansion, initiator register list. Change 89899 on 2003/03/12 by gregs@laptop1 Change 90161 on 2003/03/14 by mkelly@fl mkelly r400 win laptop parallel ROM supports 2 and 4Mbit parts. sc_sp sample control parameters 8 - 13 Change 89876 on 2003/03/12 by jimmylau@jimmylau_r400_win_tor Change 90160 on 2003/03/14 by jacarey@fl_jcarey_desktop Add details for the following R400 changes: Another Stall Condition for Indirect_Buffer packet 1. BIF coherency Change 90158 on 2003/03/14 by jacarey@fl jcarey desktop 2. 64-byte PCI and AGP writes 3. BIF performance counter
4. FW splitter that splits 128-bit data from FW to 64-bit data to HDP
5. Bug fix for AGP8x AD calibration Updated Pseudocode for PREFETCH DISABLE mode Change 90122 on 2003/03/13 by gregs@laptop1 Change 89800 on 2003/03/12 by mkelly@fl mkelly r400 win laptop update Primtype detection in the pixel shader, gpr positions 2 - 8 Change 90107 on 2003/03/13 by georgev@devel_georgevh2_r400_win_marlboro Change 89764 on 2003/03/12 by gregs@laptop1 Fix _ to / typo. update Page 63 of 441 Page 64 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

more emulator information

3D 64BPP and 128BPP special cases removed.

Added some more description. Updated VGT tests status to 100% for all tests that pass hardware compare Change 89756 on 2003/03/12 by mdoggett@MA_MDOGGETT_LT Change 89424 on 2003/03/10 by csampayo@fl_csampayo_r400 Minor modifications Update VGT and SU sections Change 89739 on 2003/03/12 by jacarey@fl_jcarey_desktop Change 89384 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop Update to proposal. Update... Change 89737 on 2003/03/12 by gregs@laptop1 Change 89375 on 2003/03/10 by ygiang@ygiang_r400_win_marlboro_p4 strap for "rom on vip" is 0001 now undated: sp verification spreadsheet Change 89729 on 2003/03/12 by sbagshaw@sbagshaw Change 89331 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop Sections 3.1 and 4.1 for DCCIF tests updated with new parameters from Mahendra's Update.. Change 89313 on 2003/03/10 by csampayo@fl_csampayo_r400 Change 89601 on 2003/03/11 by jacarey@fl_jcarey2 Some housekeeping updates. Proposal for Pre-Fetch Disabling Change 89312 on 2003/03/10 by csampayo@fl_csampayo_r400 Change 89596 on 2003/03/11 by gregs@gregs_r400_win_marlboro Housekeeping schedule Change 89118 on 2003/03/07 by csampayo@fl_csampayo_r400 Change 89577 on 2003/03/11 by tien@ma_spinach New test checking single/dual vertex vectors of various sizes. Updated test_list and test Added extra location for SAMPLE_LOCATION bit Change 89569 on 2003/03/11 by mkelly@fl mkelly r400 win laptop Change 89108 on 2003/03/07 by omesh@ma_omesh Check POLY, POINT, LINE prim type detection in SP on parameter 0 Updated the spreadsheet to some extent, but still haven't finished.... Change 89556 on 2003/03/11 by gregs@gregs_r400_win_marlboro Change 89075 on 2003/03/07 by fliljero@fl frank latest pass/fail results Change 89544 on 2003/03/11 by mkelly@fl_mkelly_r400_win_laptop Change 89066 on 2003/03/07 by moev@moev Change 89501 on 2003/03/11 by jiezhou@cn jiezhou Change 89032 on 2003/03/07 by csampayo@fl csampayo r400 update from testplan review Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history $Added\ pass-thru\ test\ with\ large\ (>64\ indices)\ vertex\ vectors.\ Updated\ test_list\ and\ test\ tracker\ accordingly$ Change 88553 on 2003/03/05 by nbarbier@nbarbier_r400_win_tor Change 89021 on 2003/03/07 by mkelly@fl_mkelly_r400_win_laptop Updated section 9.4. Change 88534 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop Change 88919 on 2003/03/06 by jiezhou@cn_jiezhou MultiPass Indirect Buffer multiple looping.. Change 88515 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop Change 88913 on 2003/03/06 by csampayo@fl_csampayo_r400 MultiPass Indirect Buffer / SC pixel LOOP interaction / 2 Segment / 2 Pass Adding mixed VGT 2/1 output vectors tests Change 88445 on 2003/03/04 by csampayo@fl_csampayo_r400 Change 88910 on 2003/03/06 by ashishs@fl ashishs r400 win More VGT pass-thru tests checking grouper data types Change 88405 on 2003/03/04 by mzhu@mzhu_crayola_win_tor updated $Add\,BASE_ADDRESS=384MB$ - 4KB case for graphics, overlay, icon and cursor in chapter $3.4.7.2,\,3.4.7.3,\,3.4.8.4$ and 3.4.8.8Change 88905 on 2003/03/06 by gabarca@gabarca_crayola_win_cvd updated reg table adding timing calcs Change 88370 on 2003/03/04 by gregs@gregs_r400_win_marlboro Change 88847 on 2003/03/06 by jacarey@fl_jcarey_desktop update Fix typo in pm4 spec. Change 88360 on 2003/03/04 by grayc@grayc_r400_win Change 88832 on 2003/03/06 by gregs@gregs_r400_win_marlboro initial release of block validation blocks Change 88347 on 2003/03/04 by mkelly@fl mkelly r400 win laptop Change 88766 on 2003/03/06 by ashishs@fl_ashishs_r400_win updated for texture wrap bug which has been closed now Change 88327 on 2003/03/04 by fliljero@fl frank Change 88746 on 2003/03/06 by mkelly@fl_mkelly_r400_win_laptop added wait_gfx_idle(); to force synchronization Completes initial check of prim type detection in the pixel shader Change 88312 on 2003/03/04 by fliljero@fl frank checking SQ POINT (r400sc_sp_sample_cntl_09), SQ LINE (r400sc_sp_sample_cntl_11) and SQ POLY (this checkin). mem-mapped real-time SQ constant regs moved to a 16 word alignment - from 0x124a0 to $12500\,$ Change 88591 on 2003/03/05 by mzhu@mzhu_crayola_win_tor Change 88220 on 2003/03/03 by jiezhou@cn_jiezhou Change overlay base address to be different with graphics base address in chapter 3.4.8.8. first testplan review Change 88577 on 2003/03/05 by gregs@gregs_r400_win_marlboro Change 88147 on 2003/03/03 by tien@ma spinach update Page 67 of 441 Page 68 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 89429 on 2003/03/10 by csampayo@fl csampayo r400

Change 89759 on 2003/03/12 by georgev@devel_georgevh2_r400_win_marlboro

Updated to include new bits in r400TxVtxInstConstSqTp.xls Change 88116 on 2003/03/03 by mzhu@mzhu crayola win tor Change 87452 on 2003/02/27 by mzhu@mzhu crayola win tor Add 5.9.9 More tests to improve code coverage Add 5.9.10 Read F, V and H count when CRTC is disabled Change overlay gamma correction register default values to be linear Change 88023 on 2003/03/03 by ashishs@fl_ashishs_r400_win Change 87298 on 2003/02/27 by mkelly@fl_mkelly_r400_win_laptop updated CL special cases % Change 88004 on 2003/03/03 by georgev@devel_georgevh2_r400_win_marlboro Change 87190 on 2003/02/26 by gregs@iaptop1 Updated to reflect new tests. updated widths of new memory pads + initial distribution Change 87906 on 2003/03/01 by gregs@gregs_r400_win_cc Change 87189 on 2003/02/26 by gregs@laptop1 CXTAL1SHV2. PGTMDSSHVA4 <updated board straps + added TVDAC placement> Change 87776 on 2003/02/28 by fliljero@fl frank Change 87175 on 2003/02/26 by csampayo@fl_csampayo_r400 Update test to use all 8 contexts, update test tracker accordingly Change 87764 on 2003/02/28 by smoss@smoss_crayola_win Change 87168 on 2003/02/26 by csampayo@fl_csampayo_r400 Add new VGT pass-thru tests Change 87762 on 2003/02/28 by llefebvr@llefebvr_r400 Change 87160 on 2003/02/26 by sbagshaw@sbagshaw Added the new SX interface. fixed some details of SCL. CP coefficient ram SCL system test Change 87752 on 2003/02/28 by frising@frising_r400_win_marlboro Change 87131 on 2003/02/26 by sbagshaw@sbagshav procedure and description for SCL_CP_coefficient_ram system test changed to correct methods. -add CLAMP DISABLE to vertex fetch constant Change 87636 on 2003/02/28 by gregs@gregs_r400_win_marlboro Change 86921 on 2003/02/25 by gregs@gregs_r400_win_marlboro update ESD power and groud pads for memory interface Change 87501 on 2003/02/27 by mzhu@mzhu_crayola_win_tor Change 86915 on 2003/02/25 by gregs@gregs r400 win marlbord Update 5.9.10 new crayola memory pads (breaks, corners, dcap, etc.) Change 87476 on 2003/02/27 by fliljero@fl frank Change 86894 on 2003/02/25 by csampayo@fl_csampayo_r400 Page 70 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Clarification of write confirm interval as experimental for R400 Closing Bug# 72 in the ME INIT packet. Change 86772 on 2003/02/25 by jiezhou@cn_jiezhou Change 86490 on 2003/02/24 by jennho@jennho_crayola0 New schematics for NPL Change 86764 on 2003/02/25 by nbarbier@nbarbier r400 win tor Change 86489 on 2003/02/24 by jennho@jennho crayola0 More updates to the Code Coverage Section Updated schematics based on the lastest RTL changes Change 86735 on 2003/02/25 by hdong@hdong r400 win- tor Change 86488 on 2003/02/24 by gregs@gregs r400 win marlboro revert #11 Change 86713 on 2003/02/25 by ashishs@fl ashishs r400 win Change 86444 on 2003/02/24 by nbarbier@nbarbier r400 win tor updated for r400sq_16tex_interp_combo_01 Added section for additional tests required to satisfy code coverage (Section 9). Change 86709 on 2003/02/25 by jacarey@fl_jcarey_desktop Change 86429 on 2003/02/24 by gabarca@gabarca_crayola_win_cvd Initial Baseline Fixed viewport x, y start because the surface also rotates Change 86701 on 2003/02/25 by hdong@hdong_r400_win-_tor Change 86428 on 2003/02/24 by tshah@fl_tshah delete $disp1(2)_x_end$, and $disp1(2)_y_end$. Fixed wrong connection in VGT Change 86691 on 2003/02/25 by donaldl@fl_donaldl_p4 Change 86415 on 2003/02/24 by jacarey@fl_jcarey_desktop SC clock diagram Comment to cp int cntl register Change 86673 on 2003/02/25 by scamlin@scamlin_crayola_win Change 86414 on 2003/02/24 by tshah@fl_tshah Clock diagram for KS tile (RBBM+VGT+IDCT) sq clocks Change 86661 on 2003/02/25 by mkelly@fl_mkelly_r400_win_laptop Change 86410 on 2003/02/24 by rramsey@RRAMSEY_P4_r400_win Simple RTS for Christeen.. Add clock gating diagram for sc b Change 86605 on 2003/02/24 by csampayo@fl_csampayo_r400 Change 86390 on 2003/02/24 by jacarey@fl_jcarey_desktop Adding pass-thru tests with 32 bit indices Fix typo in indirect_buffer packet Change 86600 on 2003/02/24 by nbarbier@nbarbier r400 win tor Change 86374 on 2003/02/24 by jiezhou@cn_jiezhou More updates to Code Coverage Section. Change 86575 on 2003/02/24 by jacarey@fl jcarey2 Change 86371 on 2003/02/24 by gabarca@gabarca_crayola_win_cvd Page 71 of 441 Page 72 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

excel spreadsheet to track progress of test run the the gc testbench

Change 87468 on 2003/02/27 by gregs@gregs_r400_win_marlboro

Let's try this again. same as prev rev.

Change 88146 on 2003/03/03 by tien@ma spinach

Update SC status, re-assign most of the remaining cases to STRESS testing. Set different surface address from 0 - 256MB for graphics, overlay, icon and cursor in Change 86308 on 2003/02/23 by gregs@laptop1 chapter 3.4.7.2, 3.4.7.3, 3.4.8.4 and 3.4.8.8 added DRAM SEL pins Change 85669 on 2003/02/20 by rfevreau@rfevreau_r400_win Change 86288 on 2003/02/23 by gregs@gregs_r400_win_cc Added 3 new tests for code coverage: 1) x2 on D2 2) x2 with cursor codes 1, 2, 3 new memory pads updated Change 85602 on 2003/02/20 by mzhu@mzhu_crayola_win_tor Change 86181 on 2003/02/21 by gabarca@gabarca_crayola_win_cvd Undate tests in 3.4.9.13 and 3.4.9.14 after code coverage Change 85539 on 2003/02/20 by mdoggett@MA_MDOGGETT_LT Change 86144 on 2003/02/21 by nbarbier@nbarbier_r400_win_tor version 1.0 of out of order data return for TC. Will be eventually merged into TC spec Test Plan Update. Change 85504 on 2003/02/20 by gregs@gregs_r400_win_marlboro Change 86098 on 2003/02/21 by csampayo@fl_csampayo_r400 update Change 85486 on 2003/02/20 by gregs@gregs_r400_win_marlboro Change 86022 on 2003/02/21 by sbagshaw@sbagshaw $R400\,\mathrm{DC}$ test plan with updated numbers for CRTC timings for most modes to account for latency from Memory Hub (MH) to Display Composite Pipe (DCP). Change 85475 on 2003/02/20 by mkelly@fl mkelly r400 win laptop Change 86005 on 2003/02/21 by mkelly@fl_mkelly_r400_win_laptop RTS rectangle walk direction x_dir = 0, y_dir = 1 Change 85417 on 2003/02/19 by csampayo@fl csampayo r400 Change 85948 on 2003/02/21 by mdoggett@MA_MDOGGETT_LT Updated conditions for instruction and slice state transistions. Change 85416 on 2003/02/19 by csampayo@fl csampayo r400 Change 85933 on 2003/02/21 by ashishs@fl_ashishs_r400_win Some schedule update Change 85411 on 2003/02/19 by smoss@smoss_crayola_win updated Change 85893 on 2003/02/21 by mzhu@mzhu_crayola_win_tor Update 3.4.9.13 and 3.4.9.14 to cover three cases in different display area, icon only, Change 85403 on 2003/02/19 by gregs@gregs_r400_win_marlboro cursor only and icon is overlaped by cursor minor update Change 85774 on 2003/02/20 by csampayo@fl_csampayo_r400 Page 73 of 441 Page 74 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 85397 on 2003/02/19 by ashishs@fl_ashishs_r400_win Initial checkin undated Change 85164 on 2003/02/19 by mkelly@fl_mkelly_r400_win_laptop Change 85388 on 2003/02/19 by ashishs@fl_ashishs_r400_win updated for the week of Feb 22nd Change 85140 on 2003/02/18 by csampayo@fl csampayo lt r400 Change 85360 on 2003/02/19 by ashishs@fl_ashishs_r400_win Added charts updated for 3 tests (need to be updated for 7 more) Change 85126 on 2003/02/18 by gregs@laptop1 Change 85345 on 2003/02/19 by ashishs@fl_ashishs_r400_win DRENB for dvo clock and control is high Change 85118 on 2003/02/18 by jling@jling_crayola0 Change 85340 on 2003/02/19 by jiezhou@cn_jiezhou Added OE signal from Strobe to data nearpad in visio diagram Change FRC crtc from interlaces mode to progress mode Change 85008 on 2003/02/18 by scamlin@scamlin_crayola_win Change 85335 on 2003/02/19 by georgev@devel georgevh2 r400 win marlboro renamed and added stuff based on PD feedback Change 84981 on 2003/02/18 by jiezhou@cn_jiezhou Change 85316 on 2003/02/19 by tshah@fl tshah updating test plan to reflect hardware changes. clock diagram for the PD team Change 84967 on 2003/02/18 by gregs@laptop1 Change 85294 on 2003/02/19 by fliljero@fl fliljeros changed name of regclk_active signal coming from RBBM. divided logic cloud into $\overline{2}$ separate clouds for the enables since they do not use the same Change 84922 on 2003/02/18 by csampayo@fl_csampayo_r400 logic to generate the enables. Initial checkin Change 85269 on 2003/02/19 by frising@ma_frising Change 84920 on 2003/02/18 by mzhu@mzhu_crayola_win_tor -FMT_10_11_11_AS_16_16_16_16 and FMT_11_11_10_AS_16_16_16_16 are not Correct register setting in 3.4.9.13 and 3.4.9.14 Change 84914 on 2003/02/18 by mzhu@mzhu crayola win tor Change 85204 on 2003/02/19 by jacarey@fl_jcarey_desktop Add 3.4.9.16 Data pattern for Graphics and Overlay Keyer Code Coverage Fix typo for trans bitblt for clr cmp src fields Change 84903 on 2003/02/18 by gregs@laptop1 Change 85203 on 2003/02/19 by csampayo@fl_csampayo_r400 More format updates Change 84807 on 2003/02/17 by mzhu@mzhu crayola win tor Change 85182 on 2003/02/19 by bhankins@fl_bhankins_r400_win Page 75 of 441 Page 76 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Adding point size clamping tests

Change 85692 on 2003/02/20 by mzhu@mzhu_crayola_win_tor

Clarified 7.3.2: we want underline and blink at the same time

Change 86350 on 2003/02/24 by mkelly@fl mkelly r400 win laptop

Add 3.4.9.15 Color Space Conversion Data Clamping Change 84773 on 2003/02/17 by jiezhou@cn_jiezhou Change 84264 on 2003/02/13 by alleng@alleng_r400_win_marlboro undating for the second review Initial submission of R400 notes Change 84568 on 2003/02/14 by jhoule@MA_JHOULE Change 84235 on 2003/02/13 by mkelly@fl_mkelly_r400_win_laptop Checkpoint... Changed FMT_24_8* formats to only fetch the Z value, as this was the original scheme Stencil reads can be done by using FMT_8_8_8 using another constant. Change 84122 on 2003/02/13 by mkelly@fl_mkelly_r400_win_laptop Updated degamma comments to account for the fact that NUM FORMAT ALL must be set to RF, since degamma only makes sense on uRF source Change 83959 on 2003/02/12 by ygiang@ygiang_r400_win_marlboro_p4 Change 84541 on 2003/02/14 by jling@jling_crayola0 updated: cp cntrl reg for perf counters Removed VMODE0/1 from memory section Change 83839 on 2003/02/12 by mdoggett@mdoggett_r400_win_platypus Change 84535 on 2003/02/14 by vgoel@fl_vgoel2 Changed all Two Layer L2 Block Offsets undated register coverage Changed SM3 Added formats 54,55,56 changed 7,16, 17.
Updated top level to reflect block split. Change 84527 on 2003/02/14 by jling@jling_crayola0 Change 83798 on 2003/02/12 by mdoggett@MA_MDOGGETT_LT R400 io pad drawing (premlinimary) Changed all Two Layer L2 Block Offsets. Changed SM3. Change 84505 on 2003/02/14 by mkelly@fl_mkelly_r400_win_laptop Added formats 54,55,56 changed 7,16, 17. Real Time Stream Line List Primitive Updated top level to reflect block split. Change 84420 on 2003/02/14 by csampayo@fl_csampayo_r400 Change 83705 on 2003/02/11 by jiezhou@cn_jiezhou Added multi context tests updating from the design review Change 84336 on 2003/02/13 by jowang@jowang_R400_win Change 83646 on 2003/02/11 by jiezhou@cn_jiezhou updated after code coverage review update Change 84290 on 2003/02/13 by mkelly@fl_mkelly_r400_win_laptop Change 83605 on 2003/02/11 by ashishs@fl_ashishs_r400_win RTS intertwined with Hi-Z viz query Change 84278 on 2003/02/13 by georgev@devel_georgevh2_r400 win marlboro Change 83597 on 2003/02/11 by jhoule@MA JHOULE Updated with new tests. Page 77 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Final description of mipfilter point (potential reuse of trijuice) Change 83084 on 2003/02/08 by jimmylau@jimmylau r400 win tor Change 83555 on 2003/02/11 by jiezhou@cn jiezhou Modify diagram on section 6.1 to illustrate change of HDP/VGA/RBBM interface Add tables in section 6.1 to illustrate the new strap settings for memory/register/ROM clock diagram for design review aperture size Change 83549 on 2003/02/11 by jacarey@fl_jcarey_desktop Add description to the PCI spec. Rev2.3 support Allow SRC_H/W != DST_H/W for all AlphaBlend OPs in Microcode Updated associated documents. Change 83080 on 2003/02/08 by gregs@laptop1 MC IO wr strb + DRAM SEL + VREFs Change 83530 on 2003/02/11 by jhoule@MA_JHOULE Change 82947 on 2003/02/07 by csampayo@fl_csampayo_r400 Added mip rounding in LOD computation pseudo-code Updates to SQ_PROGRAM_CNTL Change 83515 on 2003/02/11 by jiezhou@cn_jiezhou Change 82944 on 2003/02/07 by jacarey@fl_jcarey2 Increase H-total in DMIF stress tests. Update Spec Change 82939 on 2003/02/07 by jowang@jowang_R400_win Change 83493 on 2003/02/11 by jimmylau@jimmylau r400 win tor Update the table for AP_SIZE in section 6.1 because AP_SIZE is the same for a particular aperture size strap, regardless of multifunction. added Early1 and Early2 states Change 82927 on 2003/02/07 by nbarbier@nbarbier r400 win tor Change 83389 on 2003/02/10 by nbarbier@nbarbier r400 win tor Minor changes Updated document with list of signals in DC/IO interface that don't go through DCIO Change 82845 on 2003/02/07 by csampayo@fl csampayo r400 Change 83328 on 2003/02/10 by jhoule@MA_JHOULE Add missing sq basic test test case Change 82838 on 2003/02/07 by llefebvr@llefebvr_r400 Updated replication table Change 83253 on 2003/02/10 by csampayo@fl_csampayo_r400 small update regarding the implementation change for the Pos Allocated / PC allocated Housekeeping SU section Change 82808 on 2003/02/07 by mkelly@fl mkelly r400 win laptop Change 83238 on 2003/02/10 by csampayo@fl_csampayo_r400 Validate dummy quad deallocation in pixel vector buffer is good. Update real time parameter registers Change 82734 on 2003/02/06 by gregs@laptop1 Change 83233 on 2003/02/10 by mkelly@fl_mkelly_r400_win_laptop added VREEs Use all 4 SQ parameters for RT streams.. Change 82699 on 2003/02/06 by csampayo@fl_csampayo_r400 Change 83130 on 2003/02/09 by gregs@laptop1 Remove non-existing tests (randomized) update for netlist rev4. Page 79 of 441 Page 80 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 84270 on 2003/02/13 by gabarca@gabarca_crayola_win_cvd

Add 3.4.9.13 Test YCbCr -> sRGB -> YCbCr Add 3.4.9.14 Icon and Cursor Data Clamping Change 82684 on 2003/02/06 by nbarbier@nbarbier_r400_win_tor Change 82256 on 2003/02/05 by csampayo@fl_csampayo_r400 Undated Section 8. Add field to PA CL ENHANCE Change 82683 on 2003/02/06 by csampayo@fl_csampayo_r400 Change 82239 on 2003/02/05 by ashishs@fl ashishs r400 win Adding Marl test list tracker Change 82639 on 2003/02/06 by georgev@devel_georgevh2_r400_win_marlboro Change 82235 on 2003/02/05 by gregs@gregs_r400_win_marlboro Really SQ, that's why it's deleted. netlist revision 4 Change 82560 on 2003/02/06 by ashishs@fl_ashishs_r400_win Change 82213 on 2003/02/05 by jacarey@fl_jcarey_desktop updated to CL/VTE to 99% . Changed the %formula to account for the CL_POINT_SIZE Correct miscellaneous typo's in the documetn register not being used Change 82184 on 2003/02/05 by csampayo@fl_csampayo_r400 Change 82554 on 2003/02/06 by rfevreau@rfevreau_r400_win Increase max memory size for tests. Update spreadsheet First test using ico file for data Change 82156 on 2003/02/05 by georgev@ma_georgev Change 82543 on 2003/02/06 by dwong@cndwong2 added details on reset schemes Change 82059 on 2003/02/05 by gregs@gregs_r400_win_marlboro Change 82508 on 2003/02/06 by jacarey@fl_jcarey_desktop Update NQ Flag for Micro Engine's DMA Engine Change 81881 on 2003/02/04 by liefebyr@liefebyr r400 Change 82497 on 2003/02/06 by gregs@gregs r400 win marlboro added some more comments in the spreadsheet. Change 81860 on 2003/02/04 by jacarey@fl_jcarey_desktop Change 82489 on 2003/02/06 by ashishs@fl_ashishs_r400_win Miscellaneous Documentation Updates Change 81791 on 2003/02/04 by mkelly@fl_mkelly_r400_win_laptop Change 82429 on 2003/02/06 by mkelly@fl mkelly r400 win laptop RTS intertwined with Viz Query and kill_pix_post_detail_mask. Simplified version of r400sc_rts_12 for regress_e Change 81731 on 2003/02/04 by mkelly@fl_mkelly_r400_win_laptop Change 82426 on 2003/02/06 by ashishs@fl_ashishs_r400_win Viz Query intertwined with RT streams, complete.. Change 81712 on 2003/02/04 by jacarey@fl_jcarey_desktop Change 82278 on 2003/02/05 by csampayo@fl_csampayo_r400 Update write-only status of microcode read address registers. Update to better see register coverage Change 81667 on 2003/02/03 by gregs@laptop1 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history fixed bug introduced earlier Change 81159 on 2003/01/31 by vgoel@fl vgoel2 Change 81620 on 2003/02/03 by gregs@gregs_r400_win_marlboro updated VGT register coverage from TE setup Change 81126 on 2003/01/31 by fliljero@fl_frank cleaned JTAG interface Change 81538 on 2003/02/03 by llefebvr@llefebvr r400 new drawing for PD team Missed bits 41 and 42 in the SQ_EXEC instruction format. Those are RESERVED as Change 81080 on 2003/01/31 by jacarey@fl_jcarey_desktop Fix Typo in ME INIT packet Change 81486 on 2003/02/03 by ygiang@ygiang_r400_win_marlboro_p4 Change 81008 on 2003/01/31 by jacarey@fl_jcarey_desktop added: sp coverage Correct Width of Microcode RAM read and write registers. Change 81412 on 2003/02/03 by ashishs@fl ashishs r400 win Fix re-ordering queue data available determination
 Document updates for #1. Change 80832 on 2003/01/30 by llefebvr@llefebvre_laptop_r400 Change 81401 on 2003/02/03 by llefebvr@llefebvr_r400 wording change for the predicate override bit refined the interfaces to the SP to specify wich signals should or shouldn't be pipelined. Change 80785 on 2003/01/30 by jacarey@fl_jcarey_desktop Change 81382 on 2003/02/03 by jacarey@fl_jcarey_desktop Clarify that ME_INIT invalidates pointers only if processed in a non-real-time stream. This does not happen if it is processed in a real-time stream. Add clock gating diagram to spec. Add note that debug data I/O is asynchronous. Change 80783 on 2003/01/30 by georgev@ma georgev Change 81347 on 2003/02/02 by gregs@laptop1 First part of register list for tests. Not finished due to pending changes. Change 80707 on 2003/01/30 by mkelly@fl_mkelly_r400_win_laptop Change 81312 on 2003/02/02 by gregs@gregs_r400_win_cc Update comments, RTS with SC quad order enable toggling.. update Change 80686 on 2003/01/30 by mkelly@fl_mkelly_r400_win_laptop Change 81261 on 2003/02/01 by gregs@gregs r400 win cc RTS and SC FIFO sizing combinations.. added note that debug bus is asynchronous and there shopuld be no registers on inputs or Change 80682 on 2003/01/30 by jacarey@fl_jcarey_desktop Change 81219 on 2003/01/31 by Ichen@Ichen crayola0 Pseudocode Update #2 for today MEM IO schematics and netlist Change 80680 on 2003/01/30 by jacarey@fl_jcarey_desktop Change 81215 on 2003/01/31 by Ichen@Ichen crayola0 Update ME INIT in Pseudocode Land version 4 Change 80679 on 2003/01/30 by mkelly@fl_mkelly_r400_win_laptop

Page 83 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Page 84 of 441

RTS combinations with Vtx and Pix pipes 0/2 disabled with SC one quad per clock toggled, shader back pressure, interpolator shading toggling

Change 80664 on 2003/01/30 by jacarey@fl_jcarey_desktop

- Reserved bits in CP_DEBUG register are preserved.
 Added default for CP_INT_STAT register.
 Add number_dword=0 check for PolyScanLines and HostData_Blt packets.
 Associated documentation updates for above items.
- 5. Update full chip tests for above items.

Change 80503 on 2003/01/29 by csampayo@fl_csampayo_r400

Undated VGT section

Change 80479 on 2003/01/29 by mkelly@fl_mkelly_r400_win_laptop

Vtx and pix pipes 2 and 3 disabled with RTS triangles and rectangles and non-RTS stipple lines, complete

Change 80426 on 2003/01/29 by rfevreau@rfevreau_r400_win

Changed tests to use bitmaps for cursor data

Change 80422 on 2003/01/29 by jacarey@fl jcarey desktop

Add note to spec regarding the preservation of "reserved" bits in the cp_debug register.

Change 80420 on 2003/01/29 by jennho@jennho_crayola0

Added ADDR/Command/RD DATA/DIM signals floorplan.

Change 80401 on 2003/01/29 by csampayo@fl_csampayo_r400

Undate VGT section

Change 80398 on 2003/01/29 by csampayo@fl_csampayo_r400

Adding new VGT test for missing reg coverage

Change 80305 on 2003/01/29 by mkelly@fl mkelly r400 win laptop

Check stippled line integrity with real time streams, complete

Change 80022 on 2003/01/28 by nkociuk@ma nkociuk

update TP perfcounter events

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 79996 on 2003/01/28 by gregs@gregs r400 win marlboro first release of the new memory pads

Change 79984 on 2003/01/28 by mkelly@fl_mkelly_r400_win_laptop

Polymode RTS test

Change 79957 on 2003/01/28 by kcorrell@kcorrell_r400_docs_marfboro_nb

edited hi interface description

Change 79899 on 2003/01/28 by hartogs@fl_hartogs

Updated VGT SQ interface descripttion

Change 79824 on 2003/01/27 by csampayo@fl csampayo r400

Updated VGT status

Change 79818 on 2003/01/27 by csampayo@fl_csampayo_r400

Adding new VGT fifo tests

Change 79762 on 2003/01/27 by tshah@fl tshah

added RBBM_CGM_soft_reset (hardware+emulator+tests+doc)

Change 79738 on 2003/01/27 by llefebvr@llefebvre laptop r400

some updates

Change 79725 on 2003/01/27 by gregs@gregs_r400_win_marlboro

Change 79674 on 2003/01/27 by georgev@ma georgev

First revision.

Change 79649 on 2003/01/27 by lchen@lchen_crayola0

checked in the shivah NPL schematics

Change 79613 on 2003/01/27 by ashishs@fl_ashishs_r400_win

added test description and updated tracket

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 79549 on 2003/01/26 by gregs@laptop1

Change 79547 on 2003/01/26 by gregs@laptop1

update

Change 79527 on 2003/01/26 by gregs@laptop1

mem interface clean (except address from MCs)

Change 79368 on 2003/01/24 by gregs@gregs_r400_win_marlboro

Change 79284 on 2003/01/24 by georgev@ma georgev

Added a few tests. Yung needs file for his nefarious purposes.

Change 79270 on 2003/01/24 by jimmylau@jimmylau_r400_win_tor

First draft of BIF coherency test cases for R400

Change 79256 on 2003/01/24 by ashishs@fl ashishs r400 win

updated

Change 79235 on 2003/01/24 by mkelly@fl mkelly r400 win laptop

RT provoking vertex looking good through interpolator on one parameter.

Change 79191 on 2003/01/24 by efong@efong_r400_win_tor_doc

moved gord to Itis188 and syang to Itis186

Change 79181 on 2003/01/24 by csampayo@fl_csampayo_r400

Undated VGT section

Change 79176 on 2003/01/24 by jhoule@MA_JHOULE

Changed DXT from 5/6 to 8 always Only kept first 2 sheets (should be enough).

Change 79174 on 2003/01/24 by mkelly@fl_mkelly_r400_win_laptop

Add modified and shortened version of r400sc rts 09 (back face check on nonRT vs RT prims) to regress_e

Page 87 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 79161 on 2003/01/24 by mkelly@fl mkelly r400 win laptop

Final, validating Pixel Shader face bit detection from sc sp with nonRT and RT primtives

Change 79155 on 2003/01/24 by jacarey@fl_jcarey_desktop

Clarify update of constant write enables for LCC packet

Change 79094 on 2003/01/23 by ashishs@fl_ashishs_r400_win

undated to remove the clip error detect 0%

Change 79063 on 2003/01/23 by csampayo@fl_csampayo_r400

Initial checkin

Change 78984 on 2003/01/23 by llefebvr@llefebvr_r400

small correction on memory export buffer sizes

Change 78972 on 2003/01/23 by khabbari@khabbari r400 win

changed the syncgen test list

Change 78962 on 2003/01/23 by mzhu@mzhu cravola win tor

Update for MH-DC latency tests in chapter 3.3

Change 78947 on 2003/01/23 by jimmylau@jimmylau r400 win tor

Update after review on Jan 23, 03

Change 78917 on 2003/01/23 by jacarey@fl_jcarey_desktop

Fix LCC and Set Constant for incremental register updates.

Change 78913 on 2003/01/23 by efong@efong r400 win tor doc

Added in Project linux assignments excel spreadsheet

Change 78876 on 2003/01/23 by mkelly@fl_mkelly_r400_win_laptop

Validate face bit in pixel shader for multi-tile coverage prims

Change 78874 on 2003/01/23 by ashishs@fl_ashishs_r400_win

updated to have percentages for the CL/VTE registers with comments

Page 88 of 441

Preliminary r400 MEM IO ring visio diagram v.1.93 -Z export from pixel sahder now in X channel.
-updated mova, kill and predicate instructions coissue rules now that we have a separate Change 78733 on 2003/01/22 by ashishs@fl_ashishs_r400_win bus for mova results. -add note saying input modifiers do not apply to PreviousScalar -add note saying input informers to not apply to Frevious scalar.
-show not used opcodes.
-add clamping to mova result sent to SQ.
-add 6 new scalar instructions that operate on a constant and GPR and associated Change 78717 on 2003/01/22 by jimmylau@jimmylau_r400_win_tor Initial Action items for BIF documentation. Change 78693 on 2003/01/22 by gregs@gregs_r400_win_cc Change 78286 on 2003/01/21 by grayc@grayc_r400_win update connections of gfx pipeline Change 78663 on 2003/01/22 by gregs@gregs_r400_win_cc Change 78267 on 2003/01/21 by jennho@jennho_crayola0 update Preliminary NPL schematics; not simulated yet. Change 78658 on 2003/01/22 by jacarey@fl_jcarey_desktop Change 78098 on 2003/01/21 by gregs@gregs_r400_win_cc Update for AlphaBlend for ARGB1555 and Alpha_Source Blending Monday update Change 78557 on 2003/01/22 by jhoule@MA JHOULE Change 78045 on 2003/01/20 by alleng@alleng_r400_win_marlboro Changed *_FLOAT formats to have fast path available under VFetch only This means TFetches only do 32b/clock. Added updated information regarding the RB performance counters... Change 77987 on 2003/01/20 by csampayo@fl_csampayo_r400 Corrected cycle multiplier for FMT 32 32 32 32 (was set to x3 instead of x4). Initial checkin Added REQUEST_LATENCY field to constants. Controls out-of-order behavior Change 77984 on 2003/01/20 by mzhu@mzhu_crayola_win_tor Change 78432 on 2003/01/22 by jacarey@fl_jcarey_desktop Update DMIF model force signal names for MH-DC latency tests in chapter 3.3 Change 77922 on 2003/01/20 by ashishs@fl_ashishs_r400_win Change 78374 on 2003/01/21 by lkang@lkang_r400_win_tor undated Change 77916 on 2003/01/20 by jacarey@fl_jcarey_desktop Change 78369 on 2003/01/21 by gregs@gregs r400 win cc 1. Pixel Shader and Microcode to Set B6 for AAFONT packets 2. Vertex Shader to ignore B10 for packets with Embedded Source.
3. Updated RB_BlendControl Settings for AlphaBlend Packet.
4. Associated Documentation for above changes. Change 78345 on 2003/01/21 by ashishs@fl_ashishs_r400_win updated Change 77910 on 2003/01/20 by mzhu@mzhu crayola win tor Page 89 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Add MH-DC latency tests in chapter 3.3 Change 77457 on 2003/01/17 by jacarey@fl jcarey desktop Change 77887 on 2003/01/20 by csampayo@fl_csampayo_r400 Updated RB_BlendControl for AlphaBlend Packet
 Added Microcode for Source Rotation for 2D.
 Updated Documentation for Source Rotation and RB_BlendControl Some CL housekeeping Change 77866 on 2003/01/20 by ashishs@fl ashishs r400 win Change 77306 on 2003/01/16 by gregs@gregs_r400_win_marlboro updated fixed AGP clock layer (damaged by accident ..) Change 77848 on 2003/01/20 by jacarey@fl jcarey desktop Change 77297 on 2003/01/16 by gregs@gregs_r400_win_marlboro Note to Ply_NextScan and NextChar packets about required preceeding packets. Change 77665 on 2003/01/17 by jennho@jennho_crayola0 Change 77273 on 2003/01/16 by ashishs@fl ashishs r400 win <Preliminary R400 MEM IO timing spreadsheet.> updated Change 77661 on 2003/01/17 by jennho@jennho_crayola0 Change 77174 on 2003/01/16 by georgev@ma georgev <Pre><Pre>reliminary R400 MEM IO timing spreadsheet.> Added new list of SQ tests for Florida. Change 77619 on 2003/01/17 by gregs@gregs_r400_win_marlboro Change 77167 on 2003/01/16 by jennho@jennho_crayola0 Friday update <rv350 mem IO timing spreadsheet> Change 77558 on 2003/01/17 by mkelly@fl_mkelly_r400_win_laptop Change 77102 on 2003/01/16 by mkelly@fl_mkelly_r400_win_laptop Update. Change 77554 on 2003/01/17 by mkelly@fl mkelly r400 win laptop Change 77097 on 2003/01/16 by kcorrell@kcorrell_r400_docs_marlboro_nb Rectangle and triangle real time stream initial functional Fixed error in mhr_mhs_word, mhb_mhs_word (made description match hardware). Change 77520 on 2003/01/17 by jacarey@fl jcarey2 Updated update path to read cache from merge logic. Miscellaneous Comments to Registers Change 77093 on 2003/01/16 by llefebvr@llefebvr_r400 Change 77493 on 2003/01/17 by georgev@ma georgev Modified the alloc instruction to include a no-serial bit. Added descriptions of SQ_TESTS. Change 77086 on 2003/01/16 by mkelly@fl_mkelly_r400_win_laptop Change 77490 on 2003/01/17 by ashishs@fl ashishs r400 win 12 non real time packets of one triangle, each with 16 real time rectangle streams... Change 77014 on 2003/01/15 by gregs@laptop1 Change 77459 on 2003/01/17 by ichen@ichen crayola0 updated address and CKE pads. initial release of the MEM IO schematics and spice netlist Change 77001 on 2003/01/15 by llefebvr@llefebvr r400 Page 91 of 441 Page 92 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 78304 on 2003/01/21 by frising@ma_frising

Change 78771 on 2003/01/22 by jennho@jennho_crayola0

Interface change from the SX (alloc dealloc bus) and interface change from the SP (predicates and kill mask updated DIM pads and macro Change 76917 on 2003/01/15 by mzhu@mzhu_crayola_win_tor Change 76730 on 2003/01/14 by gregs@laptop1 Add test 3 for full width icon and cursor at 3.4.9.12 Tuesday (01-14-03) work in progress Change 76894 on 2003/01/15 by ashishs@fl ashishs r400 wir Change 76723 on 2003/01/14 by ashishs@fl ashishs r400 win removed vap vte vec0 13 since redundant with vap vte vec0 05 updated Change 76893 on 2003/01/15 by ashishs@fl_ashishs_r400_win Change 76708 on 2003/01/14 by jhoule@MA_JHOULE updated FMT _ 2_10_10_10 was wrongly set as degamma'able.

The new FMT _ 2_10_10_10_AS_16_16_16 nust be used instead. Change 76880 on 2003/01/15 by vgoel@fl_vgoel2 updated bug report to date Change 76701 on 2003/01/14 by jiezhou@cn_jiezhou Change 76868 on 2003/01/15 by lseiler@lseiler r400 win marlboro updating frc settings Fixed a bug in the 3D tiling equation Change 76644 on 2003/01/14 by csampayo@fl_csampayo_r400 Change 76849 on 2003/01/15 by gregs@laptop1 Undated HOS status updated MCLK templates, macros, connections Change 76582 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Change 76833 on 2003/01/15 by frising@ma frising Update plan chart... Change 76578 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop v.1.04-no functional changes just clean-up. --make description of unused field in texture fetch instruction state that it is unused. Update SC.. --make texture constant fields fit on to two pages. Change 76576 on 2003/01/14 by kcorrell@kcorrell_r400_docs_marlboro_nb Added position of 3 bit endian field in Tag Buffer Contents table. Change 76816 on 2003/01/15 by ashishs@fl ashishs r400 win Changed mhr_mhs interface definition to support 128 bit transfers. Fixed a couple of typo's. Change 76557 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Change 76812 on 2003/01/15 by ashishs@fl_ashishs_r400_win OGL Rasterization validation. updated Change 76417 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Change 76807 on 2003/01/15 by ashishs@fl_ashishs_r400_win Simple test, validate DX rasterization rules.. removed r400vte pos neg combo 04 since redundant with r400vte pos neg combo 01 Change 76391 on 2003/01/13 by grayc@grayc_r400_win Page 94 of 441 Ex. 2050 --- R400 Document Library FH --- folder history Ex. 2050 --- R400 Document Library FH --- folder history Change 76196 on 2003/01/13 by jhoule@MA_JHOULE updated for read test Change 76388 on 2003/01/13 by gregs@laptop1 - Added formats FMT _2 _10 _10 _10 _AS _16 _16 _16 _16, FMT _10 _11 _11 _AS _16 _16 _16 _16, and FMT _11 _11 _10 _AS _16 _16 _16, which is equivalent to the old TFetch values. work in progress on memory interface. - Changed FMT_2_10_10_10, FMT_10_11_11, and FMT_11_11_10 to be fast and unfilterable (equivalent to the old Vetch).

Add Tilterable - Changed FMT_2_10_10_10.

Add Tilterable - Changed FMT_2_10_10_10. data and strobe templates + data PadList Change 76366 on 2003/01/13 by ashishs@fl_ashishs_r400_win - Added Filterable? column. CL/VTE final synch complete - Added comments regarding undefined behavior when filter is not set to Point Change 76364 on 2003/01/13 by ashishs@fl_ashishs_r400_win Change 76174 on 2003/01/13 by jhoule@MA_JHOULE added 3 tests (2 barycentric and 1 DX/OGL space test to individual submission count) 1.61 Single LOD BIAS, located where LOD BIAS H was.
Added GRAD_EXP_ADJUST_(HIV) which should achieve the intended functionality of
the dual-bias scheme (non-square-pixel resolve, and scanline-interleaved rendering under multi-Change 76361 on 2003/01/13 by ashishs@fl_ashishs_r400_win CL/VTE are perfectly updated after this submission chip). Change 76311 on 2003/01/13 by ashishs@fl_ashishs_r400_win Corrected minor typo (performace -> performance) on Features page Change 76169 on 2003/01/13 by csampayo@fl_csampayo_r400 Change 76298 on 2003/01/13 by jiezhou@cn_jiezhou Revised plan for the VGT and SU and updated status for the following tests: r400vgt_dma_index_primtypes_02 r400vgt_real_time_events_07 update dto increment (13bits frac represents 20bits frac) Change 76117 on 2003/01/13 by ashishs@fl_ashishs_r400_win Change 76290 on 2003/01/13 by mkelly@fl mkelly r400 win laptop updated Change 76067 on 2003/01/12 by gregs@laptop1 Change 76278 on 2003/01/13 by mkelly@fl mkelly r400 win laptop update - pad ring - work in progress Update.. Change 76269 on 2003/01/13 by ashishs@fl ashishs r400 win Change 76066 on 2003/01/12 by jiezhou@cn jiezhou updated for r400vte_coverage_02(removed) Initial release Change 76263 on 2003/01/13 by ashishs@fl_ashishs_r400_win Change 75932 on 2003/01/10 by gregs@gregs_r400_win_marlboro updated for r400vte_coverage_02 since that test is deleted. Just decreased the count from the $\rm VT$ coverage. update Change 75926 on 2003/01/10 by rherrick@ma_rherrick_crayola Change 76199 on 2003/01/13 by jacarey@fl jcarey desktop Implemented DC Urgent latency checker... Also implemented parser hooks to support Bandwidth checking parameters Documentation for the 2D Endian Mode Programming Page 95 of 441 Page 96 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 76746 on 2003/01/14 by gregs@laptop1

Change 75914 on 2003/01/10 by jiezhou@cn_jiezhou Added TC/TP replication table and associated explanation. Added a few tables to table of content. make tests smaller Change 75815 on 2003/01/10 by jacarey@fl_jcarey_desktop Change 75183 on 2003/01/08 by vromaker@MA_VIC_P4 Update equation used by micro engine for 1D sources for the SRC_X / Y terms. latest version of sq top level block diagram Change 75811 on 2003/01/10 by rfevreau@rfevreau_r400_win Change 75173 on 2003/01/08 by csampayo@fl_csampayo_r400 Cursor test fixes Added new VGT pass-thru block test, updated test list and test tracker accordingly Change 75642 on 2003/01/09 by csampayo@fl_csampayo_r400 Change 75002 on 2003/01/07 by gregs@gregs_r400_win_marlboro DDC1data, DDC1clk, VSYNCA, HSYNCA, VSYNCB, and HSYNCB now incluided in Added 1 VGT performance and 1 VGT debug case, updated test_list and tracker accordingly Change 75512 on 2003/01/09 by jacarey@fl_jcarey_desktop Change 74942 on 2003/01/07 by llefebvr@llefebvre_laptop_r400 Add level of indirection to the And_Mask and Or_Mask in the Reg_RMW packet. New revision of the spec. 2. Updated Associated Unit Test.

3. Updated PM4 Spec Accordingly.

4. Added Note to Polyline packet, that the scan_count needs to be 1 or greater. Change 74928 on 2003/01/07 by jiezhou@cn_jiezhou undate FRC DTO INC parameters Change 75356 on 2003/01/08 by hartogs@fl_hartogs Change 74922 on 2003/01/07 by jiezhou@cn_jiezhou See version update info in document. See the reversion description Change 75303 on 2003/01/08 by mkelly@fl_mkelly_r400_win_laptop Change 74919 on 2003/01/07 by mdoggett@mdoggett_r400_win_platypus Stress vtx and pix pipe disable combinations with stippled LINE_LIST Fixed figure for TCA Change 75236 on 2003/01/08 by ashishs@fl_ashishs_r400_win Change 74887 on 2003/01/07 by gregs@gregs_r400_win_marlboro update Change 75232 on 2003/01/08 by ashishs@fl ashishs r400 win Change 74783 on 2003/01/06 by gregs@gregs_r400_win_marlboro updated for new tests. Also reduced the count for clip disable tests from 4 to 1 added bad pipe disable register drawing. Change 75199 on 2003/01/08 by ashishs@fl_ashishs_r400_win Change 74742 on 2003/01/06 by ashishs@fl ashishs r400 win updated(removed r400cl_ucp_pointlist_01) updated comments for r400cl ucp cube 01 Change 75197 on 2003/01/08 by jacarey@fl_jcarey_desktop Change 74715 on 2003/01/06 by jacarey@fl_jcarey_desktop 1. Reduction of queue sizes in CP for area savings Clarification of Invalidate_State packet w.r.t. use of Mem_Write Page 98 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Change 74689 on 2003/01/06 by ashishs@fl ashishs r400 win Change 74196 on 2003/01/02 by frising@ma frising -MUL_PREV2 scalar instruction now checks if PreviousScalar or input1.x is a NaN and returns -MAX_FLOAT if so. Change 74686 on 2003/01/06 by ashishs@fl_ashishs_r400_win updated Change 74194 on 2003/01/02 by frising@ma_frising Change 74684 on 2003/01/06 by jacarey@fl_jcarey_desktop Update width of brush offset to reflect 24 bits supported by the VGT. -MUL_PREV2 scalar instruction now checks if PreviousScalar or SrcC.X is a NaN and returns -MAX_FLOAT if so. Change 74668 on 2003/01/06 by vgoel@fl_vgoel2 Change 74184 on 2003/01/02 by csampayo@fl_csampayo_lt_r400 added bug 1040 $Updated\ test\ and\ test_list\ for\ test\ r400vgt_real_time_events_06\ and\ updated\ description/status\ on\ the\ test\ tracker\ for\ tests:$ Change 74619 on 2003/01/06 by sbagshaw@sbagshaw completed subsections of section 7 regarding the DAC output interface and DAC r400vgt real time events 04 r400vgt real time events 05 r400vgt_real_time_events_06 Change 74589 on 2003/01/06 by mkelly@fl_mkelly_r400_win_laptop Change 74154 on 2003/01/02 by gregs@gregs_r400_win_marlboro Update... update Change 74510 on 2003/01/04 by gregs@laptop1 Change 74152 on 2003/01/02 by gregs@gregs_r400_win_marlboro added BAD_PIPE_DISBLE_REGISTER logic diagram Change 74357 on 2003/01/03 by mkelly@fl mkelly r400 win laptop Change 74142 on 2003/01/02 by gregs@gregs_r400_win_marlboro 256 points per packet, all 15 legal combinations of vtx pipe disable update Change 74351 on 2003/01/03 by rfevreau@rfevreau r400 win Change 74133 on 2003/01/02 by gregs@gregs_r400_win_marlboro New goldens, put rg files back to 31 tests update Change 74331 on 2003/01/03 by csampayo@fl_csampayo_r400 Change 74124 on 2003/01/02 by gregs@gregs_r400_win_marlboro Closed bugs# 102 and 103 < ROM straps re-arranged > Change 74279 on 2003/01/03 by smoss@smoss crayola win Change 74109 on 2003/01/02 by csampayo@fl_csampayo_lt_r400 gave credit to vivian for her three read tests Some housekeeping Change 74201 on 2003/01/02 by jiezhou@cn jiezhou Change 74083 on 2003/01/02 by sbagshaw@sbagshaw $update\ for\ frame\ rate\ conversion\ SCL_VIDCAP_frame_rate_conv$ Page 99 of 441 Page 100 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 75191 on 2003/01/08 by jhoule@MA_JHOULE

Added description of Scaler double buffered registers in section 9.5, section 7 started with description of functionality and controls of DAC output interface v0.9.16 Better description of LOD computation Updated pseudo-code.
Update TP_TC interface (pitches). Change 74027 on 2003/01/01 by gregs@laptop1 update Change 72948 on 2002/12/20 by nbarbier@nbarbier_r400_win_tor Change 73990 on 2003/01/01 by gregs@gregs_r400_win_cc Added Genlocking test to dispout stress test section XYZ Change 72807 on 2002/12/20 by gabarca@gabarca_crayola_win_cvd Change 73877 on 2002/12/31 by mkelly@fl mkelly r400 win laptop fixed viewport start spec Change 72717 on 2002/12/20 by gregs@gregs r400 win marlboro Change 73655 on 2002/12/29 by nbarbier@nbarbier r400 win tor Added Stress test for dispout Change 72710 on 2002/12/20 by smoss@smoss_crayola_win Change 73552 on 2002/12/27 by lchen@lchen_crayola0 SU tests Change 72657 on 2002/12/19 by csampayo@fl_csampayo_r400 Change 73548 on 2002/12/27 by lchen@lchen_crayola0 Undated ststus for tests: r400vgt_real_time_events_04 r400vgt_real_time_events_05 update the r400 MEM IO spec based on latest info Change 73425 on 2002/12/26 by mkelly@fl_mkelly_r400_win_laptop Change 72591 on 2002/12/19 by beiwang@bei depot Update.. Copied over white box testing item from testenv/verification/MC MH Test Plan.doc Change 73424 on 2002/12/26 by mkelly@fl_mkelly_r400_win_laptop Added in color preliminary thoughts of how to implement these tests/checks/monitors. Undate tracker. Change 72541 on 2002/12/19 by ashishs@fl_ashishs_r400_win Change 73328 on 2002/12/24 by gregs@gregs_r400_win_cc update added iodft modules configuration in column AC + modifications in VBA write pad_data routine Change 72527 on 2002/12/19 by smoss@smoss crayola win Change 73234 on 2002/12/23 by enewman@enewman_r400_linux_marlboro Change 72526 on 2002/12/19 by jasif@jasif r400 win tor Added mono_colour_reg_test, misc_reg_test, ovsc_col_sel1, ovsc_col_sel2, and ovsc_col_sel3. Change 72971 on 2002/12/20 by jhoule@MA JHOULE Minor corrections and additions to the LOD calculation Change 72483 on 2002/12/19 by jiezhou@cn_jiezhou Change 72964 on 2002/12/20 by jhoule@MA_JHOULE Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Add register to arm signal to mask false falling/rising edge triggering Change 72481 on 2002/12/19 by mdoggett@mdoggett_r400_win_platypus Change 72149 on 2002/12/18 by smoss@smoss crayola win Changed formats 50, 51, 52, 53 in format conversion table. Added format 51 to source Added 3D linear L1 Tag, removed 3D noise L1 Tag Change 72082 on 2002/12/18 by csampayo@fl csampayo r400 Change 72477 on 2002/12/19 by jhoule@MA_JHOULE Updated test status and test_list for the following tests: Renamed lod to lod comp in the pseudocode r400cl_clip_edgeflags_frustum_corners_01 r400cl_clip_edgeflags_frustum_corners_02 Change 72429 on 2002/12/19 by csampayo@fl_csampayo_lt_r400 Change 72057 on 2002/12/18 by jasif@jasif_r400_win_tor Updated. Change 72392 on 2002/12/19 by kcorrell@kcorrell r400 docs marlboro nb Change 71957 on 2002/12/17 by gregs@gregs_r400_win_marlboro updated implementation description new order of Toronto pads Change 72323 on 2002/12/18 by gregs@laptop1 Change 71955 on 2002/12/17 by gregs@gregs_r400_win_marlboro added speed sensor register added DEBUG_legacy_test_en signal Change 72297 on 2002/12/18 by gregs@laptop1 Change 71837 on 2002/12/17 by gregs@gregs_r400_win_marlboro re-arranged analog and other display pads Change 72284 on 2002/12/18 by jacarey@fl jcarey desktop Change 71819 on 2002/12/17 by smoss@smoss crayola win AlphaBlend PM4 Packet Update 1. Microcode Updates Change 71728 on 2002/12/17 by lseiler@lseiler_r400_win_marlboro Documentation Updates 3. Unit Test Fixed a bug in address.c for computing 3D tiled addresses (the spec had it right) and in finding the 3d Y address for a device address (both address.c and the spec were wrong) Change 72262 on 2002/12/18 by jhoule@MA_JHOULE LOD computation update, with more complete anisotropy Change 71718 on 2002/12/17 by csampayo@fl_csampayo_r400 Explanation of clamping, which must be done after LOD biases are applied, itself done after all of the specified pseudo-code. Some housekeeping Change 71667 on 2002/12/17 by jacarey@fl_jcarey_desktop Also updated some Visio links, but some are screwed up =(Add AA_Font Micrococode Add associated unit-level test Update PM4 Spec for AA_Font and AlphaBlend PM4 Packets Change 72248 on 2002/12/18 by jacarey@fl_jcarey_desktop Add note for holding "event triggered" on the visio diagram Change 72164 on 2002/12/18 by jacarey@fl_jcarey_desktop Change 71577 on 2002/12/16 by vgoel@fl_vgoel2 Page 103 of 441 Page 104 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

added bug 957 Change 71138 on 2002/12/13 by gregs@gregs r400 win marlboro Change 71575 on 2002/12/16 by scroce@scroce_r400_win_marlboro IO<->MC interface cleaned (the interface is not functional) Change 71137 on 2002/12/13 by gregs@gregs_r400_win_marlboro Updated for new tests written Change 71562 on 2002/12/16 by gregs@gregs_r400_win_marlboro < ROM ON VIP straps changed> Change 70998 on 2002/12/13 by rherrick@ma_rherrick_crayola update Change 71536 on 2002/12/16 by csampayo@fl_csampayo_r400 New deposit... Turning over to Steve for an edit... Change 70939 on 2002/12/13 by jiezhou@cn_jiezhou Change 71459 on 2002/12/16 by jiezhou@cn jiezhou Add in SCL stress tests Change 70929 on 2002/12/13 by jacarey@fl jcarey desktop Change 71390 on 2002/12/16 by rbell@rbell_crayola_win_cvd Clarify that "dummy" dwords in the ib_prefetch* packets are set to 0xdeadbeef by the Pre-Fetch Parser More updates for full chip sims The emulator is being updated to match the RTL. Change 71336 on 2002/12/15 by scroce@scroce_r400_home Change 70842 on 2002/12/12 by csampayo@fl_csampayo3_r400 Updated tests that were recently written Change 71334 on 2002/12/15 by gregs@laptop1 Change 70691 on 2002/12/12 by smoss@smoss crayola win fixed DEF file generation update for new tests Change 71291 on 2002/12/15 by gregs@laptop1 Change 70670 on 2002/12/12 by jiezhou@cn jiezhou added fake connections to memory pads Add detailed discription for Frame rate conversion test "SCL_VIDCAP_frame_rate_conv" Change 71194 on 2002/12/13 by ashishs@fl ashishs r400 win updated for change #71014 by mmang Change 70564 on 2002/12/11 by gregs@laptop1 Change 71184 on 2002/12/13 by csampayo@fl_csampayo_lt_r400 ROM_ON_VIP straps changed to 0011 Change 70479 on 2002/12/11 by mzhu@mzhu_crayola_win_tor Updated status for the following tests: r400su_polymode_culling_face_01 r400su_polymode_culling_face_02 r400su_polymode_lines_degen_triangle_03 Add description for CRTC_TRIG_OCCURRED and CRTC_TRIG_INTERRUPT Change 70453 on 2002/12/11 by vgoel@fl_vgoel2 Change 71169 on 2002/12/13 by rfisette@rfisette added bug 928 and closed bug 898 Updated TST block spec to reflect ports in the IODFT block Page 105 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 70436 on 2002/12/11 by jhoule@MA_JHOULE 1 test in manual ratio / accum init 2 tests in CRC generation Described serialize heuristic for both ALU and TEX instructions. I test in mode change 1 test in black pixel / line generation Change 70411 on 2002/12/11 by rbell@rbell_crayola_win_cvd Change 69929 on 2002/12/10 by scroce@scroce_r400_win_marlboro Added EXCLUDE PRIMLIB for primlib tests Added test lists Change 70337 on 2002/12/11 by rbell@rbell_crayola_win_cvd Change 69887 on 2002/12/10 by rherrick@ma rherrick cravola Removed HDCP env var settings Turning it over to Steve for the next update. Change 70324 on 2002/12/11 by mdoggett@mdoggett_r400_win_platypus $\label{local_problem} Updated\ format\ 29\ in\ L2\ cacheline\ format\ conversion\ table\ required\ adding\ new\ SM10$ and SM11. Change 69867 on 2002/12/10 by moev@P4CLIENT=moev_r400_sun_mariboro Spread sheet describing port interfaces between system blocks, TST block and IO Change 70285 on 2002/12/11 by ashishs@fl_ashishs_r400_win Change 69865 on 2002/12/10 by rherrick@ma_rherrick_crayola updated count for frustum clip block. CHECKPOINT for test tracker for CL/VTE New update including Multiple Client random test coverage Change 70281 on 2002/12/11 by ashishs@fl ashishs r400 win Change 69847 on 2002/12/10 by scroce@scroce_r400_home updated the test tracker. Increased the count for blocks where new tests were added. As of this checking the tests required match up the tests required in the approach plan. Added some test names Change 70269 on 2002/12/11 by rherrick@ma_rherrick_crayola Change 69780 on 2002/12/09 by rherrick@ma_rherrick_crayola Updated Register Write section. More details included... Still missing multiple client random section and a review of the Change 70230 on 2002/12/10 by gregs@gregs_r400_win_marlboro Change 69736 on 2002/12/09 by scroce@scroce_r400_win_marlboro Added test tallies Change 70229 on 2002/12/10 by gregs@gregs_r400_win_marlboro Change 69684 on 2002/12/09 by rthambim@rthambim_r400_win_tor <ROM_ON_VIP strap is 0101 > Initial revision Change 70221 on 2002/12/10 by csampayo@fl csampayo r400 Change 69683 on 2002/12/09 by rthambim@rthambim r400 win tor

Updated status of VGT tests r400vgt_real_time_events_02, _03

Page 107 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 70128 on 2002/12/10 by gregs@gregs_r400_win_marlboro

Change 69936 on 2002/12/10 by jowang@jowang R400 win

Some housekeeping

Updated the strap table.

Change 69583 on 2002/12/09 by rherrick@ma_rherrick_crayola

Checkpoint on the MC testplan for Steve Croce to use...

Change 69544 on 2002/12/08 by gregs@laptop1

Page 108 of 441

added comments on ROM_PORT usage. Updated register settings of vcountBy2 and seqpclkby2 testcases. Change 69270 on 2002/12/06 by mdoggett@mdoggett_r400_win_platypus Change 68928 on 2002/12/05 by ashishs@fl ashishs r400 win Table of contents, figures and tables updated added bug for r400cl edgeflags 05/06/07 Change 69217 on 2002/12/06 by gregs@laptop1 Change 68917 on 2002/12/05 by vgoel@fl_vgoel2 added delay chains updated to added bug 897 Change 69208 on 2002/12/06 by mdoggett@mdoggett_r400_win_platypus Change 68908 on 2002/12/05 by ashishs@fl ashishs r400 win Version 0.36.
Corrected labeling of SA10 to SA9.
Corrected positions of sectors for SM7 and SM8. Change 68825 on 2002/12/05 by dglen@dglen_r400 Updated TCA, TCB and TCO block diagrams and descriptions to match current Added 30 bpp option to progressive YPbPr timings Change 68775 on 2002/12/05 by ashishs@fl_ashishs_r400_win Change 69151 on 2002/12/06 by rherrick@ma_rherrick_crayola $Update\ environment\ spec\ to\ be\ closer\ to\ reality...\ Included\ randomization\ controls$ cancelled 2 tests from the Approach plan and updated tracker since were redundant 1. r400cl_frustum_simple_01(tcl_clip_frustum_simple_01)
2. r400cl_frustum_simple_02(tcl_clip_frustum_simple_02) Change 69066 on 2002/12/06 by jacarey@fl_jcarey2 Clarify Ring Buffer Size in DWORDs. Change 68762 on 2002/12/05 by scamlin@scamlin crayola win Change 68997 on 2002/12/05 by gregs@gregs_r400_win_marlboro 12/4/2002 area update for orlando blocks Change 68506 on 2002/12/04 by rherrick@ma_rherrick_crayola Change 68985 on 2002/12/05 by vgoel@fl_vgoel2 I hope I waited long enough for the file to write out befire submitting... (I didn't last added bug 898 Change 68503 on 2002/12/04 by rherrick@ma_rherrick_crayola Change 68982 on 2002/12/05 by rthambim@rthambim_r400_win_tor Updated Table of Contents.. Initial revision Change 68499 on 2002/12/04 by rherrick@ma rherrick crayola Change 68965 on 2002/12/05 by lchen@lchen_crayola0 First pass at permutations of surface accesses. fix the DIFFSTR name Change 68439 on 2002/12/04 by rherrick@ma rherrick crayola Change 68962 on 2002/12/05 by Ichen@Ichen crayola0 Beginning of MH Testplan... NOT READY FOR CONSUMPTION!! Page 110 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history FLOOR: Change 68428 on 2002/12/04 by jacarey@fl jcarey desktop Result = TRUNC(SrcA) + -1.0f; Else If (SrcA < 0.0f) Fix Typo in Cond_Write Packet in PM4 Spec. Change 68327 on 2002/12/04 by jacarey@fl_jcarey_desktop Result = TRUNC(SrcA) Update Alignment of the Ring, Indirects, and Real-Time Bases FLOOR: Change 68323 on 2002/12/04 by rherrick@ma_rherrick_crayola Result = TRUNC(SrcA) Further described the DC client characterization with the MH queues and RB queues... If ((SrcA < 0.0f) && (SrcA != Result)) Result += -1.0f; Change 68322 on 2002/12/04 by rherrick@ma_rherrick_crayola Feedback from Testplan review (December 3, 2002) incorporated into document... -Note that emulator was calling math library floor function so this should not be an Sections still needing detail include the DRAM Tuning register verification support, power management verification support, and IKOS parameter verification support. emulation issue Change 68140 on 2002/12/03 by marklee@marklee cravola Change 68167 on 2002/12/03 by frising@ma frising check in global clocks diagram for Eric N. Change 68139 on 2002/12/03 by marklee@marklee_crayola -Update FLOOR opcodes to match r400 shaders.doc v.1.91. check in this file for Eric N. Change 68164 on 2002/12/03 by marklee@marklee_crayola Change 68133 on 2002/12/03 by gregs@gregs_r400_win_marlboro 2nd attempt at changing permissions update Change 68162 on 2002/12/03 by marklee@marklee_crayola Change 68062 on 2002/12/03 by jiezhou@cn jiezhou change DMIF stress tests active size from 2560x64 to 2560x16 Change 68160 on 2002/12/03 by markiee@markiee crayola Change 68048 on 2002/12/03 by scroce@scroce r400 win marlboro attempt to change permissions Change 68148 on 2002/12/03 by gregs@gregs_r400_win_marlboro Change 68034 on 2002/12/03 by rherrick@ma rherrick cravola Initial Deposit... Describes Black Box MC Verification requirements... Change 67940 on 2002/12/02 by mearl@mearl r400 win Change 68144 on 2002/12/03 by frising@ma frising fixed the offset problem v.1.91 -FLOOR opcode was not producing correct results for negative 'integer' inputs Change 67933 on 2002/12/02 by frising@ma frising Changed from: v.1.90 Page 111 of 441 Page 112 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

update the spec based on discussions with BOB

Change 68961 on 2002/12/05 by jasif@jasif r400 win tor

removed MODE_DDC2CLK

Change 69460 on 2002/12/07 by gregs@laptop1

Added some IBM Bertha panel cases -While we don't allow CLI relative addressing into the export file on r400, future chips based on r400 may. This check-in moves the export masking behavior bit (bit[6] of vector destination pointer) to bit[14] (bit[6] of scalar destination pointer) to bit[14] (bit[6] of scalar destination pointer) to bit[14] (bit[6] of scalar destination pointer) was controls logical vs. CLI relative addressing into the register or export file. When exporting, this is a Must Be Zero (logical) field for for software on r400. This will provide Change 67519 on 2002/11/28 by delen@delen r400 Added lots of detail for all TV timings, all panel and projector timings except IBM T221 binary compatibility. Change 67376 on 2002/11/27 by bbloemer@ma bbloemer -Software will need to coordinate this change with emulator release Change 67917 on 2002/12/02 by ctaylor@fl ctaylor r400 win marlboro Change 67343 on 2002/11/27 by tshah@fl tshah Add Multipass Pixel Shader Description typo fix in EXTERN_TRIG_CNTL register Change 67873 on 2002/12/02 by kcorrell@kcorrell r400 docs marlboro nb Change 67276 on 2002/11/27 by jhoule@MA JHOULE update, especially in the implementation section Updated with more optimal values (easier precision to reach in hardware). Change 67866 on 2002/12/02 by jiezhou@cn_jiezhou Change 67275 on 2002/11/27 by jhoule@MA_JHOULE initial release Updated packing scheme Change 67842 on 2002/12/02 by mkelly@fl_mkelly_r400_win_laptop Change 67273 on 2002/11/27 by mkelly@fl_mkelly_r400_win_laptop Delete test requirement for rect v0-v3, covered in CP legacy tests Verify SU SC MODE persp corr disable Change 67258 on 2002/11/27 by bbloemer@ma_bbloemer Change 67834 on 2002/12/02 by jacarey@fl jcarey desktop Remove ME HALT and ALU COUT32 Booleans First draft of IO pad functional spec. Change 67779 on 2002/12/02 by ashishs@fl_ashishs_r400_win Change 67215 on 2002/11/27 by jowang@jowang_R400_win updated updated start phase Change 67702 on 2002/11/30 by gregs@gregs_r400_win_cc Change 67172 on 2002/11/27 by smoss@smoss_crayola_win W45B512/012, SST45LF010, and ROM on VIP straps changed. update Change 67647 on 2002/11/30 by gregs@gregs_r400_win_cc Change 67066 on 2002/11/26 by gregs@gregs_r400_win_marlboro updated memory clock domain - work in progess Change 67590 on 2002/11/29 by sbagshaw@sbagshaw Change 67058 on 2002/11/26 by frising@ma_frising added new document sections and reorganized existing document to new section v.1.60 -add MAG_ANISO_WALK and MIN_ANISO_WALK fields to texture constant to conform to D3D. Change 67572 on 2002/11/29 by dglen@dglen r400 Here's how it works Page 114 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

MAG_ANISO_WALK controls if aniso walk is done when anisotropy filter is enabled The prevention of negatifve oversan is only done if one or both displays are in VGA timing and magnifying.

MIN_ANISO_WALK controls if aniso walk is done when anisotropy filter is enabled and minifying. Change 66688 on 2002/11/25 by mkelly@fl_mkelly_r400_win_laptop Update SC HW coords tests... ANISO_FILTER still controls if anisotropy is enabled. When enabled the minor axis controls the LOD calculation so having MAQ_ANISO_WALK and MIN_ANISO_WALK disabled while having ANISO_FILTER enabled is allowed. When ANISO_FILTER is disabled, MAG_ANISO_WALK are ignored. Change 66670 on 2002/11/25 by gabarca@gabarca crayola win cvd VGA DISP interface signals change to avoid negative overscan This allows the anisotropy walk to be completely orthogonal to mag and mig filters Change 66640 on 2002/11/25 by jasif@jasif r400 win tor meaning we support anisotropy walking with point, linear and arbitrary filters min/mag filters. This is actually more powerful than the D3D API. D3D drivers should program the HW as follows to be compliant with the refrast: Change 66603 on 2002/11/25 by ashishs@fl ashishs r400 win if ((mag=ansio) \parallel (min=aniso)) { ANSIO_FILTER = enabled, max set as specified. updated if (mag==aniso) {
 MAG ANISO WALK = enabled; Change 66550 on 2002/11/24 by gregs@laptop1 MAG_FILTER = linear;
} else {
MAG_ANISO_WALK = disabled;
// program MAG_FILTER as usual Change 66367 on 2002/11/22 by csampayo@fl_csampayo_r400 Updated test list and test tracker for the following tests: r400vgt_real_time_events_01 r400vgt_real_time_events_02 if (min==aniso) {
 MIN_ANISO_WALK = enabled;
 MIN_FILTER = linear;
} else {
 MIN_ANISO_WALK = disabled;
 // program MIN_FILTER as usual Change 66356 on 2002/11/22 by gregs@gregs_r400_win_marlboro Friday update Change 66347 on 2002/11/22 by sbagshaw@sbagshaw } else {
 ANISO_FILTER = disabled;
 // program MAG_FILTER and MIN_FILTER as usual Revised $0.5~\mathrm{DC}$ System testplan based on feedback from meetings and wrote detailed test descriptions and procedures for many tests. Change 66283 on 2002/11/22 by jiezhou@cn jiezhou Add two more tests and more parameter settings Other notes:
-MAG ANISO WALK and MIN ANISO WALK are not available in instruction word Change 66270 on 2002/11/22 by rfisette@rfisette r400 sun marlboro and must be programmed through constant.
-MAG_ANISO_WALK and MIN_ANISO_WALK are forced to 1 (enabled) when anisotropy is enabled for FetchMultiSample. Design specification for the Test Controller (TST) block Change 66256 on 2002/11/22 by gregs@gregs r400 win marlboro Change 66971 on 2002/11/26 by gabarca@gabarca_crayola_win_cvd <fixed R300 number of instances value > Page 115 of 441 Page 116 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Update Address Mask for Reg_RMW PM4 Packet Associated Documentation Updated -A marco that computed texture constant offsets somehow got corrupted with the 1.58 Change 66168 on 2002/11/22 by mkelly@fl_mkelly_r400_win_laptop check-in causing offsets to be off by one. Folks should move to this version immediately. Sorry Thanks to John Carey for catching this. Change 65950 on 2002/11/21 by jacarey@fl_jcarey_desktop Change 66127 on 2002/11/21 by gabarca@gabarca crayola win cvd Add Reg RMW (Read/Modify/Write) to the PM4 Packets de skew should only affect h disp start Change 66124 on 2002/11/21 by gregs@gregs r400 win marlboro Change 65863 on 2002/11/21 by jacarey@fl_jcarey_desktop Revert B7 2D Boolean Setting. It is only set based on the src_type==5 Change 66118 on 2002/11/21 by dglen@dglen_r400 Emulator Update to CP
 Verilog Update to Micro Engine
 Remove Unit Test Updated with some new modes for digital TV. Added V start phase for progressive Change 66089 on 2002/11/21 by csampavo@fl csampavo r400 4. Update CP Documentation Added bug#97 Change 65731 on 2002/11/20 by dglen@dglen_r400 Change 66088 on 2002/11/21 by jowang@jowang_R400_win Minor clean up updated with a column for required # of taps Change 65722 on 2002/11/20 by dglen@dglen r400 dell Change 66034 on 2002/11/21 by mzhu@mzhu_crayola_win_tor Major update of formulas Corrected many TV timings. Add LB_DATA_GAP_BETWEEN CHUNKS Change 65679 on 2002/11/20 by sbagshaw@sbagshaw Change 66006 on 2002/11/21 by jacarey@fl_jcarey_desktop added block select addresses for BIF debug blocks Update to Reg_RMW Packet...Streamlined Thanks to Harry... added placeholders for lists of BIF debug values on debug bus Change 65997 on 2002/11/21 by gregs@gregs_r400_win_marlboro Change 65637 on 2002/11/20 by jacarey@fl_jcarey_desktop update Rename two fields in the RBBM Status Register Block Name Machine #Tests #ExpectedRuns #Runs #Fail #Pass #NotRun #NoGold #NoRef #Error Passing %Change 65972 on 2002/11/21 by jiezhou@cn_jiezhou minor text updated Change 65964 on 2002/11/21 by mkelly@fl mkelly r400 win laptop cl FL JOHNC 3 3 3 0 3 0 0 0 0 100.00% Page 117 of 441 Page 118 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history FL_JOHNC 12 perf FL_JOHNC quickenu FL_JOHNC 100.00% Change 65310 on 2002/11/19 by vgoel@fl vgoel2 0 100.00% 0 0 updated to include bug 788 FL_JOHNC FL_JOHNC Change 65307 on 2002/11/19 by vgoel@fl_vgoel2 100.00% updated for number of HOS tests written 0 0 0 EL IOHNO FL_JOHNC FL_JOHNC Change 65303 on 2002/11/19 by nluu@nluu_r400_doclib_cnnb Change 65599 on 2002/11/20 by csampayo@fl_csampayo_r400 Change 65297 on 2002/11/19 by nluu@nluu_r400_doclib_cnnb Some VGT housekeeping - update Change 65588 on 2002/11/20 by jacarey@fl_jcarey_desktop Change 65274 on 2002/11/19 by mkelly@fl_mkelly_r400_win_laptop 8bpp-to-16bpp TLU Issue for 2D Update regress e tests. Change 65570 on 2002/11/20 by rbell@rbell_crayola_win_cvd3 Change 65267 on 2002/11/19 by mkelly@fl_mkelly_r400_win_laptop Added CP to the chip_vidfull conf Update local Orlando bug tracking matrix... Change 65561 on 2002/11/20 by rbell@rbell crayola win cvd3 Change 65263 on 2002/11/19 by ashishs@fl ashishs r400 win Added a section for Video IP fullchip sims Change 65539 on 2002/11/20 by rthambim@rthambim_r400_win_tor Change 65254 on 2002/11/19 by vgoel@fl_vgoel2 Fixed syntax in naming added second export related bug Change 65537 on 2002/11/20 by rthambim@rthambim_r400_win_tor Change 65237 on 2002/11/19 by sbagshaw@sbagshaw Added 3gio ports. Updated DC Debug Bus document to include 3 changes that are necessary for AUTOREG generated block files. Change 65500 on 2002/11/20 by jiezhou@cn_jiezhou Updated indirect debug register allocations for each major subblock in DC initial release Updated debug trigger logic descriptions for value and edge pattern triggering functionality Change 65351 on 2002/11/19 by csampayo@fl_csampayo_r400 Change 65234 on 2002/11/19 by csampayo@fl_csampayo_r400 Closed bug# 73 Added 3 new VGT tests and updated test list and test tracker accordingly Change 65312 on 2002/11/19 by frising@ma_frising Change 65229 on 2002/11/19 by vgoel@fl_vgoel2 -change R400 FP NAN to 0xFFC00000 (from 0x7FC00000) to match intel for indefinite added bug 785 floating point operation Page 119 of 441 Page 120 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 66176 on 2002/11/22 by jacarey@fl_jcarey_desktop

Refresh for tommorow's status meeting.

Change 65958 on 2002/11/21 by frising@ma frising

Change 65172 on 2002/11/19 by mpersaud@mpersaud_r400_win_tor update Added DCCIF clk on description. Change 64590 on 2002/11/15 by donaldl@fl donaldl p4 Change 65072 on 2002/11/18 by jowang@jowang_R400_win Added sc_packer debug bus (DEBUG_PKR_0). undate with interlaced nomeclature Change 64571 on 2002/11/15 by gregs@gregs_r400_win_marlboro Change 65066 on 2002/11/18 by gregs@gregs_r400_win_marlboro <rev 8.0 - dft > Change 64546 on 2002/11/15 by sbagshaw@sbagshaw Debug document modified to include interface to 12 bit debug bus value and enable directly from DC block. Change 65042 on 2002/11/18 by imuskatb@imuskatb_r400_win_cnimuskatb updated test doc Change 64447 on 2002/11/15 by vgoel@fl vgoel2 Change 64983 on 2002/11/18 by jowang@jowang_R400_win updated for HOS tests written so fa updated with more M3 tests and testlist Change 64418 on 2002/11/15 by frising@ma frising Change 64857 on 2002/11/18 by jacarey@fl_jcarey_desktop RB_BLENDCONTROL.Color_Dither_Mode is set to DITHER_LUT for GradFill -show FRACT instructions being implemented as: SRC + -FLOOR(SRC) where the DST TYPE != 32bpp. -This should now sync the instructions with v.0.99b of numerics doc Change 64852 on 2002/11/18 by jasif@jasif_r400_win_tor Change 64403 on 2002/11/15 by frising@ma_frising Updated. Change 64849 on 2002/11/18 by sbagshaw@sbagshaw -checkpoint
--implement shader pipe instructions is WZYX order added new column for test type -- chip level or chip and block level --fix a couple typos
--start sync to v.1.89 of shader pipe spec. added more test descriptions Change 64846 on 2002/11/18 by jasif@jasif_r400_win_tor Change 64389 on 2002/11/15 by jasif@jasif_r400_win_tor Updated. Updated Change 64833 on 2002/11/18 by jacarey@fl_jcarey_desktop Change 64381 on 2002/11/15 by frising@ma_frising Add note for ME RTS generation for read operations initiated by the micro engine. v.1.88 -specify that Result.X of CUBE instruction returns 2.0f * MajorAxis instead of max to avoid confusion. See numerics doc for details of CUBE instruction. Change 64829 on 2002/11/18 by ashishs@fl ashishs r400 win added triangles with edgeflags and texture test to the tracker -specify function of all instructions in WZYX order. Nothing changing here; it's just for Change 64701 on 2002/11/16 by gregs@laptop1 spec consistency (and happens to reflect the actual order of operations in the shader piphardware). Page 122 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Added bug#87 Change 64379 on 2002/11/15 by gabarca@gabarca crayola win cvd Change 63793 on 2002/11/13 by gregs@gregs_r400_win_marlboro Mode 13, mode 62, mode X have ATTR PCLKBY2 = 1 added CGM clock monitoring pin Change 64309 on 2002/11/15 by mkelly@fl_mkelly_r400_win_laptop Change 63776 on 2002/11/13 by csampayo@fl_csampayo_r400 Log an SC bugzilla on color prob on prim edges.. Closed bug# 86 Change 64144 on 2002/11/14 by jacarey@fl_jcarey_desktop Change 63751 on 2002/11/13 by jasif@jasif_r400_win_tor 1. RTL Update to Set 2D Boolean B0 for LUT Color Sources CP Spec Updates for #1
 CP Spec Update for the CP_DMA_STAT Register Change 63732 on 2002/11/13 by frising@ma_frising Change 64064 on 2002/11/14 by mkelly@fl_mkelly_r400_win_laptop Update local, Orlando bug tracking info... when using absolute constant addressing all constants in instruction are absolute. This Change 64050 on 2002/11/14 by vgoel@fl vgoel2 allows compiler to easily perform mov operations on absolute constants -Document instruction word in WZYX order (i.e. high bits to low bits). Documentation Change 64022 on 2002/11/14 by mkelly@fl_mkelly_r400_win_laptop -lots more work cleaning up instruction word documentation (please study) Add textured line to regress e -It may not have been clear in the past but indexing of exports is not permitted. This update should make that obvious. Change 64000 on 2002/11/14 by gregs@gregs_r400_win_marlboro -removed following export restriction which no longer applies: '1) When doing a Scalar export of 'pixels' or 'position', only the 'W' component will contain the scalar result. The other 3 components will be expanded to 0.0. When exporting to 'parameters' the scalar result is put into < fixed some wire in DVO interface > Change 63978 on 2002/11/14 by jasif@jasif_r400_win_tor all 4 components Updated. Change 63959 on 2002/11/14 by gabarca@gabarca_crayola_win_cvd split the DisplayEnable test in three -when exporting, bit 6 in instruction word now controls masking behavior during parameter exports when both scalar and vector masks for a component are 0. See table 3.2.1.4 Change 63920 on 2002/11/14 by grayc@grayc_r400_win Change 63680 on 2002/11/13 by jacarey@fl_jcarey_desktop needs to be updated ... will add back in later Im_Load and Im_Load_Immediate packets write the SQ_PS_PROGRAM register for Change 63819 on 2002/11/13 by dglen@dglen r400 dell real-time shader code updates. This is documented in the PM4 spec now. Major update to outline. VGA block spec is now best source for details Change 63675 on 2002/11/13 by gregs@gregs_r400_win_marlboro Change 63811 on 2002/11/13 by csampayo@fl csampayo r400 <TEST MCLK tste bug fixed > Page 123 of 441 Page 124 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 63500 on 2002/11/12 by csampayo@fl_csampayo_lt_r400 Change 63654 on 2002/11/13 by beiwang@bei depot Some housekeeping $\label{thm:conditional} Updated for mc_client_intfc block \ AGP/Multi-Sample functionality as well as more details for Protocol engine$ Change 63490 on 2002/11/12 by jacarey@fl_jcarey_desktop Change 63653 on 2002/11/13 by mzhu@mzhu crayola win tor Add Write Confirm Signals to CP STAT Register Update the 3rd milestone tests Change 63478 on 2002/11/12 by rramsey@RRAMSEY P4 r400 win Change 63604 on 2002/11/13 by donaldl@fl donaldl p4 Update quadorder drawing and add it to the sc spec Initial -- Debug bus, bit definitions. Change 63454 on 2002/11/12 by ashishs@fl_ashishs_r400_win Change 63562 on 2002/11/12 by gregs@laptop1 Change 63447 on 2002/11/12 by mzhu@mzhu_crayola_win_tor Change 63552 on 2002/11/12 by csampayo@fl_csampayo_lt_r400 Update 11.16 Cursor_Cntl Updated test list and test tracker for the following tests: Change 63398 on 2002/11/12 by ctaylor@fl_ctaylor_r400_win_mariboro r400vgt_multi_pass_pix_shader_07 r400vgt_multi_pass_pix_shader_08 Adding SC visio and xls files for documentation Change 63509 on 2002/11/12 by frising@ma_frising Change 63336 on 2002/11/12 by jacarey@fl jcarey desktop Baseline Debug Documents for the CP and RBBM -add note that Constant0 refers to the first constant in the instruction while Constant1 and Change 63285 on 2002/11/11 by peterp@MA PETE LT Constant2 refer to the second and third constants in the instruction respectively Added common format to CG, ROM, DBG -added note that the GPR write-back table rules only apply when the scalar and vector destination pointers are the same. This should be obvious, but clarity never hurts. Change 63274 on 2002/11/11 by csampayo@fl_csampayo_r400 -when doing an export and both scalar and vector channels are masked a 0.0f is now Closed bug# 83 Change 63262 on 2002/11/11 by gregs@gregs_r400_win_marlboro -updated Exports Types and Addresses section to match what is in SQ doc backup of drawings -tried to clean-up export rules section Change 63258 on 2002/11/11 by gregs@gregs_r400_win_marlboro -removed previous vector and previous scalar from source selects in instruction word. -added clamping code to LOG_CLAMPED instruction Change 63197 on 2002/11/11 by rramsey@RRAMSEY_P4_r400_win -fixed a bunch of typos and other misc clean-up including a couple places where I was mixing ABGRs with my WZYXs in the instruction definitions. Tried to be consistent when details intra-tile quad processing order when pa_su_sc_model_cntl.QUAD_ORDER_ENABLE is set refering to bits in instruction word. Page 125 of 441 Page 126 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 63189 on 2002/11/11 by peterp@MA_PETE_LT Latest uRF expand positionings for 16 or 32 bpp post-blender conversion (before fix2float convert, which happens on SP side). Added common format for MC and MH First 2 sheets are current POR. Change 63174 on 2002/11/11 by peterp@MA_PETE_LT Change 62910 on 2002/11/08 by csampayo@fl_csampayo_lt_r400 Added common format to cp and rbbm Change 63155 on 2002/11/11 by jacarey@fl_jcarey_desktop $Updated\ status\ in\ test\ tracker\ and\ added\ to\ test_list: r400vgt_real_time_events_01$ Add CP RT STAT register to spec Change 62909 on 2002/11/08 by bbloemer@ma_bbloemer Change 63149 on 2002/11/11 by jowang@jowang_R400_win Added MC MH Test Plan Change 62868 on 2002/11/08 by csampayo@fl_csampayo_lt_r400 Change 63148 on 2002/11/11 by gabarca@gabarca crayola win cvd Added bug#86. Some housekeeping Added VGA_DISP_sync_en Change 62857 on 2002/11/08 by mpersaud@mpersaud_r400_win_tor Change 63098 on 2002/11/11 by jacarey@fl_jcarey_desktop Added VIP block select and group debug signals 1. Performance Signals for RTEE 2. Split Busy Signal from the CSF into a real-time and non-real-time version Change 62813 on 2002/11/08 by jacarey@fl_jcarey_desktop 1. Update CP Spec for Debug Signals Change 63094 on 2002/11/11 by jacarey@fl_jcarey_desktop 2. Update One of the 2D Unit Tests to Read Back Debug Information 1. Add register to micro engine guts for timing Change 62808 on 2002/11/08 by mzhu@mzhu_crayola_win_tor 2. Add FIFOs for Timing in the Synchronization Logic Update 3.4.9.4 Color Space Conversion 3. Update CP's Performance Counter Selects in perfcount.doc Change 63077 on 2002/11/11 by sbagshaw@sbagshaw Change 62771 on 2002/11/08 by gregs@gregs_r400_win_marlboro Revision 0.35 of R400 DC (Toront) Test Plan for System and Stress tests update

Change 63062 on 2002/11/11 by jasif@jasif_r400_win_tor

Change 63053 on 2002/11/11 by mpersaud@mpersaud_r400_win_tor

Added debug signals and WAIT/FREQUENCY/SIZE values to the dccif interface.

Change 62983 on 2002/11/09 by peterp@MA PETE LT

Added common format for Analog and BIF

Change 62925 on 2002/11/08 by jhoule@MA JHOULE

Page 127 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 62759 on 2002/11/08 by mzhu@mzhu_crayola_win_tor

Add DxCRTC_FLOW_CONTROL_POLARITY, DxCRTC_TRIG_INPUT_STATUS

DXCRTC TRIG POLARITY STATUS register bits

Change 62748 on 2002/11/08 by ashishs@fl_ashishs_r400_win

update

Change 62743 on 2002/11/08 by jacarey@fl_jcarey_desktop

Add RBBM BIF int to the RBBM's performance counters.

RTL and Spec Update

Page 128 of 441

added VIP_DISP_eof_fcp and VIP_DISP_pol_fcp to interface with DISP/CRTC Change 62732 on 2002/11/08 by mpersaud@mpersaud r400 win tor Change 62062 on 2002/11/06 by peterp@MA PETE LT Added state machine diagrams. Added common synthesis report format to DC block. Combined DC and VIP results into the DC results. Change 62711 on 2002/11/08 by ashishs@fl_ashishs_r400_win updated for last 3 vte tests viz r400vte_pos_neg_combos_01/02/03 Change 62055 on 2002/11/06 by mzhu@mzhu_crayola_win_tor Change 62511 on 2002/11/07 by imuskatb@imuskatb_r400_win_cnimuskatb Update 3.4.9.4 Color Space Conversion Change 62037 on 2002/11/06 by mzhu@mzhu_crayola_win_tor undated Update constant matrix for TVRGB output in 11.18 Matrix Transform and Adjustment. Change 62447 on 2002/11/07 by jacarey@fl_jcarey_desktop Change 62033 on 2002/11/06 by lkang@lkang r400 win tor Added note to RBBM spec regarding the performance counters. Change 62444 on 2002/11/07 by jacarey@fl jcarey desktop update on SCLK dynamic clocking Change 61984 on 2002/11/06 by beiwang@bei depot Updates for the CP STAT register Change 62432 on 2002/11/07 by gabarca@gabarca_crayola_win_cvd Updated the bus interface to MH and RB Change 61964 on 2002/11/06 by jacarey@fl_jcarey_desktop added perf count signals Change 62338 on 2002/11/07 by jasif@jasif_r400_win_tor Update Soft Reset Description Updated Change 61936 on 2002/11/06 by gabarca@gabarca_crayola_win_cvd Change 62301 on 2002/11/07 by csampayo@fl_csampayo_r400 clarified grph pack in spreadsheet Change 61912 on 2002/11/06 by jacarey@fl_jcarey_desktop Change 62266 on 2002/11/07 by jacarey@fl_jcarey_desktop Undate to GradFill Description in PM4 Spec Change 61857 on 2002/11/05 by jasif@jasif_r400_win_tor Updates for Soft Reset to Register Descriptions Change 62198 on 2002/11/06 by gregs@laptop1 Change name of overscan test to overscanColourSelect. Change 61850 on 2002/11/05 by jasif@jasif_r400_win_tor <enter description hupdate ere> Updated Change 62131 on 2002/11/06 by gabarca@gabarca_crayola_win_cvd Change 61843 on 2002/11/05 by gregs@gregs_r400_win_marlboro One test in each set of the VGA to CRTC parameters section should do display capture. Tests in the display section normally do capture Change 62066 on 2002/11/06 by mpersaud@mpersaud_r400_win_tor Change 61837 on 2002/11/05 by mzhu@mzhu crayola win tor Page 129 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Update 3.4.9.4 Color Space Conversion added back-to-back writes to HOST Change 61484 on 2002/11/04 by dwong@cndwong2 Change 61803 on 2002/11/05 by jacarey@fl jcarey desktop Update format of the Grad_Fill packet per discussion on 11-05-2002. added in performance counter Change 61480 on 2002/11/04 by jacarey@fl_jcarey_desktop Change 61761 on 2002/11/05 by dwong@cndwong2 Added details on endian swap and an extra field for indirect buffer swap setting Fix Typo in MPEG_INDEX packet documentation. Change 61728 on 2002/11/05 by gabarca@gabarca_crayola_win_cvd Change 61470 on 2002/11/04 by peterp@MA_PETE_LT Added description of VESA mode tests VGT, PA and SC updated with common format for area and synthesis date Change 61698 on 2002/11/05 by imuskatb@imuskatb_r400_win_laptop Change 61467 on 2002/11/04 by grayc@grayc_r400_win undated docs better debug statements Change 61453 on 2002/11/04 by jacarey@fl_jcarey_desktop Change 61664 on 2002/11/05 by gregs@gregs_r400_win_marlboro adding id module + new straps Update MPEG Index Packet 1. Remove "Dummy" and "Mask" DWORDs
2. RectList primtype is assumed, so CP only outputs 3 indices (Original +2) Change 61642 on 2002/11/05 by mzhu@mzhu_crayola_win_tor Change 61449 on 2002/11/04 by jasif@jasif r400 win tor Add one intermediate result fraction bit for Overlay Matrix Transform in chapter 11.6 and Matrix Transform and Adjustment in chapter 11.18 Change 61620 on 2002/11/05 by mzhu@mzhu_crayola_win_tor Change 61444 on 2002/11/04 by peterp@MA_PETE_LT add "Out SRGB->YCbCr" and "Out sRGB->TVRGB" for overlay pixels Updated SQ with common format of reporting area and synthesis date Change 61592 on 2002/11/05 by vgoel@fl_vgoel2 Change 61429 on 2002/11/04 by bbloemer@ma_bbloemer updated to close bug 608 Improved figure insertion, I hope. Change 61582 on 2002/11/05 by mpersaud@mpersaud_r400_win_ton Change 61416 on 2002/11/04 by jacarey@fl_jcarey_desktop Added to source control Update the Microcode RAM Size(s) Change 61541 on 2002/11/04 by jasif@jasif r400 win tor Change 61403 on 2002/11/04 by ashishs@fl_ashishs_r400_win updated Change 61526 on 2002/11/04 by rfevreau@rfevreau r400 win Change 61360 on 2002/11/04 by imuskatb@imuskatb_r400_win_cnimuskatb updated Change 61518 on 2002/11/04 by jowang@jowang_R400_win Change 61342 on 2002/11/04 by frising@ma frising Page 131 of 441 Page 132 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

v.1.58 -At request of SW merged TYPE/STATE fields in constants. These are SW only bits used by PM4 capture utilities.
-Fixed 3D size typo, had width, height, height instead of width, height, depth Undated GENERICA & GENERICB muxes. Added GENERICC pad to interfac Change 60992 on 2002/11/01 by peterp@MA_PETE_LT -Make addressing mode names consistent with SP; now have logical and current loop index relative addressing -Mark R400 DATA FORMAT 63 as reserved Synthesis results from SP/SX -Clean up and clarify R400_DATA_FORMAT Notes sections based on feedback Change 60988 on 2002/11/01 by rthambim@rthambim_r400_win_tor Change 61310 on 2002/11/04 by jacarey@fl_jcarey_desktop Undated the strap table Update per Lili Sinclair's E-mail. Change 60985 on 2002/11/01 by dwong@cndwong2 Change 61187 on 2002/11/01 by mdoggett@mdoggett r400 win platypus Added in xDCT performance counter details $\label{eq:controller} Added\ degamma\ dxt.\ Updated\ format\ table\ with\ new_as_16_16_16_16\ formats.$ $\ Updated\ L2\ cacheline\ format\ conversion\ table.\ Added\ degamma\ dxt\ section\ with\ equations\ for\ calculating\ different\ dxt\ interpolations.$ Change 60981 on 2002/11/01 by rthambim@rthambim r400 win tor Added new clock enable signal - BIF VGA busy Change 61163 on 2002/11/01 by ashishs@fl ashishs r400 win Change 60937 on 2002/11/01 by mkelly@fl_mkelly_r400_win_laptop Broken out line list cases from parameterized test Change 61151 on 2002/11/01 by frising@ma_frising Update tracker Change 60934 on 2002/11/01 by mpersaud@mpersaud_r400_win_tor -clarifed how constant and register addressing works. For nomenclature I settled on absolute, logical and relative addressing. New tables added.
-documented how constant2 works. Rev 0.7 - Update port names to CP -Wrote a blurb and added a table on GPR write-back precedence -Cleaned up ALU instruction format table Change 60913 on 2002/11/01 by peterp@MA_PETE_LT Started entry of date field for synthesis results - corrected RB/RC area Change 61074 on 2002/11/01 by vgoel@fl vgoel2 Change 60910 on 2002/11/01 by jacarey@fl_jcarey2 Update CP's Performance Monitoring Signals. Change 61068 on 2002/11/01 by gregs@gregs_r400_win_marlboro Change 60859 on 2002/10/31 by beiwang@bei depo Updated Protocol Engine Drawing Change 61055 on 2002/11/01 by gabarca@gabarca cravola win cvd Change 60850 on 2002/10/31 by vgoel@fl vgoel2 Added viewport X and Y start updated with new bugs and closed dates for some bug Change 61036 on 2002/11/01 by jacarey@fl_jcarey2 Change 60825 on 2002/10/31 by gregs@gregs_r400_win_marlboro Update RBBM's Performance Counter Signal List Page 134 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history ODD_EVEN_MD_PGSEL is 1 in all modes Change 60810 on 2002/10/31 by csampayo@fl csampayo r400 Change 60634 on 2002/10/31 by mpersaud@mpersaud_r400_win_tor Added new SU test, updated test_list and test tracker accordingly Rev 1.1 Mahendra PersaudDate: Oct 31, 2002 Added VIP signals to CP Change 60808 on 2002/10/31 by bbloemer@ma_bbloemer Moved and renamed document to ...\doc lib\design\blocks\chip\R400 - DC CP Updates for the design review Interface doc Change 60786 on 2002/10/31 by mzhu@mzhu_crayola_win_tor Change 60628 on 2002/10/31 by smoss@smoss_crayola_win Update for re-organizing the MH data in read buff module su tests Add MH-DC interface signal list, MH return data format and DMIF output data format in Change 60627 on 2002/10/31 by mzhu@mzhu_crayola_win_to Change 60768 on 2002/10/31 by jacarey@fl_jcarey_desktop Add dual display tests in 3.4.9.12 Fix Name of Signal From the RBBM. Change 60624 on 2002/10/31 by khabbari@khabbari_r400_win Change 60738 on 2002/10/31 by hartogs@fl hartogs disp signals added to disp/cp inteface doc Added section for determining the required input data size based on the draw initiator and ouper programming registers.

Added section on general sanity checks for grouper programming in major mode 1. Change 60620 on 2002/10/31 by mkelly@fl_mkelly_r400_win_laptop Update screen scissor and window scissor tests for tracking... Updated event enumeration to match block file (added several events) Updated event enumeration to match olock rise (adoed several events).

Added DI PT 2D TRI STRIP to the prim type enumeration in the VGT_DRAW_INITIATOR register.

Added VGT_GRP_2D_TRI enumeration to prim type field of VGT_GROUP_PRIM_TYPE register (and deleted some unused prim type enumerations).

Updated Major Mode 0 settings table for 2D compond index changes. Added DT_TRI_STRP entry to his table. Change 60565 on 2002/10/30 by gregs@laptop1 Change 60393 on 2002/10/30 by jacarey@fl jcarey2 2D_TRI_STRIP entry to this table.

Changed address of many of the GFX registers registers to match addresses in the block Fix Typo in CP_PERFMON_CNTL register description Added VGT_MULTI_PRIM_IB_RESET_INDX register with description. Changed VGT_VTX_TIMEOUT_REG to VGT_VGT_VTX_VECT_EJECT_REG Change 60376 on 2002/10/30 by mpersaud@mpersaud r400 win tor Updated with Appendix A - MH_DCC Interface register
Added VGT_DMA_DATA_FIFO_DEPTH register—Added
VGT_DMA_REQ_FIFO_DEPTH register
Added VGT_DASW_NIT_FIFO_DEPTH register
Added VGT_DAST_COPY_STATE register
Added VGT_LAST_COPY_STATE register
Added Section called "Draws Initiator Programming" containing two subsections:
"Number of Indices" and "Using the Multi-prim Index Buffer Reset Functionality" Change 60360 on 2002/10/30 by gregs@laptop1 added IO_RBBM_genericc_y signal Change 60295 on 2002/10/30 by mzhu@mzhu_crayola_win_tor Update 3.4.9.4 Color Space Conversion Add 3.4.9.10 double buffer registers Add 3.4.9.11 DCP CRC Change 60701 on 2002/10/31 by georgev@ma georgev Put in documentation for floating point numbers. Change 60294 on 2002/10/30 by rbell@rbell_crayola_win_cvd Change 60669 on 2002/10/31 by gabarca@gabarca_crayola_win_cvd Page 135 of 441 Page 136 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 60996 on 2002/11/01 by nbarbier@nbarbier_r400_win_tor

clocks Change 60264 on 2002/10/30 by frising@ma frising - decodes are don't cares when not in active cycle ready should be high by default -bring up to date with v.0.99a of R400numerics.doc. Includes adding new instructions, Change 59930 on 2002/10/29 by gregs@gregs r400 win marlboro updating existing instructions, and moving to counter based predicate scheme added Test Controller connections to IO DFT cells. Change 60178 on 2002/10/29 by frising@ma_frising Change 59904 on 2002/10/29 by jacarey@fl_jcarey_desktop Source clipping is only done by the CP for ROPs that include a source term -Sync up with v.1.8 of shaders.doc that I've been editing and will check-in soon. Change 59873 on 2002/10/28 by gregs@gregs_r400_win_marlboro Change 60167 on 2002/10/29 by gregs@gregs_r400_win_marlboro io dft cells inserted - fixes. Change 59867 on 2002/10/28 by frising@ma_frising Change 60126 on 2002/10/29 by rbell@rbell_crayola_win_cvd -updated to counter based predicate instructions.
-lots of work on 32-bit rounding issues. Still more to do especially for 16-bit FP and conversion between formats and things like RF expansions. Finished MS3 D2 tests Change 60112 on 2002/10/29 by vgoel@fl_vgoel2 added rpatch bug for tessellation 11.5 Change 59820 on 2002/10/28 by mzhu@mzhu crayola win tor Change 60078 on 2002/10/29 by jowang@jowang_R400_win added CRC generation Change 59816 on 2002/10/28 by rfevreau@rfevreau r400 win Change 59994 on 2002/10/29 by jacarey@fl_jcarey2 New goldens Add registers for the CP Performance Counter Change 59789 on 2002/10/28 by jacarey@fl jcarev2 Change 59989 on 2002/10/29 by jacarey@fl_jcarey2 AlphaBlend, AAFONT and Load_Execute marked as "Not Currently Supported" RBBM Performance Counters Change 59706 on 2002/10/28 by csampayo@fl_csampayo_r400 Change 59944 on 2002/10/29 by csampayo@fl csampayo r400 Added bug#82 Change 59693 on 2002/10/28 by jacarey@fl_jcarey2 Change 59941 on 2002/10/29 by llefebvr@llefebvre_laptop_r400 Swap bits for oper=gmcdecode flags backup and SQ->SP interface change Change 59683 on 2002/10/28 by csampayo@fl csampayo r400 Change 59932 on 2002/10/29 by nluu@nluu r400 doclib cnnb Try again - update interface to add start_of_cycle and op code signals Change 59682 on 2002/10/28 by csampayo@fl_csampayo_r400 Page 137 of 441 Page 138 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Update RBBM Debug Register Added Bugzilla report# to bug# 81 Change 59314 on 2002/10/25 by jacarey@fl jcarey2 Change 59681 on 2002/10/28 by csampayo@fl_csampayo_r400 Updates to RBBM spec to clarify wait_until, nqwait, and Isync wait conditions Some housekeeping Change 59255 on 2002/10/24 by grayc@grayc r400 win Change 59677 on 2002/10/28 by jacarey@fl_jcarey2 initial release 1. ROP7:4 != ROP3:0 flag for oper=gmcdecode Change 59211 on 2002/10/24 by ashishs@fl ashishs r400 win 2. Src_Clip_Disable Flag for oper=gmcdecode Change 59592 on 2002/10/27 by csampayo@fl_csampayo_lt_r400 Change 59151 on 2002/10/24 by frising@ma_frising Updated test list and test tracker status for the following tests: r400vgt_multi_pass_pix_shader_01 r400vgt_multi_pass_pix_shader_02 r400vgt_multi_pass_pix_shader_03 Rework of degamma control to be more in line with hardware schedule:) Perhaps surprisingly, this resulted in a cleaner SW interface and easier HW implementation. This r400vgt multi_pass_pix_shader_04 r400vgt multi pass pix shader 05 r400vgt_multi_pass_pix_shader_06 - Removing of DEGAMMA_CNTL_ALL - Adding 4 new DATA_FORMATS: FMT_8_8_8_8_AS_16_16_16_16, FMT_DXT1_AS_16_16_16_16, FMT_DXT2_3_AS_16_16_16_16 and FMT_DXT4_5_AS_16_16_16_16. Change 59437 on 2002/10/25 by ashishs@fl_ashishs_r400_win update - Updated DATA_FORMAT table. This is now much cleaner. FOLKS SHOULD STUDY THIS CLOSEL $\bar{\rm Y}.$ Change 59405 on 2002/10/25 by lseiler@lseiler_r400_win_marlboro Added a column for device address - FMT_DXN is no longer a degammable format Change 59397 on 2002/10/25 by gregs@gregs_r400_win_marlboro - Update DATA_FORMAT note 7.) to say: .) Channels being degamm'd remain unsigned repeating fraction after degamma updated the buscfg strap encodings. Enabling degamma in any channel does not change the format in which the data is stored in the L2 cache. This enables software to make trade-offs between high quality degamma and performance. Specifically, formats FMT_8_8_8_8, FMT_DXT1, FMT_DXT2_3, and FMT_DXT4_5 are stored in the L2 cache as 4x8 while their *_AS_16_16_16_16 counterparts are stored as 4x16." Change 59395 on 2002/10/25 by jacarey@fl_jcarey2 Remove CP_CONTEXT_ID register it will be in the VGT Change 59371 on 2002/10/25 by jacarey@fl_jcarey2 Change 59115 on 2002/10/24 by jacarey@fl_jcarey2 Update Performance Conections. RBBM Spec: Change 59342 on 2002/10/25 by jacarey@fl jcarey desktop Add Extern_Trig_Cntl Register and Diagram
 Update text for nqwait and gui_active related items Document CP_CONTEXT_ID register. Change 59100 on 2002/10/24 by ashishs@fl ashishs r400 win Change 59317 on 2002/10/25 by jacarey@fl_jcarey2 update Page 139 of 441 Page 140 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

updated

- cycle is 1 clock shorter, strobe is asserted 1 clock after data is driven instead of 2

Change 59060 on 2002/10/24 by tshah@fl tshah updated included description for CP_PIPE busy for Wait until condition. Hysteresis for $\ensuremath{\text{GUI_ACTIVE}}$ Change 58801 on 2002/10/23 by jacarey@fl_jcarey2 Add ROP comment to GradFill Packet Change 59054 on 2002/10/24 by mkelly@fl_mkelly_r400_win_laptop Change 58743 on 2002/10/22 by frising@ma_frising Change 59053 on 2002/10/24 by mkelly@fl_mkelly_r400_win_laptop -added cube instruction implementation -misc clean-up SC Clip Rect tests, LINE_LOOP, STIPPLE, FSAA permutations. Change 58728 on 2002/10/22 by gregs@gregs_r400_win_marlboro Change 58970 on 2002/10/23 by ashishs@fl ashishs r400 win Tests guard band clipping 4 primitives in 4 quadrants. Each primitive has 6 vertices and first vert on vertical guard band. Change 58697 on 2002/10/22 by smoss@smoss crayola win su tests Top Left Quadrant, gouraud shading Top Right Quadrant, FLAT SHADING with START vertex as provoking vtx Lower Right Quadrant, FLAT SHADING with END vertex as provoking vtx Change 58679 on 2002/10/22 by gregs@gregs_r400_win_marlboro Lower Left Quadrant, SIX TEXTURES, with COLOR0 as transparent fixed Generic pads Method: 6 Vert Strip, first vert on vertical guard band Expected Results: 4 primitives, four quadrants, no clipping, no discarding Change 58630 on 2002/10/22 by rbell@rbell_crayola_win_cvd Completed some more D2 tests Change 58948 on 2002/10/23 by rthambim@rthambim_r400_win_tor Change 58617 on 2002/10/22 by jacarey@fl_jcarey2 Initial revision Update for Clearing the Register Update Flag Change 58906 on 2002/10/23 by mzhu@mzhu cravola win tor Change 58615 on 2002/10/22 by jacarey@fl jcarey2 Add in Colour Spaces.xls in perforce Document Updates for Incremental Register Updates Change 58841 on 2002/10/23 by frising@ma_frising Change 58606 on 2002/10/22 by gregs@gregs_r400_win_marlboro v.1.56 AT THE PROPRIES OF THE PROPRIE <added CONFIG_XSTRAP3 register and number of straps > Change 58603 on 2002/10/22 by kmahler@kmahler r400 doc lib is just a rename and does not affect actual values since Cr and Cb use the same value Added More details and added Proposal for new PM4 Library and Real-Time support. Change 58817 on 2002/10/23 by vgoel@fl vgoel2 Change 58563 on 2002/10/22 by llefebvr@llefebvre_laptop_r400 added vertex export bug report resulting from r400vgt_hos_PNT_adaptive Defined the memory exports better. Change 58806 on 2002/10/23 by rbell@rbell_crayola_win_cvd Page 141 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 58562 on 2002/10/22 by llefebvr@llefebvre_laptop_r400 added M3 comments Updated the SX interfaces. Change 58318 on 2002/10/21 by mzhu@mzhu_crayola_win_tor Change 58525 on 2002/10/22 by jowang@jowang_R400_win $\label{lem:condition} Update\ interface\ signals,\ DCP_DMIF_grph1_pitch,\ DCP_DMIF_grph2_pitch,\ DCP_DMIF_ovl1_pitch\ and\ DCP_DMIF_ovl2_pitch.$ Modified M3 Test Plan after the review Change 58522 on 2002/10/22 by georgev@ma_georgev Change 58308 on 2002/10/21 by paulv@MA_PVELLA Updated to reflect changes and new stuff Updated MHS portion of spec with latest and greatest features, info, etc. Change 58425 on 2002/10/21 by khabbari@khabbari_r400_win Change 58307 on 2002/10/21 by csampayo@fl_csampayo_lt_r400 added frame rate conv test list Cleaned up tests, added 1 new VGT test to test_list and updated the test tracker accordingly Change 58419 on 2002/10/21 by frising@ma frising Change 58257 on 2002/10/21 by khabbari@khabbari_r400_win -initial check-in. added frame rate conv Change 58369 on 2002/10/21 by frising@ma_frising Change 58254 on 2002/10/21 by mzhu@mzhu_crayola_win_tor Update 11.1.2 and 11.1.3 for D1GRPH and D2GRPH double buffer register Add 11.20 for DCP CRC - Added DEGAMMA_CNTL_ALL field to texture constant to indicate if degammed textures should be stored as 8-bit or 16-bit in TC. Noted that this field is not currently supported. Also noted what the default conversion are in lieu of this support along with bringing all the degamma documentation inline with the current degamma plans. Change 58253 on 2002/10/21 by mzhu@mzhu_crayola_win_tor Add 8-bit 2101010 mode tests in 3.4.9.9 Added REQUEST_SIZE field to texture and vertex constant to indicate if read requests Change 58251 on 2002/10/21 by mzhu@mzhu_crayola_win_tor should be 256 or 512 bit Update DxGRPH double buffer register

- Defined R400 TP NAN to be 0x7FE00000 (used for out of range vertex fetches)

- *16_EXPAND is converted to 16.16 signed fixed point now.

- *MPEG is clamped to [-256..255] pre filter (was [-255..255])

Change 58350 on 2002/10/21 by rfevreau@rfevreau_r400_win

New goldens with PClk set to 165MHz Test list update

Change 58329 on 2002/10/21 by mzhu@mzhu_crayola_win_tor

Update DxGRPH PITCH and DxOVL PITCH

Change 58321 on 2002/10/21 by jowang@jowang_R400_win

Page 143 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Add DCP CRC register

Change 58213 on 2002/10/20 by gregs@laptop1

update

Change 58161 on 2002/10/19 by gregs@laptop1

initial device id numbers

Change 58120 on 2002/10/18 by csampayo@fl csampayo r400

Added bug#88

Change 58095 on 2002/10/18 by vgoel@fl vgoel2

Page 144 of 441

Change 58080 on 2002/10/18 by gregs@gregs_r400_win_marlboro Change 57866 on 2002/10/17 by grayc@grayc_r400_win Change 58073 on 2002/10/18 by gregs@gregs_r400_win_marlboro for safekeeping ... expanded on test description Change 57848 on 2002/10/17 by csampayo@fl_csampayo_r400 Change 58032 on 2002/10/18 by jacarey@fl jcarey2 Added bug#78 Update diagram for clock gating Change 57834 on 2002/10/17 by gregs@gregs_r400_win_marlboro Change 58003 on 2002/10/18 by jasif@jasif_r400_win_tor added R300 power Updated test names and status Change 57824 on 2002/10/17 by gregs@gregs_r400_win_marlboro Change 57994 on 2002/10/18 by ashishs@fl_ashishs_r400_win scaled from R300 part - ready. undated a comment Change 57784 on 2002/10/17 by jacarey@fl_jcarey2 Change 57991 on 2002/10/18 by jacarey@fl_jcarey2 Refer to the PA register spec for the format of the destination clipping parameters in the Undate documents for Incremental Register Undate Change 57667 on 2002/10/17 by gregs@gregs_r400_win_marlboro Change 57976 on 2002/10/18 by ashishs@fl_ashishs_r400_win update Highlighted the bug "r400cl bary texture 08.cpp" Change 57661 on 2002/10/17 by gregs@gregs_r400_win_marlboro Change 57941 on 2002/10/18 by bbloemer@ma_bbloemer added to the discription of ROM_CLK register Updated .doc file. Change 57576 on 2002/10/16 by gregs@laptop1 Change 57939 on 2002/10/18 by ashishs@fl_ashishs_r400_win updated test_list and Tracker for the corresponding change in file name viz r400cl_gabnd_04 to r400cl_gband_06 Change 57574 on 2002/10/16 by gregs@laptop1 Change 57935 on 2002/10/18 by ashishs@fl_ashishs_r400_win work in progress Deleted test r400cl_gband_04 and renamed it to r400cl_gband_06. Also updated the Change 57527 on 2002/10/16 by llefebvr@llefebvre_laptop_r400 Validation_Approach_plan.doc since it had some errors with tests name and numberings. Clarifications and minor updates. Version 2.08 Change 57933 on 2002/10/18 by jacarey@fl jcarey2 Change 57510 on 2002/10/16 by csampayo@fl_csampayo_r400 1. Remove legacy versions of packets that were struck through 2. Add Incremental Register Write Support Added 1 new HOS with index reset test, updated test. list and test tracker Page 146 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 57494 on 2002/10/16 by smoss@smoss_crayola_win Change 57247 on 2002/10/15 by csampayo@fl_csampayo_r400 Added 5 new VGT index reset tests and undated test. list and test tracker Change 57475 on 2002/10/16 by ashishs@fl_ashishs_r400_win Change 57202 on 2002/10/15 by csampayo@fl_csampayo_r400 Updated test list and test tracker for the following VGT tests: updated r400vgt vtx export very very simple 01 r400vgt vtx_export_very_very_simple_02 r400vgt_vtx_export_very_very_simple_03 Change 57471 on 2002/10/16 by rbell@rbell_crayola_win_cvd Completed host arbitration tests Change 57196 on 2002/10/15 by jacarey@fl jcarey2 Change 57470 on 2002/10/16 by jacarey@fl_jcarey2 Update for SCLK_REG Documentation Updates for Programming Max Count while processing. Change 57184 on 2002/10/15 by mkelly@fl mkelly r400 win laptop Change 57459 on 2002/10/16 by mkelly@fl mkelly r400 win laptop Update. Add r400sc_parameterized_line_list_01 to tracker... Change 57177 on 2002/10/15 by beiwang@bei_depot Change 57435 on 2002/10/16 by ashishs@fl ashishs r400 win Updated the MCCI block diagram with the latest AGP path Change 57175 on 2002/10/15 by jacarey@fl_jcarey2 Change 57394 on 2002/10/16 by mzhu@mzhu_crayola_win_tor Add CP_PERFMON_CNTL to CP register set
 Documentation Updates for Clock Gating Add 8-bit 2101010 graphics format Add PIX_TYPE for selecting color space conversion parameters Change 57165 on 2002/10/15 by jowang@jowang R400 win Change 57382 on 2002/10/16 by jacarey@fl_jcarey2 updated test plan with M3 features for 20bpp and CRC Update to transfifo clock Change 57157 on 2002/10/15 by smorein@smorein_r400 Change 57363 on 2002/10/16 by efong@efong_r400_win_tor_doc updated with register names Coverage Metrics Proposal and users guide Change 57146 on 2002/10/15 by kmahler@kmahler_r400_doc_lib Change 57337 on 2002/10/16 by jacarey@fl_jcarey2 Added some minor details, but not sure what? Update for scik reg Change 57086 on 2002/10/15 by jhoule@MA_JHOULE Change 57253 on 2002/10/15 by csampayo@fl_csampayo_r400 VGT housekeeping Added MIP_PACKING bit allowing to disable packing of the mip tail. Change 57052 on 2002/10/15 by jacarey@fl_jcarey2 Change 57252 on 2002/10/15 by csampayo@fl_csampayo_r400 Added bug#77 Clarify the number of DWORDs for ALU and Texture constant updates. Page 147 of 441 Page 148 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

updated for new bug

Change 57890 on 2002/10/18 by jacarey@fl_jcarey2

Added src data format to the alphablend packet

Change 56993 on 2002/10/14 by csampayo@fl_csampayo_r400 Change 56612 on 2002/10/11 by jacarey@fl_jcarey2 Closed bugs# 63.71.74. Added bug# 76 Update for DP_SRC_SOURCE Change 56977 on 2002/10/14 by ashishs@fl_ashishs_r400_win Change 56604 on 2002/10/11 by llefebvr@llefebvre_laptop_r400 Revision 2.06 of the spec. Change 56944 on 2002/10/14 by jacarey@fl_jcarey2 Change 56601 on 2002/10/11 by rbell@rbell_crayola_win_cvd Completed b&w offset floating point tests Update Diagram for Dynamic Clocking in the CP Change 56936 on 2002/10/14 by csampayo@fl_csampayo_r400 Change 56593 on 2002/10/11 by jacarey@fl_jcarey2 Added 3 new VGT tests, updated test. list and test tracker Make SQ_CP_*_eventid buses 5 bits to cover all defined events. Change 56928 on 2002/10/14 by mkelly@fl_mkelly_r400_win_laptop Change 56586 on 2002/10/11 by dwong@cndwong2 update.. changed the real-time signal names wired into CP (from overlay) Change 56918 on 2002/10/14 by csampayo@fl_csampayo_lt_r400 bits 5 and 6 of connections to the CP rts discretes input bus are changed to DISPx_CP_flip_proceed Some VGT housekeeping Change 56581 on 2002/10/11 by tshah@fl_tshah Change 56881 on 2002/10/14 by llefebvr@llefebvre_laptop_r400 description of RBBM_DEBUG register write - snoop in RBBM's BIF_PIPE Loops, jumps and calls are now using a 13 bit address which allows to jump and call and loop around any control flow addresses (does not requires to be even anymore). Change 56579 on 2002/10/11 by kmahler@kmahler_r400_doc_lib Change 56872 on 2002/10/14 by lseiler@lseiler r400 win marlboro Some updates to support Random Shader Generator Updated Zplane format to include MultiSample bit Change 56574 on 2002/10/11 by kmahler@kmahler_r400_doc_lib Change 56865 on 2002/10/14 by vgoel@fl vgoel2 Some more updates; This document is now mostly ready for the initial review to allow added frame buffer dump mismatch issue for tiled on and off mode Change 56558 on 2002/10/11 by jacarey@fl_jcarey2 Change 56855 on 2002/10/14 by smoss@smoss crayola win B4 and B9 Booleans need to be set for NextChar Change 56544 on 2002/10/11 by jhoule@MA_JHOULE Change 56838 on 2002/10/14 by kcorrell@kcorrell_r400_docs_marlboro_nb Various updates in descriptions.
Updated TP_TC interface to 9 bits of pitch everywhere. update of MH document up to chapter 13 Change 56659 on 2002/10/11 by jayw@MA_JAYW Change 56495 on 2002/10/10 by csampayo@fl_csampayo_r400 old needs updating Added bug# 74 Page 149 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 56475 on 2002/10/10 by mzhu@mzhu crayola win tor Change 56212 on 2002/10/09 by csampayo@fl csampayo r400 Fix LUT fill for Floating point 16161616 mode - (0x0000 - 0x3BFF) Some VGT housekeeping Change 56461 on 2002/10/10 by nbarbier@nbarbier_r400_win_tor Change 56171 on 2002/10/09 by csampayo@fl_csampayo_r400 Added CRTC1 & CRTC2 enable and freeze signals Added CRTC1 & CRTC2 interrupts. $\label{eq:context} 1.\ Updated\ tests\ r400vgt_index_min_max_01\ and_02\ for\ multi-context\\ 2.\ Added\ new\ VGT\ tests\ r400vgt_index_min_max_03\ and_04\\ 3.\ Updated\ test_list\ and\ the\ test\ tracker\\ \endaligned$ Change 56403 on 2002/10/10 by jasif@jasif r400 win tor Change 56126 on 2002/10/09 by mpersaud@mpersaud_r400_win_tor Updated test names and status. Bumped document revision Change 56398 on 2002/10/10 by grayc@grayc_r400_win Change 56123 on 2002/10/09 by mpersaud@mpersaud r400 win tor updates Added TV_DOUT_interlace_en and TV_DOUT_tvout_en to interface. Change 56386 on 2002/10/10 by rherrick@ma_rherrick_crayola Change 56082 on 2002/10/09 by jacarey@fl_jcarey2 Implement Mult-sample stimulus application by TC client... Added VIP CP eof ack to list. Change 56354 on 2002/10/10 by gregs@gregs_r400_win_marlboro Change 56051 on 2002/10/09 by gregs@laptop1 added block busy extender pin strap buscfg is 2 bits widw now (was 3 bits) Change 56350 on 2002/10/10 by jacarey@fl_jcarey2 Change 56048 on 2002/10/09 by jacarey@fl_jcarey2 Update pseudocode for LCC packet as processed by Real-time Invert polarity of the MH CP writeclean signal Change 56318 on 2002/10/10 by rfevreau@rfevreau r400 win Change 56033 on 2002/10/09 by mkelly@fl_mkelly_r400_win_laptop Added a sleep to the job file and added new DVO testlist Packed color example usage for VFD Change 56314 on 2002/10/10 by jacarey@fl jcarey2 Change 56008 on 2002/10/09 by mkelly@fl_mkelly_r400_win_laptop Clarification on ME_INIT for Mask Bit 9 Rasterize 256 triangles, 1 packet. Each triangle should hit 4 quads. Change 56313 on 2002/10/10 by csampayo@fl_csampayo_r400 The test moves the triangle 2 quads at a time in X and 2 quads in increasing Y.

* Update test_list
* Update test documentation in test tracker Adeed bug# 73 Change 56303 on 2002/10/10 by jacarey@fl jcarey2 Change 55960 on 2002/10/08 by nbarbier@nbarbier r400 win tor Added Default Reset Control to ME init packet (bit 9 of mask) Added description of 2nd DVO CRC. Added description of TMDS data synchronizer. Change 56213 on 2002/10/09 by gregs@laptop1 update Change 55950 on 2002/10/08 by gregs@gregs_r400_win_marlboro Page 151 of 441 Page 152 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 55945 on 2002/10/08 by ashishs@fl_ashishs_r400_win Added bug# 72 Change 55727 on 2002/10/07 by csampayo@fl_csampayo_r400 update Change 55935 on 2002/10/08 by jacarey@fl_jcarey2 Added VGT index size test and updated test list and test tracker Update description of the B0 2D Boolean for monochrome sources. Change 55696 on 2002/10/07 by gregs@gregs_r400_win_marlboro Change 55922 on 2002/10/08 by jacarey@fl_jcarey2 AGP bug "AD 20 stitch" - fixed Only Set B0 Boolean for solid brushes if SRC_TYPE != Mono Change 55679 on 2002/10/07 by jacarey@fl_jcarey2 Change 55904 on 2002/10/08 by bryans@bryans crayola doc Added write confirm function for DMA engine at end of table. Change 55669 on 2002/10/07 by rbell@rbell_crayola_win_cvd Update schedule to minimize Linux usage after midnigh Change 55891 on 2002/10/08 by rherrick@ma_rherrick_crayola Completed half res tests Removing FETCH_SHADOW from queuemgr/checker... Implementing setting of SCLK period in parser... Changing IDLE to work on SCLK instead of MCLK... Beginning implementation Fetch Multisample in checker (wanted to regress and check this change in before Change 55570 on 2002/10/07 by csampayo@fl_csampayo_lt_r400 Added bug#71 heading forward from this point) .. Change 55555 on 2002/10/07 by chwang@chwang_doc_r400_win_cvd Change 55869 on 2002/10/08 by smoss@smoss crayola win Update. su tests Change 55544 on 2002/10/07 by imuskatb@imuskatb r400 win cnimuskatb Change 55848 on 2002/10/08 by mpersaud@mpersaud_r400_win_tor Update port names to match verilog implementation Change 55527 on 2002/10/07 by smoss@smoss crayola win Change 55816 on 2002/10/08 by jacarey@fl_jcarey2 Update spec for dst clip parameters to be positive only. Change 55513 on 2002/10/06 by ashishs@fl ashishs r400 win Change 55795 on 2002/10/08 by smoss@smoss crayola win Change 55506 on 2002/10/06 by lkang@lkang r400 win tor Change 55763 on 2002/10/08 by grayc@grayc_r400_win Change 55494 on 2002/10/05 by gregs@laptop1 Change 55758 on 2002/10/08 by mkelly@fl mkelly r400 win laptop update - tests passed. Add Clay's multi-chip tests to SC special cases documentation Page 153 of 441 Page 154 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history added DVO power pads + added ESD pads (not distributed yet) + equlized sides to Change 55440 on 2002/10/04 by gregs@gregs_r400_win_marlboro approximately the same size + clean-up Change 55164 on 2002/10/03 by mzhu@mzhu_crayola_win_tor Change 55399 on 2002/10/04 by jacarey@fl_jcarey2 Modify the 3rd milestone tests Miscellaneous Updates for New 2D Packets Change 55163 on 2002/10/03 by jacarey@fl jcarey2 Change 55398 on 2002/10/04 by jacarey@fl_jcarey2 Updates to Gradfill packet Update to comment on setting the 2D B3 Boolean 1. Removed Width from compound indices Added 2D_Tri_Strip compound indice 3. Misc. Comments. Change 55162 on 2002/10/03 by jacarey@fl_jcarey2 Change 55342 on 2002/10/04 by gregs@gregs_r400_win_marlboro Boolean B3 should be '0' for SRC_TYPE=0. Mark Earl will check-in the emulator update update Change 55136 on 2002/10/03 by mpersaud@mpersaud_r400_win_tor Change 55332 on 2002/10/04 by llefebvr@llefebvr_r400 Updated interface as per interface spec review on September 27 Small update regarding allocs Change 55094 on 2002/10/03 by kmahler@kmahler_r400_doc_lib Change 55327 on 2002/10/04 by alleng@alleng_r400_win_marlboro Another intermediate revision... getting closer :) Additional information regarding the color and depth cache tests.. Change 55083 on 2002/10/03 by smorein@smorein r400 Change 55302 on 2002/10/04 by jimmylau@jimmylau_r400_win_tor initial version of performance counter spec, block leads and arch need to view and edit Updates SCL-CRTC interface specs based on interface review on Sept 25, 02 Change 55036 on 2002/10/03 by csampayo@fl_csampayo_r400 Change 55285 on 2002/10/04 by mkelly@fl_mkelly_r400_win_laptop VGT housekeeping Change 54988 on 2002/10/03 by rbell@rbell crayola win cvd Change 55209 on 2002/10/03 by csampayo@fl_csampayo_r400 Completed digital output tests and teapot test. Added bug# 70 Change 54971 on 2002/10/03 by jacarey@fl jcarev2 Change 55208 on 2002/10/03 by gregs@laptop1 Minor updates to register default values and minimal power-up sequence added issues/notes related to pad ring. Change 54899 on 2002/10/02 by gregs@gregs_r400_win_marlboro Change 55199 on 2002/10/03 by csampayo@fl csampayo r400 open issues update Added 4 new DMA swap tests and updated test_list and the test tracker Change 54893 on 2002/10/02 by gregs@gregs_r400_win_marlboro Change 55179 on 2002/10/03 by gregs@laptop1 Fixed the PadLIst name :) Page 156 of 441 Page 155 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 55731 on 2002/10/07 by csampayo@fl_csampayo_r400

< DEVICE ID - work in progress >

Change 54518 on 2002/10/01 by mpersaud@mpersaud r400 win tor DEF generator pages cleaned-up. Added to CRTC_TV.doc Change 54810 on 2002/10/02 by csampayo@fl_csampayo_r400 Change 54490 on 2002/10/01 by jacarey@fl_jcarey_desktop Forgot to save previous updates Miscellaneous clarifications to the RT event engine diagram Change 54802 on 2002/10/02 by csampayo@fl_csampayo_r400 Change 54476 on 2002/09/30 by kmahler@kmahler_r400_doc_lib Added 3 new VGT tests with negative index offsets and updated test_list and the test More updates to the initial design doc. Change 54725 on 2002/10/02 by kmahler@kmahler_r400_doc_lib Change 54464 on 2002/09/30 by gregs@gregs_r400_win_marlboro Another intermediate revision of the initial spec added DEBUG bus connections Change 54701 on 2002/10/01 by gregs@gregs_r400_win_marlboro Change 54447 on 2002/09/30 by gregs@gregs_r400_win_marlboro update (Tuesday) closed ring with corners. Change 54679 on 2002/10/01 by tshah@fl_tshah Change 54416 on 2002/09/30 by mdoggett@MA_MDOGGETT_LT vgt skew count changes in decoument and code -- threshold must be a non-zero even Added FetchMultiSample. number Change 54370 on 2002/09/30 by jacarey@fl_jcarey2 Change 54634 on 2002/10/01 by smoss@smoss_crayola_win Added compound index details for Stretch Blit Support. Change 54347 on 2002/09/30 by jacarey@fl jcarey2 Change 54610 on 2002/10/01 by mzhu@mzhu_crayola_win_tor Add register to the poll_valid signal to align with data. Add LUT and frame buffer fill pattern for digital output Change 54321 on 2002/09/30 by imuskatb@imuskatb_r400_win_cnimuskatb Change 54584 on 2002/10/01 by mkelly@fl_mkelly_r400_win_laptop Update more stipple test documentation.... Change 54301 on 2002/09/30 by chwang@chwang doc r400 win cvd Change 54567 on 2002/10/01 by gregs@gregs_r400_win_marlboro added mux for core_volt_cntl[1:0] pins Change 54279 on 2002/09/30 by vgoel@fl vgoel2 Change 54550 on 2002/10/01 by jacarey@fl_jcarey2 added bugzilla number 435 Change 54269 on 2002/09/30 by jcox@jcox_r400 Change 54523 on 2002/10/01 by mkelly@fl mkelly r400 win laptop fix size of chart Update new window offset tests. Page 157 of 441 Page 158 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 54264 on 2002/09/30 by jcox@jcox_r400 Updated bug# 67 Change 54055 on 2002/09/27 by dougd@doug Fix macro for dating chart Change 54263 on 2002/09/30 by jcox@jcox_r400 Updated area of sq block based on netlist submitted 9/27/02 Fix miscellaneous issues with Emulation regression summary and detail charts Change 54049 on 2002/09/27 by csampayo@fl csampayo r400 Some housekeeping.. Change 54261 on 2002/09/30 by mkelly@fl_mkelly_r400_win_laptop Update usage of regress_r400 Change 54045 on 2002/09/27 by kevino@kevino r400 win marlboro Change 54252 on 2002/09/29 by csampayo@fl_csampayo_lt_r400 Updated status for the VGT tests: Change 54028 on 2002/09/27 by jacarey@fl_jcarey2 r400vgt_index_offset_04 r400vgt_index_offset_05 Clean Up Spec per actual connections. Change 54248 on 2002/09/29 by gregs@laptop1 Change 53988 on 2002/09/26 by gregs@gregs_r400_win_marlboro Sunday update Change 54184 on 2002/09/27 by rfevreau@rfevreau_r400_win Change 53953 on 2002/09/26 by smoss@smoss_crayola_win Added new job file and rg files for VIP full chip run SU tests DVO Testlist update Change 53900 on 2002/09/26 by jacarey@fl_jcarey_desktop Change 54165 on 2002/09/27 by jcox@jcox_r400 Make 2D Default registers write only. Readable via the ME STATMUX Add Emulator test plans to web Change 53857 on 2002/09/26 by jacarey@fl jcarey desktop Change 54162 on 2002/09/27 by gregs@laptop1 Update Event_Write packet to include all events Friday update Change 53850 on 2002/09/26 by nbarbier@nbarbier r400 win tor Change 54124 on 2002/09/27 by jcox@web_sync Updated interface document after review meeting. Changes to publish charts to web (add close workbook macro) Change 53842 on 2002/09/26 by rfevreau@rfevreau_r400_win Change 54120 on 2002/09/27 by gabarca@gabarca crayola win cvd updated, still not with the meeting conclussions Change 53804 on 2002/09/26 by rbell@rbell crayola win cvd Change 54118 on 2002/09/27 by jcox@fl jcox2 web updated Add macros to output charts to web Change 53802 on 2002/09/26 by vgoel@fl vgoel2 Change 54069 on 2002/09/27 by csampayo@fl_csampayo_r400 updated for closed bugs Page 159 of 441 Page 160 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 54882 on 2002/10/02 by gregs@gregs_r400_win_marlboro

Change 53503 on 2002/09/25 by mkelly@fl_mkelly_r400_win_laptop Change 53795 on 2002/09/26 by prunstad@prunstad_r400_win_marl Log potential bug Updated mh area Change 53502 on 2002/09/25 by mkelly@fl_mkelly_r400_win_laptop Change 53760 on 2002/09/26 by mkelly@fl_mkelly_r400_win_laptop Log potential bug Close out two bugs Change 53499 on 2002/09/25 by mkelly@fl_mkelly_r400_win_laptop Change 53709 on 2002/09/25 by imuskatb@imuskatb_r400_win_cnimuskatb Poly Offset combinations... 1st draft of sample counter test Change 53496 on 2002/09/25 by mkelly@fl_mkelly_r400_win_laptop Change 53699 on 2002/09/25 by gregs@gregs_r400_win_marlboro Document r400sc poly offset 03 test Change 53477 on 2002/09/24 by gregs@gregs_r400_win_marlboro Change 53678 on 2002/09/25 by csampayo@fl_csampayo_r400 update Closed bug# 66. Change 53472 on 2002/09/24 by gregs@gregs_r400_win_marlboro Change 53638 on 2002/09/25 by tien@ma_spinach updated TP and TC areas Change 53466 on 2002/09/24 by csampayo@fl_csampayo_r400 Change 53622 on 2002/09/25 by smoss@smoss_crayola_win update Change 53464 on 2002/09/24 by csampayo@fl_csampayo_r400 Change 53614 on 2002/09/25 by jasif@jasif r400 win tor Added bug#67 Updated regression test names Change 53454 on 2002/09/24 by efong@efong_r400_win_tor_doc Change 53607 on 2002/09/25 by mkelly@fl_mkelly_r400_win_laptop Initial Leda Proposal Change 53451 on 2002/09/24 by csampayo@fl_csampayo_r400 Change 53556 on 2002/09/25 by jacarey@fl_jcarey_desktop Added new VGT test. Updated test list and test tracker Update CP's Buffer Sizes to a 2^20 DWORD limit. Change 53423 on 2002/09/24 by csampayo@fl_csampayo_r400 Change 53534 on 2002/09/25 by csampayo@fl_csampayo_r400 Closed bug# 61 and added bug# 66 Added Bugzilla report# to bug# 67 Change 53396 on 2002/09/24 by gregs@gregs_r400_win_marlboro Change 53531 on 2002/09/25 by tshah@fl_tshah package.xls is now the official r400 spreadsheet Logic for Field Affecting Operation (FAO) Change 53395 on 2002/09/24 by gregs@gregs_r400_win_marlboro Page 162 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history < NEW - using rv350 pads now > Change 53200 on 2002/09/23 by csampayo@fl csampayo r400 Change 53382 on 2002/09/24 by imuskatb@imuskatb_r400_win_cnimuskatb Added new VGT index reset test. Updated test list and test tracker Change 53167 on 2002/09/23 by jacarey@fl_jcarey_desktop Change 53372 on 2002/09/24 by imuskatb@imuskatb r400 win cnimuskatb 1. Comment Only Correction to the Microcode 2. Update Brush_X and Brush_Y pointers in PM4 spec to be of the range 0.0 to $7.0\,$ updated test lib Change 53165 on 2002/09/23 by frising@ma frising Change 53368 on 2002/09/24 by khabbari@khabbari_r400_win v.1.53
Updates to FetchMultiSample:
-Added Point Filter to MSAA_FILTER_FUNCTION. This will be used to return a test plan for lb released Additional Find to Maskar The Hard September 2 which sample to return.

-OFFSET Z will be used to specify which sample to return.

-For fetchmultisample constant, renamed OVT fileds to RESULT and COLORO fields to MSAA. Also swapped their locations. This may be slightly unexpected for SW but makes RESULT FORMAT align with DATA FORMAT which is more consistent for TC/TP. Note these fields may go under an additional name change once the new MSAA registers had been consistency. Change 53367 on 2002/09/24 by mkelly@fl_mkelly_r400_win_laptop Log bug, rectangle list broken when CL clipping enabled and clipped Change 53361 on 2002/09/24 by georgev@ma_georgev Added PV to master document named...all in the name of consistency Change 53359 on 2002/09/24 by alleng@alleng_r400_win_marlboro Change 53162 on 2002/09/23 by jacarey@fl_jcarey_desktop Initial checkin of Performance Verification test plan... Clarifications to LCC and Set Constant Packet Change 53356 on 2002/09/24 by khabbari@khabbari_r400_win Change 53111 on 2002/09/23 by tshah@fl_tshah added HTOTAL BY 8 to the interface Only CPO DATA SWAP bit controls the CP PUSH * data swap Change 53347 on 2002/09/24 by frivas@FL_FRivas Change 53072 on 2002/09/23 by efong@efong_r400_win_tor_doc Update to HOS test description Updated Change 53280 on 2002/09/24 by jacarey@fl_jcarey_desktop Change 53056 on 2002/09/23 by jacarey@fl_jcarey_desktop

Add Fix2Flt_Reg PM4 Packet for Video Folks.

Change 53266 on 2002/09/24 by efong@efong r400 win tor doc

Change 53242 on 2002/09/24 by gabarca@gabarca_crayola_win_cvd

The Excel spreadsheet version of the R400 Regression milestones.doc

Page 163 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

PM4 Spec Update for Packet Add Opcode to pm4_it_opcodes New Unit Test Included

added blink sequence1 test

Documented ROP3's that are supported in R400 for 2D

Change 53020 on 2002/09/23 by imuskatb@imuskatb r400 win cnimuskatb

Change 53019 on 2002/09/23 by mkelly@fl mkelly r400 win laptop Poly Offset, 8 MSAA, HOS

Change 53007 on 2002/09/23 by jacarey@fl_jcarey_desktop

Page 164 of 441

Also implementing parts of RANDOM mode on address transactions... Update for oper=clrrepack function for Dst Type==2 Update sizes for physical memories. Change 52722 on 2002/09/20 by rbell@rbell crayola win cvd Change 52992 on 2002/09/23 by mpersaud@mpersaud_r400_win_tor Rev 0.7 Mahendra Persaud Added TV_CRTC_framestart_freq[1:0] port. Change 52648 on 2002/09/19 by csampayo@fl_csampayo_r400 Change 52951 on 2002/09/22 by rthambim@rthambim r400 win tor Added 1 new VGT event handling test and updated the test_list and test tracker Expanded the address width from MH to BIF Change 52615 on 2002/09/19 by mzhu@mzhu_crayola_win_tor Change 52950 on 2002/09/22 by rthambim@rthambim_r400_win_tor Update test plan for third milestone Added status signals. Change 52610 on 2002/09/19 by csampayo@fl_csampayo_lt_r400 Change 52949 on 2002/09/22 by rthambim@rthambim_r400_win_tor Included Multi-Function changes. Change 52551 on 2002/09/19 by rramsey@RRAMSEY_P4_r400_win Change 52866 on 2002/09/20 by csampayo@fl_csampayo_r400 Clean up RTS data in the SC Change sc_walker so that hw_scissor is passed down instead of recalculated in the walker Remove registry check for covered edge bias fix, it's always on now Added 2 new VGT tests and updated test_list and the test tracker accordingly Add covered edge bias fix to RTL (sc_pipe) Clean up some compile warnings in the qpp Add some documentation on line_stipple Change 52854 on 2002/09/20 by mzhu@mzhu crayola win tor Change 52843 on 2002/09/20 by gregs@gregs_r400_win_marlboro Change 52531 on 2002/09/19 by gabarca@gabarca crayola win cvd updated Change 52804 on 2002/09/20 by mkelly@fl mkelly r400 win lapton Change 52506 on 2002/09/19 by mkelly@fl mkelly r400 win laptop Log potential texture / baryc bug Cycle SC_SAMPLE_CNTL permutations with all primtypes Cycle MSAA, 192 packets Change 52794 on 2002/09/20 by mkelly@fl_mkelly_r400_win_laptop Change 52487 on 2002/09/19 by imuskatb@imuskatb_r400_win_cnimuskatb Review and update SC test validation tracking.. updated test list Change 52756 on 2002/09/20 by csampayo@fl_csampayo_lt_r400 Change 52482 on 2002/09/19 by mkelly@fl_mkelly_r400_win_laptop Primitive should be gouraud shaded, it is flat shaded.
Related to PARAM_GEN = true, CENTERS_ONLY, and SAMPLE_CENTER
If PARAM_GEN = false, gouraud shading works as expected. Change 52730 on 2002/09/20 by rherrick@ma_rherrick_crayola Implementing SWAP mode in parser through to client interface... Change all tests to include SWAP_NONE required field. Change 52475 on 2002/09/19 by gregs@gregs_r400_win_marlboro Page 165 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history added deafult values for rom_pads_reg Change 52324 on 2002/09/18 by jacarey@fl jcarey desktop Change 52449 on 2002/09/19 by kmahler@kmahler r400 doc lib Intrinsic function for unpacking colors to 8888 format Added Primlib documents to doc lib Change 52300 on 2002/09/18 by mkelly@fl_mkelly_r400_win_laptop Change 52431 on 2002/09/18 by gregs@gregs r400 win marlboro Cycle primitive types through all MSAA and JSS modes. It passes read_write test. Change 52295 on 2002/09/18 by nbarbier@nbarbier_r400_win_tor Change 52430 on 2002/09/18 by gregs@gregs r400 win marlboro Added DOUT 12C tests for M3. added note about auto-increment of index register Change 52294 on 2002/09/18 by jhoule@MA_JHOULE Change 52429 on 2002/09/18 by csampayo@fl_csampayo_r400 Adding it for Tien (he had problems) Added 5 new VGT prim tests and updated test list and test tracker accordingly Change 52268 on 2002/09/18 by csampayo@fl_csampayo_r400 Change 52426 on 2002/09/18 by gregs@gregs_r400_win_marlboro added ROM pads control register Change 52265 on 2002/09/18 by jacarey@fl_jcarey_desktop Change 52411 on 2002/09/18 by bryans@bryans_crayofa_doc Update for Alpha Color Defaults for RGB565 brush color format. Update for 09/16 Change 52257 on 2002/09/18 by rbell@rbell crayola win cvd Change 52401 on 2002/09/18 by imuskatb@imuskatb_r400_win_cnimuskatb updated test list and dates Change 52230 on 2002/09/18 by jacarey@fl_jcarey_desktop Change 52388 on 2002/09/18 by gregs@gregs_r400_win_marlboro $\label{lem:update} Update \ to \ SRC \ terms \ for \ small_text \ and \ hostdata_blt* \ packets \ (i.e.\ 32-bit\ SRC_OFFSET) \ Updated \ the \ fixed \ constants \ that \ are \ in \ the \ C7 \ vertex \ shader \ constant.$ fixed couple of bit fields XSTRAP2 register Change 52382 on 2002/09/18 by mdoggett@MA_MDOGGETT_LT Change 52229 on 2002/09/18 by jacarey@fl_jcarey_desktop

Change 52363 on 2002/09/18 by mzhu@mzhu cravola win tor

Change 52342 on 2002/09/18 by mkelly@fl mkelly r400 win laptop

Change 52334 on 2002/09/18 by mpersaud@mpersaud r400 win tor

Added vsync and hsync going to dac capture model

Add more description in 11.1.2 and 11.1.3 for double buffer in horizontal retrace

Page 167 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Update for 32-bit SRC_Offset term for Small_Text and HostData_Bit* packets Clarification for Foreground and Background Colors = Dst_Type format

Change 52226 on 2002/09/18 by efong@efong r400 win tor doc

Added in a whole bunch of visio diagrams for some of the models

Change 52221 on 2002/09/18 by jacarey@fl jcarey desktop

Update CP_STQ_AVAIL register fields

Change 52204 on 2002/09/18 by mkelly@fl_mkelly_r400_win_laptop

Page 168 of 441

RB asserts when polygon with MSAA = 0,1,2,3 followed Change 52020 on 2002/09/17 by chwang@chwang_doc_r400_win_cvd by point list MSAA = 5. If polygon MSAA = 5 or 7 the test completes as expected. Update Change 52018 on 2002/09/17 by csampayo@fl_csampayo_r400 \$/r400/devel/test_list/src/chip/gfx/pa/bugs make r400sc_sp_sample_cntl_08_bug.emu Housekeeping update $Assertion\ failed: (coverage\&errmask) == 0,\ file\ ././././emu_lib/model/gfx/rb/rb_color_model.cpp,\ line\ 334$ Change 52009 on 2002/09/17 by mdoggett@MA_MDOGGETT_LT make[2]: [run_emu] Error 3 (ignored) Added L2 Block Offsets Change 52182 on 2002/09/17 by nbarbier@nbarbier_r400_win_tor Change 51990 on 2002/09/17 by frivas@FL_FRivas Updated DAC, TMDS & DVO sections for M3 requirements. Update to status of a HOS test Change 52181 on 2002/09/17 by csampayo@fl_csampayo_r400 Change 51904 on 2002/09/16 by sbagshaw@sbagshaw Housekeeping update R400 Test Debug Bus for Toronto Crayola blocks Change 52180 on 2002/09/17 by csampayo@fl_csampayo_r400 Change 51897 on 2002/09/16 by csampayo@fl csampayo r400 Added 4 new VGT prim tests and updated test_list and the test tracker accordingly. Added 3 new VGT prim tests and updated test_list and the test tracker accordingly. Change 52165 on 2002/09/17 by sbagshaw@sbagshaw Change 51864 on 2002/09/16 by mpersaud@mpersaud r400 win tor modified to add additional details to one-shot mode renamed all of the registers to have a DC_ prefix Added Q_DCCIF_W256ONLY and Q_DCCIF_WC_TIMEOUT[5:0] to interface Change 51792 on 2002/09/16 by frising@ma frising Change 52045 on 2002/09/17 by kevino@kevino r400 win marlboro V.1.32

-MSAA_NUM_SAMPLES now replaces ARBITRARY_FILTER in FetchMultiSample constant. Users will be expected to set ARBITRARY_FILTER via the instruction when/if tcfux for texture offsets (sample shift) Change 52031 on 2002/09/17 by vgoel@fl vgoel2 needed. Use of constant value for this case will be undefined (and will likely result in MSAA_NUM_SAMPLES being used). Change 51786 on 2002/09/16 by kmahler@kmahler_r400_doc_lib Change 52030 on 2002/09/17 by imuskatb@imuskatb r400 win cnimuskatb Added description for using Control Flow Boolean Constants and Control Flow Loop Change 52025 on 2002/09/17 by smoss@smoss crayola win Change 51784 on 2002/09/16 by kmahler@kmahler r400 doc lib Changed format of Fetch Instruction that only perform "Set" type operations by removing the destination operand and the 'base' source operand (the constant register operand). bug in primlib Change 52024 on 2002/09/17 by rfevreau@rfevreau_r400_win Added the following syntax changes: Updates Page 169 of 441 Page 170 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Predicate stack as a destination operand cannot be an export register, thus all predicate setting operation must have a GPR as the destination. Adjust Registers for Visibility 2) Predicate setting operations CANNOT specify clamp, negate and absolute modifiers. Change 51430 on 2002/09/13 by vgoel@fl_vgoel2 3) Kill operations CANNOT specify CLAMP. updated bugs which are resolved 4) ALU instructions that export to Position, Color, or Fog cannot be predicated. Change 51331 on 2002/09/13 by gregs@gregs r400 win marlboro 5) KILL, MOVA, and PRED_SET type instructions may not be coissued with each other. < SDI and SDP swapped > Change 51314 on 2002/09/13 by jacarey@fl_jcarey_desktop $Added\ restriction\ that\ the\ shader\ program\ cannot\ use\ the\ Address\ Register\ Relative\ Mode\ within\ an\ exec_end\ or\ a\ exec_end\ low-level\ control\ flow\ instruction.$ Removed ROP=0xCC note from PM4 spec for brush types 0x6 and 0x7 Change 51767 on 2002/09/16 by mkelly@fl_mkelly_r400_win_laptop Change 51233 on 2002/09/12 by vgoel@fl vgoel2 Update added bug 365, PA hanging if vertex export is enabled. Change 51748 on 2002/09/16 by mkelly@fl_mkelly_r400_win_laptop Change 51228 on 2002/09/12 by whui@whui r400 win tor update idet status Change 51741 on 2002/09/16 by vgoel@fl_vgoel2 Change 51201 on 2002/09/12 by csampayo@fl_csampayo_r400 added potential bug with dumpview in displaying output of test with high tessellation Added 5 new VGT provoking vtx tests
 Updated test_list and test tracker Change 51672 on 2002/09/15 by gregs@laptop1 Change 51196 on 2002/09/12 by imuskatb@imuskatb r400 win cnimuskatb < added comments about TST CG test sel signal > updated test after picasso change Change 51561 on 2002/09/13 by gregs@gregs_r400_win_marlboro Change 51090 on 2002/09/12 by mkelly@fl_mkelly_r400_win_laptop Friday update Update Change 51495 on 2002/09/13 by mkelly@fl_mkelly_r400_win_laptop Change 51069 on 2002/09/12 by jacarey@fl_jcarey_desktop Update Update for oper=gmcdecode: Brush Type 0x6 and 0x7 set bit 15 of result Change 51490 on 2002/09/13 by csampayo@fl_csampayo_lt_r400 Change 51068 on 2002/09/12 by jacarey@fl_jcarey_desktop Added to test_list and updated status for test:

r400vgt_multi_prim_reset_index_all_01
Change 51449 on 2002/09/13 by gregs@gregs_r400_win_marlboro

Change 51438 on 2002/09/13 by jacarey@fl_jcarey_desktop

Page 171 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

<minor updates>

AMD1044 0258138

32x1 Brush Types are not converted to 32bpp by the CP

Page 172 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 51044 on 2002/09/12 by rbell@rbell_crayola_win_cvd

Change 51003 on 2002/09/12 by jowang@jowang_R400_win

updated

add large v downscale case to debug

Change 51001 on 2002/09/12 by jowang@jowang_R400_win

added debug scaling tests

Change 50985 on 2002/09/12 by mzhu@mzhu_crayola_win_tor

Update STEREOSYNC algorithm

Change 50910 on 2002/09/11 by gregs@gregs_r400_win_marlboro

Change 50873 on 2002/09/11 by efong@efong_r400_win_tor_doc

Change 50836 on 2002/09/11 by kmahler@kmahler_r400_doc_lib

Made the following changes:

1) Removed ALL references of clauses

2) Moved Texture Instrution definitions from chapter 3 into Appendix.

3) Removed remaining portion of Chapter 3, since the information was duplicated in Chapter 4. Chapter 4 is now chapter 3.

4) Made major revisions to Chapter 8 "Programming Syntax And Usage".

- Re-ordered sections to improve flow
- Undated the low-level control flow syntax

- Option and the most provided in the syntax.
 Added details for the mid-level control flow syntax.
 Updated predication instruction syntax and description.
 Removed previous vector and previous scalar syntax from ALU source operands.

- Enhanced register indexing.
 Updated ALU instruction syntax to properly describe vector and scalar operations that do not conform to the general syntax; mova type, kill type, and predicate setting type operations
 Corrected the usage of 'instruction' where 'operation' was meant in the description of
- ALU instructions.
 - 5) Removed chapter 10 "Program text file format" since it was redundent information
 - Made minor enhancements to descriptions.

7) Added Cross-References where appropriate and started using a standard for these

Page 173 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

see section header number: "header text" on page #

This allows hardcopy readers the ability to easily locate a reference (see section 8.4.2.3.1:"Vector Operations" on page 38 for an example).

8) Modified the Appendix:

- Removed the following due to duplication
- Syntax Reference.
- Control Flow from Instruction Reference.
- Moved BNF further down
- Revised Instruction Reference.
 Updated examples to mid-level syntax.

Change 50802 on 2002/09/11 by jcox@jcox_r400_win

Moving to r400/web directory

Change 50800 on 2002/09/11 by jcox@jcox_r400_win

Initial Checkin of R400 Web

Change 50799 on 2002/09/11 by mkelly@fl mkelly r400 win laptop

Change 50758 on 2002/09/11 by csampayo@fl_csampayo_r400

Some housekeeping updates

Change 50728 on 2002/09/11 by mkelly@fl_mkelly_r400_win_laptop

Logged sq dump bug for record keeping

Change 50722 on 2002/09/11 by rfevreau@rfevreau_r400_win

Test #7

Change 50707 on 2002/09/11 by mkelly@fl_mkelly_r400_win_laptop

Simple triangle, polymode back face tri fill

Change 50647 on 2002/09/10 by gregs@gregs_r400_win_marlboro

update (only 3 ERRORs in build_io.log)

Change 50632 on 2002/09/10 by smoss@smoss crayola win

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 50623 on 2002/09/10 by smoss@smoss crayola win

Change 50615 on 2002/09/10 by rbell@rbell crayola win cvd

updated

Change 50605 on 2002/09/10 by subad@MA SUBA

Updated Area numbers of TCD with the new code

Change 50578 on 2002/09/10 by jacarey@fl_jcarey_desktop

Update POLYLINE pseudocode.

Change 50566 on 2002/09/10 by grayc@grayc_r400_win

added minutes for last two meetings

Change 50539 on 2002/09/10 by mkelly@fl_mkelly_r400_win_laptop

Updates..

Change 50485 on 2002/09/10 by csampayo@fl_csampayo_r400

Format update

Change 50456 on 2002/09/10 by llefebvr@llefebvre_laptop_r400

New spin of the SQ spec including some interface changes and auto-counter architectural changes (for multipass pixel/vertex shaders).

Change 50441 on 2002/09/10 by jimmylau@jimmylau_r400_win_tor

Minor changes in CRTC testplan document

Change 50413 on 2002/09/10 by jacarey@fl_jcarey_desktop

Added Cache_Flush_and_Invalidate_TS to Event_TimeStamp_Write packet

Change 50403 on 2002/09/10 by jacarey@fl_jcarey_desktop

Add Result Reuse to Diagram

Change 50398 on 2002/09/10 by jacarey@fl_jcarey_desktop

Page 175 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Update Indice count for Polyline packet

Change 50347 on 2002/09/09 by csampayo@fl_csampayo_r400

- 1. Added SU multi-context test
- 2. Updated test_list and test tracker accordingly

Change 50340 on 2002/09/09 by gabarca@gabarca_crayola_win_cvd

updated after meeting

Change 50339 on 2002/09/09 by gregs@gregs_r400_win_marlboro

Change 50332 on 2002/09/09 by gabarca@gabarca_crayola_win_cvd

added timing for each VGA mode

Change 50326 on 2002/09/09 by nbarbier@nbarbier r400 win tor

Updated DVO specs.

Change 50296 on 2002/09/09 by hartogs@fl_hartogs

Added section on determining the required amount of input data based on the draw Added section on occurring the region initiator and the grouper registers.

Added section on sanity checks for programming the grouper in major mode 1.

Change 50249 on 2002/09/09 by vgoel@fl vgoel2

closed bug issue for PNTQL

Change 50246 on 2002/09/09 by mzhu@mzhu_crayola_win_tor

Update ICON and CURSOR X2 magnification algorithm.

Change 50213 on 2002/09/09 by frising@ma frising

-Add in 32-bit clear color to texture constant layout for FetchMultiSample.

This involved replacing CLAMP_Z (which did nothing for FetchMultiSample) with FILTER_FUNCTION. Note that FILTER_FUNCTION is 3 bits (from 6).

Drivers will be required to do a resolve pass when using fast color clear for multisample render targets > 32 bits prior to a multisampe fetch. Currently we only have one such format

Page 176 of 441

In the future (r[v]450?), it may be desireable to fetch individual samples into the shader Updated to give more3 detail about which tests need to be covered for which text pipe. This might be accomplished by a FILTER_FUNCTION opcode that usurps the clear color bits. In this case (low performance anyways) a fast color expand might always be required. But again, this has not yet be designed and is future looking... dimensions Change 50014 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop Change 50206 on 2002/09/09 by smoss@smoss_crayola_win Initial check of sc sample control for centers and centroids in the sc sp Change 50011 on 2002/09/06 by mzhu@mzhu_crayola_win_tor Change 50185 on 2002/09/09 by imuskatb@imuskatb_r400_win_cnimuskatb Date: September 6, 2002 Add more description for LUT BLACK OFFSET and WHITE OFFSET in chapter 11.8 Change icon mix algorithm for data clamping in chapter 11.14 Change cursor mix algorithm for data clamping in chapter 11.16 change test to crtc2 updated test list Change 50184 on 2002/09/09 by imuskatb@imuskatb r400 win cnimuskatb Change 49997 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop Update new stipple tests Change 50171 on 2002/09/09 by efong@efong_r400_win_tor_doc Change 49994 on 2002/09/06 by jacarey@fl_jcarey_desktop Updated Correct booleans again for transbitblt Change 50160 on 2002/09/09 by chwang@chwang_doc_r400_win_cvd Change 49991 on 2002/09/06 by jacarey@fl_jcarey_desktop Undate boolean settings for Change 50156 on 2002/09/09 by csampayo@fl_csampayo_r400 Change 49986 on 2002/09/06 by gabarca@gabarca_crayola_win_cvd Updated status for bug# 48 updated after meeting Change 50147 on 2002/09/09 by mzhu@mzhu_crayola_win_tor Change 49983 on 2002/09/06 by rbell@rbell_crayola_win_cvd Update STEREOSYNC algorithm updated for review Change 50142 on 2002/09/09 by grayc@grayc_r400_win Change 49982 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop update to add cp functions for mti_pli.dll compile Update Change 50127 on 2002/09/09 by efong@efong_r400_win_tor_doc Change 49952 on 2002/09/06 by rbell@rbell crayola win cvd updated list (all tests should be done now)! Change 50052 on 2002/09/06 by gregs@gregs_r400_win_marlboro Change 49943 on 2002/09/06 by vgoel@fl vgoel2 io internal.v ready - memory connection missing Change 50032 on 2002/09/06 by kevino@kevino_r400_win_marlboro Change 49938 on 2002/09/06 by csampayo@fl csampayo r400 Updated Viz Query controls. Updated test status Page 177 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 49786 on 2002/09/05 by askende@andi_r400_docs Change 49903 on 2002/09/06 by mkelly@fl mkelly r400 win laptop new rev. 1.7 Update with msaa tests from vesterday Change 49760 on 2002/09/05 by kcorrell@kcorrell_r400_docs_marlboro_nb Change 49888 on 2002/09/06 by jacarey@fl_jcarey_desktop updated version - submitted now to update gart documentation Change 49722 on 2002/09/05 by frivas@FL_FRivas Change 49883 on 2002/09/06 by jacarey@fl jcarey desktop Added two HOS tests (Tri-Patch and Line-Patch) Change 49717 on 2002/09/05 by llefebvr@llefebvre_laptop_r400 Change 49873 on 2002/09/05 by gabarca@gabarca_crayola_win_cvd updated disp doc Change 49704 on 2002/09/05 by mkelly@fl mkelly r400 win laptop Change 49860 on 2002/09/05 by csampayo@fl_csampayo_r400 Log a local sc bug Change 49698 on 2002/09/05 by bbuchner@fl bbuchner r400 win Added bug#47 Change 49850 on 2002/09/05 by vgoel@fl_vgoel2 updated spec to match changes made for TE timing Change 49695 on 2002/09/05 by mkelly@fl mkelly r400 win laptop added bugzill bug 337 Change 49832 on 2002/09/05 by csampayo@fl_csampayo_r400 Added and closed bug# 45 Change 49681 on 2002/09/05 by rbell@rbell crayola win cvd Change 49828 on 2002/09/05 by mpersaud@mpersaud_r400_win_tor Added CSC tests, and updated LUT list (gamma 2.5 fill) Change 49595 on 2002/09/04 by csampayo@fl_csampayo_r400 Updated interface and top level diagram net names to match code. Change 49822 on 2002/09/05 by csampayo@fl_csampayo_r400 Added bug test case
 Updated bug# 43 on Bug Tracker Added 1 new VGT test for event handling
 Updated test_list and test tracker accordingly Change 49594 on 2002/09/04 by vgoel@fl vgoel2 Change 49810 on 2002/09/05 by frising@ma_frising added bug 32 to bugzilla (bug 333)

-Remove FMASK BASE from FetchMultiSample constant. Larry tells me this is now

Page 179 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

encoded at a fixed offset from COLORO BASE.

Added a HOS Tri-Patch test.

Change 49802 on 2002/09/05 by frivas@FL_FRivas

Page 180 of 441

Change 49574 on 2002/09/04 by smoss@smoss_crayola_win

Change 49572 on 2002/09/04 by efong@efong_r400_win_tor_doc

SII test

Initial version

Update for new regression times Change 49340 on 2002/09/03 by efong@efong r400 win tor doc Change 49562 on 2002/09/04 by bbuchner@fl_bbuchner_r400_win Updated to the last review removed unused interfaces Change 49336 on 2002/09/03 by bryans@bryans_crayola_doc fixed output unit data types for don't care data. Change 49547 on 2002/09/04 by mkelly@fl_mkelly_r400_win_laptop Change 49332 on 2002/09/03 by vliu@vliu r400 cnvliu100 win cvd Update to be current with Bugzilla Change 49546 on 2002/09/04 by rfevreau@rfevreau_r400_win Change 49306 on 2002/09/03 by imuskatb@imuskatb r400 win cnimuskatb Change 49543 on 2002/09/04 by jowang@jowang_R400_win Change 49296 on 2002/09/03 by jhoule@MA_JHOULE updated with testcase names Bringing back the PostJune15 into official location Version is 1.49 Change 49525 on 2002/09/04 by mkelly@fl_mkelly_r400_win_laptop Change 49290 on 2002/09/03 by jhoule@MA_JHOULE Change test name, update tracker... Renamed SAMPLE_POSITION to SAMPLE_LOCATION in TFetchInstr. Helps to reduce confusion with TP loops (esp. anisotropy walk taking point/bilinear/arbitrary samples at different positions). Change 49479 on 2002/09/04 by mpersaud@mpersaud_r400_win_tor Updated interface and top level diagram to reflect removal of hdslewfilt and addition of Change 49285 on 2002/09/03 by gregs@gregs_r400_win_marlboro Change 49477 on 2002/09/04 by jacarey@fl_jcarey2 Update ROM/CG/CGM/DBG Clarified Brush Expansion Change 49282 on 2002/09/03 by chwang@chwang_doc_r400_win_cvd Change 49462 on 2002/09/04 by bryans@bryans_crayola_doc Update as per status meeting Change 49267 on 2002/09/03 by efong@efong_r400_win_tor_doc Change 49417 on 2002/09/03 by gabarca@gabarca_crayola_win_cvd Finished cleaning up the test plan and gave a name to each test Change 49244 on 2002/09/03 by llefebyr@llefebyre laptop r400 Change 49374 on 2002/09/03 by mmantor@mmantor_r400_win added sc output of centers and xy data. Also passed the xy data on the ij bus between the SC and SQChange 49234 on 2002/09/02 by gabarca@gabarca_crayola_win_cvd Change 49354 on 2002/09/03 by mkelly@fl_mkelly_r400_win_laptop undated Page 181 of 441 Page 182 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 49232 on 2002/09/02 by askende@andi_r400_docs Potential bug in line texturing/window scissor fixed a typo on MUL PREV2 Change 48962 on 2002/08/30 by jacarey@fl_jcarey_desktop Change 49141 on 2002/08/31 by askende@andi_r400_docs Removed StatMux Connections from Visio Diagram new rev of the spec ...rev.1.6 The connections are listed in the CP Spec Change 49139 on 2002/08/30 by gabarca@gabarca_crayola_win_cvd Change 48937 on 2002/08/29 by gabarca@gabarca_crayola_win_cvd updated test names assigned test names except render graphics text display Change 49133 on 2002/08/30 by csampayo@fl_csampayo_r400 Change 48903 on 2002/08/29 by khabbari@khabbari r400 win Revised tests requirements for VGT and SU added urgency signal to lb/dcp interface Change 49074 on 2002/08/30 by csampayo@fl_csampayo_r400 Change 48900 on 2002/08/29 by jacarey@fl_jcarey_desktop Closed bug# 24 Updates for controlling queued vs. non-queued transactions from micro engine. Change 49072 on 2002/08/30 by rfevreau@rfevreau_r400_win Change 48890 on 2002/08/29 by jayw@MA JAYW Updated to documentation first try at fragment surface addresses and formats Change 49066 on 2002/08/30 by csampayo@fl_csampayo_r400 Change 48888 on 2002/08/29 by jacarey@fl jcarey desktop Updated status for the following tests: r400vgt_suppress_eop_01 r400vgt_suppress_eop_02 Update sign extension note for the PLY_NEXTSCAN packet. Change 48882 on 2002/08/29 by gregs@gregs r400 win marlboro r400vgt_suppress_eop_03 r400vgt_suppress_eop_04 <pad-ring in progress> Change 49055 on 2002/08/30 by khabbari@khabbari_r400_win Change 48874 on 2002/08/29 by lkang@lkang_r400_win_tor added start phase update Change 48865 on 2002/08/29 by mkelly@fl_mkelly_r400_win_laptop Change 49040 on 2002/08/30 by grayc@grayc_r400_win * Basic multi-texture tests added initial notes for running a chip level graphic tests *16 parameter, 64 dword texture test
*Expand VFD to handle up to 16 textures,
see r400sc_tri_16_par_64_dwords_01.cpp for example useage Change 49017 on 2002/08/30 by jayw@MA_JAYW added 3d addressing to tile address Change 48858 on 2002/08/29 by rbell@rbell crayola win cvd Change 48997 on 2002/08/30 by mzhu@mzhu_r400_win_tor Finished more D2 tests Update chapter 10.6 - 10.12 Change 48839 on 2002/08/29 by llefebvr@llefebvre laptop r400 Change 48971 on 2002/08/30 by mkelly@fl_mkelly_r400_win_laptop Page 183 of 441 Page 184 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Initial check of MSAA centermost determination.

Change 49564 on 2002/09/04 by bryans@bryans_crayola_doc

Remove direct access to the Ib1 and Ib2 base/size fetchers Updated the ATTR PPAN =8, 8 dot case Change 48824 on 2002/08/29 by jacarey@fl jcarey desktop Change 48669 on 2002/08/28 by jowang@jowang R400 win Clarification for memory usage for Brush and Palette Change 48814 on 2002/08/29 by mdoggett@MA MDOGGETT LT Change 48668 on 2002/08/28 by jayw@MA_JAYW $\label{lock} Up dated \ L2\ formats\ table.\ Added\ L2\ sector\ address\ maps.\ Started\ adding\ new\ L1\ block\ offset\ calcs\ per\ format.$ frag in progress Change 48649 on 2002/08/28 by vgoel@fl vgoel2 Change 48813 on 2002/08/29 by kevino@kevino r400 win marlboro entered non-reported bug reports to bugzilla and entered their bug number Change 48638 on 2002/08/28 by vgoel@fl_vgoel2 Change 48810 on 2002/08/29 by efong@efong r400 win tor doc added few more tests (hos and tone mapping, stereo vision) Updated Change 48623 on 2002/08/28 by jacarey@fl_jcarey2 Change 48805 on 2002/08/29 by frivas@FL_FRivas Mono Brush Unpacking Update to HOS section for new RECT patch tests Change 48596 on 2002/08/28 by khabbari@khabbari_r400_win Change 48786 on 2002/08/29 by jacarey@fl_jcarey2 tyout spec for standard ty released Micro Engine Updates for NQ Flag Change 48557 on 2002/08/28 by imuskatb@imuskatb_r400_win_cnimuskatb Change 48778 on 2002/08/29 by jacarey@fl_jcarey2 fixed contorl signal crc calculation Add NQ Flag Processing... updated quick_dac added hpd to API Change 48768 on 2002/08/29 by csampayo@fl_csampayo_r400 Change 48547 on 2002/08/28 by georgev@ma_georgev Updated description for the following tests: r400vgt_multi_context_04 r400vgt_multi_context_05 r400vgt_multi_context_06 Better support for floats and ints in range r400vgt multi context 07 Change 48537 on 2002/08/28 by mkelly@fl mkelly r400 win laptop r400vgt_multi_context_08 r400vgt_multi_context_09 r400vgt_multi_context_10 r400vgt_multi_context_11 JSS 4x4 simple triangle Change 48505 on 2002/08/28 by rbell@rbell_crayola_win_cvd Change 48756 on 2002/08/29 by rbell@rbell crayola win cvd undates Page 186 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history update for 8/23/2002 minutes Change 48487 on 2002/08/28 by ashishs@fl_ashishs_r400_win CL tests: adding more UCP combo tests and updating tracker. Change 48341 on 2002/08/27 by jacarey@fl jcarey2 Change 48463 on 2002/08/28 by jacarey@fl_jcarey_desktop Final Update from Joe Change 48327 on 2002/08/27 by ygiang@ygiang_r400_win_marlboro_p4 Miscellaneous Spec Updates Comments in Microcode for 2D Processing added: more sp tests Change 48462 on 2002/08/28 by jacarey@fl_jcarey_desktop Change 48323 on 2002/08/27 by jacarey@fl_jcarey2 Add B19 Boolean and Remove SRC SC BOTTOM RIGHT GMC default value Update Foreground and Background Color Processing Change 48429 on 2002/08/27 by tshah@fl_tshah Change 48322 on 2002/08/27 by ashishs@fl_ashishs_r400_win performance counters added with document changes update Change 48421 on 2002/08/27 by ashishs@fl_ashishs_r400_win Change 48290 on 2002/08/27 by jacarey@fl_jcarey2 opened bug r400cl bary texture 08 bug.cpp again and modified desciption. Correction to CP STAT Change 48419 on 2002/08/27 by vgoel@fl_vgoel2 Change 48289 on 2002/08/27 by bryans@bryans_crayola_doc Update status Change 48414 on 2002/08/27 by ashishs@fl ashishs r400 win Change 48284 on 2002/08/27 by gregs@gregs_r400_win_marlboro deleted a redundant row related with the bug test r400cl_bary_texture_08_bug.cpp < fixed PLL post divider control registers > Change 48409 on 2002/08/27 by ashishs@fl ashishs r400 win Change 48283 on 2002/08/27 by jacarey@fl jcarey2 deleted a redundant row related with the bug test r400cl_bary_texture_08_bug.cpp Update CP_STAT register bits Change 48406 on 2002/08/27 by gregs@gregs_r400_win_marlboro Change 48267 on 2002/08/27 by jacarey@fl jcarey2 Based onb RV350 design - R400 package definition (FC BGA pinout done (first Add Boolean 19 (Misc Command) Change 48266 on 2002/08/27 by jacarey@fl jcarey2 Change 48402 on 2002/08/27 by csampayo@fl_csampayo_r400 Updated test VFD for sourcing tex coord from vertex
 Updated Bug Tracker accordingly More Updates Change 48264 on 2002/08/27 by csampayo@fl csampayo r400 Change 48389 on 2002/08/27 by mzhu@mzhu r400 win tor Bug test case Update description for overlay gamma correction Change 48259 on 2002/08/27 by csampayo@fl csampayo r400 Change 48371 on 2002/08/27 by grayc@grayc_r400_win 1. Added 1 new SU point sprite test Page 187 of 441 Page 188 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

finished premultiplied alpha, some date changes

Change 48677 on 2002/08/28 by gabarca@gabarca crayola win cvd

Updated the SQ->SP interface. Added comment on the Constant load bus.

Change 48832 on 2002/08/29 by jacarey@fl jcarey desktop

Change 48244 on 2002/08/27 by tshah@fl tshah Change 48144 on 2002/08/26 by csampayo@fl_csampayo_r400 rbbm interrupt logic and few changes in documentation Expanded format to include Bugzilla report# and, sorted by date Change 48235 on 2002/08/27 by jimmylau@jimmylau_r400_win_tor Change 48123 on 2002/08/26 by efong@efong_r400_win_tor_doc Update CRTC implementation specs : update section on forcing H_COUNT & V_COUNT Updated with the chip level archs and configs Change 48226 on 2002/08/27 by bryans@bryans_crayola_doc Change 48097 on 2002/08/26 by nbarbier@nbarbier r400 win tor Update for arch/arch_<archname>.h change Change 48223 on 2002/08/27 by jacarey@fl_jcarey2 Change 48096 on 2002/08/26 by mkelly@fl_mkelly_r400_win_laptop Updated Small Text Utility Change 48218 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop Change 48092 on 2002/08/26 by llefebvr@llefebvre laptop r400 Added the new SQ->SP instruction interface. Change 48210 on 2002/08/27 by jacarey@fl_jcarey2 Change 48070 on 2002/08/26 by efong@efong r400 win tor doc Utility to generate small_text characters. Change 48187 on 2002/08/26 by georgev@ma_georgev Change 48064 on 2002/08/26 by chwang@chwang_doc_r400_win_cvd Added a few more comments. Update Change 48184 on 2002/08/26 by gabarca@gabarca_crayola_win_cvd Change 48060 on 2002/08/26 by imuskatb@imuskatb_r400_win_cnimuskatb added actual VESA mode test Change 48183 on 2002/08/26 by gabarca@gabarca_crayola_win_cvd Change 48051 on 2002/08/26 by vliu@vliu r400 cnvliu100 win cvd detailed VESA modes Update Change 48179 on 2002/08/26 by rbell@rbell_crayola_win_cvd Change 48043 on 2002/08/26 by rbell@rbell_crayola_win_cvd Updated schedule (lut bypass, d2 tests). updated Change 48168 on 2002/08/26 by gregs@gregs_r400_win_marlboro Change 48042 on 2002/08/26 by ashishs@fl_ashishs_r400_win Change 48155 on 2002/08/26 by mmantor@mmantor r400 win Change 48039 on 2002/08/26 by mkelly@fl mkelly r400 win laptop Page 190 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Memory crash when shader file doesn't exist. changed mono_reg_test name with mono_and_memory_mapped_reg_test Change 47927 on 2002/08/23 by gabarca@gabarca_crayola_win_cvd Change 48035 on 2002/08/26 by rfevreau@rfevreau_r400_win updated test plan Change 48028 on 2002/08/26 by tshah@fl tshah Change 47906 on 2002/08/23 by mzhu@mzhu r400 win tor Add CRTC Event Trigger Signal Generation
Add Force V_COUNT, H_COUNT and field polarity now
Add Force H_COUNT now more description for rbbm_int_* registers for reset condition Change 48021 on 2002/08/26 by mkelly@fl mkelly r400 win laptop Update StereoSync Textured line where ST are exported directly to RGBA to visulize texture coordinates in color. Current there is a bug in the LLC quad pixel ST value when the primitive is Update digital TV timing Re-order chapter 10.6 - 10.10 not quad-aligned. Change 47895 on 2002/08/23 by mkelly@fl mkelly r400 win laptop Change 48009 on 2002/08/26 by rfevreau@rfevreau r400 win * Line list, start vertex at -8190 in HW space, clipped at -4096 Screen Space * Line list, textured Change 47998 on 2002/08/26 by kevino@kevino_r400_win_marlboro Change 47874 on 2002/08/23 by frising@ma frising -remove statement about always using centrood sampling with jittered super-sampling. We may give meaning to both. No version bump. changed "L2 filter no grouping" to "64 unique probe addresses" Change 47985 on 2002/08/26 by efong@efong_r400_win_tor_doc Change 47867 on 2002/08/23 by frising@ma frising New version of it after review -Added SAMPLE POSITION to texture instruction. Change 47982 on 2002/08/26 by efong@efong r400 win tor doc Specifies sampling position for gradient/LOD correction. Centroid of fragment should always be used with littered super-sampling.

0-Centroid of fragment Deleted User Simulation Model Guide because renamed to VideoIp User Simulation 1=Center of fragment Change 47981 on 2002/08/26 by efong@efong_r400_win_tor_doc Change 47781 on 2002/08/23 by rbell@rbell_crayola_win_cvd Changed name from the R400 User Simulation Model guide to VideoIP Some D2 updates Change 47968 on 2002/08/25 by gabarca@gabarca_crayola_win_cvd Change 47777 on 2002/08/23 by rbell@rbell crayola win cvd updated list of tests Completed B&W offset tests Change 47967 on 2002/08/25 by csampayo@fl_csampayo_r400 Change 47775 on 2002/08/23 by kevino@kevino r400 win marlboro Added 1 new SU point sprite tests
 Updated test_list and the test tracker accordingly Change 47954 on 2002/08/25 by gabarca@gabarca_crayola_win_cvd Change 47774 on 2002/08/23 by omesh@ma omesh Page 191 of 441 Page 192 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

updated 1st clk transfer of the sc to sq interface to define quad mask bits in the correct

hardware/emulator order sp3 => sp0

2. Updated test_list and test tracker accordingly

An upto date spreadsheet with accurate numbers showing RB directed tests status. This 1. Added 10 new VGT multi-context tests does not yet include tests for Gamma/Degamma and I also think Frank may need to update his 2. Updated test list and the test tracker accordingly Change 47768 on 2002/08/23 by kevino@kevino_r400_win_marlboro Change 47517 on 2002/08/22 by dglen@dglen_r400_dell 1st cut at TP verification xls Added CRTC snapshot description Change 47743 on 2002/08/23 by csampayo@fl_csampayo_r400 Change 47509 on 2002/08/22 by mpersaud@mpersaud_r400_win_tor Removed some signals between dispout, crtc and the tvout.

Added interface with DCCG Update format Change 47741 on 2002/08/23 by vgoel@fl_vgoel2 Change 47491 on 2002/08/22 by mkelly@fl_mkelly_r400_win_laptop closed bug 6 and added bug 14 Add two test descriptions, update comments in test Change 47720 on 2002/08/23 by ygiang@ygiang_r400_win_marlboro_p4 Change 47461 on 2002/08/21 by csampayo@fl_csampayo_r400 update Updated for new vgt tests Change 47717 on 2002/08/23 by mkelly@fl_mkelly_r400_win_laptop Change 47454 on 2002/08/21 by ashishs@fl_ashishs_r400_win Simple single line list CL test:r400cl ucp pointlist 01 Conservation approximately and burgs enabled with point size set in PA_SU state register and also in PA_CL_POINT registers for clipping. Point Sprite UCP mode set to '3' viz. always expand and clip. Change 47687 on 2002/08/22 by efong@efong_r400_win_tor_doc Change 47632 on 2002/08/22 by vliu@vliu r400 cnvliu100 win cvd Change 47447 on 2002/08/21 by efong@efong r400 win tor doc Fixed colour space Excel sheet updated Change 47434 on 2002/08/21 by dglen@dglen_r400_dell Change 47601 on 2002/08/22 by mzhu@mzhu r400 win tor Add 64bpp digital output format Change in section 7.7 Change 47595 on 2002/08/22 by tshah@fl_tshah Change 47424 on 2002/08/21 by rbell@rbell_crayola_win_cvd typo fix for real time busy equation page-29 Updated for blending tests Change 47579 on 2002/08/22 by dglen@dglen_r400_dell Change 47411 on 2002/08/21 by gregs@gregs_r400_win_marlboro <display names changes update ++> Change 47535 on 2002/08/22 by vgoel@fl vgoel2 Change 47344 on 2002/08/21 by vgoel@fl vgoel2 updated status of bug reports added issue related with loading floating point texture image in local tone-mapping Change 47522 on 2002/08/22 by csampayo@fl_csampayo_r400 Change 47336 on 2002/08/21 by askende@andi_r400_docs Page 193 of 441 Page 194 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history modified the instruction interface from SQ to SP update DxGRPH register double buffer with STEREO SELECT Change 47324 on 2002/08/21 by vgoel@fl vgoel2 Change 47131 on 2002/08/20 by frising@ma_frising vertex export bug related with number of position exports -Updated descriptions of get opcodes. Most notably specified that GetWeights now returns a horizontal and vertical lerp factor.

-Specified that the DATA_FORMAT field in texture constant can use any of the data formats in the DATA_FORMAT table while the cooresponding field in the vertex instruction Change 47305 on 2002/08/21 by jimmylau@jimmylau_r400_win_tor Make changes to CRTC Controller Implementation specs can only use data formats valid for vertex data (also documented in DATA FORMAT table) modify sections on : Generation of V_UPDATE add sections on : CRTC_BLACK_COLOR disable CRTC in a safe place within the frame force VSYNC next line mode digital TV timings Change 47120 on 2002/08/20 by mzhu@mzhu_r400_win_tor Update test plan for third milestone sample CRTC counts CRTC snapshots CRTC flow control Change 47113 on 2002/08/20 by rbell@rbell crayola win cvd Completed alpha mode 2 tests Change 47242 on 2002/08/21 by jacarey@fl_jcarey_desktop Change 47111 on 2002/08/20 by mpersaud@mpersaud r400 win tor Document Brush Decode Idle boolear Updated interface diagram and added hd slew filter as its own block Change 47232 on 2002/08/21 by jacarey@fl_jcarey_desktop Change 47099 on 2002/08/20 by mzhu@mzhu r400 win tor Clarify clearing of 2D Allocation Flags
 Added Brush_Decode_Busy boolean as bit 19... Add test plan for third milestone. Update black/white offset tests Change 47229 on 2002/08/21 by vgoel@fl vgoel2 Change 47065 on 2002/08/20 by mzhu@mzhu r400 win tor added bug report for vertex export instruction em0 Add LUT floating point data process, update DxGRPH register double buffer with STEREO_SELECT Change 47219 on 2002/08/21 by jacarey@fl_jcarey_desktop Change 47061 on 2002/08/20 by dglen@dglen r400 dell Fix order of background and foreground colors Update to Display Outline for new CRTC features Change 47176 on 2002/08/20 by frising@ma_frising Change 47035 on 2002/08/20 by rbell@rbell crayola win cvd Make TRI_JUICE field 2 bits (like r350) with values: 0=0, 1=1/6, 2=1/4, 3=3/8. Also noted that trilinear filtering remains piecewise linear and continuous.

Fix COLOR_FORMAT_OUT and COLOR_NUMBER_OUT fields in texture constant Added totals, first D2 test is done Change 47021 on 2002/08/20 by vliu@vliu_r400_cnvliu100_win_cvd (used for fetchmulit sample) that were accidentally munged in a prior check-in. Initial revision Change 47174 on 2002/08/20 by dglen@dglen_r400_dell Change 47007 on 2002/08/20 by vliu@vliu_r400_cnvliu100_win_cvd Minor fixes to section 7 Update Change 47173 on 2002/08/20 by mzhu@mzhu r400 win tor Page 195 of 441 Page 196 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258144

Initial revision Change 46813 on 2002/08/19 by smoss@smoss crayola win Change 46950 on 2002/08/20 by mdoggett@MA_MDOGGETT_LT Undated DCC0 clients and GRB0 clients. Added separate VGA input to MHC. Change 46778 on 2002/08/19 by imuskatb@imuskatb r400 win cnimuskatb Change 46945 on 2002/08/20 by jacarey@fl_jcarey2 Change 46777 on 2002/08/19 by csampayo@fl_csampayo_r400 Clarifications to Source and Destination formats for 2D Change 46924 on 2002/08/19 by gabarca@gabarca_crayola_win_cvd Added 4 new SU polymode degenerate tests
 Updated test_list and test tracker accordingly updated registers Change 46766 on 2002/08/19 by rbell@rbell_crayola_win_cvd Change 46914 on 2002/08/19 by csampayo@fl_csampayo_r400 1. Added 2 new VGT test for multi context coverage Change 46761 on 2002/08/19 by efong@efong r400 win tor doc Updated test_list and the test tracker appropriately Change 46911 on 2002/08/19 by nluu@nluu_r400_doclib_cnnb Change 46758 on 2002/08/19 by nluu@nluu_r400_doclib_cnnb - update forces Change 46895 on 2002/08/19 by mkelly@fl_mkelly_r400_win_laptop Primlib utility to check for double hit pixels in sc_quad_pair_proc_out.dmp Change 46751 on 2002/08/19 by ashishs@fl_ashishs_r400_win Concentric circle test to do a preliminary check on the new utility corrected last submission Change 46891 on 2002/08/19 by lkang@lkang_r400_win_tor Change 46750 on 2002/08/19 by ashishs@fl_ashishs_r400_win Hardware Accuracy related bug reported and documented. (r400cl_bary_texture_08_bug.cpp, interpolator bug) undated for M2 & M3 Change 46883 on 2002/08/19 by nluu@nluu_r400_doclib_cnnb Change 46749 on 2002/08/19 by vliu@vliu_r400_cnvliu100_win_cvd - update forces Undate Change 46851 on 2002/08/19 by rbell@rbell_crayola_win_cvd Change 46735 on 2002/08/19 by jasif@jasif_r400_win_tor Added double-buffer tests Change 46850 on 2002/08/19 by rfevreau@rfevreau_r400_win Change 46726 on 2002/08/19 by sbagshaw@sbagshaw Updated Status R400 Programming Guide for Toronto R400 Blocks Change 46847 on 2002/08/19 by csampayo@fl csampayo r400 Page 198 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 46724 on 2002/08/19 by chwang@chwang_doc_r400_win_cvd Change 46512 on 2002/08/16 by rbell@rbell_cravola_win_cvd Change 46695 on 2002/08/18 by csampayo@fl_csampayo_r400 Change 46500 on 2002/08/16 by jacarey@fl_jcarey2 1. Added 8 new SU polymode tests Updates for 2D Brush Decoding. 2. Updated test list and the test tracker accordingly Change 46385 on 2002/08/15 by jowang@jowang_R400_win Change 46651 on 2002/08/16 by gabarca@gabarca_crayola_win_cvd changed coefficient range tests Updated interface with display Change 46324 on 2002/08/15 by vgoel@fl_vgoel2 Change 46594 on 2002/08/16 by grayc@grayc_r400_win added black pixels in white triangle bug doc to track minutes of validation meeting Change 46270 on 2002/08/15 by gregs@gregs_r400_win_marlboro Change 46565 on 2002/08/16 by peterp@MA_PETE_LT < changed direction of analog ports in io.v > Corrected SQ and TC "RV400 Qty" factors Change 46269 on 2002/08/15 by gregs@gregs r400 win marlboro Change 46560 on 2002/08/16 by rbell@rbell_crayola_win_cvd < added scratch register > Change 46267 on 2002/08/15 by jacarey@fl jcarey2 Change 46559 on 2002/08/16 by vgoel@fl vgoel2 Update for Immediate Data Writes updated the "bug closed" and "change number" for bugs 4 &~5Change 46260 on 2002/08/15 by csampayo@fl_csampayo_r400 Change 46554 on 2002/08/16 by vgoel@fl vgoel2 added bug report for multi-context HOS test (bug 8) Change 46255 on 2002/08/15 by csampayo@fl_csampayo_r400 Change 46547 on 2002/08/16 by jacarey@fl_jcarey2 Added 3 new SU tests
 Updated test_list and the test tracker accordingly Update for 2D Constants Change 46536 on 2002/08/16 by jacarey@fl_jcarey2 Change 46243 on 2002/08/15 by ygiang@ygiang r400 win marlboro p4 Miscellaneous Change 46530 on 2002/08/16 by vgoel@fl_vgoel2 Change 46239 on 2002/08/15 by vgoel@fl_vgoel2 added description for fix for bug 5 and 6 reported and added bug 7 description reported two bugs Change 46513 on 2002/08/16 by rbell@rbell_crayola_win_cvd Change 46236 on 2002/08/15 by rbell@rbell_crayola_win_cvd updated Updated schedule Page 199 of 441 Page 200 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Added instructions at the top

Change 47004 on 2002/08/20 by vliu@vliu_r400_cnvliu100_win_cvd

Update Description of Vertex and Pixel Constants for 2D Processing. Update Setting 2D Boolean B0 if Brush_Type=0xF and SRC_TYPE = Color Change 46187 on 2002/08/14 by georgev@ma_georgev Change 45994 on 2002/08/14 by jhoule@MA JHOULE TFetchInstr: Fetchmen: Added SetGradientsH and SetGradientsV opcodes. Changed SetFilter4Weights opcode number. LOD_BIAS_{HIV} are now 7 bits, range [-4, 4). Added USE_REG_GRADIENTS. Change 46183 on 2002/08/14 by gabarca@gabarca_crayola_win_cvd Added handshake section Change 46163 on 2002/08/14 by mzhu@mzhu_r400_win_tor TFetchConst Update alpha blend and force graphics or overlay data to "0" for overlay-only or Changed description of TRI_JUICE. graphics only cas Change 45907 on 2002/08/14 by bryans@bryans_crayola_doc Change 46138 on 2002/08/14 by llefebvr@llefebvre_laptop_r400 Updated... Changed the MASK mnemonics to KILL. Chalagod at March Mindellines of Shill.

Added DST opcode.

Added MUL. PREV2 opcode.

Recordered the opcodes in primitib and SP.

Implemented the new KILL and SET SCALAR opcodes, they are now all comparing the Change 45889 on 2002/08/14 by jacarey@fl_jcarey2 Updates to Diagrams for Timing.. ALPHA channel to 0.0f (instead of comapring against the RED channel) Change 45888 on 2002/08/14 by jacarey@fl_jcarey2 Change 46126 on 2002/08/14 by efong@efong_r400_win_tor_doc Change 45863 on 2002/08/13 by gabarca@gabarca crayola win cvd New document on chip integration tests Change 46125 on 2002/08/14 by efong@efong_r400_win_tor_doc put chapter 16 in a table Change 45832 on 2002/08/13 by gabarca@gabarca crayola win cvd Updated Change 46111 on 2002/08/14 by mkelly@fl_mkelly_r400_win_laptop updated list of functional changes respect to previous chips Change 45810 on 2002/08/13 by gabarca@gabarca_crayola_win_cvd Update.. Change 46099 on 2002/08/14 by askende@andi r400 docs updated functional changes respect to previous chips new rev of the spec Change 45754 on 2002/08/13 by gregs@gregs_r400_win_marlboro added examples of power state transitions programming via CP real time command streams \pm added description of spread spectrum circuits and registers. Change 46096 on 2002/08/14 by mpersaud@mpersaud r400 win tor Updated specs to match Xilleon's tyou Change 45743 on 2002/08/13 by jacarey@fl_jcarey2 Change 46024 on 2002/08/14 by mzhu@mzhu r400 win tor Correct SRC X calculation for HostData* Packets Update black/white offset Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 45680 on 2002/08/13 by gabarca@gabarca_crayola_win_cvd r400su_point_sprite_06 Change 45405 on 2002/08/12 by mzhu@mzhu_r400_win_tor Updated sec 16 Change 45674 on 2002/08/13 by gabarca@gabarca_crayola_win_cvd Update for alpha blend key mode Change 45398 on 2002/08/12 by imuskatb@imuskatb_r400_win_cnimuskatb Added section 16 Changes respect to previous ATI chips Updated DISPOUT Added TAKEN to double buffer Change 45673 on 2002/08/13 by mkelly@fl_mkelly_r400_win_laptop Expand line width basic functionality. M2 Dispout test Updated Quick Emu Change 45657 on 2002/08/13 by csampayo@fl_csampayo_r400 Change 45391 on 2002/08/12 by tshah@fl_tshah 1. Started log for bug #3 typo - CP RBBM dma busy is used for one of the wait until conditions 2. Expanded format to include accounting of bugs Change 45615 on 2002/08/13 by jhoule@MA_JHOULE Change 45379 on 2002/08/12 by ashishs@fl_ashishs_r400_win 2nd bug tested and documented Updated various TP/TC features. Change 45512 on 2002/08/12 by askende@andi_r400_docs Change 45364 on 2002/08/11 by ygiang@ygiang_r400_win_marlboro_p4 added: dot3 and dot4 shader tests Change 45507 on 2002/08/12 by mzhu@mzhu r400 win tor Change 45316 on 2002/08/09 by csampayo@fl csampayo r400 Update alpha blend mode 1 and 3 1. Updated image size for tests: r400su_point_sprite_01 and _02 Added 4 more SU point sprite tests Change 45462 on 2002/08/12 by chwang@chwang_doc_r400_win_cvd 3. Updated test list and test tracker accordingly Change 45308 on 2002/08/09 by tho@tho_r400_win Change 45423 on 2002/08/12 by efong@efong_r400_win_tor_doc new doc Change 45305 on 2002/08/09 by tho@tho_r400_win Updated Change 45420 on 2002/08/12 by chwang@chwang doc r400 win cvd run regress docs Change 45292 on 2002/08/09 by whui@whui r400 win tor Change 45414 on 2002/08/12 by csampayo@fl_csampayo_lt_r400 update surface properties registers Updated status for the following tests: Change 45262 on 2002/08/09 by georgev@ma_georgev r400su_point_sprite_01 r400su_point_sprite_02 r400su_point_sprite_03 r400su_point_sprite_04 r400su_point_sprite_05 Change 45232 on 2002/08/09 by mkelly@fl mkelly r400 win laptop Page 203 of 441 Page 204 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 46010 on 2002/08/14 by jacarey@fl jcarey2

Change 46206 on 2002/08/15 by jacarey@fl_jcarey2

Change 44839 on 2002/08/08 by jacarev@fl jcarev2 Change 45220 on 2002/08/09 by mkelly@fl mkelly r400 win laptop Remove 3D from the GradFill and AlphaBlend 2D packets. Nan retain/kill on 2 vector exports from shader bug... Change 44771 on 2002/08/07 by jacarey@fl_jcarey2 Change 45195 on 2002/08/09 by nbarbier@nbarbier r400 win tor Corrections to Packet Pseudocode. Change 44759 on 2002/08/07 by dclifton@dclifton_r400 Change 45180 on 2002/08/09 by bryans@bryans crayola doc Updated for clipped polymode lines and points and updated point-line geometry drawing. Update per last meeting Change 44741 on 2002/08/07 by csampayo@fl_csampayo_r400 Change 45177 on 2002/08/09 by gregs@gregs_r400_win_marlboro Updated status for the following tests: updated direct access to ROM pins (for writing) r400su_point_sprite_01.cpp r400su_point_sprite_02.cpp Change 45156 on 2002/08/09 by dclifton@dclifton_r400 Change 44684 on 2002/08/07 by lkang@lkang r400 win tor Updated zmin/zmax pinout info, updated area estimate 2nd milestone review Change 45045 on 2002/08/08 by ashishs@fl ashishs r400 wir Change 44680 on 2002/08/07 by imuskatb@imuskatb_r400_win_cnimuskatb A test to determine if the clip guard band works properly and that trivial reject works, update to test tracker and test list. TMDS M2 Test Change 44665 on 2002/08/07 by jacarey@fl_jcarey2 Change 45021 on 2002/08/08 by nbarbier@nbarbier r400 win tor Updated GENERICA & GENERICB inputs 1. Specify limit of ordinal #3 and #4 replications for the LCC packet. Change 44663 on 2002/08/07 by grayc@grayc_r400_win Change 45018 on 2002/08/08 by frivas@FL FRivas Update to HOS tests. Added edge detector test to "sheet 1" and accounted for it in the describes block owners/chip level verification Change 44636 on 2002/08/07 by mkelly@fl_mkelly_r400_win_laptop Change 44992 on 2002/08/08 by frivas@FL_FRivas More JSS coverage.. Updated status of different HOS tests. Change 44537 on 2002/08/06 by gregs@gregs_r400_win_marlboro Change 44907 on 2002/08/08 by csampayo@fl_csampayo_r400 spread spectrum Initial check in of Bug Tracker
 Added bug test case Change 44519 on 2002/08/06 by jacarey@fl_jcarey2 Document oper=gmcdecode in instruction table
 Add 4 gprs to the micro engine Change 44840 on 2002/08/08 by jacarev@fl jcarev2 Correct note for vgt_busy status signal Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 44512 on 2002/08/06 by mkelly@fl_mkelly_r400_win_laptop Change 44272 on 2002/08/05 by scroce@scroce_r400_win_marlboro Textured pixel shader anti-aliased line example with VFD support. Some added info for the setup document Change 44469 on 2002/08/06 by jacarey@fl_jcarey2 Change 44228 on 2002/08/05 by csampayo@fl_csampayo_r400 Updated Interface from SQ for Events...4-bit event ID. Added section 1.8 CP can ignore events that it does nothing for. Change 44211 on 2002/08/05 by jacarey@fl_jcarey2 Change 44458 on 2002/08/06 by ashishs@fl_ashishs_r400_win Update CP_STAT register and clarified that the CP_RBBM_rt_busy signal is not active undate if the RTEE is just performing polling operations Change 44454 on 2002/08/06 by jasif@jasif_r400_win_tor Change 44192 on 2002/08/05 by wlawless@wlawless Updated. new sample mask diagram Change 44416 on 2002/08/06 by tho@tho_r400_win Change 44179 on 2002/08/05 by jacarey@fl_jcarey2 updated More Updates for Timing. Change 44406 on 2002/08/06 by vliu@vliu_r400_cnvliu100_win_cvd Change 44178 on 2002/08/05 by jcox@jcox_r400_win_orlando Change 44397 on 2002/08/06 by chwang@chwang doc r400 win cvd Change 44176 on 2002/08/05 by jacarey@fl jcarey2 Shallow FIFOs Added Between PFP and Micro Engine for Timing. Change 44375 on 2002/08/06 by jacarey@fl jcarey2 Change 44096 on 2002/08/02 by mkelly@fl mkelly r400 win lapton * Implement vertex kill in the VFD for vertex buffer and constant
* Create a new class called PRIMITIVE_AA for AA dump file analysis Update for oper=gmcdecode * Update tracker / test list Change 44372 on 2002/08/06 by efong@efong r400 win tor doc Change 44081 on 2002/08/02 by efong@efong_r400_win_tor_doc Updated Change 44358 on 2002/08/06 by imuskatb@imuskatb_r400_win_cnimuskatb Updated emulator to new crtc Block file Updated Picasso to new register names Updated Display Manager to handle TMDS stream Change 44071 on 2002/08/02 by jayw@MA_JAYW pre vacation check in. Completed Tmds stream library Added one tmds test for M2 Change 44063 on 2002/08/02 by mkelly@fl mkelly r400 win laptop Change 44282 on 2002/08/05 by scroce@scroce_r400_win_marlboro Simple Poly offset check, needs SC fix to work... Update setup document Change 44053 on 2002/08/02 by jacarey@fl jcarey2 Page 207 of 441 Page 208 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Update 2D Spec for SRC_X pointer for small_text and host_data_blt Most of microcode for Hostdata_Blt* packets...
Bitblt packets share subroutine with hostdata_blt packets... Change 44048 on 2002/08/02 by gregs@gregs_r400_win_marlboro Change 44021 on 2002/08/02 by llefebvr@llefebvre_laptop_r400 New parameter generation scheme included in the spec. Change 43966 on 2002/08/02 by mkelly@fl_mkelly_r400_win_laptop Run line and point prims through JSS and MSAA.. Change 43913 on 2002/08/02 by jacarey@fl_jcarey2 Added oper=SIGNEXT for Micro Engine.

Change 43841 on 2002/08/01 by mzhu@mzhu r400 win tor

Change 43815 on 2002/08/01 by mzhu@mzhu r400 win tor

Update LUT_INC, add UPDATE_TAKEN Change 43814 on 2002/08/01 by scamlin@scamlin_crayola_win

Change 43779 on 2002/08/01 by jacarey@fl_jcarey2

Bresenham Control, converted R200 test...

Added Soft Reset control for the ROM block

Change 43773 on 2002/08/01 by jacarey@fl_jcarey2

Change 43751 on 2002/08/01 by frivas@FL_FRivas

Update bit widths of texture constants that are written for Small_Text and HostData_Blt* packets.

Change 43775 on 2002/08/01 by mkelly@fl_mkelly_r400_win_laptop

Update to HOS tests. Added complex model tests to tracker

Update alpha fill pattern

orlando updates

Change 43105 on 2002/07/30 by frivas@FL FRivas

Update to HOS auto indexing tests.

Change 43095 on 2002/07/30 by smoss@smoss_crayola_win

Page 211 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 43728 on 2002/08/01 by vgoel@fl_vgoel2

modified tracker to update hos status

Update for color cursor mode 2, LUT_BLACK_OFFSET/LUT_WHITE_OFFSET and

Change 43706 on 2002/08/01 by csampayo@fl_csampayo_r400

Change 43710 on 2002/08/01 by mzhu@mzhu_r400_win_tor

Undate

Change 43699 on 2002/08/01 by frivas@FL_FRivas

Added two HOS tests for precision

Change 43687 on 2002/08/01 by ashishs@fl ashishs r400 win

update

Change 43685 on 2002/08/01 by rbagley@rbagley_ltxp

R400 Shader Programming Model

Checking in Laurent's revision of sequencer related updates. Also added initial specification of two language levels; this is out of date; updates in progress.

Change 43638 on 2002/08/01 by mkelly@fl_mkelly_r400_win_laptop

JSS 3x4 simple triangle

Change 43631 on 2002/08/01 by jacarey@fl_jcarey2

Update pseudocode for the ME_INIT packet.

Change 43571 on 2002/07/31 by csampayo@fl_csampayo_r400

Undates

Change 43543 on 2002/07/31 by gregs@gregs_r400_win_marlboro

<added IO DC xtalin signal>

Change 43509 on 2002/07/31 by jacarey@fl_jcarey2

Documentation Updates: Viz Query
 Memory Size Updates

Page 210 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

3. Jump Address Added to Micro Instruction Format

Change 43496 on 2002/07/31 by rherrick@ma rherrick cravola

Implement absolute register directives for INFINITE control over specifying register

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 43493 on 2002/07/31 by mkelly@fl_mkelly_r400_win_laptop

Testing lots of SC features with stipple enabled..

Change 43483 on 2002/07/31 by peterp@MA_PETE_LT

Corrected excel cell definition used by "Top" from "SQ" tab to remove !REF error. Changed utilization factor to 70%.

Change 43423 on 2002/07/31 by jhoule@MA_JHOULE

Renamed TX_COORD_NORM to a more accurate TX_COORD_DENORM, keeping values intact, but sense more consistent

Change 43417 on 2002/07/31 by frising@ma_frising

Change 43325 on 2002/07/31 by jacarey@fl_jcarey2

Add16 and Sub16 instructions sign-extend bit 13 (Used for 2D) Min/Max and SCOMP assume that sign bit is bit 13 (Used for 2D)

Change 43240 on 2002/07/30 by semara@semara r400 win tor

add the smooth scrolling for the gfx

Change 43229 on 2002/07/30 by mkelly@fl_mkelly_r400_win_laptop

Line stipple variations...

Change 43220 on 2002/07/30 by jacarey@fl_jcarey2

Update Which Booleans are Set for 2D Packets with Source Update Pitch = Pixels/32 in SRC/DST_PITCH_OFFSET values.

SU tests

Change 43084 on 2002/07/30 by kcorrell@kcorrell r400 docs mariboro

updated area estimate for MH

Change 43077 on 2002/07/30 by efong@efong_r400_win_tor_doc

Updated

Change 43005 on 2002/07/29 by hartogs@fl_hartogs

Updated register addresses

Change 42958 on 2002/07/29 by imuskatb@imuskatb_r400_win_cnimuskatb

Updated dc_crtc interface Added some more M2 test to CRTC

Change 42949 on 2002/07/29 by mkelly@fl mkelly r400 win laptop

128 packets, one triangle per packet, each hitting a subsample in one ISS pixel. For each ISS_SAMPLE_SEL, each of 16 ISS pixels are tested. ISS_SAMPLE_SEL is eyeled from from 0 to 8. This test ensures the tested ISS_SAMPLE_SEL is a unique value when compared to all non-tested JSS_SAMPLE_SELs.

Change 42844 on 2002/07/29 by efong@efong_r400_win_tor_doc

Change 42788 on 2002/07/26 by csampayo@fl_csampayo_r400

1. Added 2 new SU tests

2. Updated test_list and tracker, accordingly

Change 42781 on 2002/07/26 by fhsien@fhsien_r400_win_marlboro

Update Depth tests

Change 42737 on 2002/07/26 by scroce@scroce_r400_win_marlboro

Forgot to update TOC

Change 42735 on 2002/07/26 by scroce@scroce_r400_win_marlboro

Updating a bit to reflect changes in the release procedure and environment.

Change 42725 on 2002/07/26 by jasif@jasif_r400_win_tor

Page 212 of 441

Change 42718 on 2002/07/26 by semara@semara_r400_win_tor Change 42258 on 2002/07/24 by semara@semara_r400_win_tor fix the index adding section 7, 8, and 9 Change 42654 on 2002/07/26 by jasif@jasif_r400_win_tor Change 42234 on 2002/07/24 by mkelly@fl_mkelly_r400_win_laptop Update to JSS tests Updated. New MSAA test verifying all 8 subsamples in basic hit tests Change 42652 on 2002/07/26 by semara@semara r400 win tor * Update tracker * Update SC test_list edit section 4 in the display interface Change 42233 on 2002/07/24 by nluu@nluu_r400_doclib_cnnb Change 42596 on 2002/07/26 by rbell@rbell_crayola_win_cvd - update specs for fast client protocol Change 42140 on 2002/07/24 by imuskatb@imuskatb_r400_win_cnimuskatb updated crtc.cpp to consider h_sync_start fixed crtc_test.cpp wrap around conter test in picasso Change 42530 on 2002/07/25 by ashishs@fl ashishs r400 win CL TESTS: testing guard band clipping of edgeflags. updated test list Change 42514 on 2002/07/25 by dougd@doug Change 42100 on 2002/07/23 by frising@ma_frising updated area for SQ based on synthesis results It just occurred to me that having just one bit is insufficient for this. You really need 3 Change 42504 on 2002/07/25 by jasif@jasif_r400_win_tor (one each for x,y,z), otherwise you'd get the wrong results if, for example, the user set WRAP_S to CLAMP and WRAP_T to CLAMP_TO_BORDER. I don't want to use three bits, so I've reworked things. The bit is now called WEAREST_CLAMP_POLICY and has the following Finished graphics section. Change 42499 on 2002/07/25 by mkelly@fl_mkelly_r400_win_laptop behavior when nearest filtering: Wrap/Repeat -> Wrap/Repeat Mirror -> Mirror Clamp to last texel -> Clamp to last texel Basic MSAA functionality tests... Change 42442 on 2002/07/25 by gabarca@gabarca_crayola_win_cvd Champ to last text of MinrorOnce to last text of MinrorOnce to last text of Clamp half way to border color -> Clamp to last text of MinrorOnce half way to border color -> MinrorOnce to last text of Clamp to border color -> Clamp to border color MinrorOnce to border color -> M improved description of LUT and fixed test case Change 42367 on 2002/07/25 by mzhu@mzhu_r400_win_tor Undate DCP tests ms2.xls from Richard This should allow D3D and OGL to set this bit 'once' and forget about it. Change 42362 on 2002/07/25 by mzhu@mzhu r400 win tor Change 42086 on 2002/07/23 by ashishs@fl_ashishs_r400_win Update graphics and overlay alpha blending undate Change 42269 on 2002/07/24 by jasif@jasif_r400_win_tor Page 213 of 441 Page 214 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Added 2-D primitives to VGT section
 Various format updates Change 42033 on 2002/07/23 by mkelly@fl_mkelly_r400_win_laptop Update and corrected schedule test count versus sheet 1 counts Change 41867 on 2002/07/22 by gabarca@gabarca_crayola_win_cvd Change 42000 on 2002/07/23 by gabarca@gabarca_crayola_win_cvd added the VGA CURSOR BLINK INVERT register Change 41862 on 2002/07/22 by jasif@jasif r400 win tor Change 41983 on 2002/07/23 by smoss@smoss_crayola_win SU tests Change 41822 on 2002/07/22 by mkelly@fl_mkelly_r400_win_laptop Change 41973 on 2002/07/23 by jasif@jasif_r400_win_tor *Basic JSS functional coverage Finished text mode testlist Update tracker Change 41971 on 2002/07/23 by frising@ma frising * Added Plan vs. Actual graph to tracker sheet "schedule" Change 41808 on 2002/07/22 by jasif@jasif_r400_win_tor -Add NEAREST_NO_BORDER bit to texture constant which controls if nearest filtering will every sample border color/texel. When this bit is asserted the mapping for the clamping Updated policy when nearest filtering should be:
Wrap/Repeat > Wrap/Repeat
Mirror > Mirror
Clamp to last texel -> Clamp to last texel Change 41784 on 2002/07/22 by gregs@gregs_r400_win_marlboro <registers update> MirrorOnce to last texel -> MirrorOnce to last texel
Clamp half way to border color -> Clamp to last texel
MirrorOnce half way to border color -> MirrorOnce to last texel Change 41781 on 2002/07/22 by frivas@FL_FRivas Clamp to border color -> Clamp to last texel MirrorOnce to border color -> MirrorOnce to last texel Update. Changed name of a VGT HOS test to be completed. Change 41778 on 2002/07/22 by vliu@vliu_r400_cnvliu100_win_cvd Change 41921 on 2002/07/23 by subad@MA_SUBA updated area. Area decreased by re-structuring tx fint, oned and tiled muxes Change 41774 on 2002/07/22 by imuskatb@imuskatb r400 win cnimuskatb Change 41905 on 2002/07/23 by ashishs@fl_ashishs_r400_win update Change 41756 on 2002/07/22 by chwang@chwang_doc_r400_win_cvd Change 41898 on 2002/07/23 by smoss@smoss_crayola_win Change 41743 on 2002/07/22 by tho@tho r400 win Change 41883 on 2002/07/22 by gabarca@gabarca crayola win cvd updated Updated as per Joveria's test leist and last meetings Change 41742 on 2002/07/22 by tien@ma_spinach Change 41881 on 2002/07/22 by csampayo@fl csampayo r400 updated TP/TC area estimates Page 216 of 441 Page 215 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Fininshed hdp section and revised text section

Updated after Testlist review meeting.

Change 41731 on 2002/07/22 by efong@efong r400 win tor doc Added description of rectangle primitive output. Updated state register description Change 41550 on 2002/07/19 by smoss@smoss_crayola_win Updated Change 41730 on 2002/07/22 by mkelly@fl_mkelly_r400_win_laptop new x,y dim Improve test description and conveyance of test purpose in the image Change 41531 on 2002/07/19 by bryans@bryans_crayola_doc Change 41729 on 2002/07/22 by efong@efong_r400_win_tor_doc Updated Change 41524 on 2002/07/19 by bryans@bryans crayola doc Change 41720 on 2002/07/22 by rbell@rbell_crayola_win_cvd Minor changes to doc Change 41450 on 2002/07/19 by jacarey@fl_jcarey2 Change 41717 on 2002/07/22 by georgev@ma_georgev Correct type in diagram for write confirmation logic First revision from verification spec. Change 41447 on 2002/07/19 by jacarey@fl_jcarey2 Change 41663 on 2002/07/19 by jacarey@fl_jcarey2 Write Confirmation Counter for CP/SC data coherency. Change 41401 on 2002/07/18 by csampayo@fl_csampayo_r400 Fix Number of Bits Needed in the Brush, Palette, and Immed Base Added 4 new SU edgeflag tests
 Updated framebuffer size for 2 tests
 Updated test_list and test tracker accordingly Change 41654 on 2002/07/19 by gabarca@gabarca_crayola_win_cvd updated Change 41388 on 2002/07/18 by gabarca@gabarca crayola win cvd Change 41643 on 2002/07/19 by jasif@jasif_r400_win_tor linked the test list excel into the "regression test table" icon at the end of the document Updated. Change 41374 on 2002/07/18 by gabarca@gabarca crayola win cvd Change 41620 on 2002/07/19 by mkelly@fl_mkelly_r400_win_laptop 1. Re-wrote JSS test to match latest SC spec. Change 41371 on 2002/07/18 by gabarca@gabarca crayola win cvd 3. Update tracker moved to the design/block/VGA directory Change 41600 on 2002/07/19 by llefebvr@llefebvre_laptop_r400 Change 41353 on 2002/07/18 by gabarca@gabarca_crayola_win_cvd Change 41597 on 2002/07/19 by jhoule@MA_JHOULE Change 41352 on 2002/07/18 by jasif@jasif_r400_win_tor Pre-SIGGRAPH submit (since it's exclusive open) Format change only. Change 41582 on 2002/07/19 by dclifton@dclifton_r400 Page 217 of 441 Page 218 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 41332 on 2002/07/18 by jacarey@fl_jcarey2 Change 41257 on 2002/07/18 by jayw@MA_JAYW Update Brush Address Range Thursday moming, minor updates Change 41330 on 2002/07/18 by jacarey@fl_jcarey2 Change 41255 on 2002/07/18 by jasif@jasif_r400_win_tor Updates Updated. Change 41321 on 2002/07/18 by jacarey@fl_jcarey2 Change 41225 on 2002/07/18 by jacarey@fl_jcarey2 Data written to Immd Write Confirm address generates a write confirmation Revert Last Change Change 41308 on 2002/07/18 by bryans@bryans_crayola_doc Change 41213 on 2002/07/18 by jacarey@fl_jcarey2 1. Update LCC and Constant_Prefetch Packet formats 2. Constant write enables cleared for incremental update of constants. Change 41298 on 2002/07/18 by mzhu@mzhu r400 win tor Change 41208 on 2002/07/18 by fliljero@fl_frank update for 2nd milestone part updated Load_Constant_Context write to BUFFER_BASE to match latest spec Change 41296 on 2002/07/18 by gregs@gregs_r400_win_marlboro Change 41183 on 2002/07/17 by csampayo@fl_csampayo_r400 <fixing previous mistake> 1. Added 2 new tests to SU Change 41294 on 2002/07/18 by gregs@gregs_r400_win_marlboro 3. Updated test tracker accordingly <moving from parts_lib to doc_lib> Change 41155 on 2002/07/17 by jacarey@fl_jcarey2 Change 41293 on 2002/07/18 by georgev@ma_georgev Updates for interpreting the 2D constants in the GMC. Updated for new tests. Change 41148 on 2002/07/17 by jacarey@fl_jcarey2 Change 41287 on 2002/07/18 by gabarca@gabarca_crayola_win_cvd Describe how the 2D Default Values are Applied by the CP. updated Change 41112 on 2002/07/17 by smoss@smoss_crayola_win Change 41275 on 2002/07/18 by bryans@bryans_crayola_doc Document that explains the new Chip Init library (usage and organization) Change 41107 on 2002/07/17 by jacarey@fl_jcarey2 Change 41267 on 2002/07/18 by jacarey@fl_jcarey2 1. Update Bit Width for Brush Address to HW support Logic Clarification to LCC packet on preservation/setting of valid flag 2. Revise 2D Default Registers Change 41260 on 2002/07/18 by jacarey@fl_jcarey2 Change 41083 on 2002/07/17 by ashishs@fl_ashishs_r400_win Update pseudocode for the issuance of event initiators to the scan converter for write update Change 41075 on 2002/07/17 by jowang@jowang_R400_win Page 219 of 441 Page 220 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

1. Added SU test to validate provoking vertex more complete test plan 2. Updated SU's test_list accordingly
3. Updated the VGT test r400vgt_provoking_vtx_all_01
4. Updated test tracker with status for the test: r400su_provoking_vtx_rectangle_01 Change 41032 on 2002/07/17 by jayw@MA_JAYW adding tile doc and minor depth address correction. Change 40710 on 2002/07/15 by jayw@MA_JAYW Change 40985 on 2002/07/17 by rbell@rbell_crayola_win_cvd finished start of depth tile address calc initial release Change 40698 on 2002/07/15 by jacarey@fl jcarey2 Change 40978 on 2002/07/17 by gabarca@gabarca_crayola_win_cvd Update to ME_INIT for Header Dump Function Change 40697 on 2002/07/15 by jasif@jasif_r400_win_tor Change 40950 on 2002/07/16 by csampayo@fl_csampayo_r400 Added 2 new tests to SU
 Updated test_list and test tracker Change 40693 on 2002/07/15 by tho@tho_r400_win Change 40947 on 2002/07/16 by imuskatb@imuskatb_r400_win_cnimuskatb undated Change 40691 on 2002/07/15 by llefebvr@llefebvre_laptop_r400 Change 40929 on 2002/07/16 by jacarey@fl_jcarey2 New semencer spec. Update text for 2D/3D transition determination. Change 40666 on 2002/07/15 by jacarey@fl_jcarey2 Change 40885 on 2002/07/16 by jayw@MA_JAYW Header Dump Can Be Used for Real-Time Streams fixed error in tile address Change 40660 on 2002/07/15 by jacarey@fl_jcarey2 Change 40881 on 2002/07/16 by mpersaud@mpersaud_r400_win_tor Update Header Dump Base Address Size Simplified write acknowledge return interface between dccif and client Change 40647 on 2002/07/15 by jasif@jasif_r400_win_tor Change 40873 on 2002/07/16 by smoss@smoss_crayola_win M2 VGA testlist. undate Change 40632 on 2002/07/15 by jacarey@fl jcarey2 Change 40854 on 2002/07/16 by fhsien@fhsien_r400_win_marlboro Added a couple paragraphs to describe the Brush Decode support logic for the ME. Change 40630 on 2002/07/15 by jacarey@fl_jcarey2 Undate for Z tests Change 40782 on 2002/07/15 by efong@efong_r400_win_tor_doc Added Local Addresses for Brush Decode Hardware Change 40620 on 2002/07/15 by gregs@gregs_r400_linux_marlboro Updated with M2 tests Change 40771 on 2002/07/15 by csampayo@fl_csampayo_r400 <update> Page 221 of 441 Page 222 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history ME_INIT side affect: Invalidates "valid flags" in the PFP. Change 40609 on 2002/07/15 by jasif@jasif_r400_win_tor Change 40473 on 2002/07/14 by vliu@vliu r400 cnvliu100 win cvd Added conditional_write(...) function. Change 40605 on 2002/07/15 by rbell@rbell_crayola_win_cvd Change 40132 on 2002/07/12 by gabarca@gabarca crayola win cvd updated updated Change 40600 on 2002/07/15 by jayw@MA_JAYW Change 40121 on 2002/07/12 by jayw@MA_JAYW Monday morning release start of cam and non-cam tags and address generation Friday night checkin with template Change 40120 on 2002/07/12 by fhsien@fhsien_r400_win_marlboro Change 40599 on 2002/07/15 by chwang@chwang doc r400 win cvd Update for Z functions Update. Change 40039 on 2002/07/12 by efong@efong_r400_win_tor_doc Change 40595 on 2002/07/15 by rbell@rbell_crayola_win_cvd Updated for VCD and FSDB and VPD support updated after test plan review Change 39993 on 2002/07/12 by frising@ma_frising Change 40592 on 2002/07/15 by imuskatb@imuskatb_r400_win_cnimuskatb *.1.7.2 allow TP to use FORMAT_COMP_* and related number format info for multisample fetches. Typically, the driver will want to make sure COLOR_FORMAT_OUT is consistent with these. Updated Change 40589 on 2002/07/15 by tho@tho_r400_win Change 39979 on 2002/07/12 by rbell@rbell_crayola_win_cvd updated Change 40582 on 2002/07/15 by tho@tho_r400_win Secondary surface address test Change 39977 on 2002/07/12 by rbell@rbell crayola win cvd update Change 40574 on 2002/07/15 by efong@efong_r400_win_tor_doc updated for more milestone 2 and 3 tests Change 39969 on 2002/07/12 by mzhu@mzhu_r400_win_tor Updated Change 40571 on 2002/07/15 by nluu@nluu_r400_doclib_cnnb Update test plan for 2nd milestone Change 39915 on 2002/07/12 by mkelly@fl_mkelly_r400_win_laptop Change 40564 on 2002/07/15 by jacarey@fl jcarey2 Update CL status Change 39912 on 2002/07/12 by lkang@lkang_r400_win_tor Updated Draw_Indx Change 40535 on 2002/07/15 by jacarey@fl_jcarey2 update Page 223 of 441 Page 224 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

0.1 rev mark Change 39847 on 2002/07/11 by csampayo@fl_csampayo_lt_r400 Change 39678 on 2002/07/11 by jayw@MA_JAYW Undated VGT section categories thursday update Change 39830 on 2002/07/11 by csampayo@fl_csampayo_lt_r400 Change 39662 on 2002/07/11 by rbell@rbell_crayola_win_cvd Updated the HOS Primitive Tessellation sub-section of the VGT section updated schedule Change 39819 on 2002/07/11 by frising@ma_frising Change 39637 on 2002/07/11 by smoss@smoss_crayola_win account for differences in tests written and schedule -multisample fetch basically done (note a few unused fields had to be moved in the tex constants) Change 39578 on 2002/07/10 by jacarey@fl_jcarey2 -updated note on how degamma'd textures are stored in L2 (always 16 bit urf) Change 39812 on 2002/07/11 by jacarey@fl_jcarey2 Change 39572 on 2002/07/10 by jimmylau@jimmylau_r400_win_tor Real-Time Micro Engine does not have the direct write-back path as the Non-RT micro Update sections 5.6 and 5.7 after test plan review, to add more end cases and more detailed explanation to each test cases. Change 39809 on 2002/07/11 by jacarey@fl_jcarey2 Change 39571 on 2002/07/10 by jacarey@fl_jcarey2 1. Boolean B0 is set for trans_bitblt packet 2. ME_INIT Clarifications for ALU and Texture write enables for LCC and - Fixed typo of for vertex shader base size Set Constant packets Added note that pixel shader base must be greater than vertex shader base address.

Added notes to set B0 boolean for some of the new 2D packets. Change 39567 on 2002/07/10 by jacarey@fl_jcarey2 Miscellanesous Corrections for 2D Packets Change 39764 on 2002/07/11 by georgev@ma_georgev Change 39565 on 2002/07/10 by csampayo@fl_csampayo_r400 Minor textual updates Change 39759 on 2002/07/11 by imuskatb@imuskatb_r400_win_cnimuskatb Change 39563 on 2002/07/10 by csampayo@fl_csampayo_r400 Updated v1.2 Modified Provoking Vertex sub-section to include provoking vertex and edge flags Change 39739 on 2002/07/11 by mkelly@fl_mkelly_r400_win_laptop Change 39552 on 2002/07/10 by csampayo@fl csampayo r400 Update showing priorities for Friday's meeting. Added Rectangle List Processing sub-section to the SU section Change 39700 on 2002/07/11 by jacarey@fl_jcarey2 Change 39486 on 2002/07/10 by khabbari@khabbari r400 win Fix Typos in Instr Prefetch and Set State Packets line buffer test plan for phase 2 released Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history added: shader test for debug Change 39399 on 2002/07/10 by jimmylau@jimmylau r400 win tor Change 39088 on 2002/07/09 by rbell@rbell crayola win cvd Add section 10.4 in CRTC architecture and implementation specs, for double buffered Updated status for LUT Host RW Add sections 5.6 to 5.8 in CRTC testplan, for overscan, interlaced timing mode and Change 39078 on 2002/07/09 by csampayo@fl_csampayo_r400 double buffered registers Undated status for the following tests: Change 39359 on 2002/07/10 by rbell@rbell_crayola_win_cvd r400vgt_edgeflags_triangle_fan_01 Updated for Kscope r400vgt_edgeflags_triangle_wflags_01 r400vgt_edgeflags_triangle_strip_01 r400vgt_edgeflags_triangle_list_01 r400vgt_edgeflags_triangle_list_01 r400vgt_edgeflags_quad_strip_01 r400vgt_edgeflags_quad_list_01 Change 39350 on 2002/07/10 by rbell@rbell_crayola_win_cvd r400vgt edgeflags polygon 01 Change 39347 on 2002/07/10 by smoss@smoss crayola win Change 39062 on 2002/07/09 by mkelly@fl_mkelly_r400_win_laptop VFD Edge flag support for Constant to EX1 operation with example test. Change 39346 on 2002/07/10 by rbell@rbell_crayola_win_cvd Change 39045 on 2002/07/09 by jayw@MA_JAYW Updated file capture format, added optional macro signal capture Change 39331 on 2002/07/10 by smoss@smoss crayola win Change 39016 on 2002/07/09 by mpersaud@mpersaud r400 win tor SU Tests Updated revision number Change 39273 on 2002/07/09 by jacarey@fl_jcarey_desktop Change 39015 on 2002/07/09 by mpersaud@mpersaud r400 win tor Context is on data bits 12:10 !!! Tie off ICON_DCCARB_rswap & CURSOR_DCCARB_rswap to zero in DCCARB as it is not generated by either block Change 39245 on 2002/07/09 by jacarey@fl_jcarey_desktop Micro Engine Updates Change 39004 on 2002/07/09 by bryans@bryans_crayola_doc Change 39237 on 2002/07/09 by jacarey@fl_jcarey_desktop There are 2 copies in the depot of this document: This one (version 4.2) is out of date. The most up to date one (version 4.4) resides in doc_lib/testenv. I left that copy there since it 1. Direct write path from micro engine behavior applies to both emulation and simulation. Adjusted address of immd_swap in local address Change 39003 on 2002/07/09 by bryans@bryans_crayola_doc Change 39220 on 2002/07/09 by csampayo@fl_csampayo_r400 Updated as per status meeting 1 Added Litest to SU suite Updated test_list accordingly
 Updated relevant status on the test tracker Change 38911 on 2002/07/08 by jacarey@fl_jcarey_desktop 1. Remove Set Cf Constant Packet Change 39124 on 2002/07/09 by ygiang@ygiang_r400_win_marlboro_p4 Added code for new Set Constant packet 3. Preparations for writing constants to external memory Page 227 of 441 Page 228 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 39679 on 2002/07/11 by jayw@MA_JAYW

Change 39862 on 2002/07/11 by gabarca@gabarca_crayola_win_cvd

RB Arch spec: modified export buffer depth storage, added explanations Change 38652 on 2002/07/08 by tho@tho_r400_win Change 38815 on 2002/07/08 by tho@tho r400 win updated Change 38648 on 2002/07/08 by vliu@vliu_r400_cnvliu100_win_cvd Change 38813 on 2002/07/08 by mmantor@mmantor_r400_win assigned quad id to the lod correct term Change 38643 on 2002/07/08 by imuskatb@imuskatb r400 win cnimuskatb Change 38785 on 2002/07/08 by csampayo@fl_csampayo_r400 Added new CMDKeys for DAC Added status for the following SU tests: r400su_provoking_vtx_point_01 r400su_provoking_vtx_line_01 r400su_provoking_vtx_triangle_01 Change 38642 on 2002/07/08 by efong@efong_r400_win_tor_doc updated Change 38743 on 2002/07/08 by mzhu@mzhu r400 win tor Change 38618 on 2002/07/08 by rbell@rbell crayola win cvd Update for double buffer register Change 38735 on 2002/07/08 by imuskatb@imuskatb r400 win cnimuskatb Change 38421 on 2002/07/05 by gabarca@gabarca_crayola_win_cvd updated (1st draft) of Dispout Test plan Change 38722 on 2002/07/08 by rbell@rbell_crayola_win_cvd Change 38412 on 2002/07/05 by nbarbier@nbarbier r400 win tor updated test list after test plan review Updated TMDS test descriptions Change 38697 on 2002/07/08 by imuskatb@imuskatb r400 win cnimuskatb Change 38392 on 2002/07/05 by csampayo@fl csampayo lt r400 $Added\ Edge\ Flag\ Processing\ and\ Provoking\ Vertex\ Processing\ sub-sections\ (in\ the\ SU\ Section).$ Updated format of complete SU\ Section. Change 38670 on 2002/07/08 by chwang@chwang_doc_r400_win_cvd Change 38371 on 2002/07/05 by csampayo@fl_csampayo_lt_r400 Undate. 1. Added edge flag and provoking vertex sections to SU Polygon Mode 2. Moved $\rm r400su_edge_flag_01$ to appropriate section Change 38661 on 2002/07/08 by efong@efong_r400_win_tor_doc Change 38348 on 2002/07/05 by gabarca@gabarca_crayola_win_cvd Change 38658 on 2002/07/08 by jasif@jasif_r400_win_tor Change 38347 on 2002/07/05 by mkelly@fl mkelly r400 win laptop Updated. Change 38654 on 2002/07/08 by nluu@nluu_r400_doclib_cnnb Page 229 of 441 Page 230 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history VFD edge flag support and example, note: waiting on bug fix in ccgen.cpp to be checked Added autofill test Change 38344 on 2002/07/05 by gregs@gregs_r400_win_marlboro Change 38125 on 2002/07/04 by mzhu@mzhu_r400_win_tor <added indirect access to ROM memory Update for double buffer register Change 38339 on 2002/07/05 by subad@MA SUBA Change 38097 on 2002/07/04 by lkang@lkang r400 win tor updated area of t.cd. Area increased by 2 sq.mm. bcos the correct area estimate of degamma logic was entered. Originally an estimate was entered. Change 38095 on 2002/07/04 by bryans@bryans_crayola_doc Change 38338 on 2002/07/05 by jasif@jasif_r400_win_tor Update for July 1 week Change 38070 on 2002/07/04 by nbarbier@nbarbier r400 win tor Change 38312 on 2002/07/05 by jacarey@fl jcarey2 Updated Milestone 2 Tests Clears 2D Flag when writing to the CONTEXT_ALLOCATION_FLAGS Change 37973 on 2002/07/03 by jasif@jasif r400 win tor Change 38294 on 2002/07/05 by jacarey@fl jcarey2 New Addresses for Setting the Context Allocation Flags and the associated 2D flag. Change 37951 on 2002/07/03 by llefebvr@llefebvre_laptop_r400 Change 38285 on 2002/07/05 by jacarey@fl_jcarey2 Backup Updates to ME_INIT Change 37950 on 2002/07/03 by jasif@jasif_r400_win_tor 1. Instruction Thresholds need to be programmed for Real-Time 2. Side affects that occur when re-programming MAX_CONTEXT Undated. Change 38275 on 2002/07/05 by tho@tho_r400_win Change 37926 on 2002/07/03 by jacarey@fl_jcarey2 -updated test document Updates for Small Text and HostData Blt packets w.r.t. SRC X term calculation updated model document Change 37925 on 2002/07/03 by mmantor@mmantor_r400_win Change 38271 on 2002/07/05 by rbell@rbell_crayola_win_cvd updated the sc sq interface definition Added auto fill tests Change 37905 on 2002/07/03 by rbell@rbell crayola win cvd Change 38257 on 2002/07/05 by bryans@bryans_crayola_doc Updated schedule, added more alpha blending tests Add legacy version of display format (this needs to be updated) Change 37852 on 2002/07/03 by mkelly@fl_mkelly_r400_win_laptop Change 38254 on 2002/07/05 by bryans@bryans_crayola_doc Good test for basic checks of sequence/scan conversion/shader operation... Update with misc. tasks Change 37847 on 2002/07/03 by rbell@rbell_crayola_win_cvd Change 38126 on 2002/07/04 by rbell@rbell crayola win cvd Page 231 of 441 Page 232 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

- update

Change 38829 on 2002/07/08 by Iseiler@Iseiler r400 win marlboro

Change 37832 on 2002/07/03 by mzhu@mzhu r400 win tor updated tess level constraints Update for MH data return Change 37675 on 2002/07/02 by vliu@vliu_r400_cnvliu100_win_cvd Change 37831 on 2002/07/03 by hartogs@fl hartogs In description of register VGT_HOS_MAX_TESS_LEVEL, changed valid discrete levels from 1 thru 15 inclusive to 1 thu 14 inclusive. Change 37664 on 2002/07/02 by jacarey@fl_jcarey2 This change was actually checked in by Brian Buchner yesterday, but he did not update the revision number or log Added Microcode for 2D Paint Packet Includes use of subroutines ... i.e. Call & Return Instructions Change 37798 on 2002/07/03 by imuskatb@imuskatb_r400_win_cnimuskatb Change 37642 on 2002/07/02 by jayw@MA_JAYW initial rev Change 37794 on 2002/07/03 by efong@efong_r400_win_tor_doc Change 37613 on 2002/07/02 by frivas@FL_FRivas updated undate to number of tests in "Schedule" sheet Change 37742 on 2002/07/02 by csampayo@fl_csampayo_r400 Change 37607 on 2002/07/02 by gregs@gregs_r400_win_marlboro 1. Updated description/status for the following tests in the tracker:
r400vgt_provoking_vtx_all_01 r400vgt_hos_cubic_pos_pnt_d
2. Sorted test_list added hardwired at the top of chip.v options (straps) r400vgt_hos_cubic_pos_pnt_discrete_01 Change 37595 on 2002/07/02 by chwang@chwang_doc_r400_win_cvd Change 37706 on 2002/07/02 by gabarca@gabarca_crayola_win_cvd Cleaned up descriptions of legacy non-standard VGA registers, added that DISP_START, BYTE PAN and ATTR_PPAN are loaded every line Change 37594 on 2002/07/02 by efong@efong_r400_win_tor_doc Updated Change 37705 on 2002/07/02 by tho@tho_r400_win Change 37563 on 2002/07/02 by jacarey@fl_jcarey2 updated cursor test goldens updated milestone 2 test list Update for the arbitration in the RCIU Change 37702 on 2002/07/02 by jasif@jasif r400 win tor Change 37562 on 2002/07/02 by tho@tho r400 win Change 37557 on 2002/07/02 by jasif@jasif_r400_win_tor Change 37690 on 2002/07/02 by jhoule@MA_JHOULE Changed format to removed level skipping. Change 37681 on 2002/07/02 by bbuchner@fl bbuchner r400 win Change 37549 on 2002/07/02 by rbell@rbell crayola win cvd tessellation engine creation updated for alpha blending Page 234 of 441 Page 233 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 37170 on 2002/06/28 by jasif@jasif_r400_win_tor Change 37536 on 2002/07/02 by jacarey@fl jcarey2 1. Update PFP Pseudocode for the case where the INDX_BASE/Size are not present in w_indx packet.

2. Updated algorithm for draw_indx in the PM4 Spec. Change 37101 on 2002/06/28 by jasif@jasif_r400_win_tor Updated. Change 37534 on 2002/07/02 by jacarey@fl jcarey2 Change 36997 on 2002/06/28 by lkang@lkang_r400_win_tor Update description for LCC packet.
 Strike through packets that were obsolete/changed as of June 15th clock specs for bif and do Change 37477 on 2002/07/01 by csampayo@fl_csampayo_r400 Change 36991 on 2002/06/28 by gregs@gregs_r400_linux_marlboro 1. Updated the display size, test description and other minor test - format changes for the following tests r400vgt_dma_swap_indx16_01.cpp r400vgt_dma_swap_indx32_01.cpp Change 36985 on 2002/06/28 by jacarey@fl jcarey2 Add Defaults to the Spreadsheet 2. Updated the tests descriptions on the test tracker for above tests Change 36929 on 2002/06/27 by gregs@gregs_r400_linux_marlboro 3. Deleted the following test from the test tracker and adjusted Schedule accordingly: r400vgt_hos_PNQ_tp_ln_cont_13_16_texture_lighting_projection.cpp < added IO_CG_refclk > Change 36895 on 2002/06/27 by mzhu@mzhu r400 win tor Change 37456 on 2002/07/01 by gregs@gregs_r400_linux_marlboro Update overlay zero expansion <reset bring-up > Change 36880 on 2002/06/27 by jasif@jasif_r400_win_tor Change 37429 on 2002/07/01 by ashishs@fl_ashishs_r400_win Updated status. Reorganized features into more subsections Change 36872 on 2002/06/27 by gabarca@gabarca_crayola_win_cvd Change 37376 on 2002/07/01 by mkelly@fl mkelly r400 win laptop Completed VGAHDP spec (except performance) More tests validating reference vertex delta pixel calcs for baryc interp. Change 36862 on 2002/06/27 by frising@ma_frising Change 37217 on 2002/06/28 by lkang@lkang r400 win tor Add INDEX_ROUND field to vfetch instruction (0=round, 1=truncate to negative infinity)
-Make OFFSET_X in vfetch instruction a signed 23-bit integer. Change 37199 on 2002/06/28 by gabarca@gabarca_crayola_win_cvd updated VGAHDP Change 36843 on 2002/06/27 by mpersaud@mpersaud r400 win tor Change 37174 on 2002/06/28 by csampayo@fl_csampayo_r400 Updated documents to reflect actual DCCIF implementation Added the following new VGT tests and updated test tracker and test_list. Change 36842 on 2002/06/27 by mpersaud@mpersaud_r400_win_tor Page 235 of 441 Page 236 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 37677 on 2002/07/02 by bbuchner@fl bbuchner r400 win

Added zero expansion tests

r400vgt_immed_index_tri_strip_01 r400vgt_immed_index_tri_list_01 r400vgt_immed_index_tri_fan_01 r400vgt_immed_index_rectangle_list_01 General document clean up and maintenance Change 36836 on 2002/06/27 by mkelly@fl_mkelly_r400_win_laptop Perspective-Correct barycentric coordinate interpolation simple tests verifying combos of r400vgt immed index polygon 01 ref v0 locations r400vgt_immed_index_quad_strip_0 r400vgt_immed_index_quad_list_01 Change 36831 on 2002/06/27 by jayw@MA_JAYW Change 36772 on 2002/06/27 by mzhu@mzhu_r400_win_tor pre-1st triange render check in Correct REDD LINE COUNT logic for color cursor Change 36824 on 2002/06/27 by jacarey@fl_jcarey2 Change 36755 on 2002/06/27 by jacarey@fl_jcarey2 Document Polarity Inversion of the Deallocation FIFO Booleans used by the Micro Engine. Add Pixel and Vertex Shader Booleans and Status Signals. Change 36802 on 2002/06/27 by mzhu@mzhu_r400_win_tor Change 36747 on 2002/06/27 by jacarey@fl jcarey2 Correct Y_alpha for graphics and overlay alpha blending Update Pseudocode for the POLYLINE PM4 Packet. Change 36792 on 2002/06/27 by tho@tho_r400_win Change 36731 on 2002/06/27 by jacarey@fl_jcarey2 Add Vertex and Pixel Dealloc FIFO Full Signals to Boolean Register. emu feature list added Change 36785 on 2002/06/27 by frising@ma_frising Change 36718 on 2002/06/27 by mkelly@fl_mkelly_r400_win_laptop Another 1.40 checkpoint. Update Affolder 1.49 Greekpoint.

-declare noise texture and related functionality as being unsupported on r400.

-adjust fetch opcodes for future growth. 0..15 = fetches, 16..23 = gets, 24..31 = sets

-move height specifier in SIZE field up 3-bits to allow for future growth of max 2D Change 36697 on 2002/06/27 by jacarey@fl_jcarey2 Miscellaneous Typos -added DXN compressed 2 channel texture format for normals (and colors) specify that number format conversion will happen for compressed texture formats (e.g. Change 36614 on 2002/06/26 by csampayo@fl_csampayo_r400 DXT/DXN) -make SIGNED_RF_MODEL_ALL apply to unsigned biased RF numbers. Evan pointed out that this is needed to do the *2-1 type mapping. Persumably since we have this for Updated status for the following tests: r400vgt_dma_index_quad_list_01 r400vgt_dma_index_quad_strip_01 signed numbers this is straight forward to add. r400vgt_dma_index_polygon_01 -Until we understand what MS really wants, we are keeping our getgradients as is and not adding a setgradients/textldd. Change 36531 on 2002/06/26 by mzhu@mzhu_r400_win_tor Change 36784 on 2002/06/27 by gregs@gregs_r400_linux_marlboro Add DMIF data return order <remove ROM_strap_emu_desktop> Change 36526 on 2002/06/26 by gregs@gregs_r400_win_marlboro Change 36778 on 2002/06/27 by csampayo@fl_csampayo_r400 DRAM select Updated status for the following VGT tests: Change 36521 on 2002/06/26 by mzhu@mzhu_r400_win_tor Ex. 2050 --- R400 Document Library FH --- folder history Ex. 2050 --- R400 Document Library FH --- folder history r400vgt_dma_index_tri_list_01 Add more details for ICON and CURSOR implementation. Update LUT host read/write r400vgt dma index tri fan 01 r400vgt dma index tri strip 01 Change 36510 on 2002/06/26 by mkelly@fl_mkelly_r400_win_laptop r400vgt_dma_index_tri_wflags_01 Change 36274 on 2002/06/25 by ashishs@fl_ashishs_r400_win Update SC plan test approach for baryc interpolation reference pixel delta calculation Change 36508 on 2002/06/26 by gregs@gregs_r400_linux_marlboro update <re>olving top level chip connections ...></re> Change 36258 on 2002/06/25 by lkang@lkang_r400_win_tor Change 36488 on 2002/06/26 by whui@whui_r400_win_tor Test plan for R400 DCT Change 36191 on 2002/06/25 by gregs@gregs_r400_linux_marlboro Change 36480 on 2002/06/26 by chwang@chwang_doc_r400_win_cvd <misc names changes > Change 36171 on 2002/06/25 by jowang@jowang_R400_win Change 36479 on 2002/06/26 by chwang@chwang doc r400 win cvd added SHIFT IN BLACK and BLACK COLOR * Feature list for R400 IDCT. Change 36163 on 2002/06/25 by dclifton@dclifton_r400 Change 36476 on 2002/06/26 by rramsey@RRAMSEY_P4_r400_win Identified gradients as subpixel gradients Clean up SC dumps
Remove pa_sc.dmp since it is redundant
Add sc_rbinn.dmp which only contains sc_relevant reg_writes so tb_sc_runs faster
Rearrange dump levels so only block level interfaces are dumped at level 1, Change 36159 on 2002/06/25 by jacarey@fl_jcarey2 Update draw_indx pseudocode. Change 36157 on 2002/06/25 by efong@efong_r400_win_tor_doc hw accurate internals are dumped at level 2, and non-hw accurate are dumped Update emu dumps block diagram to reflect changes Updated with autoreplication and autocentering for extended is done Change 36473 on 2002/06/26 by imuskatb@imuskatb r400 win cnimuskatb Change 36154 on 2002/06/25 by jacarey@fl jcarey2 Make microh to microm and mrh to mrm Updated Change 36431 on 2002/06/26 by rherrick@ma rherrick crayola Change 36145 on 2002/06/25 by csampayo@fl csampayo r400 Documentation for Multi-streamed RB Client interface. Various updates to VGT section. Added test numbering to CL/VTE section Change 36134 on 2002/06/25 by rfevreau@rfevreau_r400_win Change 36394 on 2002/06/26 by jacarey@fl_jcarey2 Updates for Constant Write Enables Controlled by the LCC Packet Updated TMDS schedule and not the Set_Constant packet Change 36124 on 2002/06/25 by rbell@rbell_crayola_win_cvd Change 36302 on 2002/06/25 by csampayo@fl csampayo r400 Added alpha blending tests, update schedule for this Undated status for following tests Page 239 of 441 Page 240 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

r400vgt immed index tri wflags 01

Cleared up operation of IDCT interface.

Add note on management of the external memory surfaces for 2D. Change 35994 on 2002/06/24 by csampayo@fl_csampayo_lt_r400 Change 35807 on 2002/06/24 by frivas@FL_FRivas Undate to fix counters for some tests in the CL/VTE section update to test counts in Schedule sheet Change 35974 on 2002/06/24 by jasif@jasif_r400_win_tor Change 35804 on 2002/06/24 by frivas@FL_FRivas undate to HOS PNO test Change 35961 on 2002/06/24 by csampayo@fl_csampayo_lt_r400 Change 35799 on 2002/06/24 by chwang@chwang_doc_r400_win_cvd Updated status for the following VGT tests: r400vgt_dma_engine_09 r400vgt_dma_engine_10 Change 35795 on 2002/06/24 by vliu@vliu_r400_cnvliu100_win_cvd Change 35947 on 2002/06/24 by gregs@gregs_r400_linux_marlboro Update intel agp stp/busy protocol. Change 35787 on 2002/06/24 by frivas@FL_FRivas Change 35890 on 2002/06/24 by gregs@gregs_r400_linux_marlboro no change Change 35784 on 2002/06/24 by tho@tho_r400_win Change 35867 on 2002/06/24 by jacarey@fl_jcarey2 undated Status Spreadsheet Updated Change 35773 on 2002/06/24 by rbell@rbell crayola win cvd Change 35862 on 2002/06/24 by rvelez@rvelez_r400_win_tor Added overlay matrix transform tests Updated 6/24 Change 35769 on 2002/06/24 by ctaylor@fl_ctaylor_r400_win_marlboro Change 35830 on 2002/06/24 by frivas@FL_FRivas Added Baryc description to help define Shader Pipe usage for pixel interpolation. Update. Finished HOS PNQ test. Change 35765 on 2002/06/24 by jacarey@fl_jcarey2 Change 35826 on 2002/06/24 by jacarey@fl_jcarey2 Updates for Microcode Width Increase to 74 bits Updates for Post-June15th Packet Changes Change 35762 on 2002/06/24 by rbell@rbell_crayola_win_cvd Change 35818 on 2002/06/24 by frivas@FL FRivas Change 35746 on 2002/06/24 by ashishs@fl_ashishs_r400_win Change 35817 on 2002/06/24 by efong@efong r400 win tor doc undate Updated so that 06/22/02 done on 06/30/02 Page 242 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 35743 on 2002/06/24 by frivas@FL_FRivas Change 35546 on 2002/06/21 by jhoule@MA_JHOULE Check in for Tien to look at a bit Change 35739 on 2002/06/24 by jacarey@fl_jcarey2 Change 35545 on 2002/06/21 by mkelly@fl_mkelly_r400_win_laptop 1. Microcode RAM is single-ported Update Updated Sections: 6.11 Change 35527 on 2002/06/21 by jacarey@fl_jcarey2 7.28 7.29 Clarify Event Initiators that generate signals from SQ and RC> Change 35517 on 2002/06/21 by jacarey@fl_jcarey2 Change 35732 on 2002/06/24 by mkelly@fl mkelly r400 win laptop Update Documents Update Change 35508 on 2002/06/21 by mkelly@fl_mkelly_r400_win_laptop Change 35641 on 2002/06/21 by ashishs@fl ashishs r400 win Simple CL test Change 35501 on 2002/06/21 by rbell@rbell_crayola_win_cvd Change 35639 on 2002/06/21 by csampayo@fl_csampayo_r400 Updated some graphics tests in testplan Added two overlay basic tests (8888 and 2101010) Updated status for the following tests: r400vgt_reuse_index_triangle_list_02 r400vgt_reuse_index_triangle_list_03 Change 35494 on 2002/06/21 by jacarey@fl_jcarey2 Fix Typo: T1 Constant should be T0 for Source informatoin. Change 35617 on 2002/06/21 by frivas@FL_FRivas Change 35352 on 2002/06/20 by jasif@jasif_r400_win_tor update to HOS PNT tests Change 35604 on 2002/06/21 by jasif@jasif_r400_win_tor Change 35330 on 2002/06/20 by ashishs@fl ashishs r400 win Updated. Change 35597 on 2002/06/21 by khabbari@khabbari_r400_win Change 35315 on 2002/06/20 by jasif@jasif r400 win tor auto coef cal released Updated. Change 35571 on 2002/06/21 by jasif@jasif_r400_win_tor Change 35282 on 2002/06/20 by jacarey@fl_jcarey2 Updated. Increased Depth of the Scratch Memory
 Added Incremental_Update Boolean
 Added Context_Dirty Boolean Change 35548 on 2002/06/21 by jacarey@fl_jcarey2 Add TC_RBBM_busy and add to RBBM_STATUS register Change TP_RBBM_busy to TPC_RBBM_busy Change 35264 on 2002/06/20 by fhsien@fhsien r400 win marlboro Page 243 of 441 Page 244 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 35814 on 2002/06/24 by efong@efong r400 win tor doc

Change 36091 on 2002/06/25 by jacarey@fl_jcarey2

Change 35218 on 2002/06/20 by georgev@ma_georgev Change 35048 on 2002/06/19 by lkang@lkang_r400_win_tor Added changes from Lauraunt updated emulation in vga, scaler, crtc, lb, & dispout. Change 35199 on 2002/06/20 by jasif@jasif_r400_win_tor Change 35028 on 2002/06/19 by jowang@jowang_R400_win Updated. updated Change 35176 on 2002/06/20 by jacarey@fl_jcarey2 Change 35008 on 2002/06/19 by jacarey@fl_jcarey2 Document that Type-0 packets cannot be used for instruction memory Updates for IM_Load_Immediate Support Change 35007 on 2002/06/19 by tho@tho r400 win Change 35157 on 2002/06/20 by ashishs@fl_ashishs_r400_win -2x magnify cursor complete -color cursor complete update Change 35153 on 2002/06/20 by georgev@ma_georgev Change 34985 on 2002/06/19 by jacarey@fl_jcarey2 Preparations for Context Management
 Event Timestamp Discards Data If Event ID Does Not Match Change 35101 on 2002/06/20 by jacarey@fl_jcarey2 3. Added DMA_Data_Source and Context_Dirty local Addresses Change 34977 on 2002/06/19 by jacarey@fl_jcarey2 SRC1 into shifter is only 5 bits Change 35097 on 2002/06/20 by jacarey@fl_jcarey2 Additions to Micro Engine Address Map 1. DMA Data Sour Fix Height and Width parameter sizes in packets 2. Context_Dirty Boolean Change 34959 on 2002/06/19 by jacarey@fl_jcarey2 Change 35084 on 2002/06/19 by csampavo@fl csampavo r400 Updated status for the following tests: Update Base Addresses for Determining Incremental Updates. Updated status for the foil r400vgt_dma_engine_01 r400vgt_dma_engine_02 r400vgt_dma_engine_03 r400vgt_dma_engine_05 r400vgt_dma_engine_05 r400vgt_dma_engine_06 r400vgt_dma_engine_07 r400vgt_dma_engine_07 Change 34953 on 2002/06/19 by mkelly@fl_mkelly_r400_win_laptop Update to include control of Z_WRITE_ENABLE and ZFUNC... awaiting support updates to RB emu_lib... Change 34936 on 2002/06/19 by imuskatb@imuskatb r400 win cnimuskatb r400vgt_dma_engine_08 Change 35082 on 2002/06/19 by mpersaud@mpersaud r400 win tor Change 34920 on 2002/06/19 by jowang@jowang_R400_win Updated spec to be inline with actual implementation updated version Change 35053 on 2002/06/19 by rvelez@rvelez_r400_win_ton Page 245 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 34918 on 2002/06/19 by frising@ma_frising Change 34690 on 2002/06/18 by efong@efong_r400_win_tor_doc Another 1.40 chechpoint Updated and put in who is responsible for M2 stuff -go only with YUV replication (remove YUV interpolation)
-rough in DXN1 and DXN2 compressed normal formats Change 34679 on 2002/06/18 by jasif@jasif_r400_win_tor Change 34914 on 2002/06/19 by bryans@bryans crayola doc Updated Add emulate/simulate updated command line options (used for launching the emulation and simulation from the Makefiles/perl scripts) Change 34654 on 2002/06/18 by jacarey@fl_jcarey2 Multiplier in the Micro Engine is 14x14 Change 34769 on 2002/06/18 by efong@efong_r400_win_tor_doc Change 34629 on 2002/06/17 by jasif@jasif_r400_win_tor Updated ... changed overscan to be done Change 34756 on 2002/06/18 by tho@tho r400 win Change 34623 on 2002/06/17 by tho@tho r400 win -matrix transform and adjustment complete with debug test -ycbcr subsampling complete with debug test Change 34750 on 2002/06/18 by imuskatb@imuskatb_r400_win_cnimuskatb Change 34614 on 2002/06/17 by jowang@jowang R400 win updated horizontal filter (not complete) Change 34747 on 2002/06/18 by imuskatb@imuskatb r400 win cnimuskatb Change 34608 on 2002/06/17 by snezana@snezana crayola win cvd updated Change 34731 on 2002/06/18 by bryans@bryans crayola doc Change 34601 on 2002/06/17 by jasif@jasif r400 win tor Update to reflect the additions in TESTINFO object getArchitecture() Change 34591 on 2002/06/17 by rbell@rbell_crayola_win_cvd getConfiguration() getSimMode() updated getSimType() getTimingMode() Change 34582 on 2002/06/17 by bryans@bryans_crayola_doc getTestMode() - removed reference to Architecture object (this is retired for the new chip library) Change 34571 on 2002/06/17 by paulv@MA_PVELLA Change 34730 on 2002/06/18 by imuskatb@imuskatb_r400_win_cnimuskatb Forgot to save changes from previous submission updated Change 34567 on 2002/06/17 by paulv@MA_PVELLA Change 34722 on 2002/06/18 by rfevreau@rfevreau_r400_win Updated MHS with latest specifications and hardware changes TMDS schedule updated Change 34557 on 2002/06/17 by jasif@jasif_r400_win_tor Page 247 of 441 Page 248 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Updated 6/19/02

Update errors

Updated. Update to HOS PNT texture and lighting test Change 34552 on 2002/06/17 by jacarey@fl_jcarey2 Change 34475 on 2002/06/17 by rramsey@RRAMSEY_P4_r400_win Remove Slow Client Protocol from the RBBM documentation. Add documentation on sc dump points Change 34550 on 2002/06/17 by gabarca@gabarca_crayola_win_cvd Change 34457 on 2002/06/17 by tho@tho_r400_win updated table of vga extended registers updated Change 34534 on 2002/06/17 by frivas@FL_FRivas Change 34454 on 2002/06/17 by frivas@FL FRivas Update to PNL tests Update to HOS PNT test with changing normals Change 34530 on 2002/06/17 by ashishs@fl_ashishs_r400_win Change 34452 on 2002/06/17 by jasif@jasif r400 win tor Change 34527 on 2002/06/17 by frivas@FL FRivas Change 34443 on 2002/06/17 by chwang@chwang doc r400 win cvd Update to HOS PNL test Change 34515 on 2002/06/17 by frivas@FL_FRivas Change 34439 on 2002/06/17 by imuskatb@imuskatb_r400_win_cnimuskatb Update to HOS PNT using discrete tessellation with lighting and texturing Change 34508 on 2002/06/17 by frivas@FL_FRivas Change 34438 on 2002/06/17 by imuskatb@imuskatb_r400_win_cnimuskatb Update to HOS PNT with discrete tessellation and orthographic projection Updated Change 34500 on 2002/06/17 by frivas@FL_FRivas Change 34437 on 2002/06/17 by jacarey@fl_jcarey2 Undate to HOS PNT test Remove Constant Flag from the write requesters. Change 34498 on 2002/06/17 by mkelly@fl_mkelly_r400_win_laptop Change 34436 on 2002/06/17 by frivas@FL_FRivas Test SC rectangle list vertex order interpretation.. Update to HOS PNT texture test Change 34491 on 2002/06/17 by frivas@FL_FRivas Change 34431 on 2002/06/17 by jacarey@fl_jcarey2 Update to PNT HOS test that uses only a single PNT in wireframe mode for continuous 1. Set Constant: Qualified incrementing coherency counter with tessellation that varies between 1.0-14, with reuse 4-16 CONST WRITE ENABLE Updated 2D-to-3D mode determination. Change 34485 on 2002/06/17 by frivas@FL FRivas Change 34417 on 2002/06/17 by frivas@FL_FRivas Update to HOS PNT texture and lighting test. Update to HOS PNT test that adjusts normals during runtime Change 34479 on 2002/06/17 by frivas@FL_FRivas Page 249 of 441 Page 250 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 34221 on 2002/06/14 by efong@efong_r400_win_tor_doc Change 34415 on 2002/06/17 by rbell@rbell_crayola_win_cvd Changed to testchip arch and testchip conf Added in new vertical replication tests Change 34414 on 2002/06/17 by chwang@chwang_doc_r400_win_cvd Change 34207 on 2002/06/14 by rvelez@rvelez_r400_win_tor Updated 6/14 Update. Change 34413 on 2002/06/17 by rbell@rbell_crayola_win_cvd Change 34205 on 2002/06/14 by snezana@snezana_crayola_win_cvd updated updated for alu inside framecntl Change 34412 on 2002/06/17 by imuskatb@imuskatb_r400_win_cnimuskatb Change 34183 on 2002/06/14 by efong@efong_r400_win_tor_doc Disconnect Test + golden Just strikethrough on the tap configuration Change 34146 on 2002/06/14 by mmantor@mmantor r400 win Change 34403 on 2002/06/17 by efong@efong_r400_win_tor_doc moved spec to sc directory and added a test bench document to the directory Updated Change 34141 on 2002/06/14 by tien@ma_spinach Change 34369 on 2002/06/16 by ashishs@fl_ashishs_r400_win Updated TP and TC areas Change 34061 on 2002/06/14 by imuskatb@imuskatb r400 win cnimuskatb Change 34294 on 2002/06/14 by jasif@jasif r400 win tor Updated Change 33916 on 2002/06/13 by jasif@jasif_r400_win_tor Change 34290 on 2002/06/14 by csampayo@fl_csampayo_lt_r400 Various document updates Change 33910 on 2002/06/13 by mzhu@mzhu_r400_win_tor Change 34281 on 2002/06/14 by lkang@lkang_r400_win_tor add test cases for grphics/overlay blend updated scaler emulation schedule Change 33835 on 2002/06/13 by mzhu@mzhu_r400_win_tor Change 34269 on 2002/06/14 by mkelly@fl_mkelly_r400_win_laptop add test plan for second milestone Change 33820 on 2002/06/13 by hartogs@fl_hartogs Change 34264 on 2002/06/14 by nbarbier@nbarbier_r400_win_tor New revision is 0.96 Added diagram to show VGT configurations.
Updated Tessellation Engine fixed function table. Updated Auto-detection section. Change 34242 on 2002/06/14 by kcorrell@kcorrell_r400_docs_marlboro Change 33807 on 2002/06/13 by gabarca@gabarca crayola win cvd update Page 251 of 441 Page 252 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

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Change 33464 on 2002/06/12 by jasif@jasif_r400_win_tor
        Added in open issues add register bit to select if line compare happens in compared line
of the next
                                                                                                                                                  Undated
Change 33796 on 2002/06/13 by gabarca@gabarca_crayola_win_cvd
                                                                                                                                          Change 33362 on 2002/06/11 by frising@ma_frising
       updated open issue: readback of VGA DISP interface
                                                                                                                                                  Post June 15 1.40 checkpoint
Change 33794 on 2002/06/13 by gabarca@gabarca_crayola_win_cvd
                                                                                                                                          Change 33349 on 2002/06/11 by ashishs@fl ashishs r400 win
        Updated open issues and legacy reg list
                                                                                                                                                  update
Change 33757 on 2002/06/13 by lkang@lkang_r400_win_tor
                                                                                                                                          Change 33339 on 2002/06/11 by frivas@FL_FRivas
        Incorporated emulation, netlist, & chip integration schedules
                                                                                                                                                  Update to PNO HOS test.
Change 33619 on 2002/06/12 by imuskatb@imuskatb r400 win cnimuskatb
                                                                                                                                          Change 33329 on 2002/06/11 by mkelly@fl_mkelly_r400_win_laptop
         wrap around test updated display config to support sync_a\_start vga render test V1.0 - test run only
                                                                                                                                                  update, sc point tests....
                                                                                                                                          Change 33299 on 2002/06/11 by jayw@MA_JAYW
Change 33577 on 2002/06/12 by hartogs@fl_hartogs
                                                                                                                                                  more FB and cache line formats
        New revision number is 0.95
        Updated all register definitions to reflect new "driver friendly" address assignments. 
This was architecture-wide change made on 5/15/02. 
Changed GFX_COPY_STATE register description to reflect actual hardware
                                                                                                                                          Change 33282 on 2002/06/11 by frivas@FL FRivas
                                                                                                                                                  Update to HOS test for single PNT with cubic position and quadratic normal using
implementation.
       Deleted GFX PIPE CNTL register
        Detected Or A PIRC - NIN Legisler.

Added enumerations to the VGT_EVENT_INITIATOR register.

Added section about restrictions for fields in VGT_GRP_PRIM_TYPE register.

Removed TESS_INPUT_MODE field from VGT_HOS_CNTL register.

Changed VGT_SQ interface (in agreement with Laurent Lefebvre) so that the
                                                                                                                                          Change 33275 on 2002/06/11 by tho@tho r400 win
                                                                                                                                                  updated, matrix transform and adjustment emulation block completed
               VGT_SQ_end_of_vtx_vect and VGT_SQ_state signals are "don't care" if the VGT_SQ_continued signal is set.
                                                                                                                                          Change 33219 on 2002/06/11 by nbarbier@nbarbier r400 win tor
                                                                                                                                                  Updated description of TMDS reduction block
Change 33532 on 2002/06/12 by frising@ma_frising
                                                                                                                                          Change 33215 on 2002/06/11 by frivas@FL FRivas
        Another checkpoint. Start cleaning up usage tables
                                                                                                                                                  Update to HOS test of a single PNT with linear interpolation and continuous tessellation
Change 33518 on 2002/06/12 by frivas@FL_FRivas
                                                                                                                                          Change 33201 on 2002/06/11 by frivas@FL FRivas
       Update - Added a test to HOS PNT section. The new test implements lighting with
                                                                                                                                                  Update to status of HOS test of PNT's with lighting and texturing.
Change 33490 on 2002/06/12 by frivas@FL_FRivas
                                                                                                                                          Change 33199 on 2002/06/11 by frivas@FL_FRivas
       Update to HOS PNO test.
                                                                                                                                                  Update to HOS tests for continuous tessellation of PNT's
                                          Page 253 of 441
                                        Ex. 2050 --- R400 Document Library FH --- folder_history
                                                                                                                                                                                   Ex. 2050 --- R400 Document Library FH --- folder_history
Change 33195 on 2002/06/11 by csampayo@fl_csampayo_r400
                                                                                                                                          Change 33023 on 2002/06/10 by vromaker@MA VIC P4
       Edited Windows Registry, Test Format and Test Samples sections
                                                                                                                                                  updated sq top block diagram
Change 33177 on 2002/06/11 by jowang@jowang_R400_win
                                                                                                                                          Change 33021 on 2002/06/10 by ashishs@fl_ashishs_r400_win
        modified spreadsheet for 10 tap H
        updated lbscfp to output fixed point coefs to file
                                                                                                                                                  update
Change 33172 on 2002/06/11 by csampayo@fl_csampayo_r400
                                                                                                                                          Change 33002 on 2002/06/10 by jacarey@fl_jcarey2
                                                                                                                                                  Added RT GUI ACTIVE to rbbm status
        Update status for the following test
        r400vgt_hos_PNT_cp_qn_disc_14_04_lit_tex_proj_01
                                                                                                                                          Change 32990 on 2002/06/10 by nluu@nluu_r400_doclib_cnnb
Change 33148 on 2002/06/11 by frivas@FL_FRivas
                                                                                                                                                  - update
        Update to HOS tests of PNT and PNL
                                                                                                                                          Change 32988 on 2002/06/10 by jacarey@fl_jcarey2
Change 33147 on 2002/06/11 by frivas@FL_FRivas
                                                                                                                                                  Remove hirq pending from gui active determination
        Progress on HOS tests documented.
                                                                                                                                          Change 32987 on 2002/06/10 by vliu@vliu_r400_cnvliu100_win_cvd
Change 33098 on 2002/06/10 by bryans@bryans_crayola_doc
        Update based on today's discussion
                                                                                                                                          Change 32981 on 2002/06/10 by jacarey@fl_jcarey2
Change 33070 on 2002/06/10 by tho@tho_r400_win
                                                                                                                                                  Fix typo in sub-blk_prefetch packet.
DWORD count should be 7:0 because the largest size is 128 DWORDs.
        icon cursor testlist updated
Change 33054 on 2002/06/10 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                          Change 32973 on 2002/06/10 by jacarey@fl jcarey2
                                                                                                                                                  Add descriptions of packets for after June 15th Milestone.
Change 33041 on 2002/06/10 by jayw@MA JAYW
                                                                                                                                          Change 32963 on 2002/06/10 by csampayo@fl_csampayo_r400
       initial checkin
                                                                                                                                                  Updated status for the following tests:
                                                                                                                                                  r400vgt_line_list_01
r400vgt_quad_strip_01
r400vgt_quad_list_01
r400vgt_rectangle_list_01
r400vgt_polygon_01
r400vgt_line_loop_01
Change 33040 on 2002/06/10 by jayw@MA JAYW
        several 'admin' type signals
        clean and busy
                                                                                                                                                  r400vgt_point_list_01
r400vgt_line_strip_01
r400vgt_triangle_fan_01
r400vgt_triangle_list_01
        clocks
        removed shadow from queue encoding.
Change 33029 on 2002/06/10 by jacarey@fl jcarey2
        Check In All Files
                                                                                                                                                  r400vgt_triangle_wflags_01
                                                                                                                                                                                     Page 256 of 441
                                          Page 255 of 441
                                        Ex. 2050 --- R400 Document Library FH --- folder_history
                                                                                                                                                                                   Ex. 2050 --- R400 Document Library FH --- folder_history
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Change 32960 on 2002/06/10 by tho@tho r400 win Updated 6/7 Change 32785 on 2002/06/07 by jhoule@MA_JHOULE Change 32947 on 2002/06/10 by chwang@chwang_doc_r400_win_cvd Added separable variation, showing it still works. Weights stored now mean something else (a little bit). Update, Added self to Icon and Cursor for test API. Change 32939 on 2002/06/10 by jasif@jasif_r400_win_tor Change 32749 on 2002/06/07 by dclifton@dclifton_r400 Undated. Added description of VTE and VE Change 32935 on 2002/06/10 by jasif@jasif_r400_win_tor Change 32729 on 2002/06/07 by jasif@jasif_r400_win_tor Change 32921 on 2002/06/10 by rvelez@rvelez_r400_win_tor Change 32718 on 2002/06/07 by jacarey@fl_jcarey2 Updated 6/10 Added missing signal: CG_CP_pm_enb to external interfaces. Change 32907 on 2002/06/10 by jacarey@fl_jcarey2 Change 32683 on 2002/06/07 by efong@efong_r400_win_tor_doc Clarification on CMDFIFO Entries in Wait_Until Updated Change 32903 on 2002/06/10 by rbell@rbell_crayola_win_cvd Change 32679 on 2002/06/07 by jayw@MA_JAYW new depth blocks updated Change 32899 on 2002/06/10 by rbell@rbell crayola win cvd Change 32662 on 2002/06/07 by jacarey@fl jcarey2 Add note on 2D/3D transition detection to PFP section Change 32653 on 2002/06/07 by jacarey@fl jcarey2 Change 32897 on 2002/06/10 by imuskatb@imuskatb_r400_win_cnimuskatb Document method of determining 2D/3D transitions.. Change 32872 on 2002/06/09 by jimmylau@jimmylau r400 win tor Change 32647 on 2002/06/07 by bryans@bryans_crayola_doc Major update of DCCG specs after specs review Update with new top level targets: Change 32809 on 2002/06/07 by efong@efong_r400_win_tor_doc gen_block_list detailed_summary Add: block list.txt description to appendix Change 32807 on 2002/06/07 by efong@efong_r400_win_tor_doc Change 32643 on 2002/06/07 by dclifton@dclifton r400 updated Update with increased z precision, latest I/O and register spec. Page 257 of 441 Page 258 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history updated the RB_SX_index interface to include "RB_SX_index_op" Change 32641 on 2002/06/07 by jacarey@fl jcarey2 Change 32443 on 2002/06/06 by rbell@rbell_crayola_win_cvd Add 2D/3D Mode switch assumptions to pseudocode Added keyer tests Change 32621 on 2002/06/07 by jasif@jasif_r400_win_tor Change 32438 on 2002/06/06 by mzhu@mzhu r400 win tor Updated. Update description for ICON and CURSOR width and height registers. Change 32619 on 2002/06/07 by jacarey@fl_jcarey2 Change 32433 on 2002/06/06 by vgoel@fl vgoel2 Update CMDFIFO AVAIL for RBBM STATUS removed a repeated test and changed PNL test to require linear normal instead of quadratic normal Change 32609 on 2002/06/07 by jasif@jasif_r400_win_tor Change 32428 on 2002/06/06 by vgoel@fl vgoel2 Updated. Change 32600 on 2002/06/07 by jacarey@fl_jcarey2 added status of HOS test (% done) Update Soft Reset Register Text Change 32374 on 2002/06/06 by jacarey@fl_jcarey2 Change 32582 on 2002/06/07 by jhoule@MA_JHOULE Fix Typo in Section Name Change 32373 on 2002/06/06 by gregs@gregs_r400_linux_marlboro Arbitrary filter weight description Change 32574 on 2002/06/07 by vgoel@fl_vgoel2 vcs compiles. added description for test r400vgt hos PNT_disc_cp_qn_14_4_light_texture_stress.cpp and changed status of (% done) for couple of tests. Change 32369 on 2002/06/06 by jacarey@fl_jcarey2 1. Add Section for 2D Indirect Buffer Contents to 2D Appendix 2. Updated CP Initialization Sequence. Change 32569 on 2002/06/07 by Iseiler@Iseiler r400 win marlboro Changed SX_RB_mask_type to SX_RB_quad_type, removed RB_SX_index_next, added Change 32353 on 2002/06/06 by jacarey@fl_jcarey2 text and SX RB signals for new memory export method Fix Typo in the Trans Bitblt packet description Change 32562 on 2002/06/07 by gregs@gregs_r400_win_marlboro Change 32350 on 2002/06/06 by markf@markf_r400_win_marlboro removed 3 of the CG CP RT signals Undated Status Change 32473 on 2002/06/06 by georgev@ma_georgev Change 32334 on 2002/06/06 by semara@semara_r400_win_tor update for the text section Change 32451 on 2002/06/06 by bryans@bryans crayola doc Change 32300 on 2002/06/06 by rbell@rbell_crayola_win_cvd Update status - add DCCIF enhancement request update after review Change 32444 on 2002/06/06 by askende@andi r400 docs Change 32289 on 2002/06/06 by vgoel@fl_vgoel2 Page 259 of 441 Page 260 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 32805 on 2002/06/07 by rvelez@rvelez_r400_win_tor

Updated pdf to match current MemCtl.doc Change 32114 on 2002/06/05 by tho@tho r400 win Change 32279 on 2002/06/06 by dclifton@dclifton_r400 undated Connected up some repeng signals Change 32097 on 2002/06/05 by jacarey@fl_jcarey2 Change 32274 on 2002/06/06 by lseiler@lseiler r400 win marlboro Remove queued path busy from rbbm status register Moved and renamed to design/chip/memory/R400_Memory* Change 32080 on 2002/06/05 by jacarey@fl_jcarey2 Change 32272 on 2002/06/06 by Iseiler@Iseiler_r400_win_marlboro Removed Queued Path Busy from the RBBM STATUS Register Change 32073 on 2002/06/05 by gregs@gregs_r400_win_marlboro Change 32271 on 2002/06/06 by Iseiler@Iseiler r400 win marlboro update Moved here from design/blocks/mc Change 32061 on 2002/06/05 by nbarbier@nbarbier_r400_win_tor Change 32265 on 2002/06/06 by vgoel@fl_vgoel2 Updated TMDSA section. Changed discrete tessellation tests. Change 32055 on 2002/06/05 by rbell@rbell_crayola_win_cvd Change 32166 on 2002/06/05 by csampayo@fl_csampayo_r400 Added overlay/VP window swap tests Updated status for the following VGT tests: Change 32040 on 2002/06/05 by vgoel@fl_vgoel2 r400vgt_index_offset_01 r400vgt_index_offset_02 r400vgt_index_offset_03 Created descriptions for HOS tests: PNT (discrete, continuous), PNQ (continuous), PNL Change 32156 on 2002/06/05 by rvelez@rvelez_r400_win_tor Change 31999 on 2002/06/05 by jacarey@fl_jcarey2 Updated 6/5 Added CP_NRT_BUSY to CP_STAT register Change 32143 on 2002/06/05 by csampayo@fl_csampayo_r400 Change 31979 on 2002/06/05 by jacarey@fl_jcarey2 Updated status for the following VGT tests: RBBM Spec Updates r400vgt_index_dealloc_points_01 r400vgt_index_dealloc_line_list_01 r400vgt_index_dealloc_triangle_list_01 Change 31964 on 2002/06/05 by mmantor@mmantor r400 win added initial sc packer code to the sc.v and a test bench for it Change 32140 on 2002/06/05 by gregs@gregs_r400_linux_marlboro Change 31919 on 2002/06/05 by jacarey@fl jcarey2 display section updated for r400. Miscellaneous Updates to Diagram to Match the Design Page 262 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 31713 on 2002/06/04 by vgoel@fl vgoel2 Change 31878 on 2002/06/04 by Iseiler@Iseiler r400 win marlboro Rev 0.8 Memory Format document with revisions removed Change 31877 on 2002/06/04 by lseiler@lseiler_r400_win_marlboro Change 31711 on 2002/06/04 by markf@markf_r400_win_marlboro Memory Format spec: extensive revision, also moved from the MC block to a chip-level nop location Change 31707 on 2002/06/04 by markf@markf_r400_win_marlboro Change 31859 on 2002/06/04 by rbell@rbell_crayola_win_cvd Change 31701 on 2002/06/04 by csampayo@fl_csampayo_r400 Change 31858 on 2002/06/04 by gregs@gregs_r400_linux_marlboro Updated schedule added parallel ROM muxes .. Change 31695 on 2002/06/04 by jimmylau@jimmylau_r400_win_tor Change 31798 on 2002/06/04 by jimmylau@jimmylau_r400_win_tor Initial Revision of DCCG specs with diagrams for R400. fix the problem that DCCG top level diagram cannot be accessed from the DCCG specs. add sections 3.1, 3.2 and 3.3. Change 31680 on 2002/06/04 by smoss@smoss cravola win Change 31794 on 2002/06/04 by jacarey@fl_jcarey2 Change 31674 on 2002/06/04 by mkelly@fl mkelly r400 win 2. Added clarification of location for vertex and Pixel ALU constants for 2D processing Change 31779 on 2002/06/04 by rbell@rbell_crayola_win_cvd Change 31662 on 2002/06/04 by efong@efong_r400_win_tor_doc added in another kludge Change 31748 on 2002/06/04 by frivas@FL_FRivas Change 31607 on 2002/06/03 by frivas@FL FRivas Entered 4 tests for HOS in Sheet 1, section 1.5.1.1.9.6 Number of tests written updated. Change 31740 on 2002/06/04 by bryans@bryans_crayola_doc Change 31592 on 2002/06/03 by jacarey@fl jcarey2 Renamed LB feature list.doc to LB emu schedule.doc Checkpoint All Files Change 31737 on 2002/06/04 by jacarey@fl_jcarey2 Change 31591 on 2002/06/03 by jacarey@fl_jcarey2 1. Remove Unneeded Booleans Remove Clamping from ALU
 Temporary Depth Increase for Microcode RAM Fix Typos for Brush Decode Text Change 31580 on 2002/06/03 by csampayo@fl_csampayo_r400 Change 31730 on 2002/06/04 by jacarey@fl jcarev2 Updated hos test description Clarifications to which constants to write Page 263 of 441 Page 264 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

changed description of tests for continuous tessellation of PNT, PNQ and PNL

Change 32283 on 2002/06/06 by lseiler@lseiler_r400_win_marlboro

Change 32122 on 2002/06/05 by jacarey@fl_jcarey2

Add more qualifications to the generation of the destination load

Added post June15 staging version of texture insts/consts. Backup and minor updates. Change 31560 on 2002/06/03 by gregs@gregs_r400_linux_marlboro Change 31432 on 2002/06/03 by tho@tho r400 win vin + most of dvo interfaces. Change 31543 on 2002/06/03 by omesh@ma omesh Change 31422 on 2002/06/03 by efong@efong_r400_win_tor_doc Updated top level spreadsheet with latest information about RB Color blending test information. I was asked to defer the fog related tests to later and Yung had agreed to do the "No Blend" related tests as they are related to Shader Pipe.

Also added blending test names and new section on stress testing to my RBC document. Updated Change 31415 on 2002/06/03 by csampayo@fl_csampayo_r400 Undated status for the following test Change 31529 on 2002/06/03 by bryans@bryans crayola doc Initial regression distribution schedule for TO Change 31409 on 2002/06/03 by chwang@chwang_doc_r400_win_cvd Change 31506 on 2002/06/03 by gregs@gregs_r400_win_marlboro Undate. DVODATA is 24 bits wide. Change 31401 on 2002/06/03 by rbell@rbell_crayola_win_cvd Change 31476 on 2002/06/03 by dclifton@dclifton_r400 Update to include changes for Z precision, major change in I, J, and W gradient calculation. Update to I/O. Change 31395 on 2002/06/03 by jacarey@fl_jcarey2 Change 31475 on 2002/06/03 by jacarey@fl jcarey2 Checkpoint Planning Spreadsheets Removed CP_DMA_Busy as a boolean
 Result[31:0] is write data for scratch memory. Change 31384 on 2002/06/03 by gregs@gregs_r400_win_marlboro Updated rom clk register Change 31473 on 2002/06/03 by jacarey@fl_jcarey2 Change 31275 on 2002/05/31 by rvelez@rvelez_r400_win_tor Updated 5/31 Change 31465 on 2002/06/03 by jayw@MA_JAYW Change 31273 on 2002/05/31 by mkelly@fl mkelly r400 win laptop added sx export buffers register updated several lesser items Basic diamond exit tests... Change 31454 on 2002/06/03 by jasif@jasif_r400_win_tor Change 31262 on 2002/05/31 by gabarca@gabarca crayola win cvd Added GENS1 and GENFC_WT to list od mono/color registers Change 31453 on 2002/06/03 by jasif@jasif r400 win tor Change 31248 on 2002/05/31 by jacarey@fl jcarev2 Updated. Misc. Updates to RBIU Diagram Page 266 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 31228 on 2002/05/31 by tho@tho_r400_win Change 31034 on 2002/05/31 by jacarey@fl jcarey2 Make Source Select a Counter which is controlled by Micro Engine updated testlist Change 31210 on 2002/05/31 by csampayo@fl_csampayo_r400 Change 31026 on 2002/05/31 by jasif@jasif_r400_win_tor Adding Francisco (HOS) Updated Change 31194 on 2002/05/31 by gabarca@gabarca_crayola_win_cvd Change 31023 on 2002/05/31 by efong@efong_r400_win_tor_doc Write combining done by DCCIF Skid buffer between BIF and VGAHDP put in another problem Change 30961 on 2002/05/30 by vliu@vliu_r400_cnvliu100_win_cvd Change 31169 on 2002/05/31 by jayw@MA_JAYW Update register index and some formatting Change 30959 on 2002/05/30 by jacarey@fl_jcarey2 Change 31160 on 2002/05/31 by semara@semara_r400_win_tor Add hook to generate real-time microcode. re-submit Change 30955 on 2002/05/30 by jacarey@fl_jcarey2 Change 31144 on 2002/05/31 by gabarca@gabarca_crayola_win_cvd Fix name of context_done event used for state management. Moved write combining to DCCIF, added skid buffer in BIF VGA doc Change 30934 on 2002/05/30 by jacarey@fl_jcarey2 Change 31097 on 2002/05/31 by vliu@vliu_r400_cnvliu100_win_cvd Fix typo in instr_prefetch packet Update Change 30909 on 2002/05/30 by jacarey@fl_jcarey2 Change 31096 on 2002/05/31 by gabarca@gabarca_crayola_win_cvd Update for error checking Updated VGAHDP section Change 30893 on 2002/05/30 by jacarey@fl_jcarey2 Change 31082 on 2002/05/31 by rbagley@rbagley ltxp Fix Typos Adding Jocelyn's recent revision. Change 30886 on 2002/05/30 by jacarey@fl jcarey2 Change 31076 on 2002/05/31 by jacarey@fl jcarey2 Updates for Protected Mode Error Checking. Added Source Select to Read Input Change 30864 on 2002/05/30 by jacarey@fl_jcarey2 Change 31044 on 2002/05/31 by efong@efong_r400_win_tor_doc Update for Conditional Continue Micro Instruction Updated Change 30854 on 2002/05/30 by rbell@rbell_crayola_win_cvd Change 31043 on 2002/05/31 by bryans@bryans_crayola_doc updated Update.. Page 267 of 441 Page 268 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 31433 on 2002/06/03 by llefebvr@llefebvre laptop r400

Change 31567 on 2002/06/03 by frising@ma_frising

Change 30853 on 2002/05/30 by ashishs@fl_ashishs_r400_win for larry's review undate Change 30626 on 2002/05/29 by jhoule@MA_JHOULE Change 30814 on 2002/05/30 by bryans@bryans_crayola_doc 0.9.12: Update all the external interfaces. Undate for week of May 27 Change 30615 on 2002/05/29 by rbell@rbell_crayola_win_cvd Change 30804 on 2002/05/30 by gregs@gregs_r400_win_marlboro updated regs. Change 30609 on 2002/05/29 by rbell@rbell_cravola_win_cvd Change 30750 on 2002/05/29 by vliu@vliu_r400_cnvliu100_win_cvd Added Milestone 2 tests Update Change 30601 on 2002/05/29 by jayw@MA_JAYW Change 30747 on 2002/05/29 by vliu@vliu_r400_cnvliu100_win_cvd Update Change 30595 on 2002/05/29 by gregs@gregs_r400_win_marlboro Change 30734 on 2002/05/29 by vliu@vliu r400 cnvliu100 win cvd pm software review Change 30588 on 2002/05/29 by lseiler@lseiler_r400_win_marlboro Change 30732 on 2002/05/29 by vliu@vliu_r400_cnvliu100_win_cvd Memory Format spec: final submission before changing file name and location. Change 30546 on 2002/05/29 by jacarey@fl_jcarey2 Change 30722 on 2002/05/29 by tho@tho r400 win Remove reference of "Go" signals from the RBBM Spec. test list for icon and cursor Change 30715 on 2002/05/29 by jowang@jowang_R400_win Change 30502 on 2002/05/29 by jacarey@fl_jcarey2 Includes Vertical Filter control Change COND_MEM_WRITE TO COND_WRITE Change 30713 on 2002/05/29 by rbell@rbell_crayola_win_cvd Change 30466 on 2002/05/28 by gabarca@gabarca_crayola_win_cvd undated Updated write modes Change 30696 on 2002/05/29 by gabarca@gabarca_crayola_win_cvd Change 30448 on 2002/05/28 by jasif@jasif_r400_win_tor Put VGAHDP tests Undated Change 30694 on 2002/05/29 by jacarey@fl_jcarey2 Change 30415 on 2002/05/28 by jacarey@fl_jcarey2 Added GMC to opcodes for new 2D packets. Removed CP CG 2D Mode signal per power management meeting... Change 30673 on 2002/05/29 by jayw@MA_JAYW Change 30406 on 2002/05/28 by khabbari@khabbari_r400_win Page 269 of 441 Page 270 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history updated excel spreadsheet whit modes auto coef cal added Change 30401 on 2002/05/28 by efong@efong_r400_win_tor_doc Change 30139 on 2002/05/27 by chwang@chwang_doc_r400_win_cvd Added in Kaleidoscope Kludge document Update (nothing listed). Change 30348 on 2002/05/28 by rbell@rbell_crayola_win_cvd Change 30089 on 2002/05/25 by jimmylau@jimmylau_r400_win_tor Add test cases to verify composite H sync and also feature to disable H sync cutoff in section 5.1.1 Change 30342 on 2002/05/28 by jacarey@fl jcarey2 Add section 5.4 to test dual CRTCs in progressive scanning mode. Added 8 more bios scratch registers
 DMA engine waits for MH to accept last write transaction before raising the interrupt. Change 30088 on 2002/05/25 by jimmylau@jimmylau_r400_win_tor Explain the algorithm to generate composite H sync, under section 6.2 Change 30277 on 2002/05/28 by ashishs@fl ashishs r400 win Change 30067 on 2002/05/24 by mmang@fl_mmang_r400_win Updated spec for design review Change 30191 on 2002/05/27 by gabarca@gabarca_crayola_win_cvd Change 30055 on 2002/05/24 by gabarca@gabarca_crayola_win_cvd Added more description to VGAHDP features Cleaned up, added tables Change 30178 on 2002/05/27 by imuskatb@imuskatb r400 win cnimuskatb Change 30020 on 2002/05/24 by jacarey@fl jcarey2 Updated Check everything in... Change 30157 on 2002/05/27 by rvelez@rvelez_r400_win_tor Change 30019 on 2002/05/24 by nbarbier@nbarbier_r400_win_tor Undated 5/27 Updated TMDS, DVO & HPD sections. Change 30152 on 2002/05/27 by gabarca@gabarca_crayola_win_cvd Change 29999 on 2002/05/24 by mkelly@fl mkelly r400 win laptop Updated Worksheet Update. Change 30151 on 2002/05/27 by gabarca@gabarca_crayola_win_cvd Change 29936 on 2002/05/24 by rvelez@rvelez_r400_win_tor Updated worsheet Updated 5/24 Change 30148 on 2002/05/27 by gabarca@gabarca_crayola_win_cvd Change 29926 on 2002/05/24 by jacarey@fl_jcarey2 Updated VGA modes spreadsheet Update packet restrictions for Real-Time Processing. Change 30143 on 2002/05/27 by efong@efong_r400_win_tor_doc Change 29916 on 2002/05/24 by jacarey@fl_jcarey2 Updated Updates to clarify what to do for real-time stream processing Change 30140 on 2002/05/27 by gabarca@gabarca_crayola_win_cvd Page 271 of 441 Page 272 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 29909 on 2002/05/24 by gregs@gregs_r400_win_marlboro Change 29577 on 2002/05/22 by imuskatb@imuskatb_r400_win_cnimuskatb New Dispout reg test Updated CRTC reg test Updated Dispout xls doc added to PM programming guide (still under construction). Change 29907 on 2002/05/24 by jacarey@fl_jcarey2 Add "invert" to real-time signal conditioning selects Change 29563 on 2002/05/22 by rvelez@rvelez r400 win tor Change 29884 on 2002/05/24 by rherrick@ma rherrick crayola Once again, I think I submitted before WORD had actually written the changes to the Change 29558 on 2002/05/22 by mkelly@fl mkelly r400 win laptop disk... Hopefully this time it makes it in correctly. Change 29876 on 2002/05/24 by rherrick@ma_rherrick_crayola Change 29553 on 2002/05/22 by jacarey@fl_jcarey2 Update spec to reflect RB ACCESS TYPE modes implemented in the parser... Checkpoint Validation Plan and To Liest Change 29794 on 2002/05/23 by fhsien@fhsien_r400_win_marlboro Change 29506 on 2002/05/22 by jacarey@fl_jcarey2 UPDATE NAME Clarified that Sub-block Offset is DWORD offset for ME_INTI. Change 29784 on 2002/05/23 by gregs@gregs_r400_win_marlboro Change 29488 on 2002/05/22 by snezana@snezana_crayola_win_cvd programmer's guide - initial small undate, no real change Change 29733 on 2002/05/23 by tho@tho_r400_win Change 29485 on 2002/05/22 by nbarbier@nbarbier_r400_win_tor updated Updated Macro Interface & IO Interface. Change 29703 on 2002/05/23 by jacarey@fl_jcarey2 Change 29484 on 2002/05/22 by gregs@gregs_r400_win_marlboro Update Compare Function of CP_RT*_Command Register Core Sclk clock PLL connection table + minor updates. Change 29691 on 2002/05/23 by jacarey@fl jcarey2 Change 29470 on 2002/05/22 by jacarey@fl_jcarey2 Update Status and Planning Documents Clarified Swap Controls Change 29643 on 2002/05/23 by jacarey@fl_jcarey2 Change 29449 on 2002/05/22 by jacarey@fl_jcarey2 Document Updates Added RBBM_STATUS2 Register
Added CP_RBBM_rt_enable to RBBM_STATUS register Change 29613 on 2002/05/23 by smoss@smoss cravola win Change 29438 on 2002/05/22 by jacarey@fl_jcarey2 Change 29593 on 2002/05/22 by jimmylau@jimmylau_r400_win_tor Clarify that DST_TYPE=7 not used in R400...since R128 Fill in section for CG interface Change 29437 on 2002/05/22 by jacarey@fl jcarey2 Page 273 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Corrections for 2D GMC Processing. Weekly update Change 29358 on 2002/05/21 by Iseiler@Iseiler r400 win marlboro Change 29237 on 2002/05/21 by efong@efong_r400_win_tor_doc RB Spec: Updated SX section, other updates in process Updated to be the same as the test plan Change 29343 on 2002/05/21 by jacarey@fl jcarey2 Change 29234 on 2002/05/21 by jasif@jasif_r400_win_tor Update CP Specs to Reflect 4KByte Alignment for Surfaces. Change 29335 on 2002/05/21 by imuskatb@imuskatb_r400_win_cnimuskatb Change 29231 on 2002/05/21 by jacarey@fl jcarey2 updated crc test Updated compare function bit width for Cond_Mem_Write and Wait_Reg_Mem. Text Updates to MPEG_Index packet rst crtc register test Change 29322 on 2002/05/21 by rvelez@rvelez r400 win tor Change 29227 on 2002/05/21 by efong@efong_r400_win_tor_doc Added +I to disallow multiple file checkouts changed from x130 to x132 Change 29320 on 2002/05/21 by efong@efong_r400_win_tor_doc Change 29223 on 2002/05/21 by efong@efong r400 win tor doc changed it to +1 to allow for locking by just one person Change 29310 on 2002/05/21 by askende@andi_r400_docs Change 29199 on 2002/05/21 by jacarey@fl_jcarey2 fixed typo Updates to register descriptions and fix typos. Change 29305 on 2002/05/21 by jacarey@fl_jcarey2 Change 29108 on 2002/05/20 by pmitchel@pmitchel entire depot win Clarify compare function for Cond Mem Write and Wait Reg Mem Change 29286 on 2002/05/21 by jacarey@fl_jcarey2 Change 29100 on 2002/05/20 by pmitchel@pmitchel_entire_depot_win Clarification of signals used by the Wait_Until and RTS_WAIT_Until adding file to depot Change 29275 on 2002/05/21 by rvelez@rvelez_r400_win_tor Change 29071 on 2002/05/20 by gregs@gregs_r400_win_marlboro Updated 5/17 added few gnd/pwr pins for TMDS and DACs. Change 29272 on 2002/05/21 by tho@tho_r400_win Change 29061 on 2002/05/20 by csampayo@fl_csampayo_r400 Udated status for the following test updated r400vgt_hos_simple_linear_PNT_discrete_01 Change 29262 on 2002/05/21 by rvelez@rvelez_r400_win_tor Change 29012 on 2002/05/20 by kcorrell@kcorrell_r400_docs_mar/boro Updated Top-level DC interface to match source code 5/21 updated to interface and display interface Change 29256 on 2002/05/21 by chwang@chwang_doc_r400_win_cvd Page 275 of 441 Page 276 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 29003 on 2002/05/20 by gregs@gregs_r400_win_marlboro Change 28662 on 2002/05/17 by vliu@vliu_r400_cnvliu100_win_cvd update Reformat Change 28998 on 2002/05/20 by jacarey@fl_jcarey2 Change 28651 on 2002/05/17 by vliu@vliu_r400_cnvliu100_win_cvd Fix Typos in the MPEG INDEX packet. Change 28572 on 2002/05/16 by csampayo@fl_csampayo_r400 Change 28980 on 2002/05/19 by fhsien@fhsien_r400_win_marlboro Updated status for the following tests: r400vgt_dma_swap_indx16_01 r400vgt_pass_thru_all_prims_01 Change 28859 on 2002/05/17 by mzhu@mzhu_r400_win_tor Add LUT bypassing registers. Update LUT register descriptions Change 28562 on 2002/05/16 by vliu@vliu_r400_cnvliu100_win_cvd Change 28801 on 2002/05/17 by smoss@smoss_crayola_win SU tests with golds Change 28532 on 2002/05/16 by vliu@vliu_r400_cnvliu100_win_cvd Change 28787 on 2002/05/17 by jacarey@fl_jcarey2 Update Updates to: Change 28526 on 2002/05/16 by vliu@vliu_r400_cnvliu100_win_cvd 1. Wait Reg Mem 2. Cond_Mem_Write Change 28512 on 2002/05/16 by jacarey@fl_jcarey2 Change 28768 on 2002/05/17 by kmahler@kmahler_r400_doc_lib Revised Paramtterized Test Case chapter to inlcude changes for specifying the Test Case Max Context resets to 7 Number and other enhancements Change 28507 on 2002/05/16 by jacarey@fl_jcarey2 Added section "Specify Input Arguments to the Test Program". Misc Updates Change 28720 on 2002/05/17 by jacarey@fl jcarey2 Change 28493 on 2002/05/16 by rbell@rbell_crayola_win_cvd No Clamping required by the CP for UR & LL compound indices. updated Change 28718 on 2002/05/17 by vliu@vliu_r400_cnvliu100_win_cvd Change 28483 on 2002/05/16 by jacarey@fl jcarey2 Add Max Context to address Change 28711 on 2002/05/17 by jacarey@fl_jcarey2 Change 28455 on 2002/05/16 by vliu@vliu r400 cnvliu100 win cvd Remove reference to non-queued path for BIF transaction Change 28679 on 2002/05/17 by fhsien@fhsien_r400_win_marlboro Change 28437 on 2002/05/16 by vfiu@vfiu r400 cnvliu100 win cvd Update RBD Page 277 of 441 Page 278 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Checkpoint Everything Change 28435 on 2002/05/16 by gregs@gregs r400 win marlboro Change 28325 on 2002/05/16 by jacarey@fl jacarey added interrupt registers Microcode Update Update 2D Appendix for source clipping Update PM4 spec for Reg-to-Mem Code Change 28429 on 2002/05/16 by vliu@vliu_r400_cnvliu100_win_cvd Update Change 28275 on 2002/05/15 by fhsien@fhsien_r400_win_marlboro Change 28423 on 2002/05/16 by jacarey@fl_jacarey Update RBD part of list Update All Change 28261 on 2002/05/15 by bryans@bryans_crayola_doc Change 28418 on 2002/05/16 by jacarey@fl_jacarey Change emulation to M1/M2/M3 lineup Update source clipping equation Change 28256 on 2002/05/15 by omesh@ma omesh Change 28412 on 2002/05/16 by jimmylau@jimmylau_r400_win_tor Made some corrections to misleading wording and added some more information to Fine adjust the parameter values in normal CRTC tests in section 5.1.1 Change 28404 on 2002/05/16 by ashishs@fl_ashishs_r400_win Change 28232 on 2002/05/15 by jacarey@fl_jacarey Update Number Formats for the 2D Packets. Change 28392 on 2002/05/16 by omesh@ma omesh Change 28224 on 2002/05/15 by fhsien@fhsien r400 win marlboro Added some more comments for the test group levels, to specify the goal of each group Update RBD testplan Change 28223 on 2002/05/15 by jacarey@fl jacarey Change 28385 on 2002/05/16 by rbell@rbell_crayola_win_cvd Fix typo in Width format -- changed to 13:0 Change 28196 on 2002/05/15 by jacarey@fl_jacarey Change 28367 on 2002/05/16 by jasif@jasif r400 win tor Update Top-Level Diagrams Updated after VGA testplan review Change 28149 on 2002/05/15 by gregs@gregs_r400_win_marlboro Change 28362 on 2002/05/16 by omesh@ma omesh general update Checking in top-level details of RBC related tests. Document (*.doc) links are not yet in place, as document to be linked (RBC.doc) is not yet "section labelled". Change 28148 on 2002/05/15 by rbell@rbell_crayola_win_cvd Change 28348 on 2002/05/16 by bryans@bryans_crayola_doc Updated test plan Weekly DV goals for Video IP (Summary) Change 28138 on 2002/05/15 by vliu@vliu_r400_cnvliu100_win_cvd Change 28327 on 2002/05/16 by jacarey@fl jacarey Update Page 279 of 441 Page 280 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 28130 on 2002/05/15 by gabarca@gabarca_crayola_win_cvd Change 28006 on 2002/05/14 by imuskatb@imuskatb r400 win cnimuskatb Finished for Milestone 1, in bold Change 28104 on 2002/05/15 by kmahler@kmahler_r400_doc_lib Change 28004 on 2002/05/14 by gabarca@gabarca_crayola_win_cvd Added more detailed explanation of using RENDER_STATE's low-level interface per tried to finish Change 28098 on 2002/05/15 by jasif@jasif_r400_win_tor Change 28003 on 2002/05/14 by mzhu@mzhu_r400_win_tor move dcp test plan to design/blocks directory add test plan for first milestone Added testlist. Change 28095 on 2002/05/15 by georgev@ma_georgev Change 27980 on 2002/05/14 by jacarey@fl_jacarey Examples added. Fixed typo on data width for writing to scratch memory. Change 28092 on 2002/05/15 by csampayo@fl_csampayo_r400 Change 27974 on 2002/05/14 by vliu@vliu_r400_cnvliu100_win_cvd Updated status for the following test: r400vgt_dma_swap_indx32_01 Update. Change 28087 on 2002/05/15 by omesh@ma_omesh Change 27956 on 2002/05/14 by jayw@MA_JAYW Added some more stuff.... Document still incomplete with lots of areas of construction added lower precision for majority of DeGamma table. New dither documentation in blend Will add test total counts today and update spreadsheet Change 28055 on 2002/05/15 by imuskatb@imuskatb_r400_win_cnimuskatb Change 27949 on 2002/05/14 by rbell@rbell_crayola_win_cvd add new crtc test under debug small fix Change 27946 on 2002/05/14 by vliu@vliu_r400_cnvliu100_win_cvd Change 28047 on 2002/05/15 by jacarey@fl jacarey 1. CP Spec : Update Real-Time Register Names 2. PM4 Spec : Updates to ME_Init and Event_Timestamp_Write Change 27945 on 2002/05/14 by rvelez@rvelez_r400_win_tor Change 28046 on 2002/05/15 by vliu@vliu_r400_cnvliu100_win_cvd Updated May 14 Change 27943 on 2002/05/14 by rbell@rbell_crayola_win_cvd Change 28011 on 2002/05/14 by kmahler@kmahler_r400_doc_lib Added more tests for Milestone 1 Added documentation for the following: Change 27926 on 2002/05/14 by imuskatb@imuskatb_r400_win_cnimuskatb 1) Revised Parameterized Test Cases using input arguments and the updated all crtc test to include DACA_EN "Set Default Values()" function Updated crtc emu features doc updated display_out to include crc computation added one debug test for dispout 2) VFD section from Michael Kelly. Page 281 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 27914 on 2002/05/14 by jacarey@fl jacarey Change 27761 on 2002/05/13 by gabarca@gabarca crayola win cvd Update Local Address Map Updated features for milestone 1 Change 27876 on 2002/05/14 by lseiler@lseiler_r400_win_marlboro Change 27752 on 2002/05/13 by rbell@rbell_crayola_win_cvd RB register and architecture overview Update Change 27751 on 2002/05/13 by jayw@MA_JAYW Change 27869 on 2002/05/14 by jacarey@fl_jacarey Baseline CP Validation Plans undated mc interface to eliminate access subset and not the offsetting of the access_address by the frame buffer offset for non-external accesses. Change 27866 on 2002/05/14 by jacarey@fl_jacarey Change 27729 on 2002/05/13 by jacarey@fl_jacarey Added CGM rtr signals back to the RBBM. Change 27861 on 2002/05/14 by jacarey@fl_jacarey Changed Num_Constants to Max_Contexts in the ME_Init Packet. Updated Scratch Memory Connections Change 27717 on 2002/05/13 by llefebvr@llefebvre_laptop_r400 Updated Me Debug data Connections Changed CF opcodes, SQ->SP interface and SP->SQ constant index load interface. Change 27848 on 2002/05/14 by vliu@vliu_r400_cnvliu100_win_cvd Change 27714 on 2002/05/13 by jhoule@MA_JHOULE Update TP corrections Change 27835 on 2002/05/14 by efong@efong_r400_win_tor_doc Change 27713 on 2002/05/13 by georgev@ma_georgev changed the h/v total for 600 and setup some more worksheets for printing Some extra clarification. Change 27832 on 2002/05/14 by jacarey@fl jacarey Change 27707 on 2002/05/13 by georgev@ma_georgev ME_Init Shader Base addresses are in Instructions, not DWORDs Added sections from verifcatin spec. Change 27824 on 2002/05/14 by mkelly@fl_mkelly_r400_win_laptop Change 27706 on 2002/05/13 by rvelez@rvelez_r400_win_tor Updated 5/13 Change 27823 on 2002/05/14 by efong@efong_r400_win_tor_doc Change 27695 on 2002/05/13 by jacarey@fl_jacarey line buffer test description Update Address Map Top-Level Diagram Updates Change 27822 on 2002/05/14 by gregs@gregs r400 win marlboro Change 27679 on 2002/05/13 by jacarey@fl_jacarey Change 27818 on 2002/05/14 by vliu@vliu r400 cnvliu100 win cvd Update Local Addresses Update Change 27673 on 2002/05/13 by jasif@jasif_r400_win_tor Page 283 of 441 Page 284 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Updated. For merging with Michael Change 27670 on 2002/05/13 by imuskatb@imuskatb_r400_win_cnimuskatb Change 27644 on 2002/05/13 by jacarey@fl_jacarey Updated test to 4 active lines Instruction Load packets support loading of the entire instruction updated crtc test desp Change 27669 on 2002/05/13 by chwang@chwang_doc_r400_win_cvd Change 27640 on 2002/05/13 by rbell@rbell_crayola_win_cvd Added a few missing models. Added Change 27665 on 2002/05/13 by vliu@vliu_r400_cnvliu100_win_cvd Change 27634 on 2002/05/13 by jacarey@fl_jacarey Update update cp spec. Change 27664 on 2002/05/13 by rbell@rbell_crayola_win_cvd Change 27623 on 2002/05/13 by chwang@chwang_doc_r400_win_cvd Graphics/Overlay tests for milestone 1 Small update Change 27658 on 2002/05/13 by mdoggett@MA MDOGGETT LT Change 27621 on 2002/05/13 by csampayo@fl_csampayo_lt_r400 Added vertex fetch slide Updated VGT tests status Change 27657 on 2002/05/13 by jhoule@MA_JHOULE Change 27596 on 2002/05/13 by rbell@rbell_crayola_win_cvd Added EXP_ADJUST, pseudo-assembly for border color, and fast-path mention Change 27654 on 2002/05/13 by efong@efong_r400_win_tor_doc Change 27592 on 2002/05/13 by ygiang@ygiang_r400_win_marlboro_p4 Updated Change 27653 on 2002/05/13 by semara@semara r400 win tor Change 27591 on 2002/05/13 by gregs@gregs r400 sun marlboro update the render secation new model Change 27651 on 2002/05/13 by mdoggett@MA_MDOGGETT_LT Change 27589 on 2002/05/13 by fhsien@fhsien_r400_win_home_marlboro Merged TC slides in Change little at home Change 27650 on 2002/05/13 by tho@tho_r400_win Change 27588 on 2002/05/13 by smoss@smoss_crayola_win Change 27648 on 2002/05/13 by mdoggett@MA_MDOGGETT_LT Change 27536 on 2002/05/10 by ashishs@fl_ashishs_r400_win First version of TC SW review update Change 27645 on 2002/05/13 by jhoule@MA_JHOULE Change 27525 on 2002/05/10 by fhsien@fhsien_r400_win_marlboro Page 285 of 441 Page 286 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Instructions Added to Simplify Reading the Micro RAM Update with new info Fix Typo in the Pseudocode Change 27523 on 2002/05/10 by csampayo@fl_csampayo_r400 Change 27421 on 2002/05/10 by jacarey@fl_jacarey Updated status for the following test: Updates for ME_INIT Packet r400vgt_dma_index_rectangle_list_01 Change 27415 on 2002/05/10 by jacarey@fl_jacarey Change 27510 on 2002/05/10 by frising@ma_frising Update for Registers and Text Update to the CP Specification. v.1.39 -4KB aligned for all textures Change 27406 on 2002/05/10 by jacarey@fl jacarey -4-R's angine or an extures
-Update data format table to be consistent with RB, add interpolate
and replicate YUV formats
-Move to Larry's convention for endian swapping
-Remove FETCH_VALID_ONLY in vertex instruction and replace with Update to Internal Address Map (Comments Only) Change 27386 on 2002/05/10 by imuskatb@imuskatb r400 win cnimuskatb MUST_BE_ONE
-Start to clean up usage tables. Lots to do still. Updated crtc_contorller to handle boundary conditions golden for the first 4 test of crtc dispout updated? Change 27502 on 2002/05/10 by georgev@ma georgev First revision so that everyone else can get it in Perforce. Change 27385 on 2002/05/10 by jacarey@fl_jacarey Change 27499 on 2002/05/10 by jasif@jasif_r400_win_tor Checkpoint Updates to Specification Update list of things to do Updated decif model owner. Change 27373 on 2002/05/10 by omesh@ma_omesh Change 27488 on 2002/05/10 by rbell@rbell_crayola_win_cvd Added test cases for Destination Color Blending as derived from Source Color Blending Updated for milestone 1 GRP/OVL features and also added notes on Source Alpha Blending test strategy Change 27467 on 2002/05/10 by jacarey@fl_jacarey Change 27329 on 2002/05/10 by jhoule@MA_JHOULE $Changed\ PREDICATE_CONDITION\ to\ PRED_CONDITION\ in\ PRED_SELECT$ Fix Typo description Change 27463 on 2002/05/10 by jhoule@MA_JHOULE Change 27325 on 2002/05/10 by llefebvr@llefebvre_laptop_r400 For SW review (unfinished) Presentation for the 5/13. Change 27455 on 2002/05/10 by gregs@gregs_r400_win_marlboro Change 27323 on 2002/05/10 by jhoule@MA_JHOULE 1.38 Change 27439 on 2002/05/10 by jacarey@fl_jacarey Instruction changes: Added PRED_SELECT and PRED_CONDITION for the sequencer to manage pixel Moved FETCH_VALID_ONLY to bit 19 in TFetch, and added it to VFetch Change 27431 on 2002/05/10 by jacarey@fl_jacarey Change 27322 on 2002/05/10 by jacarey@fl_jacarey Page 288 of 441 Page 287 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258167

Change 27223 on 2002/05/09 by ashishs@fl_ashishs_r400_win Remove CONST_PREFETCH Packet
 Update LCC pseudocode for PFP undate Change 27316 on 2002/05/10 by jacarey@fl_jacarey Change 27221 on 2002/05/09 by gregs@gregs_r400_win_marlboro Optional processing of Type-2 and Type-3 NOPs by ME. undated with Y25LF05 info Change 27314 on 2002/05/10 by rherrick@ma rherrick crayola Change 27214 on 2002/05/09 by omesh@ma omesh Not sure what was checked in for last revision since SAMBA was acting flaky on me... Added RBC Verification Plan (new file), currently under development, as well as a link Rechecking in the changes to it from the main RB Verification Plan document Change 27313 on 2002/05/10 by rherrick@ma_rherrick_crayola Change 27208 on 2002/05/09 by chwang@chwang_doc_r400_win_cvd Fixed ADDRESS documentation to match implementation... Small undate Change 27188 on 2002/05/09 by jacarey@fl_jacarey Change 27302 on 2002/05/10 by smorein@smorein r400 First rewrite of programing guide. Some parts still missing, will go in on monday Update Change 27264 on 2002/05/09 by jowang@jowang_R400_win Change 27153 on 2002/05/09 by jacarey@fl_jacarey VF Control -- RGB Checkpoint Partial Update of CP Registers Change 27254 on 2002/05/09 by jacarey@fl_jacarey Change 27152 on 2002/05/09 by ygiang@ygiang_r400_win_marlboro_p4 STQ is now 114 deep. update Change 27251 on 2002/05/09 by jacarey@fl_jacarey Change 27127 on 2002/05/09 by mkelly@fl_mkelly_r400_win_laptop Update CNT register loading Change 27241 on 2002/05/09 by jacarey@fl_jacarey Change 27064 on 2002/05/08 by nbarbier@nbarbier_r400_win_tor Change 27237 on 2002/05/09 by jacarey@fl_jacarey Change 27053 on 2002/05/08 by gabarca@gabarca_crayola_win_cvd Updated Picture Change 27233 on 2002/05/09 by grayc@grayc_r400_win Change 27048 on 2002/05/08 by jacarey@fl jacarev describes test bench for cp/rbbm Corrections for 8 Sub Blocks Change 27230 on 2002/05/09 by jasif@jasif_r400_win_tor Change 27046 on 2002/05/08 by jacarey@fl_jacarey Vga emulator features and test schedule. Checkpoint Specifications
1. ME_INIT Packet Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history 2. Updates to CP Registers Change 26959 on 2002/05/08 by jacarey@fl jacarey ... Still Not Done Yet .. Update Invalidate_State and Subblock_Prefetch packets to support eight sub-blocks. Change 27042 on 2002/05/08 by imuskatb@imuskatb_r400_win_cnimuskatb Change 26949 on 2002/05/08 by jacarey@fl_jacarey Updated documents fix latest lb, fix chunck_size new crtc_test with golden Fix typo in rbbm_perf_cntl register. Change 27039 on 2002/05/08 by sallen@sallen r400 win marlboro Change 26934 on 2002/05/08 by tho@tho r400 win -name of document changed -icon/cursor status updated Change 27038 on 2002/05/08 by rvelez@rvelez_r400_win_tor Change 26928 on 2002/05/08 by khabbari@khabbari r400 win Updated schedule for CRTC/DISPOUT added the start of line to lb/dcp interface doc Change 27021 on 2002/05/08 by jimmylau@jimmylau_r400_win_tor Change 26924 on 2002/05/08 by efong@efong r400 win tor doc H sync and V sync polarities are set to different values for normal CRTC and VGA CRTC test cases.
Add a list of CRTC registers that are not tested in normal CRTC register test because moved this file they are either read-only or write only. Change 26923 on 2002/05/08 by efong@efong_r400_win_tor_doc Change 27009 on 2002/05/08 by rvelez@rvelez_r400_win_tor moved to be with the design block Change 26922 on 2002/05/08 by nbarbier@nbarbier_r400_win_tor Change 26998 on 2002/05/08 by jacarey@fl_jacarey Added register test for DCIO block. Add Booleans to Source Select Change 26920 on 2002/05/08 by tho@tho_r400_win Change 26996 on 2002/05/08 by khabbari@khabbari r400 win updated document w/ icon cursor status lb test plan changes

Change 26919 on 2002/05/08 by efong@efong_r400_win_tor_doc

1st rev of the scaler feature list for emulator

Change 26901 on 2002/05/08 by jacarey@fl_jacarey

1. Set_State supports eight sub-blocks

2. Updates to Set CF Constant

Change 26886 on 2002/05/08 by jacarey@fl_jacarey

Update name of register that CP writes for the Booleans

Change 26885 on 2002/05/08 by jacarey@fl_jacarey

Page 292 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Page 291 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history

Updates include a round of revision from Andi Skende, including updates to the shader

Change 26991 on 2002/05/08 by tien@ma spinach

Change 26984 on 2002/05/08 by rbagley@ma_rbagley_ltxp

Change 26978 on 2002/05/08 by ygiang@ygiang_r400_win_marlboro_p4

Updated the tp area page

pipe related material

vl

1. Set State: a. Eight Sub-Blocks b. Sub-Block Size Encoding = (n+1)*8

2. New Packet : Set_CF_Constant

Change 26884 on 2002/05/08 by jacarey@fl_jacarey

Sub-block Size Encoding Update

Change 26854 on 2002/05/07 by csampayo@fl csampayo r400

Updated VGT test status, as well as, limited other units test status to 99%

Change 26843 on 2002/05/07 by jowang@jowang_R400_win

Change 26842 on 2002/05/07 by imuskatb@imuskatb_r400_win_cnimuskatb

Test and Feature list. First pass

Change 26841 on 2002/05/07 by jowang@jowang_R400_win

Initial VF design.

Change 26839 on 2002/05/07 by jowang@jowang_R400_win

renamed to VF Block.vsd

Change 26835 on 2002/05/07 by jowang@jowang_R400_win

Initial VF Design

Change 26821 on 2002/05/07 by rvelez@rvelez_r400_win_tor

Split up DCCIF and DCCARB documents

Change 26819 on 2002/05/07 by gregs@gregs_r400_sun_marlboro

changed paths to chip directory + revision history + verified that it works.

Change 26808 on 2002/05/07 by jacarey@fl_jacarey

Moving Microcode Source

Change 26798 on 2002/05/07 by jacarey@fl jacarey

Ex. 2050 --- R400 Document Library FH --- folder_history

Update Revision

Change 26795 on 2002/05/07 by jacarey@fl_jacarey

Added Type-0 Packet Support to Microcode.

Change 26792 on 2002/05/07 by jayw@MA_JAYW

Change 26784 on 2002/05/07 by jayw@MA JAYW

DeGamma increased precision to avoid errors when temporarily over 1.0 due to 0.055 add.

Change 26779 on 2002/05/07 by rvelez@rvelez_r400_win_tor

Updated 5/7/02

Change 26762 on 2002/05/07 by gregs@gregs_r400_sun_marlboro

This is unchanged R300 file

Change 26760 on 2002/05/07 by ygiang@ygiang_r400_win_marlboro_p4

Change 26759 on 2002/05/07 by bryans@bryans crayola doc

Updated as per status meeting

Change 26727 on 2002/05/07 by smoss@smoss_crayola_win

SII tests

Change 26721 on 2002/05/07 by llefebvr@llefebvre_laptop_r400

presentation for the SW meeting (draft)

Change 26711 on 2002/05/07 by ashishs@fl_ashishs_r400_win

Change 26701 on 2002/05/07 by rbell@rbell_crayola_win_cvd

First draft of DCP feature list

Change 26642 on 2002/05/06 by jimmylau@jimmylau_r400_win_tor

Page 294 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Add feature to start H and V counter at some even offset other than 0 Add feature to choose whether to cutoff H sync A/B at when H blank ends

Change 26638 on 2002/05/06 by vliu@vliu_r400_cnvliu100_win_cvd

Update

Change 26627 on 2002/05/06 by lkang@lkang_r400_win_tor

update on tristate h/vsvnc's in d1, D2 & D3

Change 26614 on 2002/05/06 by jacarey@fl_jacarey

Change 26605 on 2002/05/06 by jacarey@fl jacarey

Update to Micro Instructions

Change 26598 on 2002/05/06 by jacarey@fl jacarey

Update to Access Jump Table in RAM

Change 26574 on 2002/05/06 by rvelez@rvelez r400 win tor

Updated May 6/02

Change 26555 on 2002/05/06 by mdoggett@MA MDOGGETT LT

 $Updates\ to\ TP,\ TPC,\ MH\ interfaces,\ L1\ Tags,\ TCO\ diagram;\ TCD\ Padding;\ L2\ cache pixel\ format\ conversions\ table;\ 2d\ l2\ one\ lyaer\ cacheline\ format\ conversions\ table;\ 2d\ l2\ one\ lyaer\ cacheline\ format\ conversions\ table;\ large cacheline\ format\ conversions\ table;\ large\ cacheline\ format\ conversions\ table;\ large\ cacheline\ format\ conversions\ large\ cacheline\ format\ cacheline\ cacheline\$

Change 26554 on 2002/05/06 by jacarey@fl jacarey

MicroCode for Type1 packets.

Change 26532 on 2002/05/06 by lkang@lkang r400 win tor

Toronto milestone #1 schedule

Change 26529 on 2002/05/06 by jimmylau@jimmylau_r400_win_tor

Change registers DxCRTC_H/V_SYNC_A_END to 13 bits, due to added feature of Change registers backet of the state of the

Change 26525 on 2002/05/06 by jimmylau@jimmylau_r400_win_tor

Page 295 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change register name from DxCRTC_H/V_COUNT_OFFSET to DxCRTC_H/V_SYNC_A_START.

Change test cases for H/V counter wrap around so that H/V_SYNC_A_START are even numbers.

numbers,
since hardware does not support odd number H/V_SYNC_A_START.

Change 26510 on 2002/05/06 by tho@tho r400 win

updated

Change 26506 on 2002/05/06 by vliu@vliu_r400_cnvliu100_win_cvd

Change 26505 on 2002/05/06 by jacarey@fl_jacarey

2D Indirect Buffer Invalidates Pointers instead of the hardware doing this implicitly

Change 26504 on 2002/05/06 by vliu@vliu r400 cnvliu100 win cvd

emulation / simulation feature list

Change 26500 on 2002/05/06 by nluu@nluu_r400_doclib_cnnb

- update

Change 26495 on 2002/05/06 by chwang@chwang_doc_r400_win_cvd

Change 26491 on 2002/05/06 by efong@efong_r400_win_tor_doc

Updated

Change 26487 on 2002/05/06 by jasif@jasif_r400_win_tor

Updated

Change 26484 on 2002/05/06 by mmantor@mmantor_r400_win

update per comments from Doug

Change 26478 on 2002/05/06 by ygiang@ygiang_r400_win_marlboro_p4

added: more coments and tests to list

Change 26474 on 2002/05/06 by jacarey@fl jacarey

Page 296 of 441

Change 26473 on 2002/05/06 by rbell@rbell crayola win cvd Change 26301 on 2002/05/03 by jacarey@fl_jacarey Added VeriBench User's Guide 1. Baseline Checklist for Post June 15th Change 26470 on 2002/05/06 by imuskatb@imuskatb r400 win cnimuskatb a. Main Loop Change 26292 on 2002/05/03 by gregs@gregs_r400_win_marlboro Change 26465 on 2002/05/06 by rbell@rbell_crayola_win_cvd added to verification section. Change 26281 on 2002/05/03 by ygiang@ygiang_r400_win_marlboro_p4 Change 26395 on 2002/05/03 by mkelly@fl_mkelly_r400_win_laptop undated: comments Update Change 26252 on 2002/05/03 by jimmylau@jimmylau_r400_win_tor Change 26388 on 2002/05/03 by mmantor@mmantor_r400_win removed test features : stereosync and dual CRTCs add test features : H/V counter tests, CRTC register tests added state module description Change 26377 on 2002/05/03 by gregs@gregs_r400_win_martboro Change 26250 on 2002/05/03 by gregs@gregs_r400_win_marlboro Change 26242 on 2002/05/03 by jacarey@fl_jacarey Change 26371 on 2002/05/03 by scroce@scroce_r400_win_marlboro 1. REPL command Added to OPER field. update 2. Clarification that SUB* implies "SRC0 - SRC1"

3. MOV instruction is translated to:
 oper=shl;immed=0x00000000; Change 26370 on 2002/05/03 by jayw@MA_JAYW friday night gamma fixed Change 26237 on 2002/05/03 by jacarey@fl_jacarey Change 26364 on 2002/05/03 by rvelez@rvelez_r400_win_tor Update May 3/02 Change 26229 on 2002/05/03 by ashishs@fl_ashishs_r400_win Change 26354 on 2002/05/03 by hartogs@fl hartogs Fixed order of selections for VGT_OTUPUT_PATH_CNTL register. Change 26224 on 2002/05/03 by bryans@bryans crayola doc Change 26332 on 2002/05/03 by jacarey@fl jacarey Renamed: R400 VideoIP DV Methodology -> VideoIP DV Methodology Moved document to simulator/environment directory Checkpoint All Documents and Microcode Change 26326 on 2002/05/03 by georgev@ma_georgev Change 26205 on 2002/05/03 by jacarey@fl_jacarey Changes for first primlib tests, changes to tg.cpp to support Microcode Page 297 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Changed jbit bool=<bit> @<address>; to: jbit @<address>;bool=<bit>; Removed unused address Change 26065 on 2002/05/02 by aashkar@fl aashkar Change 26166 on 2002/05/02 by rvelez@rvelez_r400_win_tor Split up DCCIF Interface Spec to separate DCCIF and DCCARB interfaces Change 26057 on 2002/05/02 by liefebvr@liefebvre laptop r400 Change 26165 on 2002/05/02 by rvelez@rvelez r400 win tor Modification on the Control flow instructions Split up DCCIF and DCCARB interfaces into two documents Change 26055 on 2002/05/02 by rherrick@ma rherrick crayola Change 26154 on 2002/05/02 by fhsien@fhsien r400 win marlboro Parser is working... Producing same results as Hard coded version... Documentation updated to reflect new byteEnable and Tag inclusion in ADDRESS directive... Update Depth tests Change 26152 on 2002/05/02 by vliu@vliu r400 cnvliu100 win cvd Change 26054 on 2002/05/02 by ygiang@ygiang r400 win marlboro p4 Modify the structure of the test_lib/src tree. Added: Test list for SP Change 26149 on 2002/05/02 by jayw@MA JAYW Change 26046 on 2002/05/02 by khabbari@khabbari_r400_win more fixes now starting monotinicity Change 26138 on 2002/05/02 by smoss@smoss_crayola_win Change 26037 on 2002/05/02 by aashkar@fl_aashkar SU tests and golds Added RT ENABLE to address map Change 26036 on 2002/05/02 by lseiler@lseiler_r400_win_marlboro Change 26118 on 2002/05/02 by gregs@gregs_r400_win_marlboro changed default value of SUBSYS ID ROM based strap Replaced by the Autoreg generated register description Change 26111 on 2002/05/02 by efong@efong_r400_win_tor_doc Change 26035 on 2002/05/02 by jacarey@fl_jacarey Initial revision Type 1 Packet Corrections Change 26110 on 2002/05/02 by scroce@scroce_r400_win_marlboro Change 26033 on 2002/05/02 by bryans@bryans_crayola_doc Added examples and a lot of info Update to include emulator diagram/flow with reify Change 26103 on 2002/05/02 by smoss@smoss_crayola_win Change 26030 on 2002/05/02 by aashkar@fl aashkar Added missing Address for Write Confirm ID FIFO Change 26067 on 2002/05/02 by rvelez@rvelez r400 win tor Change 26028 on 2002/05/02 by jayw@MA JAYW Updated 5/2 added example and fixed some gamma bugs Change 26066 on 2002/05/02 by aashkar@fl aashkar Change 26025 on 2002/05/02 by jacarey@fl_jacarey Page 299 of 441 Page 300 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

ranges, SX spreadsheet and verification document, and a tg.h that is out of date, but the good one is missing.

Checkpoint Microcode Before CPP Updates

Change 25816 on 2002/05/01 by jhoule@MA_JHOULE Microcode Typel Packet
 NOP Packet 0.9.9-0.9.10: Inserted complete size restriction from .xls file. Wrapping/Clamping description. TP->TC interface suggestion. Reserved Bit Check Routine
 Invalid Opcode Check Routine Change 26013 on 2002/05/02 by kcorrell@kcorrell r400 docs marlboro Change 25806 on 2002/05/01 by jacarey@fl_jacarey updated TC interface, DC interface and buffering, added auxiliary logic section. Modified address translation to include HDP_FB_START and ROM_BASE. Change 25975 on 2002/05/02 by jacarey@fl_jacarey Change 25805 on 2002/05/01 by gregs@gregs_r400_win_marlboro Clarified use of the texture constants. added another open issue. Change 25804 on 2002/05/01 by jacarey@fl_jacarey Change 25958 on 2002/05/02 by jacarey@fl_jacarey Partial Update to Top-Level Diagram Change 25802 on 2002/05/01 by gregs@gregs_r400_win_marlboro Change 25957 on 2002/05/02 by jacarey@fl_jacarey Partial updates for supporting new 2D packets. added another ROM: Y25LF05 Change 25778 on 2002/05/01 by jacarey@fl_jacarey Change 25955 on 2002/05/02 by jacarev@fl jacarev Removed signals that no longer exist: RBBM_CP_3d_idle CP_RBBM_2d_idle Renamed MH_CP_coherency_busy to MH_RBBM_coherency_busy Change 25772 on 2002/05/01 by jacarey@fl_jacarey Change 25917 on 2002/05/01 by mkelly@fl_mkelly_r400_win_laptop Update Docuents with ME details. Change 25770 on 2002/05/01 by gregs@gregs_r400_win_marlboro added default value of MEM AP SIZE as an open issue Change 25912 on 2002/05/01 by nbarbier@nbarbier_r400_win_tor Change 25763 on 2002/05/01 by jacarey@fl_jacarey Made changes following test plan review for first milestone Change 25896 on 2002/05/01 by lkang@lkang_r400_win_tor Added RT Enable Flag Change 25719 on 2002/05/01 by gabarca@gabarca_crayola_win_cvd update on 5/1 Change 25850 on 2002/05/01 by jayw@MA_JAYW Only Gamma monotinicity left Change 25694 on 2002/05/01 by jacarey@fl_jacarey Change 25824 on 2002/05/01 by jacarey@fl_jacarey Checkpoint Code Update signal names for the memory hub power management. Change 25685 on 2002/05/01 by gregs@gregs_r400_win_marlboro Page 301 of 441 Page 302 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history added comments on TMDS pwr/gnd requirements. Change 25652 on 2002/04/30 by jayw@MA JAYW Change 25558 on 2002/04/30 by gabarca@gabarca_crayola_win_cvd Finished establishing features and sub-features to be tested, developed the VGA HDP section, almost finished the VGA HDP test table spreadsheet minor update in progress Change 25629 on 2002/04/30 by jacarey@fl_jacarey Change 25550 on 2002/04/30 by jacarey@fl jacarey Update Micro Engine Local Addresses Checkpoint Micro Engine Documentation Change 25628 on 2002/04/30 by jacarey@fl jacarey Change 25547 on 2002/04/30 by lkang@lkang_r400_win_tor Details to Micro Engine Local Addresses for Micro Engine update on 4/30 Change 25624 on 2002/04/30 by scroce@scroce r400 win marlboro Change 25540 on 2002/04/30 by ashishs@fl ashishs r400 win added PLI info Change 25521 on 2002/04/30 by ashishs@fl ashishs r400 win Change 25622 on 2002/04/30 by gabarca@gabarca crayola win cvd Change 25596 on 2002/04/30 by hartogs@fl_hartogs Change 25508 on 2002/04/30 by jacarey@fl_jacarey Version 0.93 Update for Local Micro Engine Addresses Added conversion method "VGT_GRP_FIX_1_23_TO_FLOAT" to the list of specifiable conversion methods in the register VGT_GROUP_VECT_0_FMT_CNTL. This conversion method is, at the time of this revision, used solely by the tessellation engine to convert Change 25458 on 2002/04/29 by gabarca@gabarca_crayola_win_cvd interpolation weights from fixed point 1.23 format to 32-bit IEEE floating point Added "RETAIN ORDER" and "RETAIN QUADS" fields to the register

VGT_GROUP_PRIM_TYPE.

Added description of how the prim type information flows through the VGT to section Change 25457 on 2002/04/29 by gabarca@gabarca_crayola_win_cvd 5.2.1. updated Change 25586 on 2002/04/30 by efong@efong_r400_win_tor_doc Change 25450 on 2002/04/29 by csampayo@fl_csampayo_r400 updated with crtc en signal Update status for the following VGT test Change 25581 on 2002/04/30 by ashishs@fl_ashishs_r400_win

Change 25570 on 2002/04/30 by ashishs@fl ashishs r400 win

Change 25561 on 2002/04/30 by ashishs@fl ashishs r400 win

Page 303 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 25418 on 2002/04/29 by sbagshaw@sbagshaw

VIP status for chip integration as of April 23rd, 2002

Change 25415 on 2002/04/29 by jayw@MA_JAYW

Change 25413 on 2002/04/29 by jacarey@fl_jacarey

Page 304 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

must run

AMD1044 0258171

Change 25386 on 2002/04/29 by jasif@jasif_r400_win_tor Change 25296 on 2002/04/29 by omesh@ma_omesh Updated forcible signals section to use prefix "force" for all forcible signal names. Just changed the heading/title of document. Nothing else. Change 25372 on 2002/04/29 by gabarca@gabarca_crayola_win_cvd Change 25295 on 2002/04/29 by gabarca@gabarca_crayola_win_cvd Cahnged name updated Change 25354 on 2002/04/29 by lkang@lkang_r400_win_tor Change 25280 on 2002/04/29 by jacarey@fl_jacarey No special logic in the RBBM for detecting IDCT register transactions. Any logic needed Change 25346 on 2002/04/29 by fhsien@fhsien_r400_win_marlboro Change 25278 on 2002/04/29 by gabarca@gabarca_crayola_win_cvd Only change the format of the template for RB verification Cahnged name Change 25339 on 2002/04/29 by jasif@jasif_r400_win_tor Change 25277 on 2002/04/29 by tho@tho r400 win Updated Change 25335 on 2002/04/29 by rbell@rbell_crayola_win_cvd Change 25275 on 2002/04/29 by gabarca@gabarca_crayola_win_cvd updated Change 25334 on 2002/04/29 by gabarca@gabarca_crayola_win_cvd Change 25273 on 2002/04/29 by vliu@vliu r400 cnvliu100 win cvd Put in VGA HDP Change 25326 on 2002/04/29 by nluu@nluu_r400_docfib_cnnb Change 25268 on 2002/04/29 by jacarey@fl_jacarey Update Pre-Fetch Parser Change 25324 on 2002/04/29 by mmantor@mmantor_r400_win Change 25197 on 2002/04/26 by csampayo@fl_csampayo_lt_r400 updated spec for PA_SC_su interface changes updated sc.v and created tb directories Added status for the following tests Change 25305 on 2002/04/29 by efong@efong_r400_win_tor_doc r400vgt index offset 03 Change 25193 on 2002/04/26 by csampayo@fl_csampayo_lt_r400 Change 25304 on 2002/04/29 by chwang@chwang_doc_r400_win_cvd Resubmit previous Update. Change 25192 on 2002/04/26 by csampayo@fl_csampayo_lt_r400 Change 25303 on 2002/04/29 by askende@andi_r400_docs Page 305 of 441 Page 306 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 25014 on 2002/04/25 by ashishs@fl_ashishs_r400_win Added index offset to VGT section Change 25187 on 2002/04/26 by mkelly@fl_mkelly_r400_win_laptop Change 24968 on 2002/04/25 by georgev@ma_georgev Change 25148 on 2002/04/26 by ashishs@fl ashishs r400 win First Rev. just checked out Change 24961 on 2002/04/25 by ctaylor@fl_ctaylor_r400_win_marlboro Change 25145 on 2002/04/26 by ashishs@fl_ashishs_r400_win Spec Updates Change 24941 on 2002/04/25 by jayw@MA_JAYW Change 25135 on 2002/04/26 by scroce@scroce_r400_win_marlboro fixed a missing zero in DeGamma example and improved formatting of the result. Added some new features and modified some current features Change 24919 on 2002/04/25 by rherrick@ma rherrick crayola Change 25134 on 2002/04/26 by jayw@MA_JAYW Updated spec to reflect two Texture Cache interface clients Change 24910 on 2002/04/25 by csampayo@fl_csampayo_r400 minor tweak to the exponent table, adding one to exponent added +1.0 bybass in front of degamma Updated the schedule and the status for the following tests: Change 25105 on 2002/04/26 by jacarey@fl_jacarey r400vgt_index_min_max_01 r400vgt_index_min_max_02 Remove GEN_INT_* references
 No Shared Registers -- Update read return bus
 Added MASTER_INT_SIGNAL register Change 24905 on 2002/04/25 by jacarey@fl_jacarey Fixed typo of force mismatch Change 25075 on 2002/04/26 by jacarey@fl_jacarey Change 24904 on 2002/04/25 by lkang@lkang_r400_win_tor Update Documents Change 25056 on 2002/04/25 by gregs@gregs_r400_win_marlboro Change 24902 on 2002/04/25 by lkang@lkang r400 win tor update on 4/24 Change 25055 on 2002/04/25 by gregs@gregs r400 win mariboro Change 24901 on 2002/04/25 by lkang@lkang_r400_win_tor updated number of analog sipply pins + descriptions update after spec review Change 25046 on 2002/04/25 by jayw@MA_JAYW Change 24899 on 2002/04/25 by rherrick@ma rherrick crayola added MS gamma blech Improve documentation to reflect implementation (including data-spec definition) Change 25020 on 2002/04/25 by ashishs@fl_ashishs_r400_win Change 24888 on 2002/04/25 by jayw@jayw_r400_win_home update Added example of DeGamma to blend doc and Page 307 of 441 Page 308 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

modifications to RB-SX interfaces

Checkpoint Specifications

Added general flow diagrams (more to come) Change 24827 on 2002/04/24 by jayw@MA_JAYW Change 24639 on 2002/04/23 by csampayo@fl_csampayo_lt_r400 Updated status for the following tests: r400vgt_reuse_depth_triangle_list_01 r400vgt_reuse_depth_line_list_01 Change 24822 on 2002/04/24 by jayw@MA_JAYW made debugging a particular x easier Change 24615 on 2002/04/23 by jimmylau@jimmylau_r400_win_tor Change 24810 on 2002/04/24 by jayw@MA_JAYW move CRTC test plan documents under doc_lib/design/blocks/dc/crtc added debug lines at the end Change 24604 on 2002/04/23 by gregs@gregs_r400_win_marlboro Change 24807 on 2002/04/24 by jayw@MA_JAYW fixed with no implicit leading one and exponent bias of +15 as per Paul Vella's request. Change 24574 on 2002/04/23 by rbagley@ma_rbagley_ltxp Some updates (far from complete) to the syntax. More important, the doc is reorganized. Change 24796 on 2002/04/24 by gregs@gregs_r400_win_marlboro Change 24542 on 2002/04/23 by lkang@lkang_r400_win_tor SPLL registers update. Change 24713 on 2002/04/24 by georgev@ma_georgev Change 24540 on 2002/04/23 by tien@ma spinach Opened for edit. Updated TP area estimate Change 24712 on 2002/04/24 by smoss@smoss_crayola_win Change 24536 on 2002/04/23 by lkang@lkang r400 win tor update on 4/23 Change 24707 on 2002/04/24 by bryans@bryans_crayola_doc Change 24519 on 2002/04/23 by jayw@MA_JAYW Update directory tree (parts_lib) for virage/testchip_vid subdirs changed tag between MC and RB to 9 bits. Change 24676 on 2002/04/24 by jacarey@fl_jacarey Change 24516 on 2002/04/23 by jayw@MA_JAYW Added Read Request Ports to the MIU fixed perl bug, more usefull X's found now Change 24675 on 2002/04/24 by jacarey@fl_jacarey Change 24489 on 2002/04/23 by jimmylau@jimmylau_r400_win_tor Powerpoint slides from 2D PM4 Review Add crtc en signal in the SCL-CRTC interface specs Change 24674 on 2002/04/24 by jacarey@fl jacarey Change 24484 on 2002/04/23 by frising@ma_frising Page 309 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history 24 bit floating point format is E4M20 not E5M19. No version bump. Updated with some implementation details Change 24462 on 2002/04/23 by nbarbier@nbarbier_r400_win_tor Change 24230 on 2002/04/22 by vliu@vliu_r400_cnvliu100_win_cvd Change 24445 on 2002/04/23 by jacarey@fl jacarey Change 24218 on 2002/04/22 by jasif@jasif r400 win tor Misc. Updates to 2D Appendix Reset "Valid" flags on 3D-to-2D Transitions in PFP. Change 24209 on 2002/04/22 by efong@efong r400 win tor doc Change 24416 on 2002/04/22 by csampayo@fl_csampayo_r400 Updated status for the test r400vgt_reuse_depth_point_list_01 Change 24195 on 2002/04/22 by chwang@chwang doc r400 win cvd Change 24406 on 2002/04/22 by bryans@bryans_crayola_doc Update per status meeting Change 24191 on 2002/04/22 by tho@tho r400 win Change 24387 on 2002/04/22 by mmantor@mmantor_r400_win update to sc dumps and added last tile to walker out dump in sc_walker. Also updated the Change 24187 on 2002/04/22 by imuskatb@imuskatb_r400_win_cnimuskatb standslone exe and the scan converter spec for the new sc=>sq interface Updated Change 24385 on 2002/04/22 by gregs@gregs_r400_win_marlboro Change 24173 on 2002/04/22 by rbell@rbell_crayola_win_cvd update Change 24353 on 2002/04/22 by lkang@lkang_r400_win_tor Change 24170 on 2002/04/22 by gregs@gregs_r400_win_marlboro removed ROM sram area, as we are not going to have any memory in ROM. Change 24352 on 2002/04/22 by lkang@lkang r400 win tor Change 24082 on 2002/04/19 by csampayo@fl_csampayo_r400 display integration plan Updated status for following tests r400vgt_reuse_index_triangle_list_01 r400vgt_reuse_index_line_list_01 r400vgt_reuse_index_point_list_01 Change 24266 on 2002/04/22 by chwang@chwang_doc_r400_win_cvd Addition of BIF Model test plan. Change 24243 on 2002/04/22 by gabarca@gabarca_crayola_win_cvd Change 24050 on 2002/04/19 by jacarey@fl_jacarey $VGAREG_VGA_MEMORY_BASE_ADDRESS~[31:25] \\ Represents the start of the 32 Meg aligned, 32 Meg sized area of memory where the VGA HDP and rendering reads and the start of the$ Remove constant flag from MIU logic. Change 24049 on 2002/04/19 by pmitchel@pmitchel r400 win marfboro Change 24234 on 2002/04/22 by chwang@chwang_doc_r400_win_cvd add Page 311 of 441 Page 312 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Checkpoint All Documents.

Change 24673 on 2002/04/24 by jayw@jayw_r400_win_home

added exponent table documentation

Change 24832 on 2002/04/24 by bryans@bryans_crayola_doc

Change 23893 on 2002/04/18 by csampayo@fl_csampayo_r400 PM4 Spec Updates for Write Confirmation Microcode Updates for write confirmation. Updated status for following test r400vgt_ext2int_index_line_loop 01 r400vgt_ext2int_index_triangle_strip_01 r400vgt_ext2int_index_quad_strip_01 r400vgt_ext2int_index_triangle_fan_01 r400vgt_ext2int_index_quad_list_01 Change 24008 on 2002/04/19 by <code>gregs@gregs_r400_win_marlboro</code> Change 23984 on 2002/04/19 by georgev@ma_georgev r400vgt ext2int index polygon r400vgt_ext2int_index_triangle_list_01 Master and sub documents for verification plan Change 23851 on 2002/04/18 by gabarca@gabarca_crayola_win_cvd Change 23961 on 2002/04/19 by smoss@smoss crayola win Added working version of VGA test plan: added culling Change 23836 on 2002/04/18 by jacarey@fl_jacarey Change 23958 on 2002/04/19 by bryans@bryans_crayola_doc Add TBD to RBBM spec for interrupts
 Update packets for "write confirmation" Add macros: CHIP_EMU_ARCHS_CONFS CHIP_SIM_ARCHS_CONFS Change 23835 on 2002/04/18 by mkelly@fl_mkelly_r400_win_laptop <test>_emu_archs_confs <test>_sim_archs_confs Change 23767 on 2002/04/18 by jacarey@fl_jacarey to support specifying pairs of arch/conf within the Makefile. Update Connections to MIU Note: CHIPARCH= and CHIPCONF= can be used on the command line to override Change 23726 on 2002/04/17 by csampayo@fl_csampayo_r400 Change 23957 on 2002/04/19 by llefebvr@llefebvre_laptop_r400 Updated status for the following tests: r400vgt_ext2int_index_points_01 r400vgt_ext2int_index_line_list_01 r400vgt_ext2int_index_line_strip_01 The new control flow scheme is now included in v2.0 of the sequencer spec. Change 23946 on 2002/04/19 by llefebvr@llefebvre laptop r400 Last version of the spec with the old control flow scheme Change 23722 on 2002/04/17 by askende@andi_r400_docs Change 23940 on 2002/04/19 by jacarey@fl_jacarey new rev. 03 checked in. Updated signal name to CP CG 2d mode Change 23718 on 2002/04/17 by abeaudin@abeaudin r400 win marlboro update transaction engine Change 23939 on 2002/04/19 by jacarey@fl_jacarey Added CG_CP_2d_mode to real-time stream connections document. Change 23714 on 2002/04/17 by vromaker@MA_VIC_P4 Change 23926 on 2002/04/19 by mkelly@fl_mkelly_r400_win_laptop updated SQ memory sizes Page 313 of 441 Ex. 2050 --- R400 Document Library FH --- folder history Ex. 2050 --- R400 Document Library FH --- folder history Change 23661 on 2002/04/17 by efong@efong_r400_win_tor_doc ME_INIT packet for PM4 Spec Register Updates for Cp Spec changed from VGA_DISP_dl_rotate_90_deg to VGA_DISP_d2_rotate_90_deg Change 23345 on 2002/04/15 by mkelly@fl_mkelly_r400_win_laptop Change 23635 on 2002/04/17 by efong@efong_r400_win_tor_doc Updated due to review as well as new pin (CRTC SCL display read request dis) Change 23309 on 2002/04/15 by jacarey@fl_jacarey Change 23617 on 2002/04/17 by jacarey@fl_jacarey Update FIFO sizes and fix placement of the "rcd" signal. Checkpoint Micro Engine Diagrams Change 23307 on 2002/04/15 by jacarey@fl jacarey Microcode includes the main loop (Packet Dispatch) Change 23597 on 2002/04/17 by gregs@gregs_r400_win_marlboro Document ati rbbm intf'usage in cp's rbiu Change 23302 on 2002/04/15 by efong@efong r400 win tor doc updated register fields. Change 23590 on 2002/04/17 by jayw@MA_JAYW Update the date MaxErr, better error range checking with quatization effects. Change 23300 on 2002/04/15 by imuskatb@imuskatb r400 win cnimuskatb Change 23573 on 2002/04/17 by efong@efong_r400_win_tor_doc Updated due to review as well as new spec still have to update the reify file stuff Change 23296 on 2002/04/15 by jasif@jasif_r400_win_tor Change 23566 on 2002/04/17 by gregs@gregs_r400_win_marlboro Updated updated MEM_AP_SIZE encodings + strap readback table. Change 23289 on 2002/04/15 by chwang@chwang_doc_r400_win_cvd Change 23535 on 2002/04/16 by csampayo@fl_csampayo_r400 Updated r400vgt_provoking_vtx_all_01 test status Change 23287 on 2002/04/15 by dwong@cndwong2 Change 23529 on 2002/04/16 by jacarey@fl_jacarey xDCT test plan version 0.1 Checkpoint Microcode -- A lot of Updates Only sections 3 (3.1..3.3) and 7 (7.2) contain valid information Change 23525 on 2002/04/16 by smoss@smoss crayola win Change 23282 on 2002/04/15 by nluu@nluu r400 doclib cnnb Change 23395 on 2002/04/15 by whui@whui_r400_win_tor Change 23262 on 2002/04/15 by vliu@vliu_r400_cnvliu100_win_cvd Update open issue Change 23370 on 2002/04/15 by jacarey@fl_jacarey Change 23259 on 2002/04/15 by tho@tho_r400_win Baseline Micro Engine Address Map updated Check-Point Microcode Page 315 of 441 Page 316 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 24024 on 2002/04/19 by jacarey@fl_jacarey

Updated Change 23074 on 2002/04/12 by jayw@MA JAYW Change 23237 on 2002/04/15 by gregs@gregs_r400_win_martboro Initial Gamma and DeGamma derivation code Change 23038 on 2002/04/12 by grayc@grayc_r400_win Change 23234 on 2002/04/15 by gregs@gregs_r400_win_marlboro Change 23036 on 2002/04/12 by mkelly@fl mkelly r400 win laptop added table of strap output signals Change 23233 on 2002/04/15 by rbell@rbell_crayola_win_cvd Change 22989 on 2002/04/12 by gregs@gregs r400 win marlboro updated Change 23227 on 2002/04/15 by jacarey@fl_jacarey 1. added registers for fuse box for "bad pipes" 2. added support for new devices: W45B512, W45B012 Details of Idle and Clean for wait until logic Change 22966 on 2002/04/11 by jiezhou@jiezhou r400 win tor Change 23203 on 2002/04/14 by jiezhou@jiezhou r400 win tor 1)Change icon read return data format (P0 start from LSB) Change 22965 on 2002/04/11 by jiezhou@jiezhou_r400_win_tor to keep the same format with R300 Update sub-block

"graphic and overlay alpha blending" -> include GRPH_EN and OVL_EN control

"Window Controller" -> Add more description of surface updating information

Updated state machine for graphic and overlay request

Remove "Y shift 1 bit" at 32 bpp digital output case and

overlay half resolution case

Section 5.1 -> Add signal description of 1.8 of H-total from CRTC as we don't have

interface spec of DCP-CRTC 2)Change cursor read return data format (P0 start from LSB) Change 23188 on 2002/04/13 by jimmylau@jimmylau_r400_win_tor Initial test plan for CRTC Change 23164 on 2002/04/12 by lkang@lkang_r400_win_tor "LUT" -> update register name and autofill data value for 8-bit mode Change 23163 on 2002/04/12 by csampayo@fl csampayo r400 Change 22920 on 2002/04/11 by rbell@rbell_crayola_win_cvd Added description of r400vgt_index_source_switch_01 Updates Change 23124 on 2002/04/12 by gregs@gregs_r400_win_marlboro Change 22919 on 2002/04/11 by jimmylau@jimmylau_r400_win_tor removed apad strength3 3V straps. Major update on CRTC specs : remove AUXWIN and related registers remove VAC thining and mode registers. Get signals from VGA block instead. major updates on register fields Change 23112 on 2002/04/12 by khabbari@khabbari_r400_win frame controller changes reflecting the review updates on CRTC interface signals and subblock interface signals Change 23075 on 2002/04/12 by jayw@MA JAYW major updates on section 6 : Data Processing Algorithms Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 22903 on 2002/04/11 by gregs@gregs_r400_win_marlboro typo error fixed. Change 22814 on 2002/04/11 by georgev@MA YVALCOUR Change 22894 on 2002/04/11 by mkelly@fl_mkelly_r400_win_laptop Change 22805 on 2002/04/11 by georgev@MA YVALCOUR update Change 22890 on 2002/04/11 by gregs@gregs_r400_win_marlboro Changed edit protection to lock. added ROM straps and fuse box Change 22800 on 2002/04/11 by gregs@gregs r400 win marlboro Change 22886 on 2002/04/11 by nbarbier@nbarbier_r400_win_tor Change 22799 on 2002/04/11 by gregs@gregs_r400_win_marlboro Updated signal names. Change 22883 on 2002/04/11 by nbarbier@nbarbier r400 win tor removed the BUSY signals table. Change 22761 on 2002/04/10 by csampayo@fl_csampayo_r400 Change 22878 on 2002/04/11 by jacarey@fl jacarey Added status of the following tests r400vgt_dma_index_points_01 r400vgt_dma_index_line_list_01 r400vgt_dma_index_line_strip_01 r400vgt_dma_index_line_loop_01 Update addresses for incremental update tests for constants and instruction memory Change 22868 on 2002/04/11 by csampayo@fl csampayo r400 r400vgt immed index points 01 r400vgt immed index line_list_01 r400vgt_immed_index_line_strip_01 r400vgt_immed_index_line_loop_01 Added status of following tests: r400su_parallel_orientation_all_01 r400su_parallel_orientation_all_02 Change 22867 on 2002/04/11 by jacarey@fl_jacarey Change 22755 on 2002/04/10 by jiezhou@jiezhou_r400_win_tor Change "DXOVL MATRIX TRANSFORM_EN"
"DXOVL_PWL_TRANSFORM_EN"
"DXCOLOR_SUBSAMPLE_CRCB_MODE[1:0]"
"DXCOLOR_MATRIX, TRANSFORM_EN"
from attribute of "double buffered" to "single buffered" Clear the VS and PS valid flags in the PFP if the driver writes the shader instruction code directly Change 22866 on 2002/04/11 by semara@semara_r400_win_tor adding the pixelwriter Add "DxGRPH FLIP MODE" to Graphic group Change 22843 on 2002/04/11 by rbell@rbell_crayola_win_cvd Move "DxGRPH_ENABLE" to Graphic group
"DxOVL_ENABLE" to Overlay group Change 22831 on 2002/04/11 by pmitchel@MA_PAULM_P4 Some change in LUT group: Move "DxGRPH_LUT_SEL" to Graphic group
Change "DxLUT_AUTOFILL" to "DC_LUT_AUTOFILL"
Change "DC_LUT_MODE" to "DC_LUT_RW_MODE" with single buffered move to proper place Change 22818 on 2002/04/11 by georgev@MA_YVALCOUR Page 320 of 441 Page 319 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Friday night check-in

Change 23242 on 2002/04/15 by efong@efong_r400_win_tor_doc

Change "DC_LUT_READb_WRITE_SELECT" to "DC_LUT_RW_SEL" Change "DC_LUT_INDEX[7:0]" to "DC_LUT_RW_INDEX[7:0]" Change "DC_LUT_WRITE_EN_MASK[5:0]" from "double buffered" to "single Updated to reflect deletion of Address Return Bus and updates to RB bus interface Change 22544 on 2002/04/09 by sallen@sallen r400 win marlboro Move ferret and rename spec Change 22709 on 2002/04/10 by llefebvr@llefebvre_laptop_r400 Change 22510 on 2002/04/09 by mkelly@fl_mkelly_r400_win_laptop Control flow proposal updated Change 22708 on 2002/04/10 by jacarey@fl_jacarey Change 22507 on 2002/04/09 by khabbari@khabbari r400 win Remove mention of single ring mode for the instruction memory management removed DCP_LB_P1_EN from lb/dcp interface Change 22700 on 2002/04/10 by jacarey@fl_jacarey Change 22491 on 2002/04/09 by khabbari@khabbari_r400_win Removal of Dual Ring Mode for Instruction Memory added subsample modes signal to both lb/dcp and lb/scl interface docs Change 22683 on 2002/04/10 by gregs@gregs_r400_win_marlboro Change 22483 on 2002/04/09 by hartogs@fl_hartogs static screen update $Updated\ draw\ initiator\ comments\ for\ "INDEX_SIZE"\ and\ "SOURCE_SELECT"\ fields\ based\ on\ behaviors\ learned\ from\ the\ emulator.$ Change 22680 on 2002/04/10 by georgev@MA_YVALCOUR Change 22476 on 2002/04/09 by frising@ma_frising First revision Change 22679 on 2002/04/10 by georgev@MA_YVALCOUR make surface alignment for 2d/3d linear textures be 4KB. No Change. Change 22473 on 2002/04/09 by abeaudin@abeaudin r400 win marlboro Change 22669 on 2002/04/10 by khabbari@khabbari r400 win documentation for registers and the gfx transaction engine frame controller for scaler released Change 22450 on 2002/04/09 by georgev@MA_YVALCOUR Change 22628 on 2002/04/10 by jacarey@fl_jacarey First revision. Updates: 1. Synchronization Change 22443 on 2002/04/09 by kcorrell@kcorrell_r400_docs_marfboro 2. Performance Counters Next undate Change 22594 on 2002/04/10 by bryans@bryans_crayola_doc Change 22393 on 2002/04/08 by khabbari@khabbari_r400_win Update lb/scaler and lb/dcn interface update Change 22589 on 2002/04/10 by jacarey@fl_jacarey Change 22359 on 2002/04/08 by jasif@jasif_r400_win_tor Update to Specifications for Synchronization Change 22577 on 2002/04/09 by beiwang@bei mcspec Change 22348 on 2002/04/08 by bryans@bryans_crayola_doc Page 321 of 441 Page 322 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Fix dc configuration to include VIP Change 22264 on 2002/04/08 by efong@efong_r400_win_tor_doc Change 22319 on 2002/04/08 by bbloemer@ma-jasonh Added DRAM bank pin names, separate from address pins Change 22261 on 2002/04/08 by tho@tho r400 win Change 22317 on 2002/04/08 by mkelly@fl_mkelly_r400_win_laptop updated Simple scissor rectangle test.. Change 22260 on 2002/04/08 by gregs@gregs_r400_win_marlboro Change 22316 on 2002/04/08 by llefebvr@llefebvre laptop r400 updated clock names The control flow proposal Change 22259 on 2002/04/08 by imuskatb@imuskatb_r400_win_cnimuskatb Change 22313 on 2002/04/08 by jacarey@fl_jacarey updated Updates for synchronization Change 22253 on 2002/04/08 by abeaudin@abeaudin_r400_win_marlboro Change 22302 on 2002/04/08 by gregs@gregs r400 win marlboro removed old schedules Change 22243 on 2002/04/08 by jasif@jasif_r400_win_tor Change 22293 on 2002/04/08 by mkelly@fl_mkelly_r400_win_laptop Updated. SC scissor rectangle test Change 22241 on 2002/04/08 by jacarey@fl_jacarey Change 22291 on 2002/04/08 by vliu@vliu_r400_cnvliu100_win_cvd Updates to diagram. Change 22239 on 2002/04/08 by rbell@rbell crayola win cvd Change 22281 on 2002/04/08 by gregs@gregs_r400_win_marlboro Small update for config example clock names and spelling Change 22237 on 2002/04/08 by rbell@rbell crayola win cvd Change 22277 on 2002/04/08 by jowang@jowang_R400_win For first milestone Change 22231 on 2002/04/08 by jacarey@fl jacarey Change 22276 on 2002/04/08 by nluu@nluu r400 doclib cnnb Update to PFP Pseudocode
 Diagram for CP-to-Driver Synchronization
 Checkpoint Microcode Change 22275 on 2002/04/08 by jacarey@fl jacarey 4. Checkpoint RBBM Specification Checkpoint Specifications Change 22162 on 2002/04/05 by jiezhou@jiezhou_r400_win_tor update some field name to be consistent with verilog register file. Change 22273 on 2002/04/08 by chwang@chwang_doc_r400_win_cvd Page 323 of 441 Page 324 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 22152 on 2002/04/05 by mkelly@fl_mkelly_r400_win_laptop Change 22066 on 2002/04/05 by jacarey@fl_jacarey Undate.. Update to reflect "start of frame" counters for Display Engines. Change 22149 on 2002/04/05 by jacarey@fl_jacarey Change 22065 on 2002/04/05 by jacarey@fl jacarey Small clarification for event timestamp write packet. Document for Discrete RT stream connections instead of placing this information in the CP Specification. Change 22143 on 2002/04/05 by jacarey@fl jacarey Updated EVENT_TIMESTAMP_WRITE PM4 packet.
Updated count fields for PFP-to-ME intermediate packets. Change 22056 on 2002/04/05 by llefebvr@llefebvre laptop r400 The new control flow proposal. Change 22135 on 2002/04/05 by chwang@chwang_doc_r400_win_cvd Change 22037 on 2002/04/05 by bryans@bryans_crayola_doc Minor undate about model arguments Add dc disp configuration Change 22130 on 2002/04/05 by chwang@chwang_doc_r400_win_cvd Change 21976 on 2002/04/04 by nluu@nluu_r400_doclib_cnnb Added updated Reify spec. - add implementation specs to DCCIF Model. Change 22120 on 2002/04/05 by nluu@nluu_r400_doclib_cnnb Change 21973 on 2002/04/04 by csampayo@fl_csampayo_r400 - add more details to the implementation section Undated VGT section with tests written Change 22101 on 2002/04/05 by chwang@chwang_doc_r400_win_cvd Change 21964 on 2002/04/04 by gregs@gregs_r400_win_marlboro Update to the Coding Standard. update Change 22094 on 2002/04/05 by jacarey@fl jacarey Change 21919 on 2002/04/04 by nluu@nluu_r400_doclib_cnnb Renamed CP_RBBM_rt_idle to CP_RBBM_rt_busy - add bit width to signals in diagrams Change 22079 on 2002/04/05 by lkang@lkang_r400_win_tor Change 21906 on 2002/04/04 by nluu@nluu_r400_doclib_cnnb display device power management update - mark don't cares on all relevant signals Change 22078 on 2002/04/05 by semara@semara_r400_win_tor Change 21904 on 2002/04/04 by khabbari@khabbari r400 win adding VGA_DISP_d1/2_rotate_90_deg signals the lb test plan for phasel Change 22068 on 2002/04/05 by semara@semara r400 win tor Change 21894 on 2002/04/04 by jimmylau@jimmylau_r400_win_tor Updating the interface to use display width/height to interface to the scalar adjust the vertical parameters indexes from [9:0] to [10:0]. Change SC-CRTC interface specs. Add signals to disable display requests for displayl and display 2. Change 22067 on 2002/04/05 by jacarey@fl_jacarey Change 21890 on 2002/04/04 by bryans@bryans_crayola_doc Remove Discrete signals for RT streams from CP Specification Page 325 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Brief doc on environment variables and standard makefile defines - change to revision 1.0 Change 21870 on 2002/04/04 by gregs@gregs_r400_win_marlboro Change 21710 on 2002/04/03 by nhuu@nhuu r400 doclib cnnb added input registers for RBBM_active and MH_active and pm_en. - Add implementation specs to rbbmif model doc Change 21859 on 2002/04/04 by gregs@gregs_r400_win_marlboro Change 21650 on 2002/04/03 by hartogs@fl_hartogs changed VGT_SQ_end_of_vector to VGT_SQ_end_of_vtx_vect. changed VGT_PA_clip_p_start_vector to VGT_PA_clip_p_new_fixed stride and shift entries for vector 0 in Major Mode 0 table. moved ROM based straps table Change 21853 on 2002/04/04 by gregs@gregs r400 win marlboro Updated the "Active Issues" list. Added the SWAP_MODE field to the DMA_SIZE register.

Changed the implied value of bit 2 of the VGT_MH_ad interface from a zero to a one. This indicates that the VGT is always doing 256-bit requests. Change 21844 on 2002/04/04 by bhankins@fl_bhankins_r400_win Initial checkin Change 21638 on 2002/04/03 by jacarey@fl_jacarey Change 21831 on 2002/04/04 by gregs@gregs_r400_win_marlboro Updated Invalidate_State packet to swap VS and PS bit order Change 21634 on 2002/04/03 by abeaudin@abeaudin_r400_win_marlboro verilog examples of clock gating Change 21816 on 2002/04/04 by gregs@gregs_r400_win_marlboro cleaned up documentaion Change 21620 on 2002/04/03 by jacarey@fl jacarey sclk gating example files. Change 21798 on 2002/04/04 by jacarey@fl_jacarey Clarified that the MH has a slip FIFO Miscellaneous Corrections to PM4 Specification Change 21619 on 2002/04/03 by gregs@gregs r400 win marlboro Change 21771 on 2002/04/03 by jiezhou@jiezhou_r400_win_tor Updated MH section Change 21589 on 2002/04/03 by jacarey@fl_jacarey Change 21770 on 2002/04/03 by csampayo@fl csampayo r400 Added memclk active feedback to MIU PA Validation Tests Tracking Document Change 21586 on 2002/04/03 by jacarey@fl_jacarey Change 21733 on 2002/04/03 by nluu@nluu_r400_doclib_cnnb Added CP MH_reqmem signal to the CP - change title in properties Change 21533 on 2002/04/03 by jacarey@fl_jacarey Change 21719 on 2002/04/03 by nluu@nluu r400 doclib cnnb Update to All Documents Change 21517 on 2002/04/02 by csampayo@fl_csampayo_r400 - add more test cases Change 21712 on 2002/04/03 by nluu@nluu r400 doclib cnnb For documenting PA validation environment/processes Change 21492 on 2002/04/02 by kcorrell@kcorrell_r400_docs_marlboro - add a no-reset test case Page 327 of 441 Page 328 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 21345 on 2002/04/02 by jacarey@fl_jacarey updated interfaces Interface Updates for CP. Change 21467 on 2002/04/02 by bryans@bryans_crayola_doc Change 21314 on 2002/04/01 by jiezhou@jiezhou_r400_win_tor more updates (open issues) Initial release for dcp test plan Change 21423 on 2002/04/02 by jasif@jasif_r400_win_tor Change 21308 on 2002/04/01 by bryans@bryans_crayola_doc Updated. Post status meeting update Change 21396 on 2002/04/02 by bryans@bryans crayola doc Change 21290 on 2002/04/01 by jasif@jasif_r400_win_tor Update status based on Lili's changes Modified description of timing diagram Change 21382 on 2002/04/02 by efong@efong_r400_win_tor_doc Change 21277 on 2002/04/01 by gregs@gregs_r400_win_marlboro prefixed all the forciable signals with force added pin_strap_DRAM_select Change 21381 on 2002/04/02 by efong@efong_r400_win_tor_doc Change 21253 on 2002/04/01 by lkang@lkang_r400_win_tor prefixed the forciable signals with force_ Move the file from devel/doc_lib to doc_lib Change 21380 on 2002/04/02 by efong@efong r400 win tor doc Change 21251 on 2002/04/01 by jasif@jasif r400 win tor changed the names of the forciable signals to be prefixed with force . changed the bus_timeout to be 100 from 50 because rbbmif will timeout after 68 cycles. fixed up the table with the commands and removed 0x200 from all the write cycles Updated unterface signal names to match released dccif.v top level put down some extra limitations of the model Change 21222 on 2002/04/01 by bryans@bryans_crayola_doc put in a small section in the rd file section for timeout Update status Change 21377 on 2002/04/02 by jayw@MA_JAYW Change 21220 on 2002/04/01 by lkang@lkang r400 win tor added RB_MH_queuecount and removed tile_done from RBs. Change 21366 on 2002/04/02 by jayw@MA_JAYW Change 21216 on 2002/04/01 by jasif@jasif_r400_win_tor complement for RB_HW_design_spec.doc Added assumptions section. Change 21207 on 2002/04/01 by nluu@nluu_r400_doclib_cnnb Change 21365 on 2002/04/02 by jayw@MA JAYW MH_RB_queuecount_external is now MH_RB_queuecount Change 21206 on 2002/04/01 by jasif@jasif_r400_win_tor Change 21349 on 2002/04/02 by rbell@rbell_crayola_win_cvd Updated Error Section. updated Change 21204 on 2002/04/01 by efong@efong_r400_win_tor_doc Page 329 of 441 Page 330 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 20934 on 2002/03/28 by hartogs@fl hartogs Updated Change 21201 on 2002/04/01 by jasif@jasif_r400_win_tor More clean-up. From this point on, revisions to the spec will be detailed in the revision section Change 20912 on 2002/03/28 by jacarey@fl_jacarey Change 21198 on 2002/04/01 by chwang@chwang_doc_r400_win_cvd Added soft reset for VGT to RBBM. Multiple Updates to CP specs for 2D. Change 20890 on 2002/03/28 by rherrick@ma_rherrick_crayola Change 21195 on 2002/04/01 by dclifton@dclifton r400 Moved perspective correction of I and J to VTE. Updated the RBIU interface to very latest concept of state variable storage (subject to change again). Fixed Table Of Contents... Change 20883 on 2002/03/28 by gregs@gregs r400 win marlboro Change 21191 on 2002/04/01 by vliu@vliu_r400_cnvliu100_win_cvd added block to block timing Change 20880 on 2002/03/28 by rherrick@ma rherrick crayola Change 21189 on 2002/04/01 by jasif@jasif_r400_win_tor Revamped specification to include relative transaction methods (instead of directed vs pattern methods)... Also added client synchronization... Change 21182 on 2002/04/01 by jayw@MA_JAYW Change 20861 on 2002/03/28 by rbell@rbell crayola win cvd Monday morning checkin. Some tile cache drawings in Visio. Change 20859 on 2002/03/28 by whui@whui r400 win tor Change 21177 on 2002/04/01 by tho@tho_r400_win updated section 8: power management Change 20808 on 2002/03/28 by hartogs@fl_hartogs Change 21161 on 2002/04/01 by rbell@rbell crayola win cvd Added and deleted several state registers. Updated interface tables. Change 21134 on 2002/03/31 by beiwang@bei mcspec Change 20799 on 2002/03/28 by jacarey@fl jacarey Deleted text descriptions on Address return bus to be consistent w/ the bus interface Added clock gating information to the CP Specification Change 20769 on 2002/03/27 by mmantor@mmantor_r400_win Change 21122 on 2002/03/31 by semara@semara_r400_win_tor updated for interface integration changes updating the address gen section Change 20739 on 2002/03/27 by jasif@jasif_r400_win_tor

Change 20941 on 2002/03/28 by bbloemer@ma-jasonh

Page 331 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Updated de queue text

Added force prefix for signal names forcible from tests

Page 332 of 441

Change 20721 on 2002/03/27 by jayw@MA_JAYW Change 20606 on 2002/03/26 by rvelez@rvelez_r400_win_tor removed bogus offset x and offset y from detail bus. added event bit to coarse bus. Latest DCCIF changes - fixed typos in docs Change 20601 on 2002/03/26 by jacarey@fl_jacarey Change 20720 on 2002/03/27 by nluu@nluu_r400_doclib_cnnb Undate CP Interfaces - initial revision of DCCIF Model test plan Change 20589 on 2002/03/26 by khabbari@khabbari_r400_win Change 20718 on 2002/03/27 by gregs@gregs_r400_win_marlboro tvout/dispout interface doc released Updated with the global core clock idea. Change 20584 on 2002/03/26 by jacarey@fl_jacarey Change 20715 on 2002/03/27 by nluu@nluu_r400_doclib_cnnb Sweeping Update to the Interface Signal List. - correct links - model documents were re-organized Change 20580 on 2002/03/26 by jayw@MA_JAYW Change 20711 on 2002/03/27 by bryans@bryans_crayola_doc Missing file, disappeared mysteriously Update the arch/conf spec for simulation Change 20578 on 2002/03/26 by jayw@MA JAYW Change 20710 on 2002/03/27 by jacarey@fl_jacarey Released to match rb.v and rc.v Update RBBM Interfaces Change 20574 on 2002/03/26 by jowang@jowang R400 win Change 20699 on 2002/03/27 by jacarey@fl_jacarey Update Spec for Interfaces Change 20573 on 2002/03/26 by jayw@MA JAYW Change 20692 on 2002/03/27 by jayw@MA_JAYW Several bus name changes. Added RB->RC system context bus fixed a couple of minor signal names. Change 20678 on 2002/03/27 by askende@andi r400 docs Change 20571 on 2002/03/26 by mpersaud@mpersaud r400 win tor a new rev of the shader export spec Change 20664 on 2002/03/27 by jacarey@fl_jacarey Change 20560 on 2002/03/26 by jacarey@fl_jacarey Interface Updates Interface Update for VIP, BIF reviews Change 20641 on 2002/03/27 by jacarey@fl_jacarey Change 20531 on 2002/03/26 by jasif@jasif_r400_win_tor Added "Read Combine Disable" to diagrams Change 20632 on 2002/03/27 by dglen@dglen_r400_dell Change 20524 on 2002/03/26 by nluu@nluu_r400_doclib_cnnb Doing major update. Still not complete - update Page 334 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 20513 on 2002/03/26 by dwong@cndwong2 updated R400 xDCT design review presentation material Change 20332 on 2002/03/25 by chwang@chwang_doc_r400_win_cvd Change 20512 on 2002/03/26 by jasif@jasif_r400_win_tor Initial revision. Change 20320 on 2002/03/25 by liefebyr@liefebyre_laptop_r400 Change 20471 on 2002/03/26 by rthambim@rthambim_r400_win_tor Upated the interfaces and added an exporting rule section Added skid buffer structure diagram. Change 20316 on 2002/03/25 by nluu@nluu r400 doclib cnnb Change 20444 on 2002/03/25 by rthambim@rthambim r400 win tor Updated write combining info. Change 20313 on 2002/03/25 by jasif@jasif r400 win tor Change 20442 on 2002/03/25 by rthambim@rthambim r400 win tor Updated. Added skid buffer timing diagram. Change 20309 on 2002/03/25 by tho@tho r400 win Change 20426 on 2002/03/25 by askende@andi r400 docs a new rev (0.2) Change 20308 on 2002/03/25 by rbell@rbell_crayola_win_cvd Change 20403 on 2002/03/25 by jacarey@fl jacarey updates Clarify the fix-to-float is not normalized. Change 20303 on 2002/03/25 by nluu@nluu_r400_doclib_cnnb Change 20375 on 2002/03/25 by jayw@MA_JAYW Weekend undates Change 20302 on 2002/03/25 by imuskatb@imuskatb_dv_win_cvd Change 20364 on 2002/03/25 by jiezhou@jiezhou_r400_win_tor update small updating Change 20294 on 2002/03/25 by jiezhou@jiezhou_r400_win_tor Change 20357 on 2002/03/25 by semara@semara_r400_win_tor combine DCP Controller.doc into Display Composite Pipe.doc Change 20293 on 2002/03/25 by rbell@rbell crayola win cvd Change 20347 on 2002/03/25 by vliu@vliu_r400_cnvliu100_win_cvd Update Change 20292 on 2002/03/25 by jiezhou@jiezhou_r400_win_tor Change 20339 on 2002/03/25 by jacarey@fl_jacarey Checkpoint Diagram and Micro Code Change 20291 on 2002/03/25 by jiezhou@jiezhou r400 win tor Change 20335 on 2002/03/25 by efong@efong_r400_win_tor_doc Page 335 of 441 Page 336 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

 add graphic/overlay alpha blending feature
 add overlay matrix transformation block
 add overlay gamma correction block
 add 512 offset to icon expander first cut of the document Change 20215 on 2002/03/22 by jacarey@fl_jacarey 5) add 512 offset to cursor expander 3) and 312 offset to cursor expander

6) add "pick-up" odd pixels in Sub-sampline block

7) some precision issues along the data path

8) remove supporting for liear mode Update Interface list Change 20199 on 2002/03/22 by llefebvr@llefebvre_laptop_r400 8) remove supporting for one pipe enabled at tiled-mode
10) combine DCP_Controller.doc into Display_Composite_Pipe.doc
11) DCP_register_list.doc separate from Display_Composite_Pipe.doc Some minor changes to the SQ interfaces. Change 20194 on 2002/03/22 by jacarey@fl_jacarey Change 20289 on 2002/03/25 by jacarey@fl_jacarey Undate Interfaces clarified the brush offset value format Change 20192 on 2002/03/22 by mzhu@mzhu r400 win tor Change 20288 on 2002/03/25 by jacarey@fl_jacarey remove support for single DCP pipeline Update cp_interrupt packet to help the micro engine design. Change 20189 on 2002/03/22 by gregs@gregs_r400_win_marlboro Change 20287 on 2002/03/25 by jacarey@fl_jacarey things copied from r300 and not yet modified - in red color. Fix Typos in the number formats Change 20187 on 2002/03/22 by gregs@gregs_r400_win_marlboro Change 20286 on 2002/03/25 by jacarey@fl_jacarey Initial version - notes on pins, pad sizes, die and package sizes Clarification on Packet Restrictions Change 20157 on 2002/03/22 by jacarey@fl_jacarey Change 20269 on 2002/03/24 by rthambim@rthambim_r400_win_tor Baseline CP Microcode Updated ROM cycle info. Typos in PM4 Spec Change 20268 on 2002/03/24 by rthambim@rthambim_r400_win_tor Change 20144 on 2002/03/22 by frising@ma_frising Updated write combining info. No version change. -added in bit field definitions for texture width/height/depth that we keep forgetting to Change 20267 on 2002/03/24 by rthambim@rthambim r400 win tor add:) Change 20142 on 2002/03/22 by mmantor@mmantor_r400_win Change 20237 on 2002/03/22 by jiezhou@jiezhou_r400_win_tor updated interface tables to represent actual planned hardware interfaces Major update for DCP register list Change 20131 on 2002/03/22 by dclifton@dclifton r400 Change 20234 on 2002/03/22 by rthambim@rthambim r400 win tor Updated drawings and interface to Scan Converter Included strap table, updated review feedback Change 20130 on 2002/03/22 by jacarey@fl_jacarey Page 337 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 20018 on 2002/03/21 by jacarey@fl_jacarey Miscellaneous corrections to references to VGT registers Clarifications on Set state usage Change 20129 on 2002/03/22 by jacarey@fl_jacarey 2D Updates Change 20015 on 2002/03/21 by jacarey@fl_jacarey Rename vtg_index_offset to vgt_indx_offset Change 20124 on 2002/03/22 by jowang@jowang_R400_win Removed Erroneous Note added signals which are passed upstream from CRTC Change 19995 on 2002/03/21 by bryans@bryans_crayola_doc Change 20114 on 2002/03/22 by jayw@MA JAYW Largely formatting. Revamped MC interface and added RBBM. Change 19979 on 2002/03/21 by bryans@bryans_crayola_doc Realign goals Change 20102 on 2002/03/22 by jacarey@fl_jacarey Change 19960 on 2002/03/21 by jacarey@fl_jacarey Update Draw_Indx and Viz_Query Pseudocode. Clarification of C0 and C1 constant loading from CP for 2D Change 20098 on 2002/03/22 by jhoule@MA JHOULE Change 19914 on 2002/03/21 by rherrick@ma rherrick crayola 1.36:
Changed DST_SEL_* names from XYZW to SRC_X, SRC_Y, SRC_Z, and SRC_W. Equivalent in SRC_SEL* to GRP_X, GPR_Y, and GPR_W.
Consistent capitalized first letter in fields.
EnablerDisable FORCE_BC_W_TO_MAX now Enabled/Disabled. First Release for general consumption/review... Changes include More completed requirements documentation (in the form of Configuration Spec File Change 20097 on 2002/03/22 by gregs@gregs_r400_win_marlboro Configuration File in a loose BNF format Change 19865 on 2002/03/20 by nbarbier@nbarbier r400 win tor Change 20094 on 2002/03/22 by jowang@jowang_R400_win reviewed and corrected description Change 19858 on 2002/03/20 by efong@efong r400 win tor doc Change 20092 on 2002/03/22 by jhoule@MA_JHOULE Updated with new BIF-VGA requirements Change 19843 on 2002/03/20 by abeaudin@abeaudin r400 win marlboro Updated SQ and SP interface from respective specs. new documentation for emulator Change 20086 on 2002/03/22 by gregs@gregs_r400_win_marlboro Change 19820 on 2002/03/20 by jacarey@fl jacarey Updated memory interface. Updated Registers Per .blk file and Emulator Change 20058 on 2002/03/21 by abeaudin@abeaudin_r400_win_marlboro Change 19728 on 2002/03/20 by gregs@gregs r400 win marlboro new emulator documentation for adding blocks Initial version - copied (and re-arranged) from R300 Page 339 of 441 Page 340 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 20219 on 2002/03/22 by askende@andi r400 docs

major release to support architecture change

Fix equation for load_constant_context packet. Change 19506 on 2002/03/18 by jiezhou@jiezhou_r400_win_tor Change 19705 on 2002/03/20 by efong@efong r400 win tor doc feature change to add alpha blending Updated revision stuff Change 19503 on 2002/03/18 by llefebvr@llefebvre_laptop_r400 Change 19704 on 2002/03/20 by efong@efong_r400_win_tor_doc Changed the interfaces to reflect the fact that the PCs are now in the SX blocks removed all the power stuff. Change 19496 on 2002/03/18 by paulv@MA PVELLA Change 19656 on 2002/03/19 by jacarey@fl_jacarey Minor update to MHS section, including the DBR block diagram. Clarification for auto-generation of indices. Change 19492 on 2002/03/18 by fhsien@fhsien_r400_win_marlboro Change 19650 on 2002/03/19 by jacarey@fl jacarey Update to 2D Register Definitions. Change 19485 on 2002/03/18 by kcorrell@kcorrell r400 docs mariboro Change 19631 on 2002/03/19 by jacarey@fl_jacarey added files describing how mh treats chips addresses, minor tweaks to text Change 19482 on 2002/03/18 by jacarey@fl_jacarey Update interface signals to RCIU Checkpoint CP Specification * Partial Register Updates - BIOS Scratch Registers Change 19629 on 2002/03/19 by jacarey@fl_jacarey Fix typos on interface signals from CP and HI. - Push Register Aperture Change 19619 on 2002/03/19 by jacarey@fl_jacarey - Updates to Register Text Checkpoint Spec 1. PFP Constant coherency Change 19478 on 2002/03/18 by jasif@jasif_r400_win_tor 2. Register Updates Change 19595 on 2002/03/19 by jacarey@fl_jacarey Change 19437 on 2002/03/18 by efong@efong_r400_win_tor_doc Update POLYLINE information. Updated to new crtc spec. Also changed the DE to read_request Update line brush processing Change 19436 on 2002/03/18 by jacarey@fl_jacarey Change 19590 on 2002/03/19 by scroce@scroce_r400_win_marlboro Update Renderer Backend registers that are written by the CP Undated Table of Contents ring the GUI Master Control handler. This is based on e-mail from Larry Seiler. Change 19568 on 2002/03/19 by jacarey@fl_jacarey Change 19424 on 2002/03/18 by vliu@vliu_r400_cnvliu100_win_cvd Updated Brush Offset plan for POLYLINE packet. Update Change 19520 on 2002/03/18 by jiezhou@jiezhou_r400_win_tor Page 341 of 441 Page 342 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 19419 on 2002/03/18 by frising@ma_frising Change 19217 on 2002/03/15 by semara@semara_r400_win_tor Initial check-in Change 19417 on 2002/03/18 by efong@efong_r400_win_tor_doc Change 19216 on 2002/03/15 by rherrick@ma_rherrick_crayola Updated More completion of first pass spec.. Change 19415 on 2002/03/18 by jimmylau@jimmylau_r400_win_tor Change 19201 on 2002/03/15 by scroce@scroce_r400_win_marlboro Update interface signal list based on CRTC block specs Added info about alias file creation Change 19413 on 2002/03/18 by nluu@nluu_r400_doclib_cnnb Change 19156 on 2002/03/15 by frising@ma_frising no version change -fixed very minor typo on DATA FORMAT page pointed out by Larry Change 19409 on 2002/03/18 by chwang@chwang doc r400 win cvd Change 19094 on 2002/03/15 by rherrick@ma_rherrick_crayola More progress made... Still not complete... Redefined window setting directives.. Worked on first pass of Pattern Reads Change 19406 on 2002/03/18 by jacarey@fl jacarey Update to wait_until conditions per e-mail from D. Glen on 1st and 2nd display/overlay controllers. Change 19057 on 2002/03/14 by lkang@lkang_r400_win_tor updated section 6 on power state management Change 19405 on 2002/03/18 by jasif@jasif r400 win tor Change 19056 on 2002/03/14 by semara@semara_r400_win_tor update section 10 Change 19380 on 2002/03/18 by jacarey@fl jacarey Change 19051 on 2002/03/14 by frising@ma_frising Add INDEX_OFFSET to the 3D Draw Packets. Change 19369 on 2002/03/18 by tho@tho r400 win moved some fields around in texture constants to faciliate 2D. -add per quad and per pixel register lod to texture instruction.
-moved SIGNED_RF_MODE_ALL up one bit in vertex instruction.
-cleaned up a few comments. updated Change 19346 on 2002/03/17 by jacarey@fl_jacarey Change 19034 on 2002/03/14 by nbarbier@nbarbier r400 win tor Illustration for 2D Surface Coherency Updated Interface Change 19345 on 2002/03/17 by jacarey@fl_jacarey Change 19002 on 2002/03/14 by rherrick@ma rherrick crayola Updates from Reviews Yet another deposit along the way... Not ready for review yet... Change 19240 on 2002/03/15 by rbell@rbell_crayola_win_cvd Change 18959 on 2002/03/14 by Iseiler@ma Iseiler updates Memory Formats: minor updates Page 344 of 441 Page 343 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

update

Change 19718 on 2002/03/20 by jacarey@fl jacarey

Change 18958 on 2002/03/14 by Iseiler@ma Iseiler Change 18594 on 2002/03/12 by nluu@nluu r400 doclib cnnb Render Backend minor updates - re-org, rename files to all lowercase Change 18909 on 2002/03/14 by lkang@lkang_r400_win_tor Change 18582 on 2002/03/12 by efong@efong_r400_win_tor_doc forgot to change some of the names from HSYNC to HSYNCA/B and VSYNC to VSYNCA/B $\,$ updated power management on pclk domain Change 18875 on 2002/03/14 by rherrick@nashua_rherrick_crayola Change 18564 on 2002/03/12 by khabbari@khabbari r400 win Progress on Spec.. No milestone.. EOL removed from lb_dcp interface doc Change 18834 on 2002/03/13 by nluu@nluu_r400_doclib_cnnb Change 18552 on 2002/03/12 by jhoule@MA_JHOULE - test plan for RBBMIF model Added mipmap packing scheme description (with images).

Moved Addressing in a Varia section. Change 18697 on 2002/03/13 by nluu@nluu r400 doclib cnnb - correct comment about timeout and shared-registers Changed some sub-block names. Change 18690 on 2002/03/13 by rvelez@rvelez_r400_win_tor Change 18486 on 2002/03/11 by dglen@dglen_r400_dell Top Level DC Spec Major update for first time in far too long Change 18682 on 2002/03/13 by scroce@scroce_r400_win_marlboro Change 18483 on 2002/03/11 by semara@semara_r400_win_tor Ouick comments Change 18669 on 2002/03/13 by jacarey@fl_jacarey Change 18457 on 2002/03/11 by bbloemer@ma-jasonh Baseline Overview Presentations Checkpoint PM4 Specification Updated clock naming convention Change 18454 on 2002/03/11 by nluu@nluu r400 doclib cnnb Change 18660 on 2002/03/13 by rherrick@ma_rherrick_crayola Documentation for MC/MH Test Environment Change 18450 on 2002/03/11 by nluu@nluu r400 doclib cnnb Change 18629 on 2002/03/12 by jasif@jasif r400 win tor - re-organize model docs. Updated arbitration between read and write requests. Added open issue of skid buffers. Change 18437 on 2002/03/11 by jacarey@fl_jacarey Change 18616 on 2002/03/12 by nluu@nluu_r400_doclib_cnnb Updated Surface Coherence Equations for Lines and Fix Problems - forgot to delete one doc in previous submit Change 18421 on 2002/03/11 by jacarey@fl_jacarey Change 18607 on 2002/03/12 by khabbari@khabbari r400 win Miscellaneous Updates and Corrections added fields to the register section of LB arch doc Page 345 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 18415 on 2002/03/11 by wlawless@wlawless Change 18323 on 2002/03/11 by jacarey@fl_jacarey Revision 0.8 has updates to the color block cache, and its tag descriptions... Also a RB Implicit Sync Only in CF Pipe full data flow diagram and description was added. Change 18322 on 2002/03/11 by jacarey@fl_jacarey Change 18385 on 2002/03/11 by jasif@jasif_r400_win_tor Updates from Comments Updated Update Surface Coherency Intersect Equation Change 18379 on 2002/03/11 by rbell@rbell_crayola_win_cvd Change 18320 on 2002/03/11 by jacarey@fl_jacarey update CP Overview Updates to RBBM Specification Change 18376 on 2002/03/11 by khabbari@khabbari_r400_win Change 18318 on 2002/03/10 by rthambim@rthambim_r400_win_tor added new signals to the lb dcp interface doc Added skid buffer timing diagram. Change 18357 on 2002/03/11 by jimmylau@jimmylau_r400_win_tor Change 18317 on 2002/03/10 by rthambim@rthambim_r400_win_tor Finalize CRTC naming convention to CRTC1/CRTC2 Remove the notation of internal/external overscan in CRTC. Overscan width is Fixed namine convention in timing diagram. determined by scaler only.

Change the definition of ending timing parameters to be exclusive.

Add power management signals to CRTC-Scaler interface. Change 18308 on 2002/03/10 by rthambim@rthambim_r400_win_tor Fixed the block diagram. Change 18356 on 2002/03/11 by nluu@nluu r400 doclib cnnb Change 18305 on 2002/03/10 by rthambim@rthambim_r400_win_tor Added fifo info, fixed slave implementation diagram Change 18355 on 2002/03/11 by chwang@chwang doc r400 win cvd Change 18292 on 2002/03/09 by frising@ma frising v.1.34 -introduced arbitrary filter field. A few other feilds had to be juggled in the process. Change 18343 on 2002/03/11 by efong@efong r400 win tor doc Change 18284 on 2002/03/08 by paulv@MA_PVELLA Updated Change 18342 on 2002/03/11 by tho@tho_r400_win Forgot to update table of contents, etc. Fixed. Change 18283 on 2002/03/08 by pauly@MA PVELLA Change 18341 on 2002/03/11 by rthambim@rthambim_r400_win_tor Updated MHS portion of spec with latest specifications/fixes, including block diagrams. Fixed syntax. Change 18280 on 2002/03/08 by rthambim@rthambim r400 win tor Change 18331 on 2002/03/11 by jacarey@fl_jacarey Change 18263 on 2002/03/08 by jacarey@fl_jacarey R400 Memory Map Diagram Page 347 of 441 Page 348 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 18240 on 2002/03/08 by rthambim@rthambim r400 win tor Change 18077 on 2002/03/08 by jacarey@fl_jacarey Modified the RBBM-BIF timing diagram, address width, RBBMIF naming. Add Input Register Stage Change 18216 on 2002/03/08 by jacarey@fl jacarey Change 18071 on 2002/03/08 by rvelez@rvelez r400 win tor Change 18211 on 2002/03/08 by jacarey@fl_jacarey Change 18055 on 2002/03/07 by khabbari@khabbari r400 win Updates for Reviews added interlace mode and supporting 2 pipe line for 20bpp Change 18181 on 2002/03/08 by bryans@bryans_crayola_doc Change 18041 on 2002/03/07 by jacarey@fl_jacarey Updated status with decif change Updates for Arbitration of Streams to Global register Bus. Change 18152 on 2002/03/08 by jacarey@fl_jacarey Change 18032 on 2002/03/07 by jacarey@fl_jacarey Miscellaneous Updates Set State and Load Palette are 2D State Packets Change 18140 on 2002/03/08 by scroce@scroce_r400_win_marlboro Change 18025 on 2002/03/07 by jacarey@fl_jacarey Undated for MKTREE changes Undate to the CP_STAT register definition Change 18128 on 2002/03/08 by khabbari@khabbari_r400_win Change 17930 on 2002/03/07 by kcorrell@kcorrell_r400_docs_marfboro small fix in line buffer arch update of spec Change 18125 on 2002/03/08 by jacarey@fl_jacarey Change 17926 on 2002/03/07 by jacarey@fl_jacarey Document that the Load Palette packet may not be needed. Miscellaneous Updates Change 18109 on 2002/03/08 by jacarey@fl_jacarey Change 17924 on 2002/03/07 by bbloemer@ma-jasonh Revised signal naming convention to allow for MKTREE-generated prefix. Also added Updates clock nameing convention and removed convention for instantiating flip flops Change 18094 on 2002/03/08 by mdoggett@MA MDOGGETT LT Change 17922 on 2002/03/07 by jacarey@fl_jacarey Update TCO section, figure and subblock descriptions. Updated TC top level figure. Added L1 Tag Index to L1 Tag Updates to CP <--> MH Interface Change 18087 on 2002/03/08 by jacarey@fl_jacarey Change 17859 on 2002/03/07 by jacarey@fl_jacarey Updates to Pre-Fetch Parser Diagram and Pseudocode. Update Queue Available Sizes Update CP_STAT register definitions. Change 18082 on 2002/03/08 by jacarey@fl jacarey Change 17849 on 2002/03/07 by jacarey@fl_jacarey Page 349 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 17766 on 2002/03/06 by nluu@nluu_r400_doclib_cnnb Clarify Usage of Busy Signals Out of MIU - move rom controller model test plan to test plan subdirectory Change 17845 on 2002/03/07 by jasif@jasif_r400_win_tor Change 17762 on 2002/03/06 by nluu@nluu_r400_doclib_cnnb Changed busy signals to go to client instead of PLL model. - correct spelling and typos Change 17836 on 2002/03/07 by jasif@jasif_r400_win_tor Change 17760 on 2002/03/06 by nluu@nluu_r400_doclib_cnnb Changed request address to start from bit 31 instead of 29. Added separate client id's for read and write ack requests - very small spelling correction Change 17834 on 2002/03/07 by jasif@jasif_r400_win_tor Change 17753 on 2002/03/06 by efong@efong r400 win tor Added open issues: Arbitration between reads and writes, checking whether request Added in SCL_CRTC and VGA_DISP model specs address falls within surface information Change 17751 on 2002/03/06 by nluu@nluu r400 doclib cnnb Change 17824 on 2002/03/07 by jacarey@fl_jacarey - correct typos and stuff Update Fetchers Change 17736 on 2002/03/06 by jacarey@fl_jacarey Change 17822 on 2002/03/07 by jacarey@fl_jacarey Memory Controller 0-3 each has their own go/active clock pair. Change 17706 on 2002/03/06 by nluu@nluu r400 doclib cnnb Change 17820 on 2002/03/07 by jacarey@fl_jacarey - move visio drawings to a separate directory Separate Path Through PFP for Real-Time Change 17689 on 2002/03/06 by efong@efong r400 win tor Change 17773 on 2002/03/06 by jacarey@fl_jacarey changed the pin names to i and o for input and output pins to models Checkpoint Spec Change 17670 on 2002/03/06 by jacarey@fl_jacarey Change 17771 on 2002/03/06 by nluu@nluu_r400_doclib_cnnb Update for Command Queue Size Update *Registers Updated - forgot to change the path Change 17770 on 2002/03/06 by nluu@nluu r400 doclib cnnb Change 17658 on 2002/03/06 by semara@semara r400 win tor - change Last Updated field to 'file save date' instead of current date Change 17768 on 2002/03/06 by nluu@nluu_r400_doclib_cnnb Change 17632 on 2002/03/06 by gregs@gregs_r400_win_marlboro - title => filename in header section update Change 17767 on 2002/03/06 by nluu@nluu_r400_doclib_cnnb Change 17629 on 2002/03/06 by rbell@rbell_crayola_win_cvd - change Last Updated field to 'file save date' from 'current date' Renamed doc Page 351 of 441 Page 352 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Update to CP Internal Packets

Update RBBM Top-Level Diagram

AMD1044 0258183

Change 17507 on 2002/03/05 by jacarey@fl jacarey Update RBBM FIFO depths on Top-Level Diagram Update IB_PREFETCH_START packet format Change 17621 on 2002/03/06 by jacarey@fl_jacarey Change 17504 on 2002/03/05 by scroce@scroce_r400_win_marlboro Stall condition for wait until many modifications due to changes in the next release of vcsbuild.pl Change 17583 on 2002/03/05 by jiezhou@jiezhou_r400_win_tor Change 17489 on 2002/03/05 by jacarey@fl_jacarey Remove Ring State Queue Change 17582 on 2002/03/05 by bbloemer@ma-jasonh Change 17461 on 2002/03/05 by mdoggett@MA_MDOGGETT_LT Updated pdf file. Added L1 Tag formats. Updated TCB section, figure, subblock descriptions Change 17580 on 2002/03/05 by bbloemer@ma-jasonh Change 17452 on 2002/03/05 by semara@semara_r400_win_tor Updated the description of the ordering engine to include A/B vs C/D fairness and the <code>TEXTURE_WIN_COUNT</code>. update Change 17578 on 2002/03/05 by jacarey@fl_jacarey Change 17450 on 2002/03/05 by bryans@bryans_crayola_doc Checkpoint Specification Update as per status meeting Change 17575 on 2002/03/05 by jacarey@fl_jacarey Change 17449 on 2002/03/05 by semara@semara_r400_win_tor Renamed RBBM_HI_WRTR to RBBM_HI_RDY Added Stage_Inc for repeaters between BIF and RBBM Change 17445 on 2002/03/05 by fhsien@fhsien r400 win marlboro Change 17556 on 2002/03/05 by rbell@rbell_crayola_win_cvd First draft of RB testbench plan Updates after review Change 17437 on 2002/03/05 by nbarbier@nbarbier r400 win tor Change 17549 on 2002/03/05 by jacarey@fl_jacarey Split the Re-Ordering Queue from the Pre-fetch Parser Change 17436 on 2002/03/05 by jacarey@fl jacarey Change 17533 on 2002/03/05 by jacarey@fl_jacarey 2D Scratch Memory Renamed to 2D Defaults Memory Updated Streams by CP for IB2 Packet Restrictions Change 17431 on 2002/03/05 by lseiler@ma_lseiler Change 17523 on 2002/03/05 by jacarey@fl jacarey Version 0.7 of the Memory Format spec, with address equations, revised 2D and 3D tiling formats, and 2D mipmap packing. Update to Fetcher Diagram Change 17512 on 2002/03/05 by jacarey@fl jacarey Change 17427 on 2002/03/05 by rbell@rbell crayola win cvd Bitwise OR Print warning if linear mode is used Page 353 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 17424 on 2002/03/05 by jacarey@fl_jacarey Change 17320 on 2002/03/04 by chwang@chwang doc r400 win cvd Added ROM Go/Active Pair Change 17422 on 2002/03/05 by rvelez@rvelez_r400_win_tor Change 17315 on 2002/03/04 by efong@efong_r400_win_tor Changed address range to start from bit 31 Added Client ID to Write Ack Interface Updated Change 17313 on 2002/03/04 by jacarey@fl_jacarey Change 17405 on 2002/03/04 by whui@whui_r400_win_tor Update to CP's 2D Appendix updated section 10 Change 17310 on 2002/03/04 by jasif@jasif_r400_win_tor Change 17404 on 2002/03/04 by nbarbier@nbarbier_r400_win_tor Updated Updated signal names. Change 17305 on 2002/03/04 by jacarey@fl_jacarey Change 17395 on 2002/03/04 by jiezhou@jiezhou_r400_win_tor Update Opcodes for Packets undate register list Change 17190 on 2002/03/01 by lkang@lkang r400 win tor Change 17387 on 2002/03/04 by jiezhou@jiezhou_r400_win_tor updated dynamic clocking on SCLK domain. update register list Change 17187 on 2002/03/01 by frising@ma frising Change 17386 on 2002/03/04 by jiezhou@jiezhou_r400_win_tor -removed support for DXV textures update register list -updated texture size table for new max size restriction with 3Da 128bit textures with Change 17380 on 2002/03/04 by llefebvr@llefebvre laptop r400 borders. -closed open issue about interaction of border color with depth and shadow textures. New revision of the sequencer spec. Change 17351 on 2002/03/04 by bryans@bryans crayola doc Change 17184 on 2002/03/01 by jayw@MA JAYW Update for 01/03/02 weekend check-in Change 17345 on 2002/03/04 by vliu@vliu r400 cnvliu100 win cvd Change 17182 on 2002/03/01 by jacarey@fl jacarey Updates Change 17337 on 2002/03/04 by nluu@nluu r400 doclib cnnb Change 17169 on 2002/03/01 by mzhu@mzhu r400 win tor remove support for linear surface mode - update Change 17321 on 2002/03/04 by tho@tho_r400_win Change 17167 on 2002/03/01 by khabbari@khabbari_r400_win updated small corrections to line buffer arch doc Page 355 of 441 Page 356 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 17622 on 2002/03/06 by jacarey@fl_jacarey

2. Update to HOSTDATA_BLT2 and HOSTDATA_BLT_PNTR packets. Change 17166 on 2002/03/01 by mzhu@mzhu_r400_win_tor Change 17053 on 2002/02/28 by jiezhou@jiezhou r400 win tor remove support for linear surface mode add more details for FIFO write control Change 17156 on 2002/03/01 by rbell@rbell crayola win cvd Change 17016 on 2002/02/28 by jacarey@fl_jacarey Changed name of model to LB DCP Change 17155 on 2002/03/01 by rbell@rbell_crayola_win_cvd Change 17010 on 2002/02/28 by rbell@rbell crayola win cvd Changed name of doc file. Initial draft (and merge from older docs). Change 17154 on 2002/03/01 by rbell@rbell_crayola_win_cvd Change 16932 on 2002/02/27 by jowang@jowang R400 win update Block Spec: read buffer, re-sync FIFO, p2s sync, and line controller diagram \pm description for read buffer Change 17150 on 2002/03/01 by jacarey@fl_jacarey Change 16927 on 2002/02/27 by frising@ma frising Update SRC X calculation for Small Text PM4 packet Crap! fix cut and paste error. No version change Change 17149 on 2002/03/01 by jacarey@fl_jacarey Change 16925 on 2002/02/27 by frising@ma_frising Updated repeater flop usage text. STAGE_INC used instead of N_STRAP removed TT_CMD from texture instruction. Change 17122 on 2002/03/01 by jiezhou@jiezhou_r400_win_tor Change 16924 on 2002/02/27 by lkang@lkang r400 win tor change ICONI_X_POS to ICONI_X_START ICON2_X_POX to ICON2_X_START ICONI_Y_POS to ICONI_Y_START ICON2_Y_POX to ICON2_Y_START Added power state managment, section 6.0 Change 16917 on 2002/02/27 by lkang@lkang_r400_win_tor Change 17119 on 2002/03/01 by jowang@jowang_R400_win Added 5.2 for dynamic clocking in display clocks added description for re-sync FIFO and some more diagrams Change 16914 on 2002/02/27 by jiezhou@jiezhou_r400_win_tor Change 17089 on 2002/02/28 by rbell@rbell_crayola_win_cvd update after spec review Feb. 26 Removed sub-word write enable Change 16906 on 2002/02/27 by jacarey@fl_jacarey Change 17084 on 2002/02/28 by jacarey@fl_jacarey Version 0.02 has Pre-Fetch Parser Algorithm Updates Fix Typo in the IM Load and IM Load Immediate packets Change 16897 on 2002/02/27 by tho@tho r400 wir Change 17066 on 2002/02/28 by jacarey@fl_jacarey updated with section regarding the IO Model generating Perl Script 1. Added IM_LOAD_IMMEDIATE packet Change 16896 on 2002/02/27 by jacarey@fl_jacarey Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 16793 on 2002/02/27 by mmantor@mmantor_r400_win Updates to Packets and Pseudocode for Pre-Fetch Parser updated memory areas based on the memory compilation of memories in the following Change 16878 on 2002/02/27 by mpersaud@mpersaud_r400_win_tor blocks for the VGT, PA, SC blocks and updated labeling for current planned blocks * Updated link to Figure 1.2-1 VIP DMA Top Level Diagram Change 16779 on 2002/02/26 by semara@semara_r400_win_tor Change 16867 on 2002/02/27 by mpersaud@mpersaud r400 win tor update doc * Updated Section 4.1 Pin interface, added DCIO enable signals * Updated Appendix for delta between R300 and R400 Change 16778 on 2002/02/26 by semara@semara_r400_win_tor doc updates Change 16859 on 2002/02/27 by Iseiler@ma_Iseiler Change 16762 on 2002/02/26 by jayw@MA_JAYW new 3D tile patterns and initial 3D equations typo fixes Change 16856 on 2002/02/27 by jacarey@fl jacarey Change 16734 on 2002/02/26 by jacarey@fl_jacarey Updates Checkpoint Specifications Change 16850 on 2002/02/27 by jacarey@fl jacarey Change 16731 on 2002/02/26 by lseiler@ma_lseiler Pre-Fetch Parser Top-Level State Machine Spreadsheets of 2D address conversions Change 16849 on 2002/02/27 by khabbari@khabbari r400 win Change 16730 on 2002/02/26 by Iseiler@ma_Iseiler correction to read pointer section in line buffer arch doc Updated 1D and 2D formats and address equations Change 16843 on 2002/02/27 by rbell@rbell crayola win cvd Change 16718 on 2002/02/26 by efong@efong_r400_win_tor Updates to macro name and pin out updated io spec due to change in dcio spec Change 16815 on 2002/02/27 by markf@markf_r400_win_marlboro Change 16710 on 2002/02/26 by jacarey@fl_jacarey Updated Analog section to R300 numbers. Fixed quantity of DLL's for RV400 and R400. Removed LVDS from R400. Updates to packets. Change 16809 on 2002/02/27 by nluu@nluu r400 doclib cnnb Change 16688 on 2002/02/26 by jacarey@fl jacarey Update Diagram Change 16799 on 2002/02/27 by nluu@nluu_r400_doclib_cnnb Change 16661 on 2002/02/26 by jacarey@fl_jacarey - update Update RTEE Diagram (Gated and Permanent Clocks) Change 16794 on 2002/02/27 by jacarey@fl_jacarey Change 16660 on 2002/02/26 by rbell@rbell_crayola_win_cvd

First draft of what env will look like.

Page 360 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Updates to 2D Packets

Page 359 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258185

Updates after review * added Section 4.1 Pin interface * updated Appendix for delta between R300 and R400
* update figure 1.2-1 VIP Top Level Diagram to move uvip_rbbmif to DC level and rename to RBBMIF Change 16533 on 2002/02/25 by markf@markf_r400_win_marlboro Updated SX w/ parameter caches Change 16657 on 2002/02/26 by mpersaud@mpersaud_r400_win_tor Change 16521 on 2002/02/25 by rbell@rbell_crayola_win_cvd Move uvip_rbbmif to DC level and rename to RBBMIF update Change 16653 on 2002/02/26 by jacarey@fl_jacarey Change 16505 on 2002/02/25 by jacarey@fl_jacarey Update Interfaces to RBBM from BIF and CP Fix Type on MIU Diagram Checkpoint CP Spec Change 16503 on 2002/02/25 by jacarey@fl jacarey Change 16648 on 2002/02/26 by jhoule@MA_JHOULE Update Command Stream Fetcher Diagram Brought back DIM_3D in case we get rid of dual format 3D texture (if noise gets dropped Change 16499 on 2002/02/25 by jimmylau@jimmylau_r400_win_tor $\label{eq:Add-a} Add\ a\ section\ on\ stereoscopic\ display.\ Change\ CRTC\ naming\ convention\ to\ CRTC0\ /\ CRTC1.$ Moved BORDER_* together Only affects TFetch Const. Change 16646 on 2002/02/26 by jiezhou@jiezhou_r400_win_tor Change 16495 on 2002/02/25 by jacarey@fl_jacarey Update Queues on Diagram for PFP Change 16632 on 2002/02/26 by nbarbier@nbarbier_r400_win_tor Change 16494 on 2002/02/25 by mpersaud@mpersaud_r400_win_tor Updated document after resolving open issues. added state machine appendix Change 16602 on 2002/02/26 by jacarev@fl jacarev Change 16493 on 2002/02/25 by mpersaud@mpersaud r400 win tor Updated clock name for RBBM update to add uvip_rbbmif Change 16565 on 2002/02/25 by jiezhou@jiezhou_r400_win_tor Change 16492 on 2002/02/25 by mpersaud@mpersaud_r400_win_tor update general clean up Change 16552 on 2002/02/25 by dclifton@dclifton_r400 Change 16490 on 2002/02/25 by mpersaud@mpersaud_r400_win_tor Updates to interface, drawings, lines, points, and polymode. * added Appendix - R300 vs. R400 delta *updated VIP Top Level diagram *updated structure section Change 16546 on 2002/02/25 by khabbari@khabbari r400 win added more details to the lb arch doc Change 16489 on 2002/02/25 by mpersaud@mpersaud r400 win tor Change 16537 on 2002/02/25 by rbell@rbell_crayola_win_cvd * moved uvipdmaregs into uvipdma Page 361 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history * renamed uvip_rbbm to uvip_rbbmif * added ORing of interrupts Added interface to CG PM Change 16488 on 2002/02/25 by vliu@vliu_r400_cnvliu100_win_cvd Change 16349 on 2002/02/22 by gregs@gregs_r400_win_marlboro Change 16484 on 2002/02/25 by rbell@rbell_crayola_win_cvd Change 16322 on 2002/02/22 by Iseiler@ma_Iseiler Updated with 1D and 2D access equations Change 16482 on 2002/02/25 by chwang@chwang_r400_win_cvd Change 16319 on 2002/02/22 by jacarey@fl jacarey Removed ROM's RTR signals from RBBM interface. BIF forwards transactions to the MH instead of through the RBBM. Change 16470 on 2002/02/25 by tho@tho r400 win Change 16309 on 2002/02/22 by jacarey@fl_jacarey Update RBIU to show that read return data is registed on permanent clock Change 16469 on 2002/02/25 by jasif@jasif r400 win tor Change 16304 on 2002/02/22 by jacarey@fl jacarey 1. Updated interrupt signals to the RBBM Change 16462 on 2002/02/25 by efong@efong_r400_win_tor ** Senders of interrupts need to do their own combining Updated Change 16288 on 2002/02/22 by bryans@bryans_crayola_doc Change 16450 on 2002/02/25 by jacarey@fl_jacarey Update VideoIP DV Methodology to include CRTC configuration Add ROM pins back to the RBBM Spec Change 16284 on 2002/02/22 by efong@efong_r400_win_tor Change 16412 on 2002/02/22 by nluu@nluu_r400_doclib_cnnb added in sentence for MV_DISABLE and VGA_DISABLE to be hooked up to BIF model update Change 16411 on 2002/02/22 by jiezhou@jiezhou_r400_win_tor Change 16283 on 2002/02/22 by efong@efong_r400_win_tor 1) add Overlay Format Expansion block fixed up the spec due to the 0.1 version of the power management spec 1) adu Overlay vimita Expansion rocks.
2) remove dynamic expansion for Graphic/overlay keyer
3) add host read/write description for LUT palette
4) add ignore_alpha for graphic/overlay keyer
5) update graphic/overlay Mux function
6) add constant format for matrix conversion Change 16217 on 2002/02/21 by fhsien@fhsien_r400_win_marlboro Added command chart change runtest --> runtest.pl Change 16407 on 2002/02/22 by lkang@lkang_r400_win_tor Change 16213 on 2002/02/21 by rbell@rbell_crayola_win_cvd First draft of this Added dynamic clocking on display clock domain, sec. 5.1 Change 16359 on 2002/02/22 by gregs@gregs_r400_win_marlboro Change 16210 on 2002/02/21 by mdoggett@MA_MDOGGETT_LT Page 363 of 441 Page 364 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 16658 on 2002/02/26 by mpersaud@mpersaud_r400_win_tor

Updated formats. Added 2d interlace format and 3d four layer format. Added L2 read Revision of RBBM and CP areas synchronisation description Change 16109 on 2002/02/20 by dwong@cndwong2 Change 16207 on 2002/02/21 by frising@ma_frising version 0.4 Change 16106 on 2002/02/20 by nluu@nluu_r400_doclib_cnnb Change 16194 on 2002/02/21 by lkang@lkang_r400_win_tor Power management spec for DC Change 16100 on 2002/02/20 by nluu@nluu r400 doclib cnnb Change 16178 on 2002/02/21 by hartogs@fl_hartogs Minor Cleanup Change 16095 on 2002/02/20 by fhsien@fhsien_r400_win_marlboro Change 16177 on 2002/02/21 by jacarey@fl_jacarey No Change Change 16083 on 2002/02/20 by jacarey@fl jacarey Change 16175 on 2002/02/21 by rbell@rbell_crayola_win_cvd Updated CP and RBBM Areas More updates since the last reviews Change 16079 on 2002/02/20 by gregs@gregs_r400_win_marlboro Change 16174 on 2002/02/21 by jacarey@fl_jacarey daily update. Checkpoint All Specifications Change 16075 on 2002/02/20 by mpersaud@mpersaud_r400_win_tor Change 16170 on 2002/02/21 by hartogs@fl_hartogs General update and/or addition to depot. Fixed up some tessellation stuff Change 16053 on 2002/02/20 by rbell@rbell_crayola_win_cvd Change 16147 on 2002/02/21 by scroce@scroce_r400_win_marlboro New spec for R400 Some small changes to the doc Change 16041 on 2002/02/20 by scroce@scroce_r400_win_marlboro Change 16146 on 2002/02/21 by rbell@rbell_crayola_win_cvd Clearing up some things once again Updates to both palette models Change 16033 on 2002/02/20 by csampayo@fl_csampayo_r400 Change 16145 on 2002/02/21 by mpersaud@mpersaud_r400_win_tor Updated VGT and SU sections and schedule Initial Revision Change 16009 on 2002/02/20 by scroce@scroce_r400_win_marlboro Change 16142 on 2002/02/21 by mpersaud@mpersaud_r400_win_tor Trying to clarify the setup doc Changed Text Box Change 16007 on 2002/02/20 by rramsey@RRAMSEY P4 r400 win Change 16138 on 2002/02/21 by jacarey@fl_jacarey Page 366 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Update rect description Change 15992 on 2002/02/20 by efong@efong_r400_win_tor Change 15828 on 2002/02/19 by nbarbier@nbarbier r400 win tor changed from dispout inject to scaler inject model Initial revision of DCIO Interface Change 15972 on 2002/02/20 by jasif@jasif r400 win tor Change 15770 on 2002/02/18 by beiwang@bei mcspec deleted CAM and address return queues from mcci diagram, modified the cam diagram, added note on bank ABCD->bank 0.1,2.3Partially updated after document review Change 15952 on 2002/02/19 by ctaylor@fl_ctaylor_r400_win_marlboro Change 15752 on 2002/02/18 by tho@tho_r400_win Most of top-level arch done update cursor test plan Change 15923 on 2002/02/19 by bryans@bryans_crayola_win_cvd Change 15742 on 2002/02/18 by jasif@jasif r400 win tor Add test plan templates for VID core Updated. Change 15920 on 2002/02/19 by bryans@bryans_crayola_win_cvd Change 15741 on 2002/02/18 by bryans@bryans_crayola_win_cvd Update for this week Update status/dates Change 15919 on 2002/02/19 by efong@efong_r400_win_tor Change 15727 on 2002/02/18 by vliu@vliu_r400_cnvliu100_win_cvd fixed up the spec due to the review Update the status. Change 15914 on 2002/02/19 by gregs@gregs_r400_win_marlboro Change 15723 on 2002/02/18 by efong@efong_r400_win_tor Update Updated dates Change 15878 on 2002/02/19 by bryans@bryans_crayofa_win_cvd Change 15720 on 2002/02/18 by chwang@chwang_r400_win_cvd Source tree for display core Update. Change 15862 on 2002/02/19 by efong@efong_r400_win_tor Change 15718 on 2002/02/18 by efong@efong_r400_win_tor renamed top level diagram from hdcp disable to hdcp_enable changed the forciable signals section to be more standardized after final review .. Change 15860 on 2002/02/19 by ygiang@ygiang_r400_win_marlboro Change 15716 on 2002/02/18 by jasif@jasif r400 win tor added: Ferrt Shader Docs and Test environment cook book Added new forcible signals table. Change 15851 on 2002/02/19 by efong@efong r400 win tor Change 15713 on 2002/02/18 by jasif@jasif r400 win tor updated due to review and some pad changes Updated Error section. Added open issue on dynamic clocking Change 15837 on 2002/02/19 by tho@tho r400 win Change 15711 on 2002/02/18 by tho@tho r400 win

Page 367 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Ex. 2050 --- R400 Document Library FH --- folder_history

Page 368 of 441

update Change 15586 on 2002/02/15 by gregs@gregs_r400_win_marlboro Change 15709 on 2002/02/18 by rbell@rbell_crayola_win_cvd increased CG area by 50% (an estimate for new power management functionality). Change 15585 on 2002/02/15 by jacarey@fl jacarev Change 15689 on 2002/02/16 by jimmylau@jimmylau_r400_win_tor Clarify Byte Enable Support Through the RBBM. Major revision of CRTC block specs after the first specs review Change 15570 on 2002/02/15 by jacarey@fl_jacarey Change 15679 on 2002/02/15 by jiezhou@jiezhou_r400_win_tor 1. Skew Control Update modified state machine 2. Update Command FIFO Depth Change 15678 on 2002/02/15 by jiezhou@jiezhou_r400_win_tor Change 15564 on 2002/02/15 by kcorrell@kcorrell_r400_docs_marlboro add 32 bpp digital output for graphic request updated MH area Change 15676 on 2002/02/15 by jiezhou@jiezhou_r400_win_tor Change 15563 on 2002/02/15 by efong@efong_r400_win_tor Initial release closed some open issues Change 15671 on 2002/02/15 by jacarey@fl_jacarey Change 15562 on 2002/02/15 by efong@efong_r400_win_tor Checkpoint Specifications undated a ton of thines Change 15669 on 2002/02/15 by mzhu@mzhu_r400_win_tor Change 15544 on 2002/02/14 by rvelez@rvelez_r400_win_tor initial version of DMIF block spec Added more details to the spec Change 15667 on 2002/02/15 by mzhu@mzhu_r400_win_tor Change 15543 on 2002/02/14 by jasif@jasif_r400_win_tor define pixel order for tiling mode with one DCP pipeline enabled Updated. Change 15664 on 2002/02/15 by kcorrell@kcorrell_r400_docs_marlboro Change 15541 on 2002/02/14 by gregs@gregs_r400_win_marlboro Updated GART area in MH daily changes Change 15658 on 2002/02/15 by gregs@gregs_r400_win_marlboro Change 15534 on 2002/02/14 by csampayo@fl_csampayo_r400 Added parallel ROM support on the DVO interface. Updated SU section, both docs Change 15627 on 2002/02/15 by gregs@gregs_r400_win_marlboro Change 15533 on 2002/02/14 by beiwang@bei r400 area ROM+DEBUG blocks: increased are by 25% and added 640x8 SRAM area. Added some MC skid buffer Change 15593 on 2002/02/15 by Iseiler@ma Iseiler Change 15529 on 2002/02/14 by beiwang@bei r400 area Restored the unrevised text that I deleted for review version 0.4, removed change bars Added MC changes Page 369 of 441 Page 370 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 15371 on 2002/02/13 by jacarey@fl_jacarey Change 15508 on 2002/02/14 by vromaker@MA VIC P4 Minor Updates to RBBM. updated SQ macro area numbers to those obtained with .13 compiler Change 15369 on 2002/02/13 by jacarey@fl_jacarey Change 15492 on 2002/02/14 by jasif@jasif_r400_win_tor Update Diagrams Updated with recommendations made during the review Change 15358 on 2002/02/13 by gregs@gregs_r400_win_marlboro Change 15455 on 2002/02/14 by rbell@rbell_crayola_win_cvd daily update Added open issues, and changes as per Jie. Change 15333 on 2002/02/13 by jacarey@fl_jacarey Change 15450 on 2002/02/14 by rbell@rbell_crayola_win_cvd Updates to RTEE Diagram Changes after the DMIF design review Change 15325 on 2002/02/13 by jacarey@fl jacarey Change 15446 on 2002/02/14 by jacarey@fl_jacarey Update for Review Update Diagrams Change 15304 on 2002/02/12 by tho@tho r400 win Change 15418 on 2002/02/13 by csampayo@fl_csampayo_r400 removed MV_DISABLE strap from doc. Updated most of the SU section. Change 15301 on 2002/02/12 by tho@tho r400 win Change 15404 on 2002/02/13 by jacarey@fl jacarey Changed strap value generation, updated forcible signal section Checkpoint CP Specifications Change 15297 on 2002/02/12 by jacarey@fl_jacarey Change 15392 on 2002/02/13 by jacarey@fl jacarey Incremental Update to the Spec Update Interface to Memory Hub on Diagram Change 15296 on 2002/02/12 by jacarey@fl_jacarey Change 15390 on 2002/02/13 by gregs@gregs_r400_win_marlboro Revision 0.06 of RBBM Spec daily update Change 15295 on 2002/02/12 by hartogs@fl_hartogs Change 15387 on 2002/02/13 by gregs@gregs_r400_win_marlboro Updated the RBBM interface table. Change 15281 on 2002/02/12 by jacarey@fl_jacarey Change 15377 on 2002/02/13 by jacarey@fl_jacarey Update Diagrams Update Internal Register Bus Connections Change 15279 on 2002/02/12 by jasif@jasif_r400_win_tor Change 15375 on 2002/02/13 by jasif@jasif_r400_win_tor Updated dynamic clocking document. Changed file name from RBBM model.doc to Updated. RBBMIF model.doc

Page 371 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Page 372 of 441

Change 15167 on 2002/02/11 by jasif@jasif r400 win tor Undate connections to command stream fetcher Added section on avoiding race conditions and behavioural coding styles for Change 15273 on 2002/02/12 by jacarey@fl_jacarey Senarate RB RPTR write requests to MIU Change 15166 on 2002/02/11 by jacarey@fl jacarey Change 15271 on 2002/02/12 by jacarey@fl_jacarey Update Waveforms for Slow Clients Updates to Diagram of RBBM Top-Level Change 15165 on 2002/02/11 by gregs@gregs_r400_win_marlboro Change 15265 on 2002/02/12 by gregs@gregs_r400_win_marlboro Corrected typos. new spec - initial version. Change 15164 on 2002/02/11 by khabbari@khabbari r400 win Change 15264 on 2002/02/12 by efong@efong_r400_win_tor the first released version of crtc tv interface document. Also added some details to line buffer arch document. Fixed up IO model after new review Change 15156 on 2002/02/11 by scroce@scroce_r400_win_marlboro Change 15222 on 2002/02/12 by jhoule@MA JHOULE Added some little things about v2html Added WR_MASK_{XYZW} in SQ<--TPC interface. Change 15154 on 2002/02/11 by jacarey@fl_jacarey Updated TOC and LOF Remove Skew Control Signal Between RBBM and CP Change 15216 on 2002/02/12 by efong@efong_r400_win_tor Change 15151 on 2002/02/11 by dclifton@dclifton_r400 Updated PLL model because of the review as well as added in GO and BUSY signals Updates to drawings Change 15215 on 2002/02/12 by efong@efong_r400_win_tor Change 15139 on 2002/02/11 by nluu@nluu_r400_cnnb put documentation for VIP_DEVICE being inverted. Change 15191 on 2002/02/11 by jasif@jasif_r400_win_tor Change 15133 on 2002/02/11 by nluu@nluu_r400_cnnb Changed name of document. - update Change 15190 on 2002/02/11 by jasif@jasif_r400_win_tor Change 15126 on 2002/02/11 by nluu@nluu_r400_cnnb - update Change 15188 on 2002/02/11 by bryans@bryans_crayola_win_cvd Change 15121 on 2002/02/11 by csampayo@fl_csampayo_lt_r400 Update with feedback from meeting; add model code reviews, weekly issues SU updates Change 15182 on 2002/02/11 by nluu@nluu r400 cnnb Change 15120 on 2002/02/11 by nluu@nluu r400 cnnb - update Page 373 of 441 Page 374 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history - update status Change 15066 on 2002/02/11 by wlawless@wlawless Change 15115 on 2002/02/11 by hartogs@fl_hartogs Refreshed early diagrams and text. Change 15018 on 2002/02/08 by jasif@jasif_r400_win_tor Change 15108 on 2002/02/11 by bryans@bryans crayola win cvd Initial revision Update milestone dates Change 15017 on 2002/02/08 by rvelez@rvelez_r400_win_tor Change 15106 on 2002/02/11 by nluu@nluu_r400_cnnb Added more description for the interface - check in so I don't lose the changes Change 15016 on 2002/02/08 by gregs@gregs_r400_win_marlboro Change 15100 on 2002/02/11 by jasif@jasif_r400_win_tor Updated after David Glen and John Carey reviews. Updated. Change 15002 on 2002/02/08 by jowang@jowang_R400_win Change 15099 on 2002/02/11 by efong@efong_r400_win_tor added a column for # of horizontal filter taps Updated DV status Change 15001 on 2002/02/08 by jowang@jowang_R400_win Change 15096 on 2002/02/11 by dglen@dglen_r400_dell updated with overscan and interlace interface signals Added section on update and control of double buffered register fields Change 15000 on 2002/02/08 by jasif@jasif r400 win tor Change 15095 on 2002/02/11 by vliu@vliu_r400_cnvliu100_win_cvd Updated Joveria's status Updating the dates. Change 14967 on 2002/02/08 by khabbari@khabbari_r400_win Change 15091 on 2002/02/11 by dclifton@dclifton r400 added write/read pointer des to the LB ARCH doc Changed a few diagrams and equations slightly Change 14962 on 2002/02/08 by gregs@gregs_r400_win_marlboro Change 15079 on 2002/02/11 by chwang@chwang r400 win cvd ROM spec is ready for verilog coding phase Change 14961 on 2002/02/08 by efong@efong r400 win tor Change 15073 on 2002/02/11 by tho@tho r400 win Updated document after initial review updated status report Change 14959 on 2002/02/08 by rbell@rbell_crayola_win_cvd Change 15068 on 2002/02/11 by dclifton@dclifton r400 Added sample test code. Updated top level block diagram Change 14955 on 2002/02/08 by rbell@rbell_crayola_win_cvd Change 15067 on 2002/02/11 by rbell@rbell_crayola_win_cvd Initial draft Updates Page 375 of 441 Page 376 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 15276 on 2002/02/12 by jacarey@fl_jacarey

Undates after review Changed CP to DCP Change 14824 on 2002/02/07 by jhoule@MA_JHOULE Change 14934 on 2002/02/08 by paulv@MA_PVELLA Updated MHS with most recent changes and updates. Forgot the usage tables. Now updated Change 14912 on 2002/02/07 by csampayo@fl_csampayo_r400 Change 14823 on 2002/02/07 by jhoule@MA_JHOULE Moved fields (VTX_FORMAT, EXP_ADJUST) from VFetch instr so that they are byte-Added unit/function owners and hyperlinks to the R400_PA_Functional_Validation_Approach_Plan document Change 14904 on 2002/02/07 by jasif@jasif_r400_win_tor Change 14818 on 2002/02/07 by jhoule@MA_JHOULE Modified dynamic clock section Change 14817 on 2002/02/07 by jhoule@MA_JHOULE Change 14895 on 2002/02/07 by hartogs@fl hartogs Completed description of de-stripping, de-fanning, decomposition of quads and polygons into triangles, prprovoking vertex (flat shading), and line stipple wireframe fill mode issues. Brought SRC SEL* in same DWORD Change 14806 on 2002/02/06 by jiezhou@jiezhou_r400_win_tor Change 14883 on 2002/02/07 by jhoule@MA_JHOULE update window control Added 32-bit channels blending Change 14797 on 2002/02/06 by efong@efong_r400_win_tor New version of the IO model with the names fixed up and some of the issues closed. Change 14878 on 2002/02/07 by grayc@grayc_r400_win Change 14796 on 2002/02/06 by jhoule@MA JHOULE initial checkin Changed instruction fields so that they match between VFetch and TFetch. This helps the SQ (fields are always at the same place). Change 14877 on 2002/02/07 by grayc@grayc_r400_win Also added cool macro for bit numbers. moving files Change 14785 on 2002/02/06 by bbloemer@ma-jasonh Change 14861 on 2002/02/07 by grayc@grayc_r400_win Removed address return bus and base and coord from RB access bus Initial checkin Change 14698 on 2002/02/05 by jacarey@fl_jacarey Change 14855 on 2002/02/07 by mdoggett@MA_MDOGGETT_LT Checkpoint the CP's PM4 Specification Updates according to TC spec review and many more discussion. Changes to TCD figure, L1 and L2 tags, L2 formats, padding and degamma. Change 14697 on 2002/02/05 by jimmylau@jimmylau_r400_win_tor Change 14849 on 2002/02/07 by efong@efong_r400_win_tor Rev 0.3. Decided to keep notation of internal & external overscan. Made some changes due to the review of the strap model. Change 14696 on 2002/02/05 by fhsien@fhsien r400 win marlboro Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Add Running eum_only. (no build is done). Updated PLL model to support stop and go signals Change 14694 on 2002/02/05 by jacarey@fl jacarey Change 14587 on 2002/02/04 by khabbari@khabbari r400 win Checkpoint 2D Appendix added some description to data processing algorithm in line buffer arch document Change 14582 on 2002/02/04 by jasif@jasif_r400_win_tor Change 14691 on 2002/02/05 by jacarey@fl jacarey Updated finish dates. Checkpoint RBBM Spec Change 14687 on 2002/02/05 by jacarey@fl jacarey Change 14568 on 2002/02/04 by vromaker@MA VIC P4 Update CP's Memory Interface Unit Diagram Change 14685 on 2002/02/05 by jacarey@fl_jacarey Change 14551 on 2002/02/04 by jasif@jasif_r400_win_tor Update RBBM Top-Level Diagram Updated Slip Buffer Registers
 Add RBBM_CP_DMA_DRAW_DEC signal
 Update Switch to Send Host Data through Non-Queued Path Change 14543 on 2002/02/04 by rbell@rbell_crayola_win_cvd Final draft Change 14677 on 2002/02/05 by hartogs@fl_hartogs Change 14540 on 2002/02/04 by gregs@gregs_r400_win_marlboro Added more information on the primitive types and provoking vertex. Added/updated after implementation analysis and adding parallel PROM support Change 14674 on 2002/02/05 by rbell@rbell_crayola_win_cvd Change 14528 on 2002/02/04 by frising@ma_frising initial draft -Fixed up how certain texture formats go into the L2 cache in order to guarantee consistency within a texture family (e.g. 8, 8_8, 8_8_8). Change 14667 on 2002/02/05 by jacarey@fl_jacarey Change 14527 on 2002/02/04 by jasif@jasif r400 win tor Change 14661 on 2002/02/05 by jacarey@fl jacarey Updated Update PFP to ME Diagram Remove Diagram for Old Fetchers Change 14526 on 2002/02/04 by jasif@jasif_r400_win_tor Change 14643 on 2002/02/05 by khabbari@khabbari r400 win Added section on dynamic clocking added a block diagram for write data path in the line buffer doc Change 14509 on 2002/02/04 by paulv@MA_PVELLA Change 14631 on 2002/02/05 by tho@tho r400 win Updated block diagram to match changes and updates to the MHS section in the spec updated Data Processing Algorithms section regarding PLI/CLI usage Change 14500 on 2002/02/04 by nluu@nluu_r400_cnnb Change 14621 on 2002/02/05 by efong@efong_r400_win_tor - update Page 379 of 441 Page 380 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 14842 on 2002/02/07 by rbell@rbell_crayola_win_cvd

Change 14948 on 2002/02/08 by rbell@rbell_crayola_win_cvd

Added assumptions, stubs, model terminology, etc Add some control management Change 14495 on 2002/02/04 by jacarey@fl_jacarey Change 14464 on 2002/02/03 by vromaker@MA_VIC_P4 Undates to RTEE Event Engine Diagram Change 14492 on 2002/02/04 by vromaker@MA_VIC_P4 Change 14444 on 2002/02/01 by jasif@jasif_r400_win_tor updates, new figures Updated open issues. Change 14481 on 2002/02/04 by chwang@chwang_r400_win_cvd Change 14441 on 2002/02/01 by jasif@jasif_r400_win_tor Updated after spec review. Update. Change 14476 on 2002/02/04 by rbell@rbell_crayola_win_cvd Change 14440 on 2002/02/01 by efong@efong_r400_win_tor Updates Added in IO model and strap model Change 14475 on 2002/02/04 by rbell@rbell crayola win cvd Change 14439 on 2002/02/01 by jasif@jasif r400 win tor Updates after reviews, added errors warnings and assumptions. Change 14474 on 2002/02/04 by jimmylau@jimmylau_r400_win_tor Change 14436 on 2002/02/01 by mzhu@mzhu_r400_win_tor Revision 0.2 of CRTC block specs. Remove notation of external/internal overscan Overscan is always outside the active display area. Change 14426 on 2002/02/01 by rbagley@MA RBAGLEY LTXP Change 14472 on 2002/02/04 by jasif@jasif r400 win tor 0.1 (d) Intermediate check-in. Additional comments. The bloat of the $\,$ container doc has been remedied. Change 14470 on 2002/02/04 by tho@tho_r400_win Change 14424 on 2002/02/01 by jacarey@fl_jacarey Checkpoint Specifications Change 14469 on 2002/02/04 by vromaker@MA VIC P4 Change 14416 on 2002/02/01 by khabbari@khabbari r400 win small fixes Change 14468 on 2002/02/04 by efong@efong_r400_win_tor Change 14411 on 2002/02/01 by khabbari@khabbari_r400_win The first draft of line buffer doc Change 14466 on 2002/02/04 by llefebvr@llefebvre_laptop_r400 Change 14402 on 2002/02/01 by rbell@rbell_crayola_win_cvd Version 1.7 of the Sequencer spec. Changes some arch/conf names, added BFMs section Page 381 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 14400 on 2002/02/01 by jasif@jasif_r400_win_tor Change 14339 on 2002/01/31 by jacarey@fl_jacarey Updated Update Busy Signals on Diagrams Change 14399 on 2002/02/01 by semara@semara_r400_win_tor Change 14333 on 2002/01/31 by chwang@chwang_r400_win_cvd Updated Status. rev 2 Change 14395 on 2002/02/01 by rbagley@MA_RBAGLEY_LTXP Change 14313 on 2002/01/31 by efong@efong_r400_win_tor 1.0 (c) Revisions to instructions and miscellaneous corrections. Fixed up a ton of things from the review meeting Change 14379 on 2002/02/01 by nbarbier@nbarbier r400 win tor Change 14301 on 2002/01/31 by lkang@lkang_r400_win_tor First revision of CRTC/DISPOUT interface Change 14377 on 2002/02/01 by frising@ma frising Change 14300 on 2002/01/31 by lkang@lkang_r400_win_tor -Change GetBorderColorPercentage to GetBorderColorFraction. Thanks This directory is for DC-MH interface block architecture and implementation specs Change 14299 on 2002/01/31 by wlawless@wlawless -no version change Change 14366 on 2002/01/31 by jimmylau@jimmylau_r400_win_tor This version was updated to match the new Arch spec. The diagrams were updated. The depth logic is still old because we are working the color right now. Initial revision Change 14292 on 2002/01/30 by rbagley@MA_RBAGLEY_LTXP Change 14365 on 2002/01/31 by frising@ma_frising 1.0 (b) Further revision Change 14287 on 2002/01/30 by dwong@cndwong2 -Added 6 new multimedia texture formats -remove Fetch White Texture, replace with GetBorderColorPercentage -remove mask option from DST_SEL_ in texture constant -move mask option of DST_SEL in insts from 6 to 7 xDCT document, v0.2 -Add new YCbCr black border color Adding in implementation details as well as updating open issues. Change 14363 on 2002/01/31 by vromaker@MA_VIC_P4 Change 14275 on 2002/01/30 by rbell@rbell_crayola_win_cvd new more changes Change 14362 on 2002/01/31 by vromaker@MA_VIC_P4 Change 14267 on 2002/01/30 by Iseiler@ma Iseiler Version 0.4: major update of sections 1-3, remaining sections temporarily removed until they can be fully updated. Change 14356 on 2002/01/31 by hartogs@fl hartogs Change 14265 on 2002/01/30 by jacarey@fl_jacarey Still in progress Streams Processed by CP Diagram Checked-in for backun Change 14263 on 2002/01/30 by jacarey@fl_jacarey Page 383 of 441 Page 384 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 14465 on 2002/02/03 by jiezhou@jiezhou_r400_win_tor

Change 14499 on 2002/02/04 by rbell@rbell_crayola_win_cvd

Checkpoint Specifications Change 14184 on 2002/01/29 by mdoggett@MA MDOGGETT LT Change 14250 on 2002/01/30 by nluu@nluu_r400_cnnb Updated TCD section. New top level diagram. Algorithm for DXT added. - fix typo Change 14183 on 2002/01/29 by rthambim@rthambim r400 win tor Change 14244 on 2002/01/30 by gregs@gregs_r400_win_marlboro Modified naming convention and removed SWAP bits Updated with the new CP based power management ideas. Added startup description. Change 14180 on 2002/01/29 by lseiler@ma_lseiler Change 14239 on 2002/01/30 by khabbari@khabbari r400 win Preliminary version, pdf update added some description in "Interface Functional Description and Purpose" section Change 14179 on 2002/01/29 by lseiler@ma_lseiler Change 14238 on 2002/01/30 by jasif@jasif r400 win tor Preliminary RB spec update Updated. Change 14164 on 2002/01/29 by mpersaud@mpersaud_r400_win_tor Change 14237 on 2002/01/30 by askende@andi_r400_docs new rev of the document. Change 14156 on 2002/01/29 by rbell@rbell_crayola_win_cvd Change 14236 on 2002/01/30 by tho@tho_r400_win Added straps updated rom controller model test plan Change 14155 on 2002/01/29 by rbell@rbell_crayola_win_cvd Change 14212 on 2002/01/30 by nluu@nluu_r400_cnnb First draft Change 14143 on 2002/01/29 by lseiler@ma lseiler Change 14202 on 2002/01/29 by dclifton@dclifton_r400 Version 0.6, with depth and color compression formats Updated with new diagrams to match pinout, added zoffset info Change 14139 on 2002/01/29 by smoss@smoss crayola win Change 14198 on 2002/01/29 by jiezhou@jiezhou_r400_win_tor updated su sc interface remove Change 14138 on 2002/01/29 by markf@markf r400 win marlboro Change 14197 on 2002/01/29 by jiezhou@jiezhou_r400_win_tor Change 14136 on 2002/01/29 by kcorrell@kcorrell r400 docs marlboro Change 14196 on 2002/01/29 by jiezhou@jiezhou_r400_win_tor Page 386 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history updates as a result of the design review and further discussion with designers of MH Updated registers and functionality Change 14055 on 2002/01/28 by rbell@rbell_crayola_win_cvd Change 14135 on 2002/01/29 by jasif@jasif_r400_win_tor Fixed entry function names Added InterModel Bus Interface Spec. Change 14052 on 2002/01/28 by jhoule@MA JHOULE Change 14124 on 2002/01/29 by scroce@scroce r400 win marlboro Changed TX_FMT_* and VTX_FMT_* to plain FMT_* Some additional touches Change 14115 on 2002/01/29 by bryans@bryans_crayola_win_cvd Change 14008 on 2002/01/28 by bryans@bryans_crayola_win_cvd Update for week of Jan 28 Initial high level description of DV environment for Video IP (DC) Change 14113 on 2002/01/29 by hartogs@fl_hartogs Change 13999 on 2002/01/28 by gregs@gregs r400 win marlboro Updated -- still in progress. Added current serge control circuits and more info in general. Change 14108 on 2002/01/29 by vromaker@MA_VIC_P4 Change 13994 on 2002/01/28 by tho@tho_r400_win updates, new vsds updated dv status report Change 14102 on 2002/01/28 by rbagley@MA_RBAGLEY_LTXP Change 13993 on 2002/01/28 by jasif@jasif_r400_win_tor 0.1 (a): partial reorganization and instruction updates. Updated Joveria's status. Change 14098 on 2002/01/28 by semara@semara_r400_win_tor Change 13979 on 2002/01/28 by efong@efong_r400_win_tor correct the links Updated Status Change 14093 on 2002/01/28 by semara@semara_r400_win_tor Change 13969 on 2002/01/28 by rbell@rbell_crayola_win_cvd remove Changes Change 14089 on 2002/01/28 by semara@semara_r400_win_tor Change 13966 on 2002/01/28 by bryans@bryans_crayola_win_cvd initial release Add C++ test environment documents to depot Change 14071 on 2002/01/28 by semara@semara_r400_win_tor Change 13965 on 2002/01/28 by rbell@rbell crayola win cvd Added user model read/write commands Change 14068 on 2002/01/28 by semara@semara r400 win tor Change 13963 on 2002/01/28 by bryans@bryans crayola win cvd adding vga docs Update ifgen in schedule Change 14057 on 2002/01/28 by smoss@smoss_crayola_win Change 13948 on 2002/01/25 by chwang@chwang r400 win cvd Page 387 of 441 Page 388 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Baseline New Documents in Perforce

Change 14260 on 2002/01/30 by jacarey@fl_jacarey

Change name CP to DCP

Change 14193 on 2002/01/29 by jasif@jasif r400 win tor

Initial Revision of DCCIF Model Spec

Change 13944 on 2002/01/25 by rvelez@rvelez r400 win tor Intermediate checkin for version 0.1 of newly revised and reorganized shader programming model doc. The doc had been correctly renamed; the previous version is here deleted. Changes based on 1/18 Interface Spec Review We also delete the former assembly syntax doc from its deprecated Change 13942 on 2002/01/25 by rbell@rbell_crayola_win_cvd Change 13815 on 2002/01/24 by jasif@jasif_r400_win_tor Change 13940 on 2002/01/25 by beiwang@bei mcspec Updated the spec to include issues resolved after the spec review as well as other open issues. Most of the changes are in pink. Also updated the bus interface description. Updated the visio drawing on address format Change 13814 on 2002/01/24 by semara@semara_r400_win_tor bif-vga doc Change 13939 on 2002/01/25 by tho@tho_r400_win Change 13812 on 2002/01/24 by vromaker@MA_VIC_P4 updated test plan update Change 13933 on 2002/01/25 by scroce@scroce_r400_win_marlboro Change 13809 on 2002/01/24 by jayw@MA_JAYW Added info about Module Compiler support. wrong filename is RB_BlendLogic.doc Change 13808 on 2002/01/24 by jayw@MA_JAYW Change 13929 on 2002/01/25 by tho@tho r400 win rom controller model test plan rev 0.2 Change 13890 on 2002/01/25 by jasif@jasif_r400_win_tor Change 13787 on 2002/01/24 by wlawless@wlawless Updated BIF_RBBM interface to user new signal names. Added error checking section. Fixed mistakes in top-level diagram. Change 13761 on 2002/01/24 by jasif@jasif_r400_win_tor Change 13884 on 2002/01/25 by wlawless@wlawless Updated Change 13739 on 2002/01/24 by jacarey@fl_jacarey Change 13860 on 2002/01/25 by rbell@rbell_crayola_win_cvd Note added to RBBM spec indicating that the RBBM_CNTL and RBBM_SOFT_RESET registers are in the IO and MMR decode spaces. Final version Change 13823 on 2002/01/25 by jacarey@fl_jacarey Change 13709 on 2002/01/23 by efong@efong_r400_win_tor Checkpoint Specification PLL model simulation model spec Change 13817 on 2002/01/24 by rbagley@MA_RBAGLEY_LTXP Change 13693 on 2002/01/23 by jhoule@MA_JHOULE Deleting obsolete version Diagrams showing multiple piecewise linear equations for the mipmap weight optimization suggested. Page 389 of 441 Page 390 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Emulation tutorial. Change 13692 on 2002/01/23 by jhoule@MA JHOULE Change 13570 on 2002/01/22 by tho@tho r400 win Changed SQ to better reflect it's a separate block cursor & icon documents added Change 13690 on 2002/01/23 by jhoule@MA_JHOULE Change 13546 on 2002/01/22 by bryans@bryans crayola win cvd Drawing representing the texels used in a filter around a sample point. Containt point/bilinear/4x4 filters. Update status 01/22/02 Change 13689 on 2002/01/23 by jhoule@MA JHOULE Change 13534 on 2002/01/22 by mzhu@mzhu_r400_win_tor R300 figures showing the wraping policies. Remove CP_DMIF_read_start signal, Add more timing diagrams. Change 13687 on 2002/01/23 by jhoule@MA_JHOULE Change 13521 on 2002/01/22 by jiezhou@jiezhou_r400_win_tor updated Jan 22 0.9.3.:
Updated interfaces to match current specs.
Added comments on various issues.
Described LOD optimization approach. Change 13514 on 2002/01/22 by askende@andi_r400_docs Added diagrams new rev 1.2 Change 13648 on 2002/01/23 by wlawless@wlawless Change 13512 on 2002/01/22 by askende@andi_r400_docs new block diagrams new rev. Change 13646 on 2002/01/23 by rbell@rbell_crayola_win_cvd Change 13476 on 2002/01/21 by rbeaudin@rbeaudin_r400_win_marlboro UPDATED REGRESSION INSTRUCTIONS Video IP archs and confs doc Change 13637 on 2002/01/23 by chwang@chwang_r400_win_cvd Change 13474 on 2002/01/21 by askende@andi r400 docs Change 13624 on 2002/01/23 by nluu@nluu r400 cnnb Change 13473 on 2002/01/21 by rthambim@rthambim r400 win tor Change 13623 on 2002/01/23 by jacarey@fl_jacarey Change 13471 on 2002/01/21 by askende@andi r400 docs Clarification on Accessing IO and Memory-Mapped registers. These must have the same address. new rev 1.1 of the shader pipe Change 13465 on 2002/01/21 by askende@andi r400 docs Change 13617 on 2002/01/23 by nluu@nluu r400 cnnb first time check-in Change 13449 on 2002/01/21 by vromaker@MA_VIC_P4 Change 13603 on 2002/01/23 by chwang@chwang_r400_win_cvd update Page 391 of 441 Page 392 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 13816 on 2002/01/24 by rbagley@MA_RBAGLEY_LTXP

Added emulation coding standard and updated tutorial.

Change 13446 on 2002/01/21 by jacarev@fl jacarev Checkpoint Updates to 2D Appendix Checkpoint Specifications Change 13356 on 2002/01/21 by efong@efong_r400_win_tor Change 13434 on 2002/01/21 by jayw@MA_JAYW Undated % done working documents on the alpha blend data path Change 13347 on 2002/01/21 by rbell@rbell_crayola_win_cvd Change 13427 on 2002/01/21 by frising@ma_frising -Moved Usage tabs towards back. I think this makes the spec a little more manageable than the interleaved usages -no version change Change 13333 on 2002/01/18 by jacarey@fl_jacarey Update Open Issues List Change 13422 on 2002/01/21 by jiezhou@jiezhou_r400_win_tor Update Go/Active Assertion Control Register Change 13332 on 2002/01/18 by jacarey@fl_jacarey Change 13421 on 2002/01/21 by jiezhou@jiezhou_r400_win_tor Document Double-Registered Discrete Signals for Better Chip Timing. Change 13331 on 2002/01/18 by jacarey@fl_jacarey Change 13397 on 2002/01/21 by jacarey@fl_jacarey Checkpoint CP Spec Update CP_DEBUG and CP_STAT register fields. Change 13327 on 2002/01/18 by tho@tho_r400_win Change 13391 on 2002/01/21 by efong@efong_r400_win_tor ROM controller model test plan Put in Bif model document as well as the test control server and verilog document from Change 13323 on 2002/01/18 by gregs@gregs_r400_win_marlboro initial version, based on current designs. Change 13383 on 2002/01/21 by jacarey@fl_jacarey Change 13318 on 2002/01/18 by beiwang@bei mcspec Outputs to VGT for 2D
 Raster Order Determination for 2D Rectangles Things noted from the spec review. Spec: Changes are highlighted in pink MCCI drawing: reduced the number of lines going into MH read bus mux Change 13380 on 2002/01/21 by chwang@chwang_r400_win_cvd Change 13316 on 2002/01/18 by scroce@scroce_r400_win_marlboro Updated. Change 13372 on 2002/01/21 by tho@tho_r400_win Added info about v2html support and new command line switches upated status report Change 13308 on 2002/01/18 by jasif@jasif_r400_win_tor Change 13364 on 2002/01/21 by jasif@jasif_r400_win_tor Updated signal interface list and top level diagram. Updated status. Change 13293 on 2002/01/18 by jowang@jowang R400 win Page 393 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history area estimation for Lili Change 13179 on 2002/01/17 by nluu@nluu_r400_cnnb Change 13281 on 2002/01/18 by khabbari@khabbari r400 win - RBBMIF block specs, timing and block diagrams added columns to see if line buffer has enough bandwidth Change 13167 on 2002/01/16 by nluu@nluu_r400_cnnb Change 13272 on 2002/01/18 by rbeaudin@rbeaudin r400 win marlboro - edit Change 13160 on 2002/01/16 by rbell@rbell_crayola_win_cvd Change 13268 on 2002/01/18 by rbell@rbell_crayola_win_cvd Another draft of the spec Added ati mempak doc Change 13143 on 2002/01/16 by nhuu@nhuu_r400_cnnb Change 13263 on 2002/01/18 by rvelez@rvelez_r400_win_tor - update rbbmif - autoreg spec Rev 1.1 Change 13137 on 2002/01/16 by rbeaudin@rbeaudin_r400_win_marlboro Change 13255 on 2002/01/17 by mdoggett@MA_MDOGGETT_LT new R400 Emulator Specification Finished integrating and cleaning out old L1 spec details Change 13133 on 2002/01/16 by nluu@nluu r400 cnnb Change 13238 on 2002/01/17 by jacarey@fl_jacarey - update action items for RBBMIF Updated Size for Tag Memory and FIFO Change 13119 on 2002/01/16 by bryans@bryans crayola win cvd Change 13235 on 2002/01/17 by askende@andi_r400_docs Update task list for week: 01/14/01 Change 13091 on 2002/01/15 by scroce@scroce r400 win marlboro Change 13231 on 2002/01/17 by askende@andi r400 docs Changed some features. MKTREE is now disabled by default but can be enabled on Command line. Also, incremental compile can now be disabled new shader rev of the shader spec checked in Change 13227 on 2002/01/17 by askende@andi r400 docs Change 13085 on 2002/01/15 by jiezhou@jiezhou r400 win tor new rev of the shader spec Change 13226 on 2002/01/17 by askende@andi_r400_docs Change 13075 on 2002/01/15 by nluu@nluu r400 cnnb first time check-in - move interface doc to dc/Interface directory Change 13209 on 2002/01/17 by dglen@dglen r400 dell Change 13074 on 2002/01/15 by rbell@rbell crayola win cvd Some updates Added the System Memory model Change 13184 on 2002/01/17 by nluu@nluu_r400_cnnb Change 13073 on 2002/01/15 by lseiler@ma_lseiler - update revision 0.3, as checked in before Christmas Page 395 of 441 Page 396 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 13361 on 2002/01/21 by jacarey@fl_jacarey

Modifications to open issues, wordvalid field of access bus, tile+host queues depth, Change 13069 on 2002/01/15 by jasif@jasif r400 win tor synchronization over valid&allocated bits of read data buffer, etc Initial revision for RBBM Model Document. Change 12989 on 2002/01/14 by yvalcour@yvalcour_r400_win_marlboro Change 13066 on 2002/01/15 by wlawless@wlawless fixed format and updated section 4 Change 12984 on 2002/01/12 by beiwang@bei_mcspec Change 13059 on 2002/01/15 by jacarey@fl_jacarey - Drawings: Modified MCaddressformat dawing. Slight mod to MCordering. Added Spec: Modified address format description. Modified description to MCP and added description to SW dram cmd Checkpoint Specifications Change 13058 on 2002/01/15 by llefebvr@llefebvre_laptop_r400 Change 12983 on 2002/01/11 by nluu@nluu_r400_win redondant opcodes corrected Change 12981 on 2002/01/11 by bbloemer@ma-jasonh Change 13057 on 2002/01/15 by llefebvr@llefebvre laptop r400 There was a small error in the control flow section. Checked in the spec so that Richard Another step closer to release 0.7 has a correct version to build the assembler on Change 12975 on 2002/01/11 by mdoggett@MA_MDOGGETT_LT Change 13054 on 2002/01/14 by askende@andi_r400_docs More updates on TCB, TCD, TCM, TCO and Formats, including document added for the first time reorganisation and out dated sections removed Change 13015 on 2002/01/14 by jayw@MA_JAYW Change 12973 on 2002/01/11 by rvelez@rvelez_r400_win_tor Fixed visio drawing, try 2 Line Buffer-Scaler Interface Spec Change 13013 on 2002/01/14 by Iseiler@ma_Iseiler Change 12966 on 2002/01/11 by scroce@scroce_r400_win_marlboro Version 0.7 Document about the Build script Change 13011 on 2002/01/14 by bbloemer@ma-jasonh Change 12960 on 2002/01/11 by jacarey@fl_jacarey Final update for release 0.7 Update Tag Memory Size Change 13010 on 2002/01/14 by jayw@MA_JAYW Change 12949 on 2002/01/11 by jowang@jowang_R400_win fixed typo in Figure 7: Pixel Format winin 2D Micro-Tiles wrong numeric bit positions Change 12947 on 2002/01/11 by jowang@jowang R400 win Change 13007 on 2002/01/14 by beiwang@bei_mcspec first draft after 1/10/02 review Mods to MEMCtl and MCProtocol drawings Change 12905 on 2002/01/11 by jhoule@MA JHOULE Change 13006 on 2002/01/14 by beiwang@bei mcspec Current document is now R400_Texture_Pipe.doc Page 398 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 12880 on 2002/01/10 by rvelez@rvelez r400 win tor Checkpoint Specifications LB - Composite Pipe Interface Spec Change 12749 on 2002/01/09 by jhoule@MA_JHOULE Change 12878 on 2002/01/10 by jiezhou@jiezhou_r400_win_tor Put SQ in bold to indicate a separate block (beurk) initial release Change 12748 on 2002/01/09 by jhoule@MA JHOULE Change 12840 on 2002/01/10 by frising@ma_frising Updated TC interfaces <--TC interface described Closed issue 1.) about mapping of signed normalized vertex data Pre-filter FIFO more complete Minor corrections here and there Change 12839 on 2002/01/10 by jacarey@fl_jacarey Change 12728 on 2002/01/09 by dglen@dglen_r400_dell Add diagram Updated OpenGL and started section on control of display pipe Change 12827 on 2002/01/10 by rbell@rbell_crayola_win_cvd Change 12723 on 2002/01/09 by mzhu@mzhu_r400_win_tor DMIF-CP interface spec Another draft. Change 12826 on 2002/01/10 by rbell@rbell_crayola_win_cvd Change 12708 on 2002/01/09 by llefebvr@llefebvre_laptop_r400 new revision of the sequencer spec v1.6 Additions Change 12824 on 2002/01/10 by jacarey@fl_jacarey Change 12704 on 2002/01/09 by rbell@rbell_crayola_win_cvd Fix Internal Bus Write Transaction First draft of the DMIF simulation model spec Change 12809 on 2002/01/10 by jacarey@fl_jacarey Change 12691 on 2002/01/09 by nluu@nluu r400 win Update RBBM Spec and Top-Level - update action items for rbbmif 1. CPQ_DATA_SWAP 2. NQ_WAIT_UNTIL Change 12690 on 2002/01/09 by yvalcour@yvalcour r400 win marlboro Change 12795 on 2002/01/10 by jacarey@fl_jacarey add mc/mh test plan to correct location. Change 12689 on 2002/01/09 by nluu@nluu r400 win Diagram Undates Change 12786 on 2002/01/10 by jasif@jasif_r400_win_tor Change 12677 on 2002/01/09 by jacarey@fl jacarey Add Joveria's tasks. Change 12774 on 2002/01/10 by jacarey@fl_jacarey Update CP_RBIU Interfaces

Update diagrams

Change 12755 on 2002/01/09 by jacarey@fl_jacarey

Page 399 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258195

Change 12667 on 2002/01/09 by nluu@nluu r400 win

Page 400 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

- action items for RBBMIF

Change 12661 on 2002/01/09 by rbeaudin@rbeaudin r400 win marlboro Change 12586 on 2002/01/08 by jacarey@fl jacarev update golden image release procedure Checkpoint Updates for Registers Change 12657 on 2002/01/09 by rbeaudin@rbeaudin_r400_win_marlboro Change 12579 on 2002/01/08 by jiezhou@jiezhou r400 win tor added regression information initial release Change 12631 on 2002/01/09 by rbeaudin@rbeaudin_r400_win_marlboro Change 12576 on 2002/01/08 by jiezhou@jiezhou_r400_win_tor new doc stuff initial release Change 12624 on 2002/01/08 by bbloemer@ma-jasonh Change 12568 on 2002/01/07 by jiezhou@jiezhou_r400_win_tor Partial Undate for rev 0.6 Initial release Change 12621 on 2002/01/08 by rvelez@rvelez_r400_win_tor Change 12560 on 2002/01/07 by vromaker@MA_VIC_P4 DCC Interface-Client Spec added info on remapping tables Change 12618 on 2002/01/08 by nluu@nluu_r400_win Change 12557 on 2002/01/07 by jacarey@fl_jacarey Checkpoint Unit Specs - name change Change 12612 on 2002/01/08 by frising@ma_frising Change 12527 on 2002/01/07 by mmantor@mmantor r400 fixed a spelling typo added visio files for the Hardware state management document Change 12611 on 2002/01/08 by frising@ma frising Change 12509 on 2002/01/07 by nluu@nluu r400 win v.1.16 -remove cubernap opcode and add cubernap to DIM field. -added a DIM 3D field to select between 3Da and 3Db sizes.
-replace references to state with constant
-rename base, offset to base, address
-rename sec_offset to mip_address Change 12488 on 2002/01/07 by jacarey@fl_jacarey Change 12486 on 2002/01/07 by jacarey@fl_jacarey Change 12604 on 2002/01/08 by jacarey@fl_jacarey Update CP and RBBM Interfaces RBBM can access up to 128K Bytes in the register space. Update Strobes and Data from Internal CP Clients to RBIU Change 12591 on 2002/01/08 by nluu@nluu r400 win Change 12481 on 2002/01/07 by jacarey@fl_jacarey Updated Register Fields in CP Spec Change 12589 on 2002/01/08 by dglen@dglen r400 dell Change 12472 on 2002/01/07 by frising@ma frising Updated to current plan Update with OGL feedback. Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 12335 on 2002/01/03 by llefebvr@llefebvre_laptop_r400 Change 12464 on 2002/01/04 by rthambim@rthambim r400 win tor backup of the spec Change 12462 on 2002/01/04 by rthambim@rthambim_r400_win_tor Change 12333 on 2002/01/03 by jacarey@fl_jacarey intial release Updates: RBIU, RCIU, and RTEE Sub-units Change 12459 on 2002/01/04 by vromaker@MA_VIC_P4 Change 12332 on 2002/01/03 by jacarey@fl_jacarey added details to gpr allocation section Miscellaneous Updates to RTEE Diagram Change 12458 on 2002/01/04 by rbell@rbell_crayola_win_cvd Change 12331 on 2002/01/03 by vromaker@MA_VIC_P4 ROM Controller model spec. fixed links (hopefully) Change 12444 on 2002/01/04 by kcorrell@kcorrell_r400_docs_marlboro Change 12330 on 2002/01/03 by jacarey@fl_jacarey Add Internal Read Interfaces to RBIU Design a few more details on some of the hardware aspects Change 12433 on 2002/01/04 by wlawless@wlawless Change 12318 on 2002/01/02 by jacarey@fl jacarey Update Memory Interface Unit Diagram Change 12423 on 2002/01/04 by frising@ma frising Change 12317 on 2002/01/02 by jacarey@fl_jacarey Update cp_rciu Diagram Change 12315 on 2002/01/02 by jacarey@fl_jacarey Change 12421 on 2002/01/04 by jhoule@MA JHOULE Fixed typos (didn't even change version number) Checkpoint Change 12313 on 2002/01/02 by scroce@scroce_r400_win_marlboro Change 12416 on 2002/01/04 by frising@ma frising Added features and caveats page. Resolved many of the open questions. Information about dk system Change 12412 on 2002/01/04 by mdoggett@MA MDOGGETT LT Change 12310 on 2002/01/02 by vromaker@MA VIC P4 Added L2 data ready signal, removed TCB to TCM signal. HW Spec Change 12406 on 2002/01/04 by mdoggett@MA_MDOGGETT_LT Change 12302 on 2002/01/02 by wlawless@wlawless New version of TC spec. Updated discriptions and L1 and L2 access and decompression just didn't want to lose my edits Change 12297 on 2002/01/02 by smorein@smorein_r400 Change 12395 on 2002/01/04 by rbell@rbell crayola win cvd adding updated does to final resting place Added Toronto DV status Page 403 of 441 Page 404 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Added Perforce and building libs Moved compliation of mc.cpp to top of DLL so that module can use DLL imports and Change 12221 on 2001/12/24 by semara@semara_r400_win_tor Added definitions for exporting Ferret functions. adding ffirst release to the VGA display interface document updating the bif interface documents Change 12291 on 2001/12/31 by jiezhou@jiezhou_r400_win_tor Change 12220 on 2001/12/24 by jiezhou@jiezhou_r400_win_tor updated Initial release Change 12290 on 2001/12/31 by jiezhou@jiezhou r400 win tor Change 12219 on 2001/12/24 by jiezhou@jiezhou_r400_win_tor Initial release Change 12286 on 2001/12/31 by jiezhou@jiezhou_r400_win_tor Change 12218 on 2001/12/24 by jowang@jowang_R400_win supports YCbCr and regression testing Change 12280 on 2001/12/28 by frising@ma frising Change 12161 on 2001/12/21 by jacarey@fl_jacarey Official v. 1.14. Add tables describing L2 interactions with texture, vertex, gamma, multicycle. Lots more clean up and clarifications. Started an open questions tab. Check-In for the Holidays Change 12136 on 2001/12/21 by smorein@smorein r400 Change 12277 on 2001/12/28 by pmitchel@pmitchel_r400_win_marlboro documenting partial release procedure Change 12269 on 2001/12/28 by frising@ma_frising Change 12121 on 2001/12/21 by jacarey@fl jacarev another checkpoint Change 12268 on 2001/12/28 by jiezhou@jiezhou r400 win tor Change 12089 on 2001/12/20 by Iseiler@ma travel micro updated Updated micro-tiling format and updates to the depth/stencil and multi-sample color Change 12266 on 2001/12/27 by frising@ma_frising Change 12088 on 2001/12/20 by jacarey@fl_jacarey This version of 1.14 is a checkpoint. Checkpointing Specifications Change 12259 on 2001/12/27 by jowang@jowang_R400_win Change 12085 on 2001/12/20 by jacarey@fl jacarey Fix Signals on RBBM Top Level diagram Change 12256 on 2001/12/27 by rbeaudin@rbeaudin_r400_win_marlboro Change 12080 on 2001/12/20 by jhoule@MA_JHOULE fixed error underlines 3Db format: changed max value from 12 to 11 (saving 1 bit in tag helps TC logic to meet Change 12222 on 2001/12/24 by rbell@rbell_crayola_win_cvd Page 405 of 441 Page 406 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 12016 on 2001/12/19 by semara@semara_r400_win_tor Change 12073 on 2001/12/19 by frising@ma frising undate top level diagram remove this crusty old thing Change 12014 on 2001/12/19 by semara@semara_r400_win_tor Change 12058 on 2001/12/19 by frising@ma_frising vga top level block diagram first release Added some more notes on alignment constraints + misc cleanup. Removed SAD Change 12012 on 2001/12/19 by jowang@jowang_R400_win Change 12053 on 2001/12/19 by semara@semara r400 win tor moved into Scaler directory update the directory content Change 12010 on 2001/12/19 by jowang@jowang_R400_win Change 12052 on 2001/12/19 by semara@semara_r400_win_tor Change 12006 on 2001/12/19 by jowang@jowang R400 win Change 12047 on 2001/12/19 by jhoule@MA_JHOULE Wrong opcode order in TFetch instruction usage Change 12004 on 2001/12/19 by jowang@jowang_R400_win Change 12044 on 2001/12/19 by jhoule@MA_JHOULE initial design: 1-D separable filters, scaling Change 12000 on 2001/12/19 by jowang@jowang R400 win Changed opcode order Offsets are now 26 bits (64-byte aligned) Comments added (LOD equation, DWORD computation)
Footer and common header added to keep track when printing initial Change 11999 on 2001/12/19 by lseiler@ma_lseiler Change 12026 on 2001/12/19 by semara@semara_r400_win_tor File check-in prior to vacation first release Change 11970 on 2001/12/18 by jowang@jowang_R400_win Change 12025 on 2001/12/19 by semara@semara r400 win tor initial design: 1-D filters for scaling using # of pix to interface to the display Change 11953 on 2001/12/18 by paulv@MA_PVELLA Change 12024 on 2001/12/19 by semara@semara r400 win tor Change 11952 on 2001/12/18 by paulv@MA_PVELLA Change 12023 on 2001/12/19 by semara@semara_r400_win_tor Modifications to MHS to reflect new changes/fixes. Some other minor fixes throughout add the files for first relaease spec (mainly in tables) Change 12022 on 2001/12/19 by semara@semara_r400_win_tor Change 11925 on 2001/12/18 by rbell@rbell_crayola_win_cvd undate the block diagram Updated doc Page 407 of 441 Page 408 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

Change 12292 on 2001/12/31 by rbeaudin@rbeaudin_r400_win_marlboro

Change 11923 on 2001/12/18 by jacarey@fl_jacarey Change 11820 on 2001/12/17 by rbeaudin@rbeaudin_r400_win_marlboro Small Text Character Mapping Diagram fixed reference to regression test Change 11921 on 2001/12/18 by paulv@MA_PVELLA Change 11819 on 2001/12/17 by rbeaudin@rbeaudin_r400_win_marlboro Updated block diagram to reflect recent MH (and MC interface) changes. Change 11919 on 2001/12/18 by rbell@rbell_crayola_win_cvd Change 11810 on 2001/12/15 by frising@ma_frising Added docs for simulation v. 1.11 Lots of misc clean-up, comments, and formatting. Change 11915 on 2001/12/18 by scroce@scroce_r400_win_marlboro Change 11793 on 2001/12/14 by jhoule@MA_JHOULE chmod the .cshrc Changed filetype for exclusive check-out. Change 11914 on 2001/12/18 by scroce@scroce_r400_win_marlboro Change 11792 on 2001/12/14 by jhoule@MA_JHOULE Remember to set P4CLIENT in UNIX setup New diagrams used in the TP spec. Change 11911 on 2001/12/18 by scroce@scroce r400 win marlboro Change 11791 on 2001/12/14 by jhoule@MA JHOULE Reminded people to set \$EDITOR if they do not like vi Removed duplicate of top-level diagram Removed Addressing step (now part of TC) Change 11895 on 2001/12/17 by askende@andi_r400_docs Changed features. Changed readures.

Added SP TP diagram.

Changed filetype to exclusive open.

Rewrote Blending description (now contains Mark's LERPs with precision information). new updates of the spec with regards to ALU instruction word definition, scalar opcode list and the hardware definition of the scalar unit. Added Special Operations section for weird opcodes (Noise/Shadow/SADs/...) Change 11885 on 2001/12/17 by jacarey@fl_jacarey Change 11790 on 2001/12/14 by jhoule@MA_JHOULE Updates to CP MIU Diagram Changed formats cell height (printing issues).

New SIZE (with DIM in same DWORD) ==> 3da=10:10:10, 3db=12:12:4lg

Added FETCH_VALID_ONLY for culling invalid pixels fetches (important for Change 11854 on 2001/12/17 by jacarey@fl jacarey Change 11839 on 2001/12/17 by jacarev@fl jacarev Change 11785 on 2001/12/14 by Iseiler@ma Iseiler Interface Update for RCIU RB registers with review comments and preliminary register names Change 11833 on 2001/12/17 by llefebvr@llefebvre_laptop_r400 Change 11754 on 2001/12/14 by rbeaudin@rbeaudin_r400_win_marlboro Change 11824 on 2001/12/17 by lseiler@ma_lseiler Change 11752 on 2001/12/14 by wlawless@wlawless PDF file for rev 0.4a RB register spec Undate Tile Logic section Page 410 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history backup. Updated the constant memory management section by copying stuff from the $R400\,$ state management document by Mike Mantor. Change 11747 on 2001/12/14 by mpersaud@mpersaud_r400_win_ton Initial Revision Change 11411 on 2001/12/07 by kryan@kryan r400 win marlbord Change 11728 on 2001/12/13 by Iseiler@ma_Iseiler Updated sanity test instructions to use perf_test.cpp. Register update for review Change 11401 on 2001/12/07 by jhoule@MA JHOULE Change 11686 on 2001/12/13 by kcorrell@KCORRELL update to version 6.3 of Memory Hub.doc Change 11399 on 2001/12/07 by jhoule@MA JHOULE Change 11665 on 2001/12/13 by kcorrell@KCORRELL Added usage tables updated RB - MC and MH - MC interface tables Minor modifications (e.g. no more WHICH_DWORD since it uses Z instead but isn't there a problem for 3D hi-color textures? Change 11540 on 2001/12/11 by jhoule@MA JHOULE Change 11393 on 2001/12/07 by llefebvr@llefebvre_laptop_r400 $\,$ Changed filetype (no multiple opens) Change 11535 on 2001/12/11 by ihoule@MA JHOULE Change 11337 on 2001/12/06 by paulv@MA_PVELLA Now 4 DEGAMMA values. Better DWORD equation (all automatic). Added BORDER_SIZE for border texels. Made corrections/updates to MHS. Added new subsection (L2 Cache Invalidate Arbiter). Moved SIGNED_RF_MODE before NUM_FORMAT. Change 11336 on 2001/12/06 by paulv@MA PVELLA Change 11528 on 2001/12/11 by scroce@scroce_r400_win_marlboro Added Tags (I/O) and Sends (output). Changed buffer sizes. GMB = GRB. Trying to make Doc easier to follow. Change 11335 on 2001/12/06 by pauly@MA PVELLA Change 11503 on 2001/12/11 by llefebvr@llefebvre_laptop_r400 Changed instances GMB to GRB. Version 1.5 of the sequencer spec. See Revision changes of the document for details Change 11329 on 2001/12/06 by wlawless@wlawless Change 11484 on 2001/12/10 by scroce@scroce_r400_win_marlboro new RB to MC interface Clarified a few commands Change 11319 on 2001/12/06 by pauly@MA PVELLA Change 11479 on 2001/12/10 by askende@andi r400 docs Minor modification (mostly to DISP functional block) Change 11306 on 2001/12/06 by llefebvr@llefebvre_laptop_r400 Change 11452 on 2001/12/10 by scroce@scroce r400 win marlboro New revision of the sequencer spec. Added the actual command lines to use the client template in UNIX Change 11287 on 2001/12/06 by ctaylor@fl_ctaylor_r400_win_marlboro Change 11443 on 2001/12/10 by llefebvr@llefebvre laptop r400 Added Scan Converter Spec to P4 Page 412 of 441

Page 411 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258198

Change 11271 on 2001/12/06 by mpersaud@mpersaud_r400_win_tor change tx to tp for consistency Added to depot - Needs major work Change 11070 on 2001/12/03 by pmitchel@pmitchel_r400_win_marlboro Change 11264 on 2001/12/05 by kcorrell@KCORRELL adding directories to depot updated to include top level description of GART and new MC interface. Change 11063 on 2001/12/03 by pmitchel@pmitchel_r400_win_marlboro Change 11241 on 2001/12/05 by rbeaudin@rbeaudin_r400_win_marlboro fixed client spec Change 11061 on 2001/12/03 by pmitchel@pmitchel_r400_win_marlboro Change 11229 on 2001/12/05 by frising@ma_frising my doc lib/parts to doc lib/design/blocks Move TX/VTX const+inst to tp dir. Change 11056 on 2001/12/03 by wlawless@wlawless Change 11227 on 2001/12/05 by jhoule@MA_JHOULE Renamed file for better consistency. Change 11055 on 2001/12/03 by jacarey@fl jacarey Change 11226 on 2001/12/05 by llefebvr@llefebvre_laptop_r400 Submit so directory can be moved. Updated the register spec. Change 11052 on 2001/12/03 by hartogs@fl_hartogs Change 11193 on 2001/12/05 by scroce@scroce_r400_win_marlboro Interim check-in for move. Fixed Capitalization issues in perforce client names Change 11049 on 2001/12/03 by kcorrell@KCORRELL Change 11191 on 2001/12/05 by jacarey@fl jacarey temporary checkin to allow Paul to move things around again Context Allocation Flags Change 11048 on 2001/12/03 by llefebvr@llefebvre_laptop_r400 Change 11185 on 2001/12/04 by rbeaudin@rbeaudin_r400_win_marlboro submited for Paul to move stuff around again. added more emulator documentation Change 11047 on 2001/12/03 by askende@andi_r400_docs Change 11096 on 2001/12/03 by mmantor@mmantor_r400 more updates temp for backup purposes only Change 11006 on 2001/11/30 by scroce@scroce_r400_win_marlboro Change 11095 on 2001/12/03 by mmantor@mmantor_r400 Addded some NT specific fixes error in placement. Change 11004 on 2001/11/30 by scroce@scroce_r400_win_marlboro Change 11093 on 2001/12/03 by mmantor@mmantor_r400 Clarified some of the directions Preliminary for back up only at current time Change 11002 on 2001/11/30 by pmitchel@pmitchel_r400_win_marlboro Change 11072 on 2001/12/03 by pmitchel@pmitchel_r400_win_marlboro Page 413 of 441 Page 414 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history moving to r400/parts lib/ Change 10806 on 2001/11/27 by hartogs@fl_hartogs Change 10988 on 2001/11/30 by semara@semara_r400_win_tor Check-in for relocation add the vga doc to r400/doc_lib/parts/vga Change 10791 on 2001/11/27 by hartogs@fl_hartogs Change 10974 on 2001/11/30 by jacarey@fl jacarey Requested check-in. The document is in a interim state. CP's General Purpose DMA Engine Change 10784 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10956 on 2001/11/29 by dglen@dglen_r400_dell my to doc lib/parts Undated templates Change 10774 on 2001/11/27 by llefebvr@llefebvre_laptop_r400_emu Change 10942 on 2001/11/29 by hartogs@fl_hartogs opened the files with the wrong client Updated the section for the VGT to Shader interfaces. Change 10773 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10936 on 2001/11/29 by jacarey@fl_jacarey Checkpoint CP Specifications Change 10772 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10889 on 2001/11/29 by jacarey@fl_jacarey Updates to CP Memory Interface Unit Diagram Change 10771 on 2001/11/27 by pmitchel@pmitchel r400 win marlboro Change 10879 on 2001/11/29 by jacarey@fl_jacarey mv to doc_lib/parts Baseline 2D Appendix for CP Spec (Separate Document) Change 10770 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10852 on 2001/11/28 by scroce@scroce r400 win marlboro change filetype to +l Added some more info on perforce setup Change 10769 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10832 on 2001/11/28 by jacarey@fl jacarey mv to doc_lib/parts Diagram of 2D Surface Definitions Change 10767 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10810 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro my to doc lib/parts mv to doc_lib/parts/sp Change 10766 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10809 on 2001/11/27 by askende@andi r400 docs my to doc lib/parts new rev of the spec. Change 10765 on 2001/11/27 by lseiler@ma_lseiler Change 10807 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Render Backend: temporary version, not a complete release my to doc lib/parts Page 415 of 441 Page 416 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 10764 on 2001/11/27 by Iseiler@ma_Iseiler rename Memory Format v0.4: intermediate form, not a complete release Change 10693 on 2001/11/26 by liefebvr@liefebvre_laptop_r400 Change 10763 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro closing for Paul to move files around Change 10691 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Change 10752 on 2001/11/27 by scroce@scroce_r400_win_marlboro rename "blocks" to "parts_lib" Fixed up some menu issues Change 10676 on 2001/11/26 by llefebvr@llefebvre_laptop_r400 Change 10745 on 2001/11/27 by ctaylor@fl_ctaylor changed the file type to binary and locked Updated SC->SU interface and a few words on performance. Change 10675 on 2001/11/26 by llefebvr@llefebvre laptop r400 Change 10738 on 2001/11/27 by pmitchel@pmitchel_r400_win_home new spin on the other documents regarding the sequencer spec creation of spec areas Change 10674 on 2001/11/26 by llefebvr@llefebvre laptop r400 Change 10736 on 2001/11/27 by lseiler@ma_lseiler new spin on the sequencer spec Multisample: spec, preliminary version that needs lots of changes Change 10673 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Change 10732 on 2001/11/27 by pmitchel@pmitchel r400 win home rename into parts/cp & parts/rbbm Change 10668 on 2001/11/26 by paulv@MA_PVELLA Change 10717 on 2001/11/26 by jacarey@fl jacarey Minor changes/fixes. Check-In for Moving of Document Area Change 10667 on 2001/11/26 by paulv@MA_PVELLA Change 10705 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Major revision of block diagram another rename to match r300 Change 10666 on 2001/11/26 by scroce@scroce_r400_win_marlboro Change 10699 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Added info regarding the toold menu in p4win doing rename properly Change 10665 on 2001/11/26 by paulv@MA_PVELLA Change 10698 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Updated and fixed MHS section. Change 10644 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Change 10697 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Change 10632 on 2001/11/26 by jacarey@fl jacarey Change 10695 on 2001/11/26 by pmitchel@pmitchel_r400_win_marlboro Page 417 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Checkpoint CP Specifications Change 10199 on 2001/11/16 by jacarey@fl_jacarey Change 10501 on 2001/11/21 by askende@andi_r400_docs Checkpoint CP Specs opcode update Change 10197 on 2001/11/16 by mdoggett@MA_MDOGGETT Change 10500 on 2001/11/21 by askende@andi r400 docs friday check in updated a couple of opcodes Change 10157 on 2001/11/16 by jacarey@fl_jacarey Change 10489 on 2001/11/21 by kcorrell@KCORRELL RBBM Version 0.04 Specification Release update of architectural description Change 10156 on 2001/11/16 by pmitchel@pmitchel_r400_win_home Change 10396 on 2001/11/20 by rbeaudin@rbeaudin_r400_win_marlboro change filetype new directions Change 10153 on 2001/11/16 by pmitchel@pmitchel_r400_win_home Change 10365 on 2001/11/20 by pmitchel@pmitchel_r400_win_marlboro initial checkin adding file Change 10151 on 2001/11/16 by jacarey@fl jacarey Change 10333 on 2001/11/19 by pmitchel@pmitchel_r400_win_marlboro Update Multi-target Slow Client Diagram Change 10149 on 2001/11/16 by jacarey@fl jacarey Change 10318 on 2001/11/19 by rbeaudin@rbeaudin_r400_win_marlboro Single Slow Client Waveform more reg release changes Change 10144 on 2001/11/16 by jacarey@fl_jacarey Change 10294 on 2001/11/19 by pmitchel@pmitchel_r400_win_marlboro Update RT stream Event Engine Diagram Change 10114 on 2001/11/16 by pmitchel@pmitchel r400 win marlboro Change 10281 on 2001/11/19 by rbeaudin@rbeaudin r400 win marlboro changed file types to disallow multiple edits more instructions for changing block files Change 10112 on 2001/11/16 by pmitchel@pmitchel_r400_win_marlboro Change 10255 on 2001/11/19 by kcorrell@KCORRELL added explicit sync to release label as part of windows setup Initial revision Change 10056 on 2001/11/15 by dglen@dglen_r400_dell Change 10254 on 2001/11/19 by kcorrell@KCORRELL Top level block diagrams AIC block diagram initial revision Change 10055 on 2001/11/15 by jhoule@MA_JHOULE Change 10253 on 2001/11/19 by kcorrell@KCORRELL Contains instruction filed (both usage in commands, and meanings) as well as constant update Page 419 of 441 Page 420 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Blending scheme diagrams Change 10053 on 2001/11/15 by jacarey@fl jacarey Modifs here and there Add RBBM Diagrams to Perforce Change 9910 on 2001/11/14 by dglen@dglen_r400_dell Change 10042 on 2001/11/15 by jacarey@fl_jacarey Moved from arch/doc to devel/doc_lib/parts Checkpoint RBBM Specification Change 9903 on 2001/11/14 by jacarey@fl_jacarey Change 10031 on 2001/11/15 by rbeaudin@rbeaudin_r400_win_marlboro Update to RBBM Top-Level Diagram (Interfaces) schedules Change 9896 on 2001/11/14 by jacarey@fl jacarey Change 9986 on 2001/11/15 by jacarey@fl_jacarey Update RBBM Top-Level Per Interfaces Change 9885 on 2001/11/14 by dglen@dglen_r400_dell Diagram for Real-Time Stream Event Engine Change 9981 on 2001/11/15 by mdoggett@MA_MDOGGETT Moving files to doc lib/parts from arch/doc Change 9883 on 2001/11/14 by jacarey@fl_jacarey TC diagrams Change 9979 on 2001/11/15 by mdoggett@MA_MDOGGETT Diagram of CP's Interface to Register Backbone. major rearrangement and integration of old texture pipe material. Change 9882 on 2001/11/14 by jacarey@fl jacarey Change 9967 on 2001/11/15 by mdoggett@MA_MDOGGETT_LT Update FIFO widths and depths for write interface. no changes Change 9878 on 2001/11/14 by jacarey@fl_jacarey Update to CP's Memory Interface Unit (MIU) Diagram 1. Added Write Confirm Signal 2. Removed i's and o's from Interface Signals Change 9941 on 2001/11/14 by dglen@dglen r400 dell First pass on list of required specs for Toronto Change 9940 on 2001/11/14 by mdoggett@MA MDOGGETT Change 9872 on 2001/11/14 by jacarey@fl_jacarey First check-in of new TC spec. Brings together L1 access from TP spec and old TD spec, plus some additional diagrams and format information. Update CP's View of Instruction Memory Checkpoint other CP Specs Change 9934 on 2001/11/14 by dglen@dglen_r400_dell Change 9826 on 2001/11/13 by jhoule@MA JHOULE Updated paths and added section on used part of shared bus Put Sampling in a separate section than Walking, because it is closer to Wrapping Change 9923 on 2001/11/14 by jhoule@MA_JHOULE Change 9739 on 2001/11/12 by paulv@MA_PVELLA Changed Wrapping/Clamping to Clamping/Wrapping for subblock naming issues Initial release Change 9915 on 2001/11/14 by jhoule@MA JHOULE Change 9738 on 2001/11/12 by paulv@MA PVELLA Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Fixed any grammatical errors found and update of Read Bus Switch, including completion (?) of Tag Sequencer subsection. Change 9522 on 2001/11/08 by scroce@scroce r400 win marlboro Change 9737 on 2001/11/12 by paulv@MA PVELLA Document about the new DK * Environment we will be using for R400 Updated with latest architectural changes. Change 9517 on 2001/11/08 by jacarey@fl_jacarey Change 9724 on 2001/11/12 by scroce@scroce r400 win marlboro Revision 0.03 for Preliminary Review Clarified some instructions. Change 9493 on 2001/11/08 by jacarey@fl_jacarey Change 9723 on 2001/11/12 by askende@andi r400 docs Checkpoint Revision 0.02 of the PM4 Specification Change 9396 on 2001/11/07 by kcorrell@KCORRELL Change 9720 on 2001/11/12 by scroce@scroce r400 win marlboro continuation of major update working towards review mid Nov Made setup doc instructions for perforce client more explicit Change 9393 on 2001/11/07 by kcorrell@KCORRELL Change 9710 on 2001/11/12 by scroce@scroce r400 win marlboro updated diagram Fixed client spec naming from _unix_ to _sun_ Change 9278 on 2001/11/06 by jacarey@fl jacarey Change 9653 on 2001/11/09 by jhoule@MA_JHOULE Update to RBBM Top-Level Diagram (Index DMA Request Path) Week end check-in Change 9277 on 2001/11/06 by jacarey@fl jacarey Almost finished stripping out the TC stuff. Update CP Interface Diagrams. Change 9648 on 2001/11/09 by ihoule@MA JHOULE Change 9214 on 2001/11/05 by jacarey@fl jacarey Caching is dotted line to indicate sharing between the 4 TPs. Checkpoint Updates to CP Spec and PM4 Spec: Change 9646 on 2001/11/09 by jacarey@fl_jacarey Viz Query
 Removal of Obsolete Draw Packets Add DRAW_INDX and VIZ_QUERY packets
 Add MPEG_INDEX packet.
 Some Updates for RT streams CP's View of Instruction Memory Change 9627 on 2001/11/09 by jhoule@MA_JHOULE Change 9194 on 2001/11/05 by dwong@cndwong2 Isolated TC Getting ready to strip it out to be plugged in TC (which Michael will check-in first draft of R400_IDCT

Change 9586 on 2001/11/08 by delifton@delifton r400

Change 9561 on 2001/11/08 by scroce@scroce_r400_win_marlboro

Added some commands to build the emulator once things are set up

Page 423 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Ex. 2050 --- R400 Document Library FH --- folder_history

Page 424 of 441

Change 9156 on 2001/11/05 by jacarey@fl jacarey

First Rev of PA Top Level Spec

Updates to CP's Memory Interface Unit Diagram

Change 9105 on 2001/11/02 by ctaylor@fl_ctaylor

VGT_Spec CLIP/VTE Spec. fixed tabular state machine description Change 8595 on 2001/10/26 by pmitchel@pmitchel iris Change 9067 on 2001/11/02 by jacarey@fl_jacarey added dff vs always description Checkpoint CP Spec Change 8571 on 2001/10/26 by pmitchel@pmitchel iris Change 9045 on 2001/11/02 by jacarey@fl_jacarey changed filetype to exclusive edit Diagram addition of Shader Instruction Fetch Path through RBBM. Change 8551 on 2001/10/26 by bbloemer@ma-jasonh Change 9028 on 2001/11/01 by jacarey@fl_jacarey Release with updates from review meetings. Checkpoint All RBBM and CP Documents and Diagrams Change 8404 on 2001/10/24 by mdoggett@MA_MDOGGETT Change 9022 on 2001/11/01 by jacarey@fl jacarey Small interface corrections and additions Change 8386 on 2001/10/24 by kcorrell@KCORRELL Change 9014 on 2001/11/01 by jacarey@fl jacarey block diagram of MHC and MHA Update CP's MIU diagram per 32-bit interface POR. Change 8369 on 2001/10/24 by rbeaudin@MA_RAYB Change 9001 on 2001/11/01 by jacarey@fl_jacarey moved location of autoreg doc Rename CP-to-RBBM Interface Change 8358 on 2001/10/24 by lseiler@ma_lseiler Change 8999 on 2001/11/01 by jacarey@fl_jacarey Render Backend Registers v0.2: Various changes from one-on-one reviews Diagram of CP-to-RBBM Interface Unit Change 8332 on 2001/10/24 by rbeaudin@MA_RAYB Change 8988 on 2001/11/01 by jacarey@fl_jacarey more doc info Diagram of Index DMA Engine in CP for the PA. Change 8286 on 2001/10/23 by jacarey@fl_jacarey Change 8961 on 2001/11/01 by wlawless@wlawless Checkpoint CP & RBBM Requirements Matrix Change 8283 on 2001/10/23 by jacarey@fl_jacarey Change 8932 on 2001/10/31 by kcorrell@KCORRELL Checkpoint of All CP Specs (Not Complete) oops this is what was supposed to be submitted the last time... Change 8282 on 2001/10/23 by jacarey@fl_jacarey Change 8927 on 2001/10/31 by kcorrell@KCORRELL Checkpoint RBBM Spec:
1. Byte-Enables are now: BE
2. Clarifications on CP "non-queued" data path. adding some new block diagrams and did a major reorg of the MH document Change 8597 on 2001/10/26 by pmitchel@pmitchel iris Change 8280 on 2001/10/23 by rbeaudin@MA_RAYB Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 8011 on 2001/10/18 by mdoggett@MA_MDOGGETT added new block interfaces a few interface changes Change 8256 on 2001/10/23 by paulv@MA PVELLA Change 7974 on 2001/10/17 by paulv@MA_PVELLA Updated DBR and RRA sections, with updates to functional and architectural descriptions, along with updates to the block diagrams. Also started Tag Sequencer subsection. Refixed block diagram (what I had before last revision was mostly correct) Change 8200 on 2001/10/22 by bbloemer@ma-jasonh Change 7923 on 2001/10/17 by jhoule@MA_JHOULE Some of the changes from the style guide meetings. Removed PRINT field. Change 8170 on 2001/10/22 by jacarey@fl jacarey Change 7884 on 2001/10/16 by jhoule@MA_JHOULE Baseline Beginnings of Stream Fetcher Diagram Added constant store and instruction store in the interface portion. Change 8167 on 2001/10/22 by paulv@MA PVELLA Change 7824 on 2001/10/16 by jhoule@MA JHOULE Forgot to fix the DISP routing. It is done. Cleaning up of interfaces. Removed duplicates Change 8161 on 2001/10/22 by wławiess@wławiess Change 7809 on 2001/10/15 by paulv@MA PVELLA new file Fixed DBR and RRA sections with new I/O and logic adjustments. Change 8153 on 2001/10/22 by jacarey@fl jacarey Change 7808 on 2001/10/15 by paulv@MA PVELLA Update CP Memory Interface Unit Diagram. Updated block diagram to fix I/O and some logic changes. Change 8146 on 2001/10/22 by paulv@MA PVELLA Change 7806 on 2001/10/15 by paulv@MA PVELLA Fixed block diagram to reflect recent functional/architectural changes Updated block diagram to include AIC address and byte swap I/O. Change 8114 on 2001/10/19 by kcorrell@KCORRELL Change 7779 on 2001/10/15 by jhoule@MA_JHOULE Modified connections to AIC interface block (HMB) Minor corrections here and there. Change 8111 on 2001/10/19 by jacarey@fl_jacarey Change 7722 on 2001/10/12 by paulv@MA_PVELLA Memory Hub Interface Unit Diagram for CP Minor fix the the RRA block diagram (changed the tag info FIFO to a tag info RAM) Change 8106 on 2001/10/19 by jayw@MA_JAYW Change 7703 on 2001/10/12 by jacarey@fl_jacarey Jay's exploration of recip Update Interrupt Registers in the CP.

Page 427 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 8050 on 2001/10/18 by jacarey@fl_jacarey

RBBM Specification Version 0.02

Checkpoint CP Specification and PM4 Specification

Page 428 of 441

Change 7684 on 2001/10/12 by jhoule@MA_JHOULE

Major reorganization of sections.

Change 7683 on 2001/10/12 by jhoule@MA_JHOULE Change 7420 on 2001/10/08 by jacarey@fl_jacarey Added Output Formatter at the end (regroups into a quad, and converts to floats) Incremental Update Change 7667 on 2001/10/12 by jacarey@fl_jacarey Change 7418 on 2001/10/05 by paulv@MA PVELLA Checkpoint write-up of interrupt generation. Another big update to RRA (with new understanding of subblock, functionality defined in much better detail). Also fixed DBR subblock section to reflect removal of BUFFER_FULL flags (now done in RRA). Change 7645 on 2001/10/11 by paulv@MA PVELLA Fixed Data Bus Router (HDP client needed to be added). Change 7417 on 2001/10/05 by paulv@MA PVELLA Change 7631 on 2001/10/11 by jhoule@MA_JHOULE Updated diagram to reflect recent changes/adjustments. New Block Description (reorganization underway) Change 7411 on 2001/10/05 by jhoule@MA JHOULE Change 7615 on 2001/10/11 by paulv@MA_PVELLA Week end check in (minor corrections, mostly formatting) Change 7371 on 2001/10/05 by mdoggett@MA_MDOGGETT Change 7611 on 2001/10/11 by lseiler@ma lseiler small changes to MC interfaces First draft of Render Backend register field list Change 7370 on 2001/10/05 by mdoggett@MA MDOGGETT Change 7581 on 2001/10/11 by paulv@MA PVELLA 0.4 revision, final check in for major changes (that's the idea at least) Updated block diagram to reflect recent changes (see spec). Change 7580 on 2001/10/11 by paulv@MA PVELLA Change 7361 on 2001/10/05 by jhoule@MA_JHOULE Updated Data Bus Router section Walkers more up-to-date.

Described a bit the samples fetching (pt, bilin, arbi). Change 7554 on 2001/10/10 by jacarev@fl jacarev Change 7350 on 2001/10/04 by paulv@MA PVELLA Updated some state PM4 packets -- Checkpoint of document New block diagram for Read Return Arbitrator (RRA) Change 7487 on 2001/10/09 by jhoule@MA_JHOULE Change 7349 on 2001/10/04 by pauly@MA PVELLA Accepted all changes.

Various minor tweaks here and there (notably, issues aren't headings anymore). $\label{eq:Added block diagram to RRA section along with more documentation (functional/interface).$ Change 7461 on 2001/10/09 by jhoule@MA JHOULE Change 7335 on 2001/10/04 by jhoule@MA_JHOULE Better add the top-level diagram if I want people to see it... Updated the LOD computation pseudo-code. This has to update walkers (with diagram), and the clamp logic (since it's now in float Change 7460 on 2001/10/09 by jhoule@MA_JHOULE around [0,1] with clamp and mirror flags). Added new top-level diagram Description of pipe in features to give a good idea of where we are heading. Change 7290 on 2001/10/04 by rbeaudin@Crayola_NT_Emu Page 429 of 441 Page 430 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder history Change 6989 on 2001/09/27 by rbeaudin@MA RAYB more doc Change 7242 on 2001/10/03 by rbeaudin@MA_RAYB Change 6970 on 2001/09/26 by jacarey@fl_jacarey Change 7231 on 2001/10/03 by rbeaudin@Crayola NT Emu Lots of Update on: Real-Time Stream Algorithm and Description
 State Management Processing more docs Change 7224 on 2001/10/03 by rbeaudin@MA_RAYB Updated requirement matrix for CP Change 6889 on 2001/09/25 by askende@andi_docs Change 7192 on 2001/10/02 by paulv@MA PVELLA newest version Some minor updates. Change 6878 on 2001/09/25 by mdoggett@MA_MDOGGETT Change 7185 on 2001/10/02 by rbeaudin@MA RAYB major changes to document structure and content corrected documentation progress checkin before version 0.4 Change 7149 on 2001/10/01 by wławless@wławless Change 6859 on 2001/09/24 by rbeaudin@MA_RAYB nothing more doc stuff Change 7102 on 2001/09/28 by paulv@MA_PVELLA Change 6840 on 2001/09/24 by jacarey@fl_jacarey Add CP/RBBM Requirements Matrix to Perforce Fixed the data bus router's block diagram. Some minor document tweaks Change 7088 on 2001/09/28 by mdoggett@MA_MDOGGETT Change 6839 on 2001/09/24 by jacarey@fl_jacarey More changes. Checkpoint On-Going Updates to Documents Change 7050 on 2001/09/27 by paulv@MA_PVELLA Change 6833 on 2001/09/24 by wlawless@wlawless A portion of the old Read Return Arbiter has become what is now known as the Data Bus Router. This is the block diagram. updated revision code Change 6832 on 2001/09/24 by rbeaudin@MA_RAYB Change 7044 on 2001/09/27 by jhoule@MA_JHOULE Aesthetic modifications. Table of contents now has correct number sizes!!! (hurray!)
Thanks to Mike "Vege-mate" Doggett for this... Change 6790 on 2001/09/21 by llefebvr@ilefebvre laptop r400 RE spec backup + HZ stats + SC spec backup Change 6992 on 2001/09/27 by rbeaudin@MA RAYB

more doc stuff

Page 431 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258203

Change 6758 on 2001/09/20 by wlawless@wlawless

Page 432 of 441

Slight update Change 6251 on 2001/09/10 by ccoveney@chrisc_r400_docs Change 6757 on 2001/09/20 by jacarey@fl_jacarey This is the documentation file for using the new parameterized test library that's found in //depot/r400/verification/param_test CP Spec: 1. Added registers for Real-Time Event Engine Control Added some registers for state management control Change 6091 on 2001/09/05 by jacarey@fl_jacarey PM4 SPec:
1. Updated text for the state management packets. General Checkpoint of Documentation 2. Updated text for synchronization packets. Change 5777 on 2001/08/28 by Iseiler@ma Iseiler Change 6739 on 2001/09/20 by rbeaudin@MA_RAYB Version 0.5a -- fixed typos in the bus interface tables Change 5537 on 2001/08/21 by wlawless@wlawless more documentation Change 6724 on 2001/09/20 by rbeaudin@Crayola_NT_Emu RB Hardware Design Spec Change 5466 on 2001/08/17 by askende@andi_docs more documentation Change 6529 on 2001/09/14 by ccoveney@chrisc_r400_docs new rev of the spec Finished this most of the way up.. may still need to correct some things but this is the Change 5465 on 2001/08/17 by jhoule@MA_JHOULE Better LOD algorithm (leaner and better... now uses log2) Change 6478 on 2001/09/14 by rbeaudin@MA_RAYB Change 5384 on 2001/08/15 by jhoule@MA_JHOULE new doc Initial check-in. This file gives supplemental information on design decisions, notations, algorithms and various other underlying stuff.

It helps explain more, but reduce the already too big texture spec. Change 6438 on 2001/09/13 by rbeaudin@MA RAYB emulator documentation Change 6425 on 2001/09/13 by sallen@ma_sallen Change 5383 on 2001/08/15 by jhoule@MA_JHOULE Final update. Needs cons information. Change 6317 on 2001/09/11 by jhoule@MA_JHOULE Change 5382 on 2001/08/15 by jhoule@MA_JHOULE Minor LODBias correction in LOD computation pseudo-code Added LOD computation (with correction), samples walking (trilinear and anistropic), and texel fetching (with wrapping policy table) in the logic description. Change 6274 on 2001/09/10 by ccoveney@chrisc r400 docs Change 5365 on 2001/08/15 by pmitchel@pmitchel_iris Added description and screenshots of how to change clients in perforce Change 6252 on 2001/09/10 by ccoveney@chrisc_r400_docs Change 5275 on 2001/08/13 by pmitchel@pmitchel_iris fixed 'define section Page 434 of 441 Page 433 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history Change 4919 on 2001/07/31 by bbloemer@ma-jasonh Change 5175 on 2001/08/09 by Iseiler@ma Iseiler Added Verilog style guide stuff. Memory Controller, v0.5: removed autotag feature, changed bus/signal names and other Change 4854 on 2001/07/30 by mdoggett@MA_MDOGGETT Change 5141 on 2001/08/08 by pmitchel@pmitchel_test_client Updates to most sections. add Change 4769 on 2001/07/26 by jacarey@fl_jacarey Change 5136 on 2001/08/08 by bbloemer@ma-jasonh Update Visio Diagrams Chip Arch with RBBM More coding guidelines stuff. 2. Read Data Path Diagram Change 5129 on 2001/08/08 by pmitchel@pmitchel_test_client Change 4756 on 2001/07/26 by pmitchel@pmitchel_iris see if John Carey gets email Change 5090 on 2001/08/07 by pmitchel@pmitchel_test_client Change 4736 on 2001/07/26 by jacarey@fl_jacarey Moved Original CP and RBBM Specs from ../arch/doc to ../doc_lib/chip/<unit> areas. Change 5049 on 2001/08/06 by pmitchel@pmitchel_test_client Change 4711 on 2001/07/25 by jacarey@fl_jacarey Visio Diagram Used in the RBBM Specification additional comments on style guide Change 5038 on 2001/08/03 by pmitchel@pmitchel_r400_docs Change 4710 on 2001/07/25 by jacarey@fl_jacarey filled paragraphs to get rid of overly long lines Sweeping Updates to RBBM Spec 1. Obsolete text deleted or crossed-out. Questions inserted in document text.
 Interfaces should be correct. Change 5016 on 2001/08/03 by llefebvr@llefebvre_laptop_r400 setup unit revised spec ** Have Fun! ** Change 4980 on 2001/08/01 by llefebvr@llefebvre_laptop_r400 $\,$ Change 4674 on 2001/07/24 by askende@andi_docs new spec for SC and RE. Changed a bit the interface to encompass the fact that RE is now using the full precision normalized slopes from the SU because it takes the same number of bits than doing a per tile compression for the barycentric coordinates and it also simplifies a lot new rev Change 4597 on 2001/07/20 by jhoule@MA_JHOULE Change 4960 on 2001/08/01 by askende@andi_docs Many minor corrections: some aesthetic, some (hopefully) helpful to understand more clearly, others are comments for Steve. new rev

Change 4929 on 2001/07/31 by askende@andi_docs

Page 435 of 441

Ex. 2050 --- R400 Document Library FH --- folder_history

a new rev

Ex. 2050 --- R400 Document Library FH --- folder_history

Change 4586 on 2001/07/20 by jhoule@MA_JHOULE

Level Spec).

Minor changes: changed header for cleaner ones as well as Title Field (no more Top

Page 436 of 441

AMD1044 0258204

Change 4359 on 2001/07/16 by askende@andi_docs *** Note: Entire document may become obsolete or be revised depending on architecture decisions for the CP *** new rev Change 4207 on 2001/07/11 by askende@andi_docs Change 3979 on 2001/07/05 by jacarey@fl_jacarey Baseline R300's CP Test Bus Spec for R400 Change 3975 on 2001/07/05 by jacarey@fl_jacarey Change 4206 on 2001/07/11 by askende@andi_docs Baseline RBBM Unit Spec and Test Bus Document from R300. fixed a few typos Included sections from the R400 RBBM Spec.doc in the ../arch/chip area
*** Document is Initial Version ONLY - Lot of work is still required *** Change 4205 on 2001/07/11 by lseiler@ma_lseiler More v0.2 files Change 3908 on 2001/07/03 by lseiler@ma_lseiler Change 4200 on 2001/07/11 by lseiler@ma_lseiler FrameBuf v0.3: some extra compressed and 3d formats, minor changes Render Backend: version 0.2 with greatly revised Paramater Buffer and Tile Logic Change 3871 on 2001/07/02 by mdoggett@MA_MDOGGETT Minor updates to Memory Hub spec Change 4162 on 2001/07/10 by askende@andi_docs Change 3680 on 2001/06/25 by lseiler@ma_lseiler new rev of the hardware spec Frame Buffer Format, v0.2: complete rewrite Change 4033 on 2001/07/06 by askende@andi_docs Change 3588 on 2001/06/21 by smorein@smorein r400 update of the specs Major update. There are still a bunch of inconsistancies (and misspellings) but enough Change 4010 on 2001/07/06 by smorein@smorein r400 there for people closely associated with the block to need to go through it. major texture pipe spec update- complete except for addresing logic. Could use some more editing, and probably more block diagrams. Change 3585 on 2001/06/20 by askende@andi_docs Change 4001 on 2001/07/05 by llefebvr@llefebvre_laptop_r400 Change 3574 on 2001/06/20 by askende@andi_docs lockin is on new rev Change 3994 on 2001/07/05 by llefebvr@llefebvre laptop r400 Change 3565 on 2001/06/19 by askende@andi_docs updated scan converter spec new rev Change 3988 on 2001/07/05 by jacarey@fl_jacarey Change 3560 on 2001/06/19 by askende@andi_docs Initial Baseline from R300 plus listing of some open items Change 3980 on 2001/07/05 by jacarey@fl jacarey Change 3558 on 2001/06/19 by askende@andi docs Baseline PM4 Packet Spec for CP from R300 (Khan) Page 437 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history another revision of the shader spec Change 3553 on 2001/06/19 by askende@andi docs Change 3008 on 2001/05/21 by smorein@smorein_r400 another rev (rev.03) of the shader spec partial update to texture spec Change 3476 on 2001/06/13 by smorein@smorein r400 Change 2720 on 2001/05/10 by Iseiler@ma Iseiler Texture pipe update Memory Controller rev 0.3: lots more details, including the external interface Change 3446 on 2001/06/12 by smorein@smorein r400 Change 2712 on 2001/05/09 by askende@andi docs simple update, need to do a more complete update Change 3445 on 2001/06/12 by smorein@smorein_r400 Change 2709 on 2001/05/09 by sallen@ma_sallen added old version of chip presentation add testenv spec Change 3428 on 2001/06/11 by smorein@smorein_r400 Change 2700 on 2001/05/09 by askende@andi_docs Adding a bunch of files Shader specifications Change 3371 on 2001/06/08 by llefebvr@llefebvre_laptop_r400 Change 2679 on 2001/05/09 by ccoveney@chrisc_r400 spec backup added some possible command descriptions and a sample header from the pp6_blend_all_param.dat file Change 3330 on 2001/06/07 by llefebvr@llefebvre_laptop_r400 safety backup Change 2651 on 2001/05/08 by ccoveney@chrisc r400 Change 3311 on 2001/06/06 by lseiler@ma_lseiler proofread and updates a few things Memory Controller: version 0.4, added internal interfaces and improved the Ordering Change 2650 on 2001/05/08 by ccoveney@chrisc_r400 This file contains the proposal for the new parameterized test methodology that will implemented for R400 verification. Change 3141 on 2001/05/29 by smorein@smorein_r400 added memory hub spec. I am not happy with it, and this block wins the prize for most Change 2649 on 2001/05/08 by llefebvr@llefebvre laptop r400 likely to be conpleatly redesigned New version of the scan converter, ready for review Change 3138 on 2001/05/29 by askende@andi_docs Change 2570 on 2001/05/04 by llefebvr@llefebvre_laptop_r400 more updates to the spec Spin on some specs, not all complete be checked in for safety Change 3104 on 2001/05/25 by llefebvr@llefebvre_laptop_r400 Change 2569 on 2001/05/04 by llefebvr@llefebvre_laptop_r400 new spin on RE, SC, Bary new spin on setup Change 3020 on 2001/05/21 by askende@andi docs Page 439 of 441 Page 440 of 441 Ex. 2050 --- R400 Document Library FH --- folder_history Ex. 2050 --- R400 Document Library FH --- folder_history

AMD1044 0258205

Change 2508 on 2001/05/02 by llefebvr@llefebvre_laptop_r400

about to change the walking algorithm and want to keep the old one...

Change 2358 on 2001/04/26 by lseiler@ma_lseiler

Render Backend first spec version

Change 2240 on 2001/04/17 by lseiler@ma_lseiler

Memory controller architectural specs and related documents

Change 2107 on 2001/04/09 by llefebvr@llefebvr_r400

revised specs and walker

Change 1716 on 2001/03/14 by llefebvr@llefebvr_r400

specs for Raster block, SC, SU, HZ + stats for HZ precision

Change 1551 on 2001/02/27 by llefebvr@llefebvr_r400

SC and RS specs

Change 1489 on 2001/02/23 by llefebvr@llefebvr_r400

specs for the raster engine and scan converter

Change 1461 on 2001/02/22 by llefebvr@llefebvr_r400

SC specs and stats for the raster efficiencies...

Change 871 on 2001/02/02 by smorein@smorein_r400

Added a bunch of new documents, also updated area

Change 400 on 2000/11/01 by pmitchel@_pmitchel

Initial creation of r400 area under //depot

Page 441 of 441

Change 118348 on 2003/08/27 by jasony@ma-jasony-intern Changed sfloat

to mfloat Fixed so that color map remains constant across texture loads (if same tex size) Change 125144 on 2003/10/06 by jhoule@MA_JHOULE Change 118337 on 2003/08/27 by jasony@ma-jasony-intern Old CacheSim modifications Checkin before final cleanup Change 125143 on 2003/10/06 by jhoule@MA_JHOULE Change 117581 on 2003/08/21 by bbloemer@ma_bbloemer Old project file update Update. Change 121475 on 2003/09/16 by bbloemer@ma_bbloemer Change 116353 on 2003/08/13 by jasony@ma-jasony-intem New specs. Save before playing with 8kx8k textures Change 118602 on 2003/08/28 by jasony@ma-jasony-intern Change 116158 on 2003/08/12 by jasony@ma-jasony-intern Added stop rendering and a few other features Save point - before cleanup and bringing in emulator changes Change 118600 on 2003/08/28 by jasony@ma-jasony-intern Change 116025 on 2003/08/12 by jasony@ma-jasony-intern Save before playing with precision brought back denorms in computegradient Change 118379 on 2003/08/27 by jasony@ma-jasony-intern Change 115775 on 2003/08/11 by bbuchner@fl_bbuchner2_r400_win modify some simulation parameters Change 118378 on 2003/08/27 by jasony@ma-jasony-intern Change 115043 on 2003/08/05 by jasony@ma-jasony-intem Clean - commented out extraneous and old key functions; adapted to large texture sizes Added the new optimizations and aniso bias Change 114558 on 2003/08/01 by iasony@ma-iasony-intern Change 118377 on 2003/08/27 by jasony@ma-jasony-intern Clean - odd + even samples; moved step size calculation to aniso calculation Change 118376 on 2003/08/27 by jasony@ma-jasony-intern Change 114090 on 2003/07/30 by jasony@ma-jasony-intern Clean - Keeping Denorms in Subtract Temp save - Added odd and even samples (not working yet) Change 111136 on 2003/07/15 by jasony@ma-jasony-intern Change 118373 on 2003/08/27 by jasony@ma-jasony-intern $Added\ a\ member\ to\ QuadData\ to\ faciliate\ AA\ Correction.\ Changed\ interpolator\ precision\ to\ 23\ mantissa.\ Shouldn't\ affect\ existing\ code.$ Added pixel shader capability Change 110188 on 2003/07/10 by jasony@ma-jasony-intern Change 118358 on 2003/08/27 by jasony@ma-jasony-intern cleaned up some code Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 110154 on 2003/07/10 by jasony@ma-jasony-intern can switch to full precision with preprocessor REDUCEPREC define in header update the readme Change 106144 on 2003/06/13 by jasony@ma-jasony-intem Change 110153 on 2003/07/10 by jasony@ma-jasony-intern minor changes - should have no effect Change 106143 on 2003/06/13 by jasony@ma-jasony-intern D3D Anisotropic filtering viewing program. Uses FilterSim .scn and texture files. added emulator LOD path Change 108690 on 2003/07/01 by jasony@ma-jasony-intern minor fixes Save point before doing Geforce FX comparison Change 106142 on 2003/06/13 by jasony@ma-jasony-intern Change 108689 on 2003/07/01 by jasony@ma-jasony-intern Added makecircle and make cylinder (need to update) Added lod corrector Change 105665 on 2003/06/11 by jasony@ma-jasony-intern Change 107694 on 2003/06/24 by jasony@ma-jasony-intern Modified so that emulator code will use the log2 table $Added\,LOD\,corrector\,(had\,to\,edit\,quaddata.h\,and\,walker.cpp\,by\,adding\,another\,field\,in\,the\,quad\,structure\,so\,that\,the\,subsample\,is\,passed\,to\,to\,the\,aniso\,code)$ Change 105423 on 2003/06/10 by jasony@ma-jasony-intern Working filtersim incorporating the emulator code Change 107693 on 2003/06/24 by jasony@ma-jasony-intern important keys are Added and fixed makeCylinder 'W' for R400 emulator aniso Change 106801 on 2003/06/18 by jasony@ma-jasony-intern 'h' for R400 full precision LOD Corrector from emulator 'g' for R300 full precision Change 106614 on 2003/06/17 by jasony@ma-jasony-intern Change 104930 on 2003/06/09 by jasony@ma-jasony-intern log2 approx with 4 modes - full prec, linear approx, 5bit and 6bit table Checkin before hooking in EMU files Change 106522 on 2003/06/17 by jasony@ma-jasony-intern Change 104891 on 2003/06/09 by jasony@ma-jasony-intern Checkin before adding LOD correction for multisampling Check in before precision experiments Change 106356 on 2003/06/16 by bbloemer@ma_bbloemer Change 104588 on 2003/06/06 by jasony@ma-jasony-intern Added Artisan pad cells. Full precision aniso tests Change 106146 on 2003/06/13 by jasony@ma-jasony-intern 1) R400: equal weights vs. weight tables [ues 'y' and 'i' keys] added back old log2 approx for testing 2) R300 samples vs. R400 samples (equal weight, no determinant) [use 'g' and 'u' keys] Change 106145 on 2003/06/13 by jasony@ma-jasony-intern 3) R300 vs. R400 (use 'g' and 'h' kevs) Page 4 of 106 Page 3 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history ATI 2051

Change 137161 on 2003/12/12 by lseiler@lseiler_r400_win_marlboro1

LG v. ATI IPR2015-00325

AMD1044 0258207

Change 93434 on 2003/04/02 by bbloemer@ma_bbloemer Change 104340 on 2003/06/05 by jasony@ma-jasony-intern Updated 128Mb GDDR2 spec Added R300 aniso Added new 256Mb GDDR2 spec. also b' changes btween color mipmaps Change 88396 on 2003/03/04 by bbuchner@fl bbuchner2 r400 win Change 104248 on 2003/06/05 by jasony@ma-jasony-intern Cache Perf Modeling -- track many more statistics Fixed and added R300 LOD and R400 LOD and Aniso calculations Change 87661 on 2003/02/28 by jhoule@MA JHOULE added Mimap code for colored levels Added R400 rasterization order. Change 103884 on 2003/06/03 by jhoule@MA_JHOULE Change 87226 on 2003/02/27 by smorein@stephen-moreins-Computer Ouick submit for Jason correct area version of floorplan 4 Change 103799 on 2003/06/03 by jasony@ma-jasony-intern Change 86554 on 2003/02/24 by smorein@stephen-moreins-Computer Recover Deleted fix sp order Change 103796 on 2003/06/03 by jasony@ma-jasony-intern Change 86541 on 2003/02/24 by smorein@stephen-moreins-Computer deleting first 4.0 floorolan figuring out perforce Change 103793 on 2003/06/03 by jasony@ma-jasony-intern Change 82506 on 2003/02/06 by smorein@stephen-moreins-Computer Anisotropic Filter comparision between the R300 and R400. Initial docs for features r500 and DX10 The code is a modified filtersim program. Change 82306 on 2003/02/05 by ctaylor@fl_ctaylor_r400_win_marlboro Change 99923 on 2003/05/08 by bbloemer@ma_bbloemer still trying Change 82297 on 2003/02/05 by ctaylor@fl_ctaylor_r400_win_marlboro Change 99291 on 2003/05/06 by bbloemer@ma_bbloemer Added code to share for cache simulation First GDDR4 spec. Change 81019 on 2003/01/31 by bbloemer@ma bbloemer Change 97686 on 2003/04/25 by bbloemer@ma_bbloemer Later version of 4M x 16 TSOP. Change 79151 on 2003/01/24 by bbloemer@ma bbloemer Change 95532 on 2003/04/14 by bbloemer@ma_bbloemer Originally named: JESD79-2_20030404.pdf
Release 1.0; supposedly the final for JEDEC standard. Change 75866 on 2003/01/10 by mdoggett@MA MDOGGETT LT small updates Page 5 of 106 Page 6 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 55651 on 2002/10/07 by bbloemer@ma_bbloemer Change 74970 on 2003/01/07 by bbloemer@ma_bbloemer DDR II data sheet. Rev 1.5 Change 51711 on 2002/09/16 by bbloemer@ma_bbloemer Change 74896 on 2003/01/07 by bbloemer@ma_bbloemer Micron verilog model. Deleted duplicate copy Change 51357 on 2002/09/13 by bbloemer@ma_bbloemer Change 73431 on 2002/12/26 by smorein@stephen-moreins-Computer Info cleaned up plan0.11, saved as 0.12, Change 51347 on 2002/09/13 by bbloemer@ma bbloemer Change 72690 on 2002/12/20 by smorein@stephen-moreins-Computer First draft. Elpida 4Mx32 0288E10_draft2.pdf first netlist 3.0 floorplan Change 50587 on 2002/09/10 by bbloemer@ma bbloemer Change 71886 on 2002/12/17 by smorein@stephen-moreins-Computer A slightly later version, sent 8/12, but still no IP. Rev 3 is latest with IP. adding floorplans Change 50574 on 2002/09/10 by bbloemer@ma bbloemer Change 71885 on 2002/12/17 by smorein@stephen-moreins-Computer Latest version, dated 20020916. They added tRTP. Change 49008 on 2002/08/30 by jasony@ma jasony Change 71853 on 2002/12/17 by bbloemer@ma bbloemer Shadow Sim instructions Latest update - the special IP is included! Change 48247 on 2002/08/27 by Iseiler@Iseiler_r400_win_marlboro2 Change 71155 on 2002/12/13 by smorein@stephen-moreins-Computer Supports testing new Zrange format two more floorplans Change 46146 on 2002/08/14 by bbloemer@ma_bbloemer Change 69955 on 2002/12/10 by smorein@stephen-moreins-Computer GDDR III Data sheets Added first set of candidate floorplans Change 46137 on 2002/08/14 by bbloemer@ma_bbloemer Change 67094 on 2002/11/26 by bbloemer@ma_bbloemer Added GDDR II data sheet. Like JEDEC DDR II, but has built in termination. DDR I spec Change 45642 on 2002/08/13 by jasony@ma_jasony Change 64756 on 2002/11/18 by bbloemer@ma_bbloemer Final Checkin 0288E10 draft2 version Change 45641 on 2002/08/13 by jasony@ma_jasony Change 58862 on 2002/10/23 by bbloemer@ma_bbloemer Added code to facilitate plane calculations using triangle verticies. SGRAM - OLD! Page 7 of 106 Page 8 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Convereted to calcualtions of planes from triangle verticies Change 45637 on 2002/08/13 by jasony@ma jasony save point - now fixing offset for interpolation Added to QuadData and Walker to facilitate plane calculation using triangle verticies Change 44307 on 2002/08/05 by jasony@ma jasony Change 45635 on 2002/08/13 by jasony@ma jasony Convereted to calcualtions of planes from triangle verticies save point - now fixing offset for interpolation Change 45210 on 2002/08/09 by jasony@ma jasony Change 44090 on 2002/08/02 by alleng@alleng screendiv2 Save before code cleanup Add quad mask binning Change 44911 on 2002/08/08 by bbloemer@ma bbloemer Change 44065 on 2002/08/02 by jasony@ma_jasony Added Samsung spec; it's really the same part as K4D263238A-GC. New version of GDDRIII spec, but WITHOUT the new IP. Need the previous version save point before figuring out what causes precision reduction error Change 44909 on 2002/08/08 by bbloemer@ma_bbloemer Change 43809 on 2002/08/01 by alleng@alleng_screendiv2 Added Z and S pass/fail numbers for quads Latest version from Infineon. Bunch of reformatting to make interpretation less ambiguous Change 44908 on 2002/08/08 by bbloemer@ma_bbloemer Change 43557 on 2002/07/31 by jasony@ma_jasony Fixed naming problem Working in bilenear interpolation Change 44904 on 2002/08/08 by bbloemer@ma bbloemer 'y' turn on/off interpolation 'h' save precision file Deleted file under one name and added under a better name. Change 44660 on 2002/08/07 by jasony@ma jasony Change 43487 on 2002/07/31 by alleng@alleng screendiv2 Fixed blending bug to correctly determine RMW's Added stencil function binning fixed to arbitrary shadow buffer size up to 1024 Change 44579 on 2002/08/06 by jasony@ma_jasony Change 43195 on 2002/07/30 by jasony@ma_jasony z calc based on triangle verticies done Save point now fixing ctrl-mouse click to display slope calcs 'u' increase bias Change 44315 on 2002/08/05 by alleng@alleng_screendiv2 Fixed data gathering problem where stencil compression data was being double counted Change 43090 on 2002/07/30 by alleng@alleng_screendiv2 Added data gathering for tile, quad, and depth cache counts during the shadow passes Change 44309 on 2002/08/05 by jasony@ma_jasony Page 10 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder history Change 42948 on 2002/07/29 by alleng@alleng_screendiv2 Save Point - Looking into Precision Calculation Added logic to determine if tile was dirty + Added dirty flag to depth cache (Z and S)
+ Add ptr to link tile with entry in depth cache
+ Don't count flushes when the Z or S caches aren't dirty Added.

'g' - load precision values for calculations

'c', '>' - increase decrease Shadowfunc precision
'(', ')' - increase decrease shadowfuncAA precision Fixed two typos in stencil compression logi-Don't count flushes/fills when Z and S disabled Change 41166 on 2002/07/17 by alleng@alleng_screendiv2 Change 42752 on 2002/07/26 by alleng@alleng_screendiv2 Don't update z if depth is disabled Added early out for tiles w/ zero pixels Add tile and quad counters for various state settings Minor change to output format
Slight mod to determination of depthProcEn
Slight change to depth cache flush/fill data calculations Reformat depth complexity output
Moved pkt->Init() to only be called for valid frame Change 40917 on 2002/07/16 by alleng@alleng_screendiv2 Change 42658 on 2002/07/26 by alleng@alleng screendiv2 + Added pixel counts (redundant but per frame...)
+ Modified depth test to use the actual depth test function; this included beginFrame support to clear the depth buffer with the correct value at the correct time) Added stencil buffer support Change 42135 on 2002/07/24 by bbloemer@ma-jasonh + Fixed calcDepthCacheFlush/Fill routines to fall back to expanded mode when number of zplanes is > 16 and to treat stencil separate from depth Latest rev adds special IP description as an appendix. Change 40694 on 2002/07/15 by alleng@alleng_screendiv2 Change 41803 on 2002/07/22 by alleng@alleng screendiv2 Added total number of tiles to hz output Add alpha blend stats Added support for stencil only pass
Split the calcDepthCacheTransfer routine into two; one for flushes and one for fills... Change 41600 on 2002/07/19 by llefebvr@llefebvre laptop r400 Change 40021 on 2002/07/12 by alleng@alleng screendiv2 Fix frame processing (can now run multiple Doom3 frames) Fixed bug that was mishandling EndOfFrame events SQ backup Change 41362 on 2002/07/18 by alleng@alleng_screendiv2 Fixed bug in previous checkin that cleared the zbuffer prematurely Properly prevent z writes when they are masked off Change 39936 on 2002/07/12 by jasony@ma_jasony Change 41351 on 2002/07/18 by jasony@ma jasony Changed Buffer.cpp and ShadowSim.cpp to allow for arbitrary sized shadow maps Save Point - modified precision controls Change 39928 on 2002/07/12 by alleng@alleng_screendiv2 '(' - modify rendering precision Convert countZplanes() to use 64 bit mask ')' - modify shadow map/plane precision Added ability to pass in resX (-sx) and resY (-sy) '<' - reset shadow map/plane precision
'>' - reset rendering precision
'up'/down' - pick operation to modify
'left/'right' - decrease/increase precision Many small formatting chnages Disabled sample frame initially Flush depth cache every frame Change 39817 on 2002/07/11 by jasony@ma_jasony Change 41316 on 2002/07/18 by jasony@ma_jasony Page 11 of 106 Page 12 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history

If using ShadowSim you should comment out the precision reduction in Interpolate()

Working ShadowAA - still need to explain ragged edges Modified to work with ShadowSim (added ls,lt,lq,lr coords to Vertex and QuadData) "%" Turn on and off highlight of selected point Change 38810 on 2002/07/08 by jasony@ma jasony Change 39544 on 2002/07/10 by alleng@alleng_screendiv2 Working shadows Significant changes to screendiv, including (but not limited to): Change 37971 on 2002/07/03 by jasony@ma jasony + removing testMode + use 8x8 tile by default Added mouse code to check points on the image + rework spitQuads + provided mechanism to model depth cache + added code to gather stats on depth complexity + cleaned up a whole lot Control+mouse click sets a position (can be seen in corresponding light space) shift+mouse click will print out screen coordinates (origin is lower left) + fixed bug in countZplanes that changed baseline (break vs continue) Change 37825 on 2002/07/03 by jhoule@MA_JHOULE + changed countZplane interface isolating individual print routines within respective classes to modularize things and Added hooks for cam/light control F5: cam view F6: light view Did test this against a baselevel using d3-combat-1.bin dump file. The bug fix will force a new base line but so far the tool is reporting the same info that it did originally with a whole based by the fine little. F7: ctrl cam F8: ctrl light bunch more functionality. !: Refresh light map #: Carnera mode (old !!' functionality) Change 39478 on 2002/07/10 by jasony@ma_jasony Clamped position in light map to prevent crash (equivalent to clamp to last). Save Point - Sorta working Shadow AA Change 37809 on 2002/07/03 by jasony@ma_jasony Change 39477 on 2002/07/10 by bbloemer@ma-jasonh Semi-working shadowing Elpida's description of special IP. Overview only Change 37645 on 2002/07/02 by jasony@ma_jasony Change 39352 on 2002/07/10 by jasony@ma_jasony save point: semi working plane equation Lets you see the multiple shadow planes in the view shadow plane mode by using the up and down cursor key Change 37436 on 2002/07/01 by jasony@ma_jasony Change 39155 on 2002/07/09 by jasony@ma_jasony Save point - before using shadow function Save Pont - Rough working Shadowing with AA Change 37383 on 2002/07/01 by jasony@ma jasony -Added 'S' to turn on/off AA for shadowing Change 34813 on 2002/06/18 by jasony@ma jasony Change 39106 on 2002/07/09 by jasony@ma_jasony New check-in of shadow buffer simulator (based on filtersim) Save point - Shadowing working in Buffer::RenderAA (moving out to Buffer::Render) Change 34556 on 2002/06/17 by jasony@ma jasony Change 38811 on 2002/07/08 by jasony@ma jasony sampling pattern candidates Page 14 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 33190 on 2002/06/11 by alleng@alleng_screendiv2 Change 34541 on 2002/06/17 by jasony@ma_jasony Several new functions and some bug fixes (due to new parser lib updates) and logistical modifications Added 3-sample options Change 34133 on 2002/06/14 by jasony@ma_jasony Added 'correct' depth check for pixels rendered w/ depth test disabled; required new routine GetPrimState and some additional back pointers for HZ and ZBUFFER to get back to the removed very old patterns Rasterizer class A class: + Added coverage bins for tiles and quads + Modified file I/O to use the 'standard' parser lib syntax (see usage text in main() for Change 34132 on 2002/06/14 by jasony@ma_jasony Changed to allow arbitrary number of samples for anti-aliasing Change 32959 on 2002/06/10 by jasony@ma_jasony Change 34129 on 2002/06/14 by jasony@ma_jasony fixed bug in updateWalkerSamples Recommended sampling patterns Change 32696 on 2002/06/07 by jasony@ma_jasony Change 33763 on 2002/06/13 by bbloemer@ma-jasonh makePinWheel M. Litt's Status Change 32695 on 2002/06/07 by jasony@ma jasony Change 33744 on 2002/06/13 by bbloemer@ma-jasonh Added Sampling and makePinWheel Added ati GDDR-III spec update and SEC's GDDR-II spec. Change 32650 on 2002/06/07 by jhoule@MA JHOULE Change 33609 on 2002/06/12 by jasony@ma_jasony Solved a few multisampling issues Now uses 8 samples by default. Can now correctly blend the samples together (old scheme lost precision for small Change 33482 on 2002/06/12 by jasony@ma_jasony values) Background color is now black by default updated loadSamplingPattern to accept arbitrary number of points up to 8

Change 33480 on 2002/06/12 by jasony@ma_jasony

Changed makePinWheel to take angle in degrees

Change 33456 on 2002/06/12 by jasony@ma jasony

Change 33455 on 2002/06/12 by jasony@ma_jasony

changed menu

Change 33454 on 2002/06/12 by jasony@ma_jasony

changed random generation

Page 15 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 32611 on 2002/06/07 by jasony@ma_jasony

Added (makePinWheel radius number angle)

Change 32610 on 2002/06/07 by jasony@ma_jasony

fixed loading of samples

Change 32592 on 2002/06/07 by jasony@ma_jasony

Added loading of sampling patterns

Change 32385 on 2002/06/06 by jhoule@MA_JHOULE

Cleaned up for easier usage Added sampling pattern load hooks

Page 16 of 106

Change 32160 on 2002/06/05 by jasony@ma_jasony Change 29844 on 2002/05/24 by bbloemer@ma-jasonh No Discrepancy Function New spec version. Original file name: JESD90-24May2002.pm.pdf Change 31840 on 2002/06/04 by jasony@ma_jasony Change 29762 on 2002/05/23 by alleng@alleng screendiv2 Changed to work with relative paths Added error handler to main loop to catch any errors that the Parser library (et al) may throw. The lack of a handler was apparently causing a problem when a dmp file with an error Change 31839 on 2002/06/04 by jasony@ma_jasony was being read. Fixed to work with Driectx 8.1 Change 29738 on 2002/05/23 by jhoule@MA JHOULE Added better LOD computation schemes, with runtime control. Change 31757 on 2002/06/04 by jasony@ma_jasony Added Sampler class, to control sampling position as well as ROM table to LOD Relevant sample patterns correction (plane scheme). Changed sampling pattern to something rather good. Change 31756 on 2002/06/04 by jasony@ma_jasony Change 29325 on 2002/05/21 by lseiler@lseiler_r400_win_marlboro fixed image inversion Removed outmoded code, cleaned up some comments Change 31753 on 2002/06/04 by jasony@ma_jasony Change 29309 on 2002/05/21 by lseiler@lseiler_r400_win_marlboro program to generate fourier transform required by the browser Fix missing jobs.txt parameter in project file Change 31751 on 2002/06/04 by jasony@ma_jasony Change 29270 on 2002/05/21 by Iseiler@Iseiler r400 win marlboro removed libtiff links Updated workspace and project files Change 31750 on 2002/06/04 by jasony@ma_jasony Change 29236 on 2002/05/21 by Iseiler@Iseiler_r400_win_marlboro2 Incorporated Tiff reading (this version does not need libtiff) List of dump files to test Change 31712 on 2002/06/04 by jasony@ma_jasony Change 29131 on 2002/05/20 by lseiler@lseiler_r400_win_marlboro Altered to look in /r400/parser for PM4tools files Added search for divers.exe Change 31620 on 2002/06/03 by jasony@ma jasony Change 29109 on 2002/05/20 by Iseiler@Iseiler r400 win marlboro2 Changed string code Updated ScreenDiv2: eliminates TorontoParser to use PM4tools directory Change 31507 on 2002/06/03 by jasony@ma_jasony Change 29004 on 2002/05/20 by bbloemer@ma-jasonh Change 30945 on 2002/05/30 by bbloemer@ma-jasonh Change 28342 on 2002/05/16 by bbloemer@ma-jasonh First GDDR III spec. Page 18 of 106 Ex. 2051 --- R400 Architecture FH --- folder history Ex. 2051 --- R400 Architecture FH --- folder history Change 20651 on 2002/03/27 by jhoule@MA_JHOULE Change 26690 on 2002/05/07 by bbloemer@ma-jasonh Update with various LOD computation algos Added documents Change 20650 on 2002/03/27 by jhoule@MA_JHOULE Change 25117 on 2002/04/26 by jhoule@MA_JHOULE Uses same jitter table for all pixels of all quads Added many LOD computations schemes Also added various length approximation Hooked keyboard keys to control those. Change 20476 on 2002/03/26 by rbagley@MA_RBAGLEY This has been moved to r400/doc libs/design/chip Changed camera behaviour Change 24979 on 2002/04/25 by jhoule@MA_JHOULE Change 20066 on 2002/03/21 by bbloemer@ma-jasonh Spin wrongly multiplied angle by 180 Adding history of Samsung-Elpida-ATI 3-way calls. Change 23311 on 2002/04/15 by bbloemer@ma-jasonh Change 19442 on 2002/03/18 by bbloemer@ma-iasonh Presentations used in telecon Added new memory matrix. Change 23151 on 2002/04/12 by mdoggett@MA MDOGGETT Change 19073 on 2002/03/15 by mdoggett@MA MDOGGETT Adding first version of Address Translate. Uses previous function types, needs to be updated for new version. Only checking it in so Ken can see it. Removed old L1 Tag compare. Change 18687 on 2002/03/13 by bbloemer@ma-jasonh Change 22619 on 2002/04/10 by bbloemer@ma-jasonh Hynix presentation of 3/16/02 (not sure when actually given) and Etron data sheet. Material from April 9/10 face to face. Change 18686 on 2002/03/13 by mdoggett@MA MDOGGETT Change 21863 on 2002/04/04 by Iseiler@Iseiler r400 win marlboro2 Fixed old L1 Miss calculation, changed flushL1 to set tagaddr to -1 instead of 0 Change 18618 on 2002/03/12 by bbloemer@ma-jasonh Change 21661 on 2002/04/03 by Iseiler@SEILER2 Spec. Includes tile Zrange comparisons Change 18598 on 2002/03/12 by mdoggett@MA_MDOGGETT Change 21210 on 2002/04/01 by bbloemer@ma-jasonh Added simple L1Tag compare. Fixed bugs in older L1 Tag compare Added Michael's notes Change 18597 on 2002/03/12 by mdoggett@MA_MDOGGETT Change 21052 on 2002/03/29 by lseiler@SEILER2 added new 11tag compare Updated with 128-bit Zplane compression ratios Change 18171 on 2002/03/08 by lseiler@SEILER2

HiZ 2x2 test version

Change 16292 on 2002/02/22 by Iseiler@SEILER2

Page 20 of 106

Change 20653 on 2002/03/27 by jhoule@MA_JHOULE

New (hopefully, non-crashing) project files

Page 19 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Updated HiZ test results

Change 16291 on 2002/02/22 by Iseiler@SEILER2

Updated for latency tests, streak tests, and cache miss effects

Change 16286 on 2002/02/22 by bbloemer@ma-jasonh

Spice simulation results for OD driver.

Change 16210 on 2002/02/21 by mdoggett@MA_MDOGGETT_LT

Updated formats. Added 2d interlace format and 3d four layer format. Added L2 read synchronisation description.

Change 16010 on 2002/02/20 by bbloemer@ma-jasonh

Elpida presentation.

Change 16001 on 2002/02/20 by bbloemer@ma-jasonh

Elpida material for next week's face to face

Change 14507 on 2002/02/04 by jhoule@MA JHOULE

Added dynamic filterKernel pass after rendering (only when AA). Emu integration (unfinished).

Change 14506 on 2002/02/04 by jhoule@MA_JHOULE

Added emuWrap stuff (absolute path, though)

Change 14412 on 2002/02/01 by bbloemer@ma-jasonh

Added 18 Jan. 2002 version.

Change 14410 on 2002/02/01 by bbloemer@ma-jasonh

Added 10Sep2001 version of spec.

Change 14409 on 2002/02/01 by bbloemer@ma-jasonh

The initial 30-Nov2000 spec version.

Change 14300 on 2002/01/31 by lkang@lkang_r400_win_tor

This directory is for DC-MH interface block architecture and implementation specs

Page 21 of 106

Ex. 2051 --- R400 Architecture FH --- folder history

Change 14161 on 2002/01/29 by bbloemer@ma-jasonh

DRAM model documentation

Change 14060 on 2002/01/28 by lseiler@SEILER2

Change 13938 on 2002/01/25 by Iseiler@SEILER2

Updated with MaxMin tests

Change 13902 on 2002/01/25 by bbloemer@ma-jasonh

Data from Elpida, Samsung, ATI face to face. Moved Elpida file from Elpida directory to here.

Change 13816 on 2002/01/24 by rbagley@MA_RBAGLEY_LTXP

Zolane charts and statistics for the 8 benchmark cases

Intermediate checkin for version 0.1 of newly revised and reorganized shader

programming model doc. The doc had been correctly renamed, the previous version is here deleted. We also delete the former assembly syntax doc from its deprecated location.

Change 13768 on 2002/01/24 by bbloemer@ma-jasonh

Elpida presentation of new IP; 4 new Hynix specs, inc. > 300 MHz.; Samsung and Nanya DRAMs > 300 Mhz.

Change 13295 on 2002/01/18 by lseiler@SEILER2

Updated with 0-, 8-, and 64-entry cache data

Change 13236 on 2002/01/17 by Iseiler@ma Iseiler

Update to account for direct mapped caching on the tiles

Change 13123 on 2002/01/16 by jayw@MA_JAYW

Split out SX and RC on page and added a FIFO to SX

Change 13096 on 2002/01/15 by rbagley@MA_RBAGLEY_LT

Assembly Synta:

Change 13088 on 2002/01/15 by wlawless@wlawless

New RB estimates

Page 22 of 106

Ex. 2051 --- R400 Architecture FH --- folder history

Change 13066 on 2002/01/15 by wlawless@wlawless

ok

Change 13030 on 2002/01/14 by llefebvr@llefebvre_laptop_r400

updated the barycentric document

Change 12990 on 2002/01/14 by llefebvr@llefebvre_laptop_r400

2 samples now available

Change 12961 on 2002/01/11 by lseiler@ma_travel_micro

Updates made during vacation (needs to be debugged)

Change 12805 on 2002/01/10 by lseiler@SEILER2

Added table for fully covered pixels and quads

Change 12572 on 2002/01/07 by lseiler@ma travel micro

Updated to compute the number of Zplanes per tile and per quad

Change 12030 on 2001/12/19 by Iseiler@ma_Iseiler

Spreadsheets added before vacation

Change 12021 on 2001/12/19 by Iseiler@SEILER2

checkins of spreadsheet result files (prior to vacation)

Change 11800 on 2001/12/14 by rbagley@MA_RBAGLEY_LT

Corrections to control flow. Updated control flow syntax. Misc. local corrections.

Format corrections, prior to conversion to Programming Model doc.

Change 11756 on 2001/12/14 by llefebvr@llefebvre_laptop_r400

Constant management model simulator for the R400

Change 11729 on 2001/12/13 by lseiler@SEILER2

Update to support variable precision HiZ values

Change 11560 on 2001/12/12 by rbagley@MA_RBAGLEY_LT

Page 23 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Interrim check-in.

Change 11553 on 2001/12/11 by rbagley@MA_RBAGLEY_LT

Extension of instruction reference to fetch instruction. Revision of alu syntax and guide (in progress). Miscellaneous corrections and revisions.

Change 11538 on 2001/12/11 by lseiler@SEILER2

more screendiv1 files

Change 11537 on 2001/12/11 by lseiler@SEILER2

HiZ test code (Screendiv1 for R100 and Screendiv2 for R200)

Change 11536 on 2001/12/11 by lseiler@SEILER2

Update

Change 11332 on 2001/12/06 by rbagley@MA_RBAGLEY_LT

Intermediate check-in.
Midway through updates of fetch syntax.
We also revised the register indexing.
Several other additions, including a table of resources.

Change 11124 on 2001/12/03 by rbagley@MA RBAGLEY LT

Corrections and improvements following Ken's reading of Dec 3

Change 11013 on 2001/11/30 by rbagley@MA_RBAGLEY_LT

Corrections to indexing mode specification.

Change 10869 on 2001/11/28 by rbagley@MA_RBAGLEY_LT

Indexing modes description, syntax, and examples.

Interrim check-in towards version 0.4.

Change 10839 on 2001/11/28 by rbagley@MA_RBAGLEY_LT

Syntax for control flow instructions.

Began register indexing; in progress

(Interrim check-in for version 0.4)

Page 24 of 106

Change 10764 on 2001/11/27 by lseiler@ma_lseiler Change 10824 on 2001/11/27 by rbagley@MA RBAGLEY LT Memory Format v0.4: intermediate form, not a complete release Interrim check-in for version 0.4. Change 10763 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10810 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro my to doc lib/parts my to doc lib/parts/sp Change 10745 on 2001/11/27 by ctaylor@fl_ctaylor Change 10807 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Updated SC->SU interface and a few words on performance. my to doc lib/parts Change 10736 on 2001/11/27 by lseiler@ma_lseiler Change 10806 on 2001/11/27 by hartogs@fl_hartogs Multisample: spec, preliminary version that needs lots of changes Check-in for relocation Change 10704 on 2001/11/26 by rbagley@MA_RBAGLEY_LT Change 10791 on 2001/11/27 by hartogs@fl_hartogs Correction to export syntax. Requested check-in. The document is in a interim state Change 10690 on 2001/11/26 by rbagley@MA_RBAGLEY_LT Change 10784 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Updated export syntax. We also include a preliminary look at the my to doc lib/parts export address mapping. Change 10772 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10668 on 2001/11/26 by paulv@MA_PVELLA mv to doc_lib/parts Minor changes/fixes. Change 10771 on 2001/11/27 by pmitchel@pmitchel r400 win marlboro Change 10667 on 2001/11/26 by paulv@MA PVELLA my to doc lib/parts Major revision of block diagram Change 10769 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10665 on 2001/11/26 by paulv@MA PVELLA Updated and fixed MHS section Change 10767 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10635 on 2001/11/26 by Iseiler@SEILER2 mv to doc_lib/parts final screendiv update before branching off to a separate source set Change 10766 on 2001/11/27 by pmitchel@pmitchel_r400_win_marlboro Change 10503 on 2001/11/21 by lseiler@ma_lseiler my to doc lib/parts Revised summary of frames used by tile tests Change 10765 on 2001/11/27 by lseiler@ma_lseiler Change 10501 on 2001/11/21 by askende@andi_r400_docs Render Backend: temporary version, not a complete release opcode update Page 25 of 106 Page 26 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 10500 on 2001/11/21 by askende@andi_r400_docs Change 10254 on 2001/11/19 by kcorrell@KCORRELL undated a couple of opcodes AIC block diagram initial revision Change 10489 on 2001/11/21 by kcorrell@KCORRELL Change 10253 on 2001/11/19 by kcorrell@KCORRELL update of architectural description update Change 10464 on 2001/11/21 by lseiler@SEILER2 Change 10203 on 2001/11/16 by rbagley@MA_RBAGLEY_LT Modified to eliminate pointless warning messages Interim check-in of revision 0.4. In progress Change 10431 on 2001/11/20 by rbagley@MA RBAGLEY LT Change 10197 on 2001/11/16 by mdoggett@MA MDOGGETT A first cut at the export syntax and language guide for version 0.4. Change 10416 on 2001/11/20 by Iseiler@SEILER2 Change 10184 on 2001/11/16 by Iseiler@SEILER2 Changed depth test from < to <= (second try at update) various updates Change 10404 on 2001/11/20 by Iseiler@SEILER2 Change 10182 on 2001/11/16 by Iseiler@ma_Iseiler Depth test changed from < to <= Tiling code, just before splitting off the heir directory Change 10348 on 2001/11/19 by rbagley@MA RBAGLEY LT Change 10172 on 2001/11/16 by llefebvr@llefebvre laptop r400 Interrim check-in for version 0.4. Syntax for exports and fetches in progress. chikin in order to move to documents to the new branch Change 10323 on 2001/11/19 by lseiler@SEILER2 Change 10146 on 2001/11/16 by jhoule@MA_JHOULE Updated to provide more HiZ information baseAddr has mipID and gBaseTexOffset Change 10322 on 2001/11/19 by lseiler@SEILER2 Change 10122 on 2001/11/16 by bbloemer@ma-jasonh Updated to report more HiZ data (this time for real) From Michael Litt's far east trip Change 10289 on 2001/11/19 by lseiler@SEILER2 Change 10117 on 2001/11/16 by bbloemer@ma-jasonh Undated DDR II spec Private version of numbers.h and numbers.cpp for screendiv -- need to change over to using the official versions in devel/cmn_lib Change 10055 on 2001/11/15 by jhoule@MA_JHOULE Change 10274 on 2001/11/19 by lseiler@ma_lseiler Contains instruction filed (both usage in commands, and meanings) as well as constant Change 10255 on 2001/11/19 by kcorrell@KCORRELL Change 9981 on 2001/11/15 by mdoggett@MA_MDOGGETT Initial revision TC diagrams Page 27 of 106 Page 28 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

major rearrangement and integration of old texture pipe material. Change 9915 on 2001/11/14 by jhoule@MA_JHOULE Change 9967 on 2001/11/15 by mdoggett@MA_MDOGGETT_LT Blending scheme diagrams Modifs here and there Change 9964 on 2001/11/14 by jhoule@MA_JHOULE Change 9910 on 2001/11/14 by dglen@dglen_r400_dell Extensive clock management numbers. Moved from arch/doc to devel/doc lib/parts FIFO stalling implemented. Change 9908 on 2001/11/14 by jowang@jowang_R400_win L2Filter implemented using deque for FIFOs of requests at each cacheline. add 1536 line size so that 1280 doesn't use 4 tap Created XYBAddr for easier management (the L1 miss sends the exact same texel Change 9886 on 2001/11/14 by dgien@dglen_r400_dell Moved to doc_lib/parts/dc Uses a static L2Cache to get correct tags, as well as L2Cache numbers. Change 9885 on 2001/11/14 by dglen@dglen_r400_dell Change 9963 on 2001/11/14 by jhoule@MA_JHOULE Moving files to doc_lib/parts from arch/doc Boolean b is now a signed char (%uc was failing). Change 9859 on 2001/11/14 by Iseiler@ma Iseiler faf supported in cache config file. Computes % per bin for HiZ delta: Introduction of baseAddr for read commands (same as mipID for now). Change 9850 on 2001/11/14 by llefebvr@llefebvre_laptop_r400 Call of clock() moved before end of prim because it uses qQuadPixelCount which screendiv simulator for HZ precision Change 9830 on 2001/11/13 by bbloemer@ma-jasonh STATIC L2 support. Change 9962 on 2001/11/14 by jhoule@MA_JHOULE Materials from M. Litt's trip to the far east Uses PRINT_DEBUG define instead of #if 0/1. Change 9826 on 2001/11/13 by jhoule@MA_JHOULE Put Sampling in a separate section than Walking, because it is closer to Wrapping Safety check-in. Change 9961 on 2001/11/14 by jhoule@MA JHOULE Disabled USES_TWO_TAGS. Change 9759 on 2001/11/13 by lseiler@ma_lseiler Change 9940 on 2001/11/14 by mdoggett@MA MDOGGETT numbers library, fixed to eliminate warning messages First check-in of new TC spec. Brings together L1 access from TP spec and old TD spec, plus some additional diagrams and format information. Change 9739 on 2001/11/12 by paulv@MA_PVELLA Change 9923 on 2001/11/14 by jhoule@MA JHOULE Initial release. Page 30 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 9738 on 2001/11/12 by paulv@MA_PVELLA Assert replaced with runtime error message (was crashing because PrimData was NULL). Fixed any grammatical errors found and update of Read Bus Switch, including completion (?) of Tag Sequencer subsection Change 9511 on 2001/11/08 by ihoule@MA JHOULE Change 9737 on 2001/11/12 by paulv@MA_PVELLA Updated with latest architectural changes. Change 9510 on 2001/11/08 by jhoule@MA JHOULE Change 9723 on 2001/11/12 by askende@andi_r400_docs QUAKE_HACK (similar to R200_PARSER) to keep rendering within scissor zone. More robust cache flushing new revision Change 9715 on 2001/11/12 by lseiler@ma_lseiler Better TAG bits computation (total of 12). Change 9396 on 2001/11/07 by kcorrell@KCORRELL program to test tiling with heirarchical data Change 9708 on 2001/11/12 by dglen@dglen_r400_dell continuation of major update working towards review mid Nov Template for display related interface bus specs Change 9393 on 2001/11/07 by kcorrell@KCORRELL Change 9707 on 2001/11/12 by dglen@dglen r400 dell updated diagram Should be ready for the masses. Change 9346 on 2001/11/06 by llefebvr@llefebvre_laptop_r400 Change 9653 on 2001/11/09 by jhoule@MA JHOULE sequencer spec backup Change 9255 on 2001/11/06 by jhoule@MA_JHOULE Almost finished stripping out the TC stuff. Single boolean flip hack scheme. Change 9648 on 2001/11/09 by jhoule@MA JHOULE Change 9254 on 2001/11/06 by jhoule@MA_JHOULE Caching is dotted line to indicate sharing between the 4 TPs. Invalid tag detection for better flushing of cache Change 9627 on 2001/11/09 by jhoule@MA JHOULE Change 9206 on 2001/11/05 by jhoule@MA_JHOULE Getting ready to strip it out to be plugged in TC (which Michael will check-in Implement clock(), with FIFO accounting afterwards). Better flip hack scheme (more robust, and simpler to specify) Change 9586 on 2001/11/08 by dclifton@dclifton_r400 Change 9204 on 2001/11/05 by jhoule@MA_JHOULE new specs Support 5 params fa and fa2 (for 2x1 and 2x2 hack of delta 1). Change 9513 on 2001/11/08 by jhoule@MA_JHOULE Calls clock(). Started implementing FIFO stalls with clock notion Change 9199 on 2001/11/05 by jhoule@MA JHOULE Change 9512 on 2001/11/08 by jhoule@MA JHOULE Page 31 of 106 Page 32 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history

Changed Wrapping/Clamping to Clamping/Wrapping for subblock naming issues.

Change 9979 on 2001/11/15 by mdoggett@MA_MDOGGETT

Change 9198 on 2001/11/05 by jhoule@MA JHOULE Change 8932 on 2001/10/31 by kcorrell@KCORRELL Added clock() function Change 9197 on 2001/11/05 by jhoule@MA JHOULE oops this is what was supposed to be submitted the last time.. Added clock() function Change 8927 on 2001/10/31 by kcorrell@KCORRELL Change 9194 on 2001/11/05 by dwong@cndwong2 adding some new block diagrams and did a major reorg of the MH document first draft of R400_IDCT Change 8718 on 2001/10/29 by jhoule@MA_JHOULE Change 9118 on 2001/11/02 by jhoule@MA_JHOULE Added HACK_2x1 for 2x1 cachelines that are effectively EE... Reactivated Parse Args path Change 8717 on 2001/10/29 by jhoule@MA JHOULE Cleaner support for R200 parser (#defined); also considers TP0 bug workaround from Moved CACHE_VERBOSE to AbsCache for global control. Change 8716 on 2001/10/29 by jhoule@MA_JHOULE Wrong pkt deletion solved (crashed after last frame read). Aesthetic (output, default caches, etc.) Function isOneTexelTri() added to remove weird (and cache helping) 1-texel triangles Change 8687 on 2001/10/29 by jhoule@MA JHOULE (same texCoord at 3 vertices) RENDER_PRINT_POLY added. Uses R200Parser. Various debug functions and calls. Changed output of 0-textures tris from ! to @ Change 8675 on 2001/10/29 by jhoule@MA JHOULE Change 9116 on 2001/11/02 by jhoule@MA_JHOULE Uses diags/PM4Tools ParserLib file Change 8674 on 2001/10/29 by jhoule@MA JHOULE Removed getchar() when verbosing. Changed library for diags/PM4Tools one (requires PM4_TOOLS environment variable) RTTI for CacheSim.cpp only. Change 9115 on 2001/11/02 by jhoule@MA_JHOULE CACHE VERBOSE came back to 0 ... (!) Change 8611 on 2001/10/26 by dglen@dglen_r400_dell Change 9105 on 2001/11/02 by ctaylor@fl_ctaylor Added MH interface detail First Rev of PA Top Level Spec, Change 8606 on 2001/10/26 by llefebvr@llefebvre laptop r400 CLIP/VTE Spec. Change 9046 on 2001/11/02 by bbloemer@ma-jasonh Change 8413 on 2001/10/24 by jowang@jowang R400 win AGP 8x spec. 1) added some new scaling situations Page 33 of 106 Page 34 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history 2) made max VTAP equal to 4 in in 30BPP Change 8319 on 2001/10/23 by dglen@dglen r400 dell Change 8404 on 2001/10/24 by mdoggett@MA MDOGGETT Top level architectural outline of new display system. Small interface corrections and additions. Change 8256 on 2001/10/23 by paulv@MA_PVELLA Change 8386 on 2001/10/24 by kcorrell@KCORRELL Updated DBR and RRA sections, with updates to functional and architectural descriptions, along with updates to the block diagrams. Also started Tag Sequencer subsection block diagram of MHC and MHA Change 8377 on 2001/10/24 by jowang@jowang_R400_win Change 8211 on 2001/10/22 by dglen@dglen r400 dell Updated revision history Change 8376 on 2001/10/24 by jowang@jowang_R400_win Change 8209 on 2001/10/22 by dglen@dglen_r400_dell just testing Top level outline of the front end VGA core unit. Change 8371 on 2001/10/24 by jowang@jowang_R400_win Change 8207 on 2001/10/22 by dglen@dglen_r400_dell Template for Display Block Architectural Specs no change Change 8358 on 2001/10/24 by lseiler@ma_lseiler Change 8206 on 2001/10/22 by dglen@dglen_r400_dell Render Backend Registers v0.2: Various changes from one-on-one reviews Display output image scaler modes and BW requirements Change 8326 on 2001/10/24 by jhoule@MA_JHOULE Change 8175 on 2001/10/22 by llefebvr@llefebvre_laptop_r400 Added \$(R400_EMU) to include paths sequencer v1.0 BACKUP ONLY not vet complete. Change 8325 on 2001/10/24 by jhoule@MA JHOULE Change 8167 on 2001/10/22 by paulv@MA PVELLA Key 'K' uses emulator wrapper function. Forgot to fix the DISP routing. It is done. Key '@' get monochromatic mipmaps. Change 8161 on 2001/10/22 by wlawless@wlawless Change 8324 on 2001/10/24 by jhoule@MA_JHOULE 6 bits for mipW Change 8152 on 2001/10/22 by beiwang@MA BEIWANG mipmap nearest LOD bias reactived Power management related links 3 bits LOD correction factors Change 8148 on 2001/10/22 by rbeaudin@MA RAYB LT getLODUsingEmu wrapper for emulator comparisons moved numbers stuff Change 8321 on 2001/10/23 by dglen@dglen_r400_dell Change 8146 on 2001/10/22 by paulv@MA_PVELLA Add more detail to interlaced display modes Fixed block diagram to reflect recent functional/architectural changes Page 35 of 106 Page 36 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history

Added second tag

Change 8961 on 2001/11/01 by wlawless@wlawless

Change 8114 on 2001/10/19 by kcorrell@KCORRELL Added constant store and instruction store in the interface portion Modified connections to AIC interface block (HMB) Change 7850 on 2001/10/16 by Iseiler@SEILER2 Change 8108 on 2001/10/19 by askende@andi_r400_docs Changed int8 etc. to #define constants protected by #ifndef This avoids an error if they are defined in another file deleted ..it was used as a test only Change 7824 on 2001/10/16 by jhoule@MA JHOULE Change 8106 on 2001/10/19 by jayw@MA_JAYW Cleaning up of interfaces. Removed duplicates. Jay's exploration of recip Change 7809 on 2001/10/15 by paulv@MA_PVELLA Change 8105 on 2001/10/19 by askende@andi_r400_docs Fixed DBR and RRA sections with new I/O and logic adjustments. test Change 7808 on 2001/10/15 by paulv@MA PVELLA Change 8081 on 2001/10/19 by llefebvr@llefebvre laptop r400 Updated block diagram to fix I/O and some logic changes. One before last major architectural revision of the sequencer before the implementation spec. Control flow is complete and was accepted by SW team. Remains before freezing 1.0: external and internal interfaces. Change 7806 on 2001/10/15 by paulv@MA PVELLA Updated block diagram to include AIC address and byte swap I/O. Change 8039 on 2001/10/18 by lseiler@ma_lseiler Change 7779 on 2001/10/15 by jhoule@MA JHOULE Moved sized int definitions into standard_typedefs.h Change 8011 on 2001/10/18 by mdoggett@MA_MDOGGETT Change 7722 on 2001/10/12 by paulv@MA PVELLA a few interface changes Minor fix the the RRA block diagram (changed the tag info FIFO to a tag info RAM). Change 7974 on 2001/10/17 by paulv@MA_PVELLA Change 7717 on 2001/10/12 by mdoggett@MA MDOGGETT Refixed block diagram (what I had before last revision was mostly correct) First version of a document describing how shadow map calculations can be performed on the R400 using plane equations. Change 7934 on 2001/10/17 by llefebvr@llefebvre laptop r400 diagrams that go with the sequencer spec Change 7705 on 2001/10/12 by rbagley@MA_RBAGLEY_LT Change 7930 on 2001/10/17 by liefebvr@liefebvre_laptop_r400 First version of investigation into worst-case consequences of software features and hardware attributes for shader programs. version 0.8 of the sequencer spec. It contains the new control flow porcedure as well as updated external interface Change 7684 on 2001/10/12 by ihoule@MA JHOULE lajor reorganization of sections Change 7923 on 2001/10/17 by jhoule@MA JHOULE Removed PRINT field. Change 7683 on 2001/10/12 by jhoule@MA JHOULE Change 7884 on 2001/10/16 by jhoule@MA_JHOULE Page 37 of 106 Ex. 2051 --- R400 Architecture FH --- folder history Ex. 2051 --- R400 Architecture FH --- folder history Added Output Formatter at the end (regroups into a quad, and converts to floats) Added new top-level diagram Description of pipe in features to give a good idea of where we are heading Change 7645 on 2001/10/11 by pauly@MA PVELLA Change 7418 on 2001/10/05 by paulv@MA PVELLA Fixed Data Bus Router (HDP client needed to be added). Another big update to RRA (with new understanding of subblock, functionality defined Change 7631 on 2001/10/11 by jhoule@MA JHOULE Also fixed DBR subblock section to reflect removal of BUFFER FULL flags (now done in RRA). New Block Description (reorganization underway) Change 7417 on 2001/10/05 by paulv@MA_PVELLA Change 7616 on 2001/10/11 by bbloemer@ma-jasonh Updated diagram to reflect recent changes/adjustments. Power management Change 7416 on 2001/10/05 by paulv@MA_PVELLA Change 7615 on 2001/10/11 by paulv@MA_PVELLA No longer valid. Replaced by MH-RRA.vsd. Minor fix Change 7411 on 2001/10/05 by jhoule@MA_JHOULE Change 7611 on 2001/10/11 by Iseiler@ma_Iseiler Week end check in (minor corrections, mostly formatting) First draft of Render Backend register field list Change 7380 on 2001/10/05 by llefebvr@llefebvre_laptop_r400 Change 7581 on 2001/10/11 by paulv@MA_PVELLA version 0.7 of the sequencer. Interfaces and control managment added. Updated block diagram to reflect recent changes (see spec). Change 7371 on 2001/10/05 by mdoggett@MA MDOGGETT Change 7580 on 2001/10/11 by paulv@MA_PVELLA small changes to MC interfaces Updated Data Bus Router section Change 7370 on 2001/10/05 by mdoggett@MA MDOGGETT Change 7572 on 2001/10/11 by bbloemer@ma-jasonh 0.4 revision, final check in for major changes (that's the idea at least)

Change 7553 on 2001/10/10 by bbloemer@ma-jasonh

Power management spec.

Change 7487 on 2001/10/09 by jhoule@MA_JHOULE

Accepted all changes. Various minor tweaks here and there (notably, issues aren't headings anymore).

Change 7461 on 2001/10/09 by jhoule@MA JHOULE

Better add the top-level diagram if I want people to see it...

Change 7460 on 2001/10/09 by jhoule@MA JHOULE

Page 39 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 7361 on 2001/10/05 by jhoule@MA JHOULE

Walkers more up-to-date.

Described a bit the samples fetching (pt, bilin, arbi).

Change 7350 on 2001/10/04 by paulv@MA PVELLA

New block diagram for Read Return Arbitrator (RRA).

Change 7349 on 2001/10/04 by paulv@MA PVELLA

Added block diagram to RRA section along with more documentation (functional/interface).

Change 7335 on 2001/10/04 by jhoule@MA JHOULE

Page 40 of 106

Updated the LOD computation pseudo-code This has to update walkers (with diagram), and the clamp logic (since it's now in float around [0,1] with clamp and mirror flags). Change 7311 on 2001/10/04 by bbloemer@ma-jasonh Early rev of spec. Change 7261 on 2001/10/03 by llefebvr@llefebvre_laptop_r400 backup of the sequencer + register loading diagram Change 7192 on 2001/10/02 by paulv@MA_PVELLA Some minor undates Change 7149 on 2001/10/01 by wlawless@wlawless nothing Change 7113 on 2001/10/01 by bbloemer@ma-jasonh Another Elpida spec Change 7102 on 2001/09/28 by paulv@MA PVELLA Fixed the data bus router's block diagram. Some minor document tweaks. Change 7088 on 2001/09/28 by mdoggett@MA MDOGGETT Change 7080 on 2001/09/28 by llefebvr@llefebvre_laptop_r400 Change 7050 on 2001/09/27 by paulv@MA_PVELLA A portion of the old Read Return Arbiter has become what is now known as the Data Bus Router. This is the block diagram. Change 7044 on 2001/09/27 by jhoule@MA_JHOULE

Aesthetic modifications.

Table of contents now has correct number sizes!!! (hurray!)

Thanks to Mike "Vege-mate" Doggett for this...

Change 7027 on 2001/09/27 by bbloemer@ma-jasonh

Change 6561 on 2001/09/17 by llefebvr@llefebvre laptop r400

For tonight's call

more statistical data on HZ

Change 6526 on 2001/09/14 by Iseiler@SEILER2

Ex. 2051 --- R400 Architecture FH --- folder_history

Added int8 and uint8 ostream operation: now outputs number, not char Added andField, orField, and xorField functions (old names: and, or, xor) Added bits and mode fields to floor, trunc, round, ceil for fixed_hw types (were already defined for the software types) Change 6317 on 2001/09/11 by jhoule@MA_JHOULE Minor LODBias correction in LOD computation pseudo-code Change 6309 on 2001/09/11 by rbagley@MA_RBAGLEY Several emendations. Change 6243 on 2001/09/10 by Iseiler@ma Iseiler Changed to 8x8 tiling to compute EmptyQuad slots for render backend Change 6200 on 2001/09/07 by Iseiler@ma Iseiler Tiling: added code to compute extra quads processed by the shader pipe due to RB crossbar swizzling Change 6184 on 2001/09/07 by Iseiler@SEILER2 Update to fix compatibility bug with gcc v3.0 Change 6183 on 2001/09/07 by Iseiler@SEILER2 Fixes a compatiability problem with gcc v3.0 Change 5994 on 2001/08/31 by llefebvr@llefebvre_laptop_r400 removed dead code Change 5970 on 2001/08/30 by bbloemer@ma-jasonh Infineon updates Change 5872 on 2001/08/29 by jhoule@MA_JHOULE Frequency dumping code added, different clamping scheme Page 43 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history

Change 6931 on 2001/09/26 by Iseiler@SEILER2 This tests printing uint8 and int8 Change 6889 on 2001/09/25 by askende@andi docs Change 6878 on 2001/09/25 by mdoggett@MA MDOGGETT major changes to document structure and content progress checkin before version 0.4 Change 6865 on 2001/09/24 by llefebvr@llefebvre laptop r400 new spec of the Sequencer Change 6843 on 2001/09/24 by Iseiler@ma Iseiler This version eliminates most templating on the tiling.h classes and eliminates the more complex caching classes. This is more efficient and makes the code easier to understand. Now that we are fixed on 8x8 tiles and a cache with a small number of sets (maybe just 1), we don't need the extra complexity Change 6833 on 2001/09/24 by wlawless@wlawless undated revision code Change 6790 on 2001/09/21 by llefebvr@llefebvre laptop r400 RE spec backup + HZ stats + SC spec backup Change 6789 on 2001/09/21 by llefebvr@llefebvre_laptop_r400 new diagrams for the sequencer Change 6758 on 2001/09/20 by wlawless@wlawless Slight update Change 6722 on 2001/09/20 by bbloemer@ma-jasonh Page 42 of 106 Ex. 2051 --- R400 Architecture FH --- folder history Change 5871 on 2001/08/29 by jhoule@MA JHOULE Camera dumping added Change 5786 on 2001/08/28 by sallen@devel_sallen fix compile errors Change 5777 on 2001/08/28 by lseiler@ma_lseiler Version 0.5a -- fixed typos in the bus interface tables Change 5776 on 2001/08/28 by jhoule@MA_JHOULE Various crap (safety check-in) Change 5720 on 2001/08/24 by bbloemer@ma-jasonh 300 MHz. Chaplain class parts. Change 5711 on 2001/08/24 by llefebvr@llefebvre_laptop_r400 new version of the registry file allocation mechanism Change 5702 on 2001/08/24 by bbloemer@ma-jasonh 8/23/01 Samsung Documents Change 5698 on 2001/08/24 by llefebvr@llefebvre_laptop_r400 version 0.4 of the sequences Change 5537 on 2001/08/21 by wlawless@wlawless RB Hardware Design Spec

Added Chaplin RAM

Change 7008 on 2001/09/27 by paulv@MA_PVELLA

This is the initial checkin of the read return abitrator block diagram.

Change 5466 on 2001/08/17 by askende@andi docs new rev of the spec Change 5465 on 2001/08/17 by jhoule@MA_JHOULE Better LOD algorithm (leaner and better... now uses log2)

Change 5456 on 2001/08/17 by jhoule@MA_JHOULE

Converted to log2 everywhere for AnisoNew

Page 44 of 106

Change 5448 on 2001/08/16 by rbagley@MA_RBAGLEY_LT Reference version for registry file management. Working but costly Bit formats for preliminary fetch instructions, discussion and handling of defaults, MOV macros, and miscellaneous corrections Change 5240 on 2001/08/10 by llefebvr@llefebvre_laptop_r400 Change 5433 on 2001/08/16 by jhoule@MA JHOULE project was missing some files R400AnisoNew modified to represent current state of spec. Change 5239 on 2001/08/10 by llefebvr@llefebvre_laptop_r400 Change 5387 on 2001/08/15 by jhoule@MA_JHOULE working visual simulation of the dynamic allocation of the register file Changed R400 AnisoNew to an odd number of samples, with half-weighted endpoints Change 5197 on 2001/08/09 by rbagley@MA RBAGLEY (pretty good looking!!! still got the LOD transition to fix) Updates to scalar alu and fetch operations, and miscellaneous correction. Change 5384 on 2001/08/15 by ihoule@MA JHOULE Change 5175 on 2001/08/09 by Iseiler@ma_Iseiler Initial check-in.
This file gives supplemental information on design decisions, notations, algorithms and various other underlying stuff. Memory Controller, v0.5: removed autotag feature, changed bus/signal names and other It helps explain more, but reduce the already too big texture spec. Change 5163 on 2001/08/09 by jhoule@MA JHOULE Change 5383 on 2001/08/15 by jhoule@MA_JHOULE Missed the author field. Fixed also File wasn't saved (sorry). Change 5161 on 2001/08/09 by jhoule@MA JHOULE Change 5382 on 2001/08/15 by jhoule@MA_JHOULE Added LOD computation (with correction), samples walking (trilinear and anistropic), and texel fetching (with wrapping policy table) in the logic description. Change 5159 on 2001/08/09 by jhoule@MA JHOULE Change 5313 on 2001/08/14 by jhoule@MA_JHOULE Changed the year from 2000 to 2001 New R200 scheme (hopefully more closely matching). Change 5055 on 2001/08/07 by ihoule@MA JHOULE Aslo #if...#endif correction factors printing. getLODR {23}00Corrected disappeared (wrapped inside the getLODR {23}00. Change 5289 on 2001/08/13 by llefebvr@llefebvre_laptop_r400 Added approxLength for sqrt(a,b) approximation. added an exemple of registry file management Change 5054 on 2001/08/07 by jhoule@MA JHOULE Change 5278 on 2001/08/13 by llefebvr@llefebvre_laptop_r400 Different LODfunc scheme (now has independent control over LOD correction with '-') A more optimized version without while loops Change 5053 on 2001/08/07 by mdoggett@MA MDOGGETT Change 5260 on 2001/08/13 by llefebvr@llefebvre_laptop_r400 updated spec for sequencer Change 5052 on 2001/08/07 by mdoggett@MA MDOGGETT Change 5259 on 2001/08/13 by llefebvr@llefebvre_laptop_r400 Added new visio diagrams. Updates to most sections, particularly Logic Descriptions. Page 46 of 106 Page 45 of 106 Ex. 2051 --- R400 Architecture FH --- folder history Ex. 2051 --- R400 Architecture FH --- folder history First version of texture instructions and some further emendations Change 5046 on 2001/08/06 by ihoule@MA JHOULE Change 4987 on 2001/08/01 by ihoule@MA JHOULE Added #if 1...#endif for selecting 1 jitter/pixel or 1 jitter/quad Seems to have solved R200 anisotropy (check for trilinear artifacts) Change 5045 on 2001/08/06 by llefebvr@llefebvre_laptop_r400 LOD shows in R400. multiple ji itering patterns for the simulator Change 4980 on 2001/08/01 by llefebvr@llefebvre_laptop_r400 Change 5036 on 2001/08/03 by jhoule@MA_JHOULE new spec for SC and RE. Changed a bit the interface to encompass the fact that RE is Cleanup of centroid-related functions. now using the full precision normalized slopes from the SU because it takes the same number of bits than doing a per tile compression for the barycentric coordinates and it also simplifies a lot the SC. Change 5032 on 2001/08/03 by jhoule@MA_JHOULE New centroids support (jittered pattern). Change 4960 on 2001/08/01 by askende@andi docs New anisotropies also. Bool flag for when anisotropy is IxI (r200 aniso can use trilinear) Change 4955 on 2001/08/01 by ihoule@MA JHOULE Change 5031 on 2001/08/03 by ihoule@MA JHOULE Changed R200 aniso (and it now supports trilinear when aniso == 1). RGBA in QuadData now is float (new scheme will support any type). Solved bug (fabs was too early, and lost when sign was different) New anistropies supported. Added setColor Change 5029 on 2001/08/03 by jhoule@MA_JHOULE Change 4929 on 2001/07/31 by askende@andi_docs New sampling patterns implemented. Change 5028 on 2001/08/03 by jhoule@MA_JHOULE Change 4922 on 2001/07/31 by lseiler@SEILER2 Aesthetic Added support for floating point and group exponent ranges smaller than [0..1) Added an optional parameter to round, ceil, etc. that specicies how many low order bits of destination precision to ignore in the conversion (defaults to zero) Change 5027 on 2001/08/03 by llefebvr@llefebvre_laptop_r400 new rasteriser simulator using a real jitter table Change 4897 on 2001/07/31 by bbloemer@ma-jasonh Change 5016 on 2001/08/03 by llefebvr@llefebvre laptop r400 Non-confidential description of IML technology Change 4866 on 2001/07/30 by jhoule@MA_JHOULE setup unit revised spec Change 5015 on 2001/08/02 by rbagley@MA RBAGLEY Trilinear anisotropy (R400 style).

Clarfication of texture fetch instruction

Change 4989 on 2001/08/01 by rbagley@MA RBAGLEY

Page 47 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Page 48 of 106 Ex. 2051 ---

Change 4854 on 2001/07/30 by mdoggett@MA_MDOGGETT

Updates to most sections.

Change 4849 on 2001/07/30 by lseiler@SEILER2 strncpy doesn't access NULL string as source. Added code to find real MIN and MAX for class number: Change 4644 on 2001/07/23 by rbagley@MA_RBAGLEY Change 4816 on 2001/07/27 by jhoule@MA_JHOULE First version of the export specification and additional corrections. Added changeLODFunc(delta) Change 4640 on 2001/07/23 by jhoule@MA_JHOULE Cleaner switch with anisotropy and others Added getLODTheo to distinguish artifacts that are from LOD error in opposition to Change 4811 on 2001/07/27 by jhoule@MA JHOULE multi-sampling ones Added anisotropy support. Change 4639 on 2001/07/23 by jhoule@MA_JHOULE 'k' resets LOD technique (because aniso breaks it). Better default directory support (I think this is how it works... anyways, it seems to work Change 4810 on 2001/07/27 by jhoule@MA JHOULE Change 4629 on 2001/07/23 by lseiler@SEILER2 Working R200 anisotropy implemented. Changed name from Test.h to test.h Added various functions, code is not cleaned up. Change 4628 on 2001/07/23 by lseiler@SEILER2 Change 4779 on 2001/07/26 by rbagley@MA_RBAGLEY Deleting to change name to lower case Corrections and additions to the export specification. Change 4627 on 2001/07/23 by Iseiler@SEILER2 Change 4736 on 2001/07/26 by jacarey@fl_jacarey About to change the name to lower case Moved Original CP and RBBM Specs from ../arch/doc to ../doc lib/chip/<unit> areas. Change 4619 on 2001/07/23 by Iseiler@SEILER2 Change 4722 on 2001/07/25 by rbagley@MA_RBAGLEY Minor bug fix for comparing integer classes Emendations to the export specification. Change 4598 on 2001/07/20 by jhoule@MA_JHOULE Change 4694 on 2001/07/25 by llefebvr@llefebvre_laptop_r400 Can now decrement LOD technique (2-way) new version of Pnm for better sampling the noise Change 4597 on 2001/07/20 by ihoule@MA JHOULE Change 4668 on 2001/07/24 by jhoule@MA JHOULE $Many\ minor\ corrections:\ some\ aesthetic,\ some\ (hopefully)\ helpful\ to\ understand\ more\ clearly,\ others\ are\ comments\ for\ Steve.$ Added @mipmap support ('i'). LOD technique selection uses increment count (easier add-ins) Change 4593 on 2001/07/20 by Iseiler@SEILER2 Change 4666 on 2001/07/24 by lseiler@SEILER2 Fixed rounding/truncation etc., eliminated minor bugs and warning messages added debug printouts for disallowed cases Change 4586 on 2001/07/20 by jhoule@MA JHOULE Change 4659 on 2001/07/24 by jhoule@MA_JHOULE Page 49 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder history Minor changes: changed header for cleaner ones as well as Title Field (no more Top Level Spec) Change 4420 on 2001/07/17 by jhoule@MA_JHOULE Change 4584 on 2001/07/20 by jhoule@MA_JHOULE Added makeQuad for AA testing Integrated LOD correction. Change 4400 on 2001/07/16 by jhoule@MA_JHOULE Default path for scenes and textures. Anti-aliasing support added. Quad and Dome creation (for Scn files). Change 4399 on 2001/07/16 by jhoule@MA_JHOULE Added AA support (walker variables set for texture). Added clamped and convert functions Print(QuadData) now shows bits for aamask Change 4398 on 2001/07/16 by jhoule@MA_JHOULE Change 4581 on 2001/07/20 by jhoule@MA JHOULE Calls render AA and endRender at appropriate places. LOD correction mostly solved (requires simple H & V factors to account for width & Removed old makeMovie trace code Change 4397 on 2001/07/16 by jhoule@MA_JHOULE Added LOD functions (w or w/o correction) as well as correction functions Anti-aliasing support added Change 4542 on 2001/07/19 by lseiler@SEILER2 Change 4384 on 2001/07/16 by jhoule@MA_JHOULE Supports group exponent numbers Starting AA buffer (recoded the render to iterate from 0 to 3) Change 4537 on 2001/07/19 by mdoggett@MA_MDOGGETT Change 4366 on 2001/07/16 by jhoule@MA_JHOULE Fixed header to not have different odd and even headers. Depth and color types can be changed Change 4517 on 2001/07/18 by jhoule@MA JHOULE Change 4322 on 2001/07/13 by jhoule@MA_JHOULE Temp check-in (for old LOD correction) Wrongly associated w&h with t&s in getLODRx00 (didn't show because of square Change 4431 on 2001/07/17 by Iseiler@ma Iseiler textures) (shouldn't have been checked in) (some traces must be removed) Change 4425 on 2001/07/17 by Iseiler@ma Iseiler Change 4310 on 2001/07/13 by ihoule@MA JHOULE automatically generated files that don't need to be checked in Last mipmap level is now gray instead of white Change 4424 on 2001/07/17 by Iseiler@ma Iseiler Change 4258 on 2001/07/12 by jhoule@MA JHOULE DirectX shared files Mipmap dumping with 'd' key Change 4423 on 2001/07/17 by lseiler@ma_lseiler Added area LOD computation Animation test for multisampling (from R300 team) Change 4230 on 2001/07/11 by rbagley@MA RBAGLEY

Page 51 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Ex. 2051 --- R400 Architecture FH --- folder_history

Page 52 of 106

A skein of corrections and minor changes have been made. The version of the document remains 1.0

Change 4205 on 2001/07/11 by lseiler@ma_lseiler

More v0.2 files

Change 4203 on 2001/07/11 by lseiler@ma_lseiler

These files are outmoded

Change 4201 on 2001/07/11 by lseiler@ma_lseiler

These files are outmoded

Change 4200 on 2001/07/11 by Iseiler@ma Iseiler

Render Backend: version 0.2 with greatly revised Paramater Buffer and Tile Logic

Change 4179 on 2001/07/11 by jhoule@MA_JHOULE

Consistent default filter values between OpenGL and SW renderer.

Change 4178 on 2001/07/11 by jhoule@MA_JHOULE

Color mipmap now has white as end colors.

Change 4173 on 2001/07/10 by rbagley@MA RBAGLEY

Add first version of a syntax specification for the R400 shader programming language

Change 4033 on 2001/07/06 by askende@andi_docs

update of the specs

Change 4020 on 2001/07/06 by jhoule@MA_JHOULE

RELEASE 04 June/20/01

 $1.\ VB\ reconstruction\ optimized.\ Indx_Buffer\ packet\ implemented\ but\ currently\ not$

working properly.

2. Pm4stats finalized and now working properly on pixel counting

3. Dword-aligned indx_buffer packet support 4. Modified code to avoid WatCom compiling warnings. (Though some lines look

Page 53 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 4019 on 2001/07/06 by jhoule@MA_JHOULE

New version coming.

Change 4015 on 2001/07/06 by jhoule@MA_JHOULE

Changed RS TRACE to LS TRACE

Change 4010 on 2001/07/06 by smorein@smorein_r400

major texture pipe spec update- complete except for addresing logic. Could use some more editing, and probably more block diagrams.

Change 4006 on 2001/07/05 by jhoule@MA_JHOULE

Fast OpenGL refresh with @ sign

Change 4001 on 2001/07/05 by llefebvr@llefebvre_laptop_r400

lockin is on

Change 4000 on 2001/07/05 by liefebvr@liefebvre_laptop_r400

sequencer checkin

Change 3999 on 2001/07/05 by pmitchel@pmitchel_iris

change file type to lock

Change 3996 on 2001/07/05 by pmitchel@pmitchel iris

change filetype to prevent simultaneous open for edit

Change 3995 on 2001/07/05 by pmitchel@pmitchel_iris

change file type to prevent simultaneous open for edit

Change 3994 on 2001/07/05 by llefebvr@llefebvre laptop r400

updated scan converter spec

Change 3993 on 2001/07/05 by jhoule@MA_JHOULE

Support for negative or 0 loops.

Change 3991 on 2001/07/05 by lseiler@ma_lseiler

Tiling: deletes and recreates the RasterMain class between files -- hopefully this will keep the virtual memory required from increasing over multi-file runs

Page 54 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 3990 on 2001/07/05 by ihoule@MA JHOULE

Better screenshot support (more intelligent prompting)

Change 3987 on 2001/07/05 by pmitchel@pmitchel_iris

changed filetype to strict locking

Change 3982 on 2001/07/05 by jhoule@MA_JHOULE

Pretty versatile animation support (all camera).

Added loop support, as well as screen refresh (for previews).

Change 3976 on 2001/07/05 by Iseiler@ma Iseiler

Tiling Code: defining MEM_OUT outputs memory access files

Change 3908 on 2001/07/03 by lseiler@ma_lseiler

FrameBuf v0.3: some extra compressed and 3d formats, minor changes

Change 3905 on 2001/07/03 by jhoule@MA_JHOULE

Slightly better sampling (thanks to MD)

Change 3901 on 2001/07/03 by jhoule@MA_JHOULE

More robust parsing.

Can now save a snapshot of ColorBuffer.

Change 3897 on 2001/07/03 by jhoule@MA JHOULE

Cleaner code (using macro)

Change 3896 on 2001/07/03 by jhoule@MA_JHOULE

Added and integrated superFilter, which makes multiple samples for every pixel.

Change 3888 on 2001/07/03 by jhoule@MA_JHOULE

Removed old commented trilinear code (now works with muliPass2)

Change 3885 on 2001/07/03 by jhoule@MA_JHOULE

loadScene supports recursive loads (with loadScene "filename")

Page 55 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 3884 on 2001/07/02 by jhoule@MA_JHOULE

Added loadTexture in scene file.

Change 3882 on 2001/07/02 by jhoule@MA_JHOULE

Removed forcePerspective.

Added loadScene with interface hooks.

Change 3879 on 2001/07/02 by jhoule@MA_JHOULE

Change 3878 on 2001/07/02 by jhoule@MA_JHOULE

Added toGL and createColorMimap (each level is a different color).

Change 3877 on 2001/07/02 by jhoule@MA_JHOULE

Trilinear fully functional.

Change 3871 on 2001/07/02 by mdoggett@MA_MDOGGETT

Minor updates to Memory Hub spec

Change 3870 on 2001/07/02 by jhoule@MA_JHOULE

Working filter (min/mag with nearest/{bi}linear and mipmaps!)

Change 3867 on 2001/07/02 by jhoule@MA JHOULE

Change 3866 on 2001/07/02 by ihoule@MA JHOULE

Removed old filter code

Change 3842 on 2001/06/29 by ihoule@MA JHOULE

GlutMouseEvent added (with other stuff)

Change 3841 on 2001/06/29 by jhoule@MA JHOULE

Camera is integrated (with a cool bounding box for OpenGL depths)

Change 3838 on 2001/06/29 by ihoule@MA JHOULE

Towards camera integration

Page 56 of 106

Added copyTo and numChannels Change 3834 on 2001/06/29 by jhoule@MA JHOULE Change 3753 on 2001/06/27 by jhoule@MA JHOULE Added numLevels and getLevel(int) Initial CI. Change 3833 on 2001/06/29 by jhoule@MA_JHOULE Creation from GLMap done Removed trace Change 3832 on 2001/06/29 by jhoule@MA_JHOULE Non-square downSampling not tested (but should work) Added bilinearFetch. Change 3749 on 2001/06/26 by bbloemer@ma-jasonh Distinction between TexColor (copy, read-write) and TexColorP (pointer, read-only) Timing diagram Change 3830 on 2001/06/29 by jhoule@MA JHOULE Change 3709 on 2001/06/26 by jhoule@MA_JHOULE These files don't need RTTI Added mirrorOnce support. Change 3812 on 2001/06/28 by jhoule@MA JHOULE Change 3705 on 2001/06/26 by jhoule@MA JHOULE Mipmap files added. Precision-removing code for interpolator weights done by hand. Change 3811 on 2001/06/28 by jhoule@MA JHOULE Change 3697 on 2001/06/25 by beiwang@MA BEIWANG Mipmap integration Added fetcher (for a per pixel basis). Added TexColor to clean up interface to GLMap Change 3691 on 2001/06/25 by wlawless@wlawless ws Change 3810 on 2001/06/28 by jhoule@MA JHOULE Added a total block Mipmap integration Change 3681 on 2001/06/25 by Iseiler@ma_Iseiler LOD limiting in interface Superceded by R400_FrameBuf.vsd Change 3767 on 2001/06/27 by wlawless@wlawless_ws Change 3680 on 2001/06/25 by lseiler@ma_lseiler Updated the stencil area Frame Buffer Format, v0.2: complete rewrite Change 3764 on 2001/06/27 by bbloemer@ma-jasonh Change 3665 on 2001/06/22 by jhoule@MA_JHOULE ki Added numeric library. Change 3755 on 2001/06/27 by jhoule@MA_JHOULE Change 3664 on 2001/06/22 by jhoule@MA_JHOULE Missed a 1 for non-square sizes. Added translateScene and makeMovie Change 3754 on 2001/06/27 by jhoule@MA_JHOULE Uses dumpTIFF instead of dumpRGB Page 58 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 3663 on 2001/06/22 by jhoule@MA JHOULE RELEASE 03 June/20/01 1. VB reconstruction for Rage200 implemented except indx_buff packet 2. pm4stats finished 3. Fixed bugs in culling function and 3d_draw_indx packet Week end check-in Precision integration with numerical library. 4. Added register initialization function Added more defensive code warning the unimplemented packets
 Added version info in client programs. Parser class release date and version showes in Change 3658 on 2001/06/22 by bbloemer@ma-jasonh For biweekly call Change 3656 on 2001/06/22 by jhoule@MA_JHOULE Change 3589 on 2001/06/21 by jhoule@MA JHOULE dumpRGB is now dumpTIFF (but use it only for RGB (A) GLMaps. New version (3) coming in. Change 3652 on 2001/06/22 by jhoule@MA_JHOULE Change 3588 on 2001/06/21 by smorein@smorein r400 Major update. There are still a bunch of inconsistancies (and misspellings) but enough there for people closely associated with the block to need to go through it. Added title support. Change 3632 on 2001/06/22 by wlawless@wlawless_ws Change 3585 on 2001/06/20 by askende@andi docs Added color and depth compress to RB Size Change 3614 on 2001/06/21 by jhoule@MA_JHOULE Change 3582 on 2001/06/20 by jhoule@MA_JHOULE OpenGL matching of supported WRAP and FILTER FileDialog integration. Change 3609 on 2001/06/21 by jhoule@MA_JHOULE Added loadTexture and takeSnapshot. Better printing when necessary. Different makeScene (more versatile once more) Change 3608 on 2001/06/21 by jhoule@MA_JHOULE Uses 'm, /' for wrapping policy R200 rasterizer Tile size should be 4x4, and even with that, texture coordinates seem to be wrong with Change 3581 on 2001/06/20 by jhoule@MA JHOULE magnification cases.

Project dropped (this is if we ever come back to it) Added mirror. Solved bug in repeat (had to floor, not just truncate). Change 3607 on 2001/06/21 by ihoule@MA JHOULE Many traces (commented) need to be cleaned up a bit. Removed R200 rasterizer Change 3575 on 2001/06/20 by wlawless@wlawless_ws Change 3606 on 2001/06/21 by jhoule@MA JHOULE Added a new RB page with more detail $Added\ make Default Texture.$ Change 3574 on 2001/06/20 by askende@andi_docs Support for R200 rasterizer (to be removed). new rev Change 3590 on 2001/06/21 by jhoule@MA_JHOULE Change 3569 on 2001/06/20 by wlawless@wlawless ws Page 59 of 106 Page 60 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

mFrameBuffer is now mColorBuffer (dependencies were screwed) r400 area Change 3549 on 2001/06/19 by jhoule@MA JHOULE Change 3565 on 2001/06/19 by askende@andi_docs Added refreshBuffer(). new rev Interface can now change filtering in R400 rasterization also Change 3564 on 2001/06/19 by bbloemer@ma-jasonh 500 MHz. presentation Change 3547 on 2001/06/18 by jhoule@MA JHOULE Change 3563 on 2001/06/19 by jhoule@MA_JHOULE Working bilinear with wrapping Clamping functions now in class (with pointer-to-method for easy selection at runtime) Change 3546 on 2001/06/18 by jhoule@MA_JHOULE Change 3562 on 2001/06/19 by jhoule@MA JHOULE New wrapping, all done in integer (strictly positive). Bilinear filter roughly coded. Change 3561 on 2001/06/19 by jhoule@MA JHOULE Change 3537 on 2001/06/18 by jhoule@MA_JHOULE Little more robust loading. Removed unnecessary wrap. Change 3560 on 2001/06/19 by askende@andi_docs Change 3536 on 2001/06/18 by ihoule@MA JHOULE Added beginText/endText so that we can more easily distinguish OpenGL/R400. Change 3558 on 2001/06/19 by askende@andi_docs Changed the scene a bit. another rev Change 3535 on 2001/06/18 by jhoule@MA_JHOULE Change 3557 on 2001/06/19 by jhoule@MA_JHOULE Changed default color. Very minor modifs (was a project file problem) Change 3523 on 2001/06/15 by jhoule@MA_JHOULE Change 3556 on 2001/06/19 by jhoule@MA_JHOULE Added TexUnit, and integrated filtering. Remade from scratch Copied texture params & such from other project. Change 3555 on 2001/06/19 by jhoule@MA_JHOULE Cool ascii texture (commented) Remade the file from scratch Change 3522 on 2001/06/15 by jhoule@MA JHOULE Change 3553 on 2001/06/19 by askende@andi docs Added wrap and clamp (needs cleaner interface). another rev (rev.03) of the shader spec Change 3521 on 2001/06/15 by jhoule@MA JHOULE Change 3550 on 2001/06/19 by jhoule@MA_JHOULE Page 62 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history ImageLoader and TexUnit added. ZBuffer removed Added reshape (which otherwise screwed driver big time). Change 3520 on 2001/06/15 by jhoule@MA_JHOULE Partly integrated texture loading. Other defaut buffer color. Change 3488 on 2001/06/14 by jhoule@MA JHOULE Change 3508 on 2001/06/15 by jhoule@MA_JHOULE changed color type from int to unsigned char Initial check-in. Change 3483 on 2001/06/14 by Iseiler@SEILER2 Nearest filter works. Added support for mad, lrp, and floor/ceil/trunc/round (the latter only for software mode fixed point and rf, as yet) Can change filter at will. Still quite some work to do. Change 3481 on 2001/06/13 by jhoule@MA JHOULE Change 3500 on 2001/06/14 by jhoule@MA_JHOULE Added makeScene, renderScene, renderSceneGL Added renderBuffer which updates gBuffer as needed (removes need for reshape, and is Can now compare between GL and R400Raster on screen (simple scheme, no arbitrary camera yet) more efficient) Added special to activate/deactivate texturing, etc. under OpenGL. Change 3480 on 2001/06/13 by jhoule@MA_JHOULE Uses ImageLoader instead of TexLoader (better name). Added width() and height() retrievers Change 3499 on 2001/06/14 by jhoule@MA_JHOULE Change 3476 on 2001/06/13 by smorein@smorein_r400 Texture pipe update Added texImage to call glTexImage2D with correct parameters. Change 3498 on 2001/06/14 by jhoule@MA_JHOULE Change 3471 on 2001/06/13 by jhoule@MA_JHOULE mFrameBuffer is now mColorBuffer Removed ZBuffer completely: now uses Buffer from frame and depth. Default clearColor (black) added Output of framebuffer in a GLUT window (warning: shrinking window screws display).

Change 3497 on 2001/06/14 by jhoule@MA_JHOULE

Initial check-in.

Works pretty well for PPM (other not implemented yet).

Change 3494 on 2001/06/14 by jhoule@MA_JHOULE

Removed unnecessary output.

Uses vertex arrays for rendering.

Page 63 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 3470 on 2001/06/13 by jhoule@MA_JHOULE

 $Finished\, clear Color Buffer\, (with\,\, default\,\, alpha\,\, value)$

Change 3458 on 2001/06/12 by jhoule@MA_JHOULE

Safety check-in.

Change 3453 on 2001/06/12 by jhoule@MA_JHOULE

Added WITH_PARSER #define for looser coupling.

Page 64 of 106

Change 3452 on 2001/06/12 by jhoule@MA_JHOULE Numeric Library: Supports big fixed point numbers Precision turned back to 8 bits instead of the full 23 Change 3330 on 2001/06/07 by llefebvr@llefebvre laptop r400 Change 3451 on 2001/06/12 by llefebvr@llefebvre_laptop_r400 safety backup changed the delta precision of the interpolators to 8 Change 3313 on 2001/06/06 by Iseiler@ma Iseiler Change 3450 on 2001/06/12 by lseiler@SEILER2 Superceded by R400 MemCtl.vsd Added left and right shift, eliminated gnu floating point comparison errors due to Change 3311 on 2001/06/06 by Iseiler@ma_Iseiler compiler bugs Memory Controller: version 0.4, added internal interfaces and improved the Ordering Change 3434 on 2001/06/12 by Iseiler@SEILER2 Numeric library: Ouick fix for Laurent Change 3285 on 2001/06/05 by jhoule@MA_JHOULE "Solved" mipmap generation (some weird bugs, I tell ya!). Better take a look with the GL guy... (when I know who did it) Change 3428 on 2001/06/11 by smorein@smorein r400 Adding a bunch of files Change 3271 on 2001/06/05 by Iseiler@ma Iseiler Change 3414 on 2001/06/11 by lseiler@SEILER2 Numeric Library: minor fix to avoid gnu problem Numeric Library with shift instructions and OFFSET macro Change 3259 on 2001/06/05 by Iseiler@ma Iseiler Change 3402 on 2001/06/11 by Iseiler@SEILER2 Numeric Library: This version eliminates floating point template parameters, since gnu's + can't handle them. As a result, fixed point OFFSET is specified differently. This version also Numeric Library: Changed operator return values from scaled to const scaled &, for example, to convert copy constructor to a const reference. Gnu compiler was somehow producing an invalid address in the copy constructor. eliminates a variety of gnu false warning messages. Change 3250 on 2001/06/04 by bbloemer@ma-jasonh Change 3395 on 2001/06/11 by bbloemer@ma-jasonh Pinout and schedule update. Samsung sim results Change 3244 on 2001/06/04 by jhoule@MA_JHOULE Change 3392 on 2001/06/11 by llefebvr@llefebvre_laptop_r400 Added Utils (Debug.h, Globals.h, STL Tricks.h) new interpolation scheme integrated with the parser files Change 3242 on 2001/06/04 by jhoule@MA JHOULE Change 3371 on 2001/06/08 by liefebvr@liefebvre_laptop_r400 Cleaner interface for faster rendering spec backup Added prevDT and changed default order Change 3370 on 2001/06/08 by pmitchel@pmitchel_r400_docs Change 3234 on 2001/06/04 by jhoule@MA JHOULE added for Alex G Somehow, previous modifications didn't see the light Change 3360 on 2001/06/08 by Iseiler@ma Iseiler New files are added, and old ones were removed. Page 66 of 106 Ex. 2051 --- R400 Architecture FH --- folder history Ex. 2051 --- R400 Architecture FH --- folder history Change 3101 on 2001/05/25 by lseiler@ma_lseiler Change 3233 on 2001/06/04 by ihoule@MA JHOULE Tiling: latest version checks for empty primitives Some files were included, but didn't exist anymore. Other files were missing (showed up in dependencies). Change 3098 on 2001/05/24 by jhoule@MA_JHOULE Change 3232 on 2001/06/04 by jhoule@MA JHOULE Major reorganisation of functions Quite a bit a cleanup also. Trying to solve an MSDEV-crashing issue (seems to work) Change 3225 on 2001/06/04 by ihoule@MA JHOULE Still got some problems with edges (sometimes), and automipmap doesn't seem to allocate all the levels MouseEvent now has correct default initializer Neuseseven new asconect default influences
Added displayTexture printMipmapInfos utility function + min/max LODs limiting renderExtendedTri now uses GL_LINE and offset (for neighboring faces) Change 3091 on 2001/05/24 by Iseiler@ma_Iseiler Updated RB and MC block diagrams Removed flipping of TexY (since we use GENERATE_MIPMAP_SGIS) Cleaned some places (removed dead code and such). Change 3088 on 2001/05/24 by Iseiler@ma_Iseiler Change 3222 on 2001/06/04 by jhoule@MA JHOULE Numeric Library Not using PBuffer as texture anymore (removed the ATIX call) Change 3075 on 2001/05/23 by ihoule@MA JHOULE Change 3193 on 2001/05/30 by Iseiler@ma_Iseiler Added setGL function to set light parameters Numeric package: fixed numerous gnu warnings and errors, added MIN and MAX parameters to the internal classes as an optimization $\,$ Change 3073 on 2001/05/23 by jhoule@MA JHOULE A more recent version of the file (contains GL_SGIS_generate_mipmap) Change 3141 on 2001/05/29 by smorein@smorein r400 Change 3071 on 2001/05/23 by smorein@smorein r400 added memory hub spec. I am not happy with it, and this block wins the prize for most likely to be compleatly redesigned. added base and improved area estimate Change 3138 on 2001/05/29 by askende@andi docs Change 3066 on 2001/05/23 by jhoule@MA JHOULE more updates to the spec TexCoord4d instead of TexCoord2d (this class isn't used anymore) Change 3137 on 2001/05/29 by Iseiler@ma Iseiler Change 3065 on 2001/05/23 by jhoule@MA JHOULE Numeric Library: new template parameter definitions TexCoord4d instead of 2d (no need for 2d in this app) Change 3105 on 2001/05/25 by llefebvr@llefebvre_laptop_r400 Change 3055 on 2001/05/23 by jhoule@MA_JHOULE backup sequencer Quad + tri on top + quad on top Change 3104 on 2001/05/25 by llefebvr@llefebvre_laptop_r400 Change 3050 on 2001/05/22 by jhoule@MA_JHOULE new spin on RE, SC, Bary Lightmap issues

Page 67 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

AMD1044 0258223

Ex. 2051 --- R400 Architecture FH --- folder_history

Page 68 of 106

Change 3033 on 2001/05/22 by lseiler@ma_lseiler stats on vertex grouping (lenght of vectors between state changes) Numeric Library: fixed default constructor problem Change 3000 on 2001/05/18 by jhoule@MA_JHOULE Change 3032 on 2001/05/22 by bbloemer@ma-jasonh Initial CI Revision from Samsune Change 2998 on 2001/05/18 by jhoule@MA JHOULE Change 3031 on 2001/05/22 by jhoule@MA_JHOULE Initial CI (taken from other project) Working shadow buffer (with artefacts). Gives access to ATI-specific OGL functions/variables/defines. Some functions don't have a prototype yet (need to refactor) Change 2994 on 2001/05/18 by jhoule@MA_JHOULE Change 3026 on 2001/05/22 by jhoule@MA_JHOULE Use TorontoParser for now on... (now keeps attributes) PBuffer, TexCoord, ATI's gl headers and LMTri added Change 2991 on 2001/05/18 by pmitchel@FL_ALEXG Change 3025 on 2001/05/22 by jhoule@MA_JHOULE added for Alex G. Added a great many things, notably a split interface, a PBuffer, bounding box mesh Change 2990 on 2001/05/18 by bbloemer@ma-jasonh Change 3024 on 2001/05/22 by jhoule@MA_JHOULE Info from Samsung on DDR II working documents. Working texture binding (but corruptions when window is minimized) Change 2987 on 2001/05/18 by jhoule@MA_JHOULE Change 3020 on 2001/05/21 by askende@andi_docs New parser Keeps (and clips) attributes. Working textur another revision of the shader spec Change 2986 on 2001/05/18 by jhoule@MA_JHOULE Change 3011 on 2001/05/21 by Iseiler@ma_Iseiler Number Library: major revision with software mode working New class names, lots of operations defined, test routine coded Change 2985 on 2001/05/18 by jhoule@MA_JHOULE Change 3008 on 2001/05/21 by smorein@smorein_r400 These weren't in, it seems. partial update to texture spec Change 2984 on 2001/05/18 by jhoule@MA_JHOULE Change 3007 on 2001/05/21 by jhoule@MA_JHOULE Deleting old parser (to be replaced by new) Added width/height in ctor Change 2973 on 2001/05/18 by jhoule@MA_JHOULE Change 3006 on 2001/05/21 by jhoule@MA_JHOULE Integrated recent changes from Laurent (int turned to float, Interpolate, etc.) Reverted to binding the texture. texLoad works (but leaks the texture) Change 3002 on 2001/05/18 by llefebvr@llefebvre_laptop_r400 Change 2972 on 2001/05/18 by jhoule@MA_JHOULE Page 69 of 106 Page 70 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 2911 on 2001/05/16 by bbloemer@ma-jasonh Datacol is now float Change 2971 on 2001/05/18 by jhoule@MA_JHOULE MC waveforms from initial chaplin debug, by Dae Hyun Jun New parser integration (no skip ApplyTransform, loads textures, outputs every frame) Change 2901 on 2001/05/15 by lseiler@ma_lseiler Change 2961 on 2001/05/18 by jhoule@MA JHOULE Numeric Package: fixed a compilation bug for Laurent Change 2900 on 2001/05/15 by bbloemer@ma-jasonh Since a new parser keeps all the attributes, you are now advised to use this one.. (will be checked-in soon) Infineon presentation Change 2960 on 2001/05/18 by bbloemer@ma-jasonh Change 2898 on 2001/05/15 by jhoule@MA_JHOULE Update for 5/22/01 call. Added printing functions. Change 2959 on 2001/05/18 by jhoule@MA_JHOULE Change 2897 on 2001/05/15 by jhoule@MA_JHOULE Modifications activated (new parser has arrived, so forget these) Added Imfaces Change 2950 on 2001/05/17 by smorein@smorein_r400 Change 2873 on 2001/05/15 by jhoule@MA_JHOULE updated spec, finally checked in Change 2934 on 2001/05/17 by llefebvr@llefebvre laptop r400 Change 2872 on 2001/05/15 by jhoule@MA JHOULE HZ new simulations data Initial check-in Change 2930 on 2001/05/17 by lseiler@ma_lseiler Change 2869 on 2001/05/15 by Iseiler@ma Iseiler Number Library: includes sized base types (int8, uint8) etc. R400 numeric library: class names changed and now supports floor() etc. for fixed point to floating point Change 2929 on 2001/05/17 by jhoule@MA JHOULE Change 2867 on 2001/05/15 by jhoule@MA JHOULE Defautl alpha is 1 Added IdxTri to project Change 2914 on 2001/05/16 by beiwang@MA BEIWANG Change 2865 on 2001/05/15 by ihoule@MA JHOULE L2P (Level 2 Performance evaluation tool from Toronto, Daniel Wong) Changed number of probes from 2 to 4 Change 2913 on 2001/05/16 by llefebvr@llefebvre_laptop_r400 Change 2861 on 2001/05/15 by jhoule@MA JHOULE there was an error in the simulation these stats are wrong. They will be replaced by accurate data soon. Integrated IdxTri in the structure. Namespace issues solved more elegantly Change 2912 on 2001/05/16 by beiwang@MA BEIWANG Change 2860 on 2001/05/15 by jhoule@MA JHOULE

Cabo Sequencer detailed diagrams. Contains breakdown of R6 sequencer in first chapter

Page 71 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Page 72 of 106

Integration changes. Default constructor added (for no parameter). Changed 3 params ctor to account for new. Added to GL method. Change 2857 on 2001/05/15 by llefebvr@llefebvre_laptop_r400 coarse coverage mask dumps added

Change 2856 on 2001/05/15 by jhoule@MA_JHOULE

Old typo

Change 2851 on 2001/05/14 by smorein@smorein_r400

added initial texture decompression spec

Change 2830 on 2001/05/14 by jhoule@MA_JHOULE

Ready to renderLightMap correctly.

Change 2829 on 2001/05/14 by jhoule@MA_JHOULE

Added setFrontAndBack.

Added render with skipping of face.

Change 2828 on 2001/05/14 by jhoule@MA_JHOULE

Solved gShowWire {F|f} rame discrepency.

Added setFrontAndBack

Added render with skipping of face.

Change 2825 on 2001/05/14 by llefebvr@llefebvre_laptop_r400

backup of RE spec (not finished yet)

Change 2823 on 2001/05/14 by jhoule@MA_JHOULE

Added computeBoundingBox

Change 2822 on 2001/05/14 by jhoule@MA_JHOULE

Added computeBoundingBox.

Removed traces.

Page 73 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 2819 on 2001/05/14 by jhoule@MA_JHOULE

Solved namespace issues.

Change 2818 on 2001/05/14 by jhoule@MA_JHOULE

Changed format for GL format

Added some specializations

Change 2817 on 2001/05/14 by ihoule@MA JHOULE

A little cleaner GL format instread of format

Now has accessor for data (called mData).

Change 2816 on 2001/05/14 by jhoule@MA JHOULE

Solved namespace issues.

Change 2815 on 2001/05/14 by jhoule@MA_JHOULE

Solved namespace issues.

Change 2814 on 2001/05/14 by jhoule@MA JHOULE

Added bounding box management in gBB (getFrontAndBack + setCamera + loadModel).

Modified renderLightMap

Change 2813 on 2001/05/14 by jhoule@MA_JHOULE

Solved namespace issues.

Added bounding box management (getFrontAndBack + setCamera).

Added renderLightMap.

Change 2812 on 2001/05/14 by jhoule@MA JHOULE

Added BoundingBox to project.

Change 2796 on 2001/05/11 by bbloemer@ma-jasonh

 $\label{eq:energy} Elpida\ low\ cost\ memory\ specs\ and\ Boris'\ message\ on\ needed\ R6X\ MC\ changes\ to\ support.$

Change 2790 on 2001/05/11 by bbloemer@ma-jasonh

Page 74 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Latest Samsung roadmap.

Change 2784 on 2001/05/11 by jhoule@MA_JHOULE

Added project⊙n

Change 2781 on 2001/05/11 by jhoule@MA JHOULE

Solved namespace issues.

Added ostream to print as argument.

Change 2780 on 2001/05/11 by jhoule@MA JHOULE

Changed print method to enable ostream specification

Change 2779 on 2001/05/11 by jhoule@MA_JHOULE

Solved namespace issues

Change 2778 on 2001/05/11 by jhoule@MA_JHOULE

Solved namespace issues

Change 2777 on 2001/05/11 by jhoule@MA_JHOULE

Solved namespace issues

Change 2776 on 2001/05/11 by jhoule@MA JHOULE

Solved namespace issues

Change 2775 on 2001/05/11 by ihoule@MA JHOULE

Solved namespace issues

Change 2774 on 2001/05/11 by jhoule@MA_JHOULE

Solved namespace issues

Change 2773 on 2001/05/11 by jhoule@MA JHOULE

Not using namespace Ad anymore (moved in instead)

Change 2772 on 2001/05/10 by smorein@smorein_r400

added file

Page 75 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 2761 on 2001/05/10 by jhoule@MA_JHOULE

Added DirLight and GLMap

Change 2760 on 2001/05/10 by jhoule@MA_JHOULE

Added NewCam and Ref

Change 2759 on 2001/05/10 by jhoule@MA_JHOULE

Aesthetic

Change 2758 on 2001/05/10 by jhoule@MA_JHOULE

Namespace issues

Change 2757 on 2001/05/10 by jhoule@MA_JHOULE

Namespace issues

Change 2756 on 2001/05/10 by jhoule@MA JHOULE

Added a few things (like drawFrustum)

Towards a working shadow map.

Change 2755 on 2001/05/10 by jhoule@MA_JHOULE

Initial CI

Change 2735 on 2001/05/10 by jhoule@MA_JHOULE

New camera using Ref and Quat.

Unfinished.

Change 2731 on 2001/05/10 by jhoule@MA_JHOULE

Added look At

Change 2730 on 2001/05/10 by jhoule@MA_JHOULE

Working lookAt (quite robust, actually).

W2R and R2W were a little screwed up.

Change 2729 on 2001/05/10 by jhoule@MA_JHOULE

Page 76 of 106

Some cleanup. Quat(Vec, Vec, Vec) should be removed. Solved using RTRendering Change 2726 on 2001/05/10 by Iseiler@ma Iseiler Change 2676 on 2001/05/09 by jhoule@MA_JHOULE R400 Numeric Library, initial version This code compiles, but doesn't yet do anything very useful Working orbit. Change 2667 on 2001/05/08 by jhoule@MA_JHOULE Change 2725 on 2001/05/10 by lseiler@ma lseiler R400 Numeric Library, initial version This code compiles, but doesn't yet do anything very useful Added orbit Now a child of Ref. Change 2724 on 2001/05/10 by lseiler@ma_lseiler Change 2666 on 2001/05/08 by jhoule@MA_JHOULE Deleted memory controller files have been moved to doc/gfx/mc Added orbit Change 2723 on 2001/05/10 by lseiler@ma lseiler Change 2663 on 2001/05/08 by jhoule@MA_JHOULE Deleted memory controller files have been moved to doc/gfx/mc Initial CI. Change 2720 on 2001/05/10 by lseiler@ma_lseiler Rotate shouldn't be used. Memory Controller rev 0.3: lots more details, including the external interface Otherwise, it seems rather robust. Change 2713 on 2001/05/09 by askende@andi_docs Change 2662 on 2001/05/08 by jhoule@MA_JHOULE more updates Added constuctor for quat between two vectors (both Vec3d and Vec4d). Change 2712 on 2001/05/09 by askende@andi_docs Weird >= instead of < gave a few warnings. more updates Change 2661 on 2001/05/08 by jhoule@MA_JHOULE Change 2711 on 2001/05/09 by askende@andi_docs Added constructor for quat between two vectors (both Vec3d and Vec4d). modifications to instruction format for the shaders Change 2660 on 2001/05/08 by jhoule@MA_JHOULE Change 2700 on 2001/05/09 by askende@andi_docs cross(Vec4d, Vec4d) wasn't in Ad namespace Shader specifications Change 2658 on 2001/05/08 by jhoule@MA_JHOULE Change 2697 on 2001/05/09 by jhoule@MA_JHOULE Quaternion transform (i.e. oper*(Quat)) added. Changed oper*(Vec) comparison for > 1e-5 Change 2649 on 2001/05/08 by llefebvr@llefebvre_laptop_r400 (not sure if it's valid, though) Page 77 of 106 Page 78 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history New version of the scan converter, ready for review Change 2622 on 2001/05/07 by jhoule@MA_JHOULE Change 2637 on 2001/05/07 by markf@r400 markf Added const& for structs (Vec3d and Pt3d) Initial Revision Removed load prototype Change 2636 on 2001/05/07 by markf@r400 markf Change 2621 on 2001/05/07 by jhoule@MA JHOULE file creation Added const& for the structs (Vec3d and Pt3d) Change 2635 on 2001/05/07 by jhoule@MA_JHOULE Removed load prototype. Somewhat working dirLights Change 2619 on 2001/05/07 by jhoule@MA_JHOULE Change 2633 on 2001/05/07 by jhoule@MA_JHOULE *ToGL now const Directional light class (child of Camera from AdLib) Change 2618 on 2001/05/07 by jhoule@MA_JHOULE Change 2632 on 2001/05/07 by jhoule@MA_JHOULE *ToGL now const Small quad over a larger one Change 2617 on 2001/05/07 by ihoule@MA JHOULE Change 2631 on 2001/05/07 by jhoule@MA_JHOULE Added const toGL member functions Partially working dirLight funcs Change 2616 on 2001/05/07 by jhoule@MA JHOULE Change 2630 on 2001/05/07 by jhoule@MA_JHOULE Added renderScene() Partially working dirLight functionality Change 2615 on 2001/05/07 by ihoule@MA JHOULE Change 2629 on 2001/05/07 by jhoule@MA JHOULE Added renderScene() Const-correctness of retrival methods Change 2614 on 2001/05/07 by jhoule@MA JHOULE Change 2628 on 2001/05/07 by jhoule@MA JHOULE Cleaning Const-correctness of retrival methods Change 2613 on 2001/05/07 by jhoule@MA_JHOULE Change 2626 on 2001/05/07 by jhoule@MA_JHOULE Added DirLight (partially) Change 2612 on 2001/05/07 by jhoule@MA_JHOULE Added various draw methods (for Ref/Vec/etc.) Source files moved to Source directory. Change 2625 on 2001/05/07 by jhoule@MA_JHOULE Added the Scene.m file also Added DirLight (partially) Change 2611 on 2001/05/07 by jhoule@MA_JHOULE Added various draw methods (for Ref/Vec/etc.) Page 79 of 106 Page 80 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history

Change 2695 on 2001/05/09 by ihoule@MA JHOULE

Quat->Mat{34}d had wrong signs in many places

Some cleanup. Quat(Vec, Vec, Vec) should be removed.

Change 2728 on 2001/05/10 by jhoule@MA JHOULE

Change 2544 on 2001/05/03 by smorein@smorein r400 Change 2610 on 2001/05/07 by jhoule@MA JHOULE Updated RBBM spec, needs more detail to be final Added CPneeds to driver CP spec completion Better output in case of error (LoadModel) Change 2609 on 2001/05/07 by jhoule@MA JHOULE Change 2524 on 2001/05/03 by Iseiler@ma Iseiler Traces: readme file for the standard set of traces and the subset of frames used within Change 2608 on 2001/05/07 by jhoule@MA JHOULE Change 2508 on 2001/05/02 by llefebvr@llefebvre_laptop_r400 Removed old objects (from previous project). about to change the walking algorithm and want to keep the old one... Change 2607 on 2001/05/07 by jhoule@MA_JHOULE Change 2482 on 2001/05/01 by bbloemer@ma-jasonh Removed old objects (from previous project). Change 2606 on 2001/05/07 by jhoule@MA_JHOULE Change 2464 on 2001/05/01 by bbloemer@ma-jasonh Ouad on XZ plane, face +Y Samsung's 4/26/01 presentation materials Change 2605 on 2001/05/07 by jhoule@MA_JHOULE Change 2364 on 2001/04/26 by ihoule@MA JHOULE A HW-assisted implementation of shadow buffers using depth maps. Change 2604 on 2001/05/07 by jhoule@MA JHOULE Changed ParserRage128::TriangleData type to the correct My (dated) numerical library, with more evolved stuff that grew in. Parser::dcPixelGen3dPolygons. Change 2597 on 2001/05/07 by bbloemer@ma-jasonh JEDEC document Change 2359 on 2001/04/26 by llefebvr@llefebvre laptop r400 Change 2587 on 2001/05/04 by smorein@smorein_r400 updated top level spec to match RE and SC specs very minor update Change 2358 on 2001/04/26 by Iseiler@ma Iseiler Change 2571 on 2001/05/04 by llefebvr@llefebvre_laptop_r400 Render Backend first spec version Change 2357 on 2001/04/26 by ihoule@MA JHOULE Change 2570 on 2001/05/04 by llefebvr@llefebvre laptop r400 Changed super-sampling to multi-sampling Spin on some specs, not all complete be checked in for safety Change 2356 on 2001/04/26 by jhoule@MA_JHOULE Change 2569 on 2001/05/04 by llefebvr@llefebvre_laptop_r400 A simple ReadMe file to give some infos about how to use the library new spin on setup Page 82 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder history Boris updated tDQSS to match JEDEC definition. Change 2353 on 2001/04/26 by jhoule@MA_JHOULE A small example use of the TorontoParser Change 2240 on 2001/04/17 by Iseiler@ma Iseiler Change 2352 on 2001/04/26 by jhoule@MA_JHOULE Memory controller architectural specs and related documents Initial check-in Change 2238 on 2001/04/17 by jhoule@MA JHOULE It is a crude R400 rasterizer (I only put it up in a library... Laurent did all the actual coding) Added a zeroing constructor (solves clipping bug) Change 2347 on 2001/04/25 by Iseiler@ma Iseiler Change 2237 on 2001/04/17 by ihoule@MA JHOULE Added text about the RB and MC plus descriptions of some RB features Does not skip ApplyTransform (OK except for Quake) Change 2340 on 2001/04/25 by beiwang@MA_BEIWANG Change 2236 on 2001/04/17 by jhoule@MA_JHOULE DDR I Spec from JEDEC Solved issues with non-square mipmaps. Change 2325 on 2001/04/24 by jhoule@MA_JHOULE Some debugging code added (some asserts, as well as a getchar() in DEBUG when fileNotFound) Added attributes conservation when no clipping occurs. Change 2228 on 2001/04/17 by Iseiler@ma_Iseiler Change 2324 on 2001/04/24 by jhoule@MA_JHOULE Added CopySelectAttributes() inline method to VERTEX structure (used in Transform::Apply) Change 2179 on 2001/04/12 by beiwang@MA BEIWANG Change 2314 on 2001/04/23 by smorein@smorein_r400 MC programming guide and interface documents from Boris Updated area to new area estimate, post texture path changes checked in top level spec for larry to add to it Change 2153 on 2001/04/11 by llefebvr@llefebvre laptop r400 fixed a bug in the z interpolation + new stats on R400 vs R300 Change 2307 on 2001/04/23 by bbloemer@ma-jasonh Change 2137 on 2001/04/11 by bbloemer@ma-jasonh Added R200 I/O impedance control documents. Some info on 500 MHz. DRAM Change 2300 on 2001/04/23 by llefebvr@llefebvre_laptop_r400 Change 2132 on 2001/04/10 by llefebvr@flefebvre_laptop_r400 New version of the rasterizer. Fixed a bug where the parameters where interpolated from clean R400 rasterizer Change 2113 on 2001/04/09 by jhoule@MA_JHOULE Change 2246 on 2001/04/18 by llefebvr@llefebvre_laptop_r400 new walker, resterizer, zbuffer supporting textures and sample point movement. The movement takes center if in or any other point inside the triangle. Works well for colors but not for textures. Will experiment now with the real centroid instead. Solved a few files misnamings. Seems to be some legacy dependency left (rodney parser) Change 2241 on 2001/04/17 by bbloemer@ma-jasonh Change 2112 on 2001/04/09 by jhoule@MA JHOULE Page 84 of 106 Page 83 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history

Removed old variables (changes showInfos)

Added a few files... Change 1951 on 2001/03/30 by jhoule@MA_JHOULE Added L1_L2_INTERACTION definition for flushing issues (see flush()) Uses the new TorontoParser Change 2111 on 2001/04/09 by jhoule@MA_JHOULE Change 1950 on 2001/03/30 by jhoule@MA_JHOULE Added size() for output Added L1 L2 INTERACTION preprocessor definition for flushing issues Change 2110 on 2001/04/09 by jhoule@MA_JHOULE Changed UINT_MAX to 0xFFFFFFF for flushed tag (but shouldn't matter after all) L2Probe hack integration (with XYAddr class) Change 1948 on 2001/03/30 by ihoule@MA JHOULE Change 2109 on 2001/04/09 by jhoule@MA_JHOULE Added new mipmap LOD calculation (which correctly changes W and H of level). Added L2Probe hack with correct flushing. test_raster code is more versatile because of default texSize in global parameters Change 2108 on 2001/04/09 by jhoule@MA JHOULE Change 1919 on 2001/03/29 by jhoule@MA JHOULE Moved output of gQuadPixelFlushLimit Added things to solve wrong w/h in mipID != 0 Change 1882 on 2001/03/27 by jhoule@MA_JHOULE New parser integration (Polygon vs. Triangle) Minor memory leaks solved. Sanity testing code in test_raster() Change 1877 on 2001/03/26 by bbloemer@ma-jasonh No mipmapping when specified (I == 0) Rectangular texture w/h computation solved Change 2107 on 2001/04/09 by llefebyr@llefebyr r400 Change 1836 on 2001/03/22 by bbloemer@ma-jasonh revised specs and walker Moved files to under mc. Change 2097 on 2001/04/06 by bbloemer@ma-jasonh Change 1835 on 2001/03/22 by bbloemer@ma-jasonh Added April memory matrix. Moved Samsung directory from under mc.R200 Memory to under mc. Change 2082 on 2001/04/05 by jhoule@MA_JHOULE Change 1834 on 2001/03/21 by bbloemer@ma-jasonh Toronto Parser, task #6452, 2001-04-04 (retrieved by Rodney Andre and copied here on Hyundai 3/20 road map presentation. Change 1826 on 2001/03/21 by jhoule@MA_JHOULE Change 2058 on 2001/04/04 by jhoule@MA_JHOULE One too many endl Values weren't initialized (gave wrong clipping for notcl dumps) Change 1825 on 2001/03/21 by jhoule@MA_JHOULE Change 2057 on 2001/04/04 by jhoule@MA_JHOULE Was a wrong FACache for L1 Non-activated modifs (currently testing wrong clipping) Change 1824 on 2001/03/21 by bbloemer@ma-jasonh Page 85 of 106 Page 86 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 1800 on 2001/03/20 by jhoule@MA_JHOULE Added Micron directory and presentation Change 1823 on 2001/03/21 by jhoule@MA_JHOULE Removed trace MultiLevelCache added (but probaby won't be used) Note: cerr << "B" << flush; is actually cerr << "B" << AbdCache::flush; Hence, it prints Unlimit mipmap reactivated Change 1799 on 2001/03/20 by jhoule@MA_JHOULE Change 1822 on 2001/03/21 by jhoule@MA_JHOULE readParent added Removed duplicate output Change 1797 on 2001/03/20 by ihoule@MA JHOULE Change 1821 on 2001/03/21 by jhoule@MA_JHOULE Added parentCache support (with readParent, which doesn't need to be virtual) Moved some printing stuff. Change 1796 on 2001/03/20 by jhoule@MA JHOULE Removed the MultiLevelCache, and hard-coded directly (this why I changed the print from FACache to reflect L1/L2 difference) Change 1820 on 2001/03/21 by ihoule@MA JHOULE Change 1779 on 2001/03/19 by jhoule@MA JHOULE Removed flushing for L2 caches (when there is an mParentCache) Argument faking added. Change 1818 on 2001/03/21 by jhoule@MA JHOULE Differences in test code Initial check in Change 1757 on 2001/03/16 by bbloemer@ma-jasonh Change 1817 on 2001/03/21 by jhoule@MA_JHOULE Moved to Infineon directory Added "fa2" before "fa" (for parsing reasons) Change 1756 on 2001/03/16 by bbloemer@ma-jasonh Change 1815 on 2001/03/20 by jhoule@MA_JHOULE Created Infineon directory; moved 128M spec to it. Added 2 schedules. Added setParent so that we can send pointers, and change specify the parent later. Change 1755 on 2001/03/16 by ihoule@MA JHOULE

Uses an if instead of a modulo...

Will have to test with an unloaded system

Change 1752 on 2001/03/15 by jhoule@MA_JHOULE

Semicolon missing

Change 1751 on 2001/03/15 by jhoule@MA_JHOULE

Performance tweaking... (unsuccessful)

Page 88 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 1802 on 2001/03/20 by jhoule@MA_JHOULE

Change 1801 on 2001/03/20 by jhoule@MA JHOULE

Added parentCache in constructor

Better comments.

Removed "tex" to insist it is a generic memory model.

Added parent cache (pCache) in constructor (default is NULL)

Removed every "tex" I found (generic memory model, not just texture).

Page 87 of 106

The modulo seems dreadfully slow... Is it the P4? Or simply too many calls? Added readCacheConfigFile function to lighten the code. Tried various inline/Int32/.size() keeping to no avail... Change 1734 on 2001/03/15 by jhoule@MA JHOULE Change 1750 on 2001/03/15 by jhoule@MA_JHOULE Added readCacheConfigFile (solves partly the const correctness, still some work to do) popNpush doesn't return a value (initial thought was performance, but I'm wrong) Includes FACache Change 1749 on 2001/03/15 by jhoule@MA_JHOULE Change 1733 on 2001/03/15 by jhoule@MA_JHOULE Integrated CircularFIFO Cleaned things up. Change 1748 on 2001/03/15 by jhoule@MA_JHOULE Constructor takes no parameter (must call setTag) Integrated CircularFIFO Destructor wasn't necessary (uses the compiler's) Change 1742 on 2001/03/15 by jhoule@MA JHOULE match uses getTag (inline = incurs no cost penalty) Added DEFINEs so that we could easily remove statistics computation (but not output, Added climits header Change 1732 on 2001/03/15 by bbloemer@ma-iasonh After verification, it accounts for less than 5%. 2M x 16b Hyundai data sheet. Couldn't find a x 32b. Change 1741 on 2001/03/15 by smorein@smorein_r400 Change 1727 on 2001/03/15 by jhoule@MA JHOULE adding first real version of top level spec. A simple CacheLine cache that simply contains the tag (for now) Change 1739 on 2001/03/15 by jhoule@MA_JHOULE Simplifies reading and construction of other constructs. Removed unnecessary function template Change 1726 on 2001/03/15 by jhoule@MA_JHOULE Change 1738 on 2001/03/15 by jhoule@MA_JHOULE Explicit virtual constructor Fully-associative cache Change 1716 on 2001/03/14 by llefebvr@llefebvr r400 Adds a single argument (depth), which will yield direct-mapped caches when at 1. specs for Raster block, SC, SU, HZ + stats for HZ precision Change 1737 on 2001/03/15 by jhoule@MA JHOULE Change 1700 on 2001/03/13 by jhoule@MA_JHOULE Solves const-correctness Added UNLIMIT_MIPMAP #if/#endif Change 1736 on 2001/03/15 by jhoule@MA_JHOULE Change 1699 on 2001/03/13 by jhoule@MA JHOULE Solves const-correctness Cleaner reading for default values of cache tag bits. Change 1735 on 2001/03/15 by jhoule@MA_JHOULE Reactivated the UNLIMIT thingy Major cleanup in initCache. Change 1698 on 2001/03/13 by jhoule@MA_JHOULE Page 89 of 106 Page 90 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Viso files with figures for my R400 documents. These files are divided up by the type of figure, rather than by the document that uses them. The Word documents contain links to these Removed mipmap conflict workaround (changes less than 0.5%!!!) Could be turned back on simply. Change 1656 on 2001/03/08 by Iseiler@ma_Iseiler Change 1696 on 2001/03/12 by beiwang@MA_BEIWANG Updated tiling test that checks for a wide range of cache sizes, swizzling the cache blocks Micron DesignLine: DDR SDRAM Functionality and Controller Read Data Capture to improve the efficiency for a 2-block cache. Change 1694 on 2001/03/12 by beiwang@MA_BEIWANG Change 1655 on 2001/03/08 by jhoule@MA_JHOULE Winbond info Added another scheme (also does vertical quad spitting) Change 1690 on 2001/03/12 by jhoule@MA_JHOULE Change 1653 on 2001/03/07 by jhoule@MA_JHOULE Main loop reactivated (was testing caches) Came back with old output scheme Change 1689 on 2001/03/12 by jhoule@MA_JHOULE Change 1652 on 2001/03/07 by jhoule@MA_JHOULE Flushes after n quads reactivated Added a new output scheme (untested, but straitforward) Change 1688 on 2001/03/12 by ihoule@MA JHOULE Change 1651 on 2001/03/07 by ihoule@MA JHOULE Added Mag/Min count Use -fq instead of -fp Change 1687 on 2001/03/12 by jhoule@MA JHOULE Removes Steve's NO-MAG hack Change 1641 on 2001/03/07 by pmitchel@pmitchel_r400_docs Added findIndex with baseTexAddr Change 1686 on 2001/03/12 by ihoule@MA JHOULE Added findIndex with baseTexAddr as paramter choice Change 1640 on 2001/03/07 by pmitchel@pmitchel_r400_docs Change 1680 on 2001/03/09 by llefebvr@llefebvr r400 HZ precision simulations Change 1639 on 2001/03/07 by pmitchel@pmitchel_r400_docs Change 1663 on 2001/03/08 by beiwang@MA BEIWANG Information related to memory controller, memory chips, roadmaps, past generation mc Change 1618 on 2001/03/05 by pmitchel@smcs9 Change 1658 on 2001/03/08 by lseiler@ma lseiler

Word files and pdf files describing the memory controller and the frame buffer formats.

Page 91 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 1657 on 2001/03/08 by lseiler@ma_lseiler

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 1605 on 2001/03/02 by jhoule@MA JHOULE

UINT_MAX used for default flushing limit.

Wrongfully used / instead or \ for specials C characters

Page 92 of 106

Change 1604 on 2001/03/02 by jhoule@MA_JHOULE Change 1576 on 2001/02/28 by jhoule@MA_JHOULE InitCache has the char* unconst (because of exception ErrFileNotFound) Changed the cache sizes in define (removed 2048, addd back eventually?) Change 1603 on 2001/03/02 by jhoule@MA_JHOULE Change 1572 on 2001/02/28 by jhoule@MA_JHOULE CacheConfig integrated. Added offset textureFetch calls Solved a bug that never happened: use multiCache to gCacheStat->add and NOT gCache Integrated FLUSH_AFTER_N_QUADS scheme to arbitrarily flush the cache after a Change 1594 on 2001/03/01 by jhoule@MA JHOULE Better comments. Added getMipID based on Chaplin (outdated) docs. Change 1593 on 2001/03/01 by jhoule@MA JHOULE Calls getchar() automatically at end of program. The strncmp calls now include the \0 at the end (differentiate -f -fp) Corrected a few hard-coded caches. Change 1571 on 2001/02/28 by jhoule@MA JHOULE Change 1590 on 2001/03/01 by jhoule@MA_JHOULE Added offset parameter to textureFetch. Output of flush limit (if there is one) Added FLUSH AFTER N QUADS to support arbitrary quad cache flushing. Change 1588 on 2001/03/01 by jhoule@MA JHOULE Change 1568 on 2001/02/28 by smorein@smorein_r400 Correction caches (use a temporary multiCache2 to be removed) new document, pre early draft Change 1585 on 2001/03/01 by jhoule@MA_JHOULE Change 1554 on 2001/02/27 by pmitchel@pmitchel_r400_docs Inverted two caches (4x4 2x4 and 4x4 4x2) Change 1584 on 2001/03/01 by llefebvr@llefebvr r400 Change 1553 on 2001/02/27 by pmitchel@pmitchel_r400_docs revised the end graph of the spec because of an error Change 1578 on 2001/02/28 by jhoule@MA JHOULE Change 1551 on 2001/02/27 by llefebvr@llefebvr r400 A lot of cache cleaning Added comments on bit settings. Change 1544 on 2001/02/27 by pmitchel@pmitchel_r400_docs Removed output in init() Change 1577 on 2001/02/28 by jhoule@MA_JHOULE Change 1543 on 2001/02/27 by pmitchel@pmitchel r400 docs Output sent only if CACHE_VERBOSE high enough cron test.. Page 93 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 1520 on 2001/02/26 by jhoule@MA_JHOULE Change 1540 on 2001/02/27 by pmitchel@pmitchel r400 docs static casts test of cron job for syncing web site Commented unused arguments. Change 1536 on 2001/02/27 by jhoule@MA_JHOULE Better info on namespace explicit instantiation bug of VC++ Added getMipID Change 1519 on 2001/02/26 by jhoule@MA_JHOULE Change 1535 on 2001/02/27 by jhoule@MA_JHOULE Major function reorganization Cache sizes selection with DEFINE. Should help reading Indentation of comments Change 1518 on 2001/02/26 by jhoule@MA_JHOULE Added 512 cache sizes to test. Replaces the weird CacheSimSetup.h (soon to be removed) Change 1534 on 2001/02/27 by jhoule@MA_JHOULE Change 1517 on 2001/02/26 by jhoule@MA_JHOULE Cache sizes DEFINE to simplify selection Pragma put here (should solve many occurances) Change 1533 on 2001/02/27 by jhoule@MA_JHOULE Change 1513 on 2001/02/26 by jhoule@MA_JHOULE Few corrections here and there (concerning quadBucket) Integrated QuadRearranger.. Flushing the cache after every new texture. A bigger triangle in test_raster Change 1532 on 2001/02/27 by jhoule@MA_JHOULE Change 1512 on 2001/02/26 by jhoule@MA_JHOULE Cleaner output (total cache size is easier to see) Condition in flushing method (wasn't checking if the quad was valid). Change 1525 on 2001/02/26 by jhoule@MA_JHOULE Some output traces Reads returns garbage (always 0). Upper-left corner is now updated correctly (regardless of delta size) Change 1524 on 2001/02/26 by jhoule@MA_JHOULE Change 1511 on 2001/02/26 by jhoule@MA_JHOULE Removed traces. Added iostream quadpixel has (commented out) code for skipping computation Change 1509 on 2001/02/26 by jhoule@MA_JHOULE Change 1522 on 2001/02/26 by jhoule@MA_JHOULE Initial CI Removed and replaced by CacheSim.h (somewhat at least) Change 1490 on 2001/02/23 by llefebvr@llefebvr_r400 Change 1521 on 2001/02/26 by jhoule@MA_JHOULE deletion of obsolete stats Added MultiCache (Stat) and OuadRearranger Change 1489 on 2001/02/23 by llefebvr@llefebvr r400

Page 95 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Page 96 of 106

specs for the raster engine and scan converter Added {unsigned} int64 => {U}Int64 Change 1488 on 2001/02/23 by jhoule@MA_JHOULE WIN32 also used New, better, faster tests! Change 1465 on 2001/02/23 by ihoule@MA JHOULE Change 1484 on 2001/02/23 by jhoule@MA JHOULE baseAddr instead of texBaseAddr (could be anything, really) Removed fetch distribution for now Change 1464 on 2001/02/23 by jhoule@MA JHOULE Change 1483 on 2001/02/23 by jhoule@MA_JHOULE XY addressing size reduced to 12 bits (4098 max tex size) Different test, no getchar() at end Now catches ErrFileNotFound exception Change 1482 on 2001/02/23 by jhoule@MA JHOULE Change 1463 on 2001/02/23 by jhoule@MA JHOULE TIO command-line support Change 1476 on 2001/02/23 by jhoule@MA JHOULE Change 1462 on 2001/02/22 by smorein@smorein_r400 MultiCache (Stats) used. Update area, release changes to raster engine Added gFramesDone (useful when skipping) Change 1461 on 2001/02/22 by llefebvr@llefebvr r400 Cleaner printing scheme. SC specs and stats for the raster efficiencies... Change 1475 on 2001/02/23 by jhoule@MA_JHOULE Change 1453 on 2001/02/22 by jhoule@MA JHOULE Initial CI Integrated -cl (cache line arrangement) and -co (cache line organization). Change 1474 on 2001/02/23 by jhoule@MA_JHOULE Added blockStr2bits function (used for both). MultiCacheStat is friend (can now read mCaches) NOTE: this supposes X&Y addresses have 16 bits (65536 max tex size) Change 1473 on 2001/02/23 by jhoule@MA_JHOULE Change 1452 on 2001/02/22 by jhoule@MA_JHOULE Added a few header files (and the pragma for Windows damn message!) Again, some overflow issues (because of the *100) Print now also prints the cache info. Change 1438 on 2001/02/21 by llefebvr@llefebvr_r400 Removed legacy code (was commented) working scan converter with quad based pipes, and R300 simulation Change 1468 on 2001/02/23 by jhoule@MA_JHOULE Change 1437 on 2001/02/21 by jhoule@MA_JHOULE Solved UInt32 overflow by typecasting to double before multiplying by bandwidth(). Tested moderately Should now be consistently giving the same as: avgPixelMiss*missBandwidth() Page 97 of 106 Page 98 of 106 Ex. 2051 --- R400 Architecture FH --- folder_history Ex. 2051 --- R400 Architecture FH --- folder_history Change 1436 on 2001/02/21 by jhoule@MA JHOULE Change 1397 on 2001/02/20 by jhoule@MA_JHOULE Commented the last getchar() (now that I have a decent shell to work on) Bandwidth info corrected (full precision + typo) Change 1431 on 2001/02/21 by jhoule@MA_JHOULE Change 1396 on 2001/02/20 by jhoule@MA_JHOULE Cleaner init/term placement. Better comments Integrated new DMCache constructor with print member function. Legacy code removed Change 1430 on 2001/02/21 by jhoule@MA_JHOULE Change 1391 on 2001/02/20 by jhoule@MA_JHOULE Added a print function. Added total bandwidth printing Change 1429 on 2001/02/21 by jhoule@MA JHOULE Change 1390 on 2001/02/20 by jhoule@MA JHOULE Added new constructor (with all the bits), a str2TileDef (obsoleted by the constructor) as gFrameCount wasn't incremented in main loop. Memory deallocation of pkt wasn't done for frame pakets. Change 1427 on 2001/02/21 by jhoule@MA JHOULE Changed output for last frame Added str2TileDef (which shouldn't be used) Change 1387 on 2001/02/20 by jhoule@MA_JHOULE Added also a new constructor (with all the bits set up). RTTI in Release Finally added a print function. Change 1386 on 2001/02/20 by jhoule@MA_JHOULE Change 1425 on 2001/02/21 by llefebvr@llefebvr_r400 RTII in Release New stats on GUP efficiency Change 1385 on 2001/02/20 by jhoule@MA_JHOULE Change 1422 on 2001/02/21 by lseiler@ma_lseiler Auto Precomp Headers in Release Supports specifying separate \boldsymbol{x} and \boldsymbol{y} tile sizes Change 1381 on 2001/02/16 by jhoule@MA_JHOULE Change 1421 on 2001/02/21 by jhoule@MA_JHOULE Distributions passed through ostream instead of printf (uses temporary strings) Uses left-right and bottom-top for interpolation. Change 1380 on 2001/02/16 by ihoule@MA JHOULE Comments were erronous. Some added also. Skipping frames trace enabled Change 1420 on 2001/02/21 by jhoule@MA JHOULE Change 1375 on 2001/02/16 by jhoule@MA JHOULE x and y initialisation moved after declarations Accompanying documentation for the Toronto Parser. Change 1419 on 2001/02/21 by jhoule@MA_JHOULE Change 1374 on 2001/02/16 by jhoule@MA_JHOULE texXb and texYb weren't initialized Page 99 of 106 Page 100 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Change 1466 on 2001/02/23 by jhoule@MA_JHOULE

Examples that came with the continuum directory Moved here for clarity. updated excel render state sheet and stats Change 1373 on 2001/02/16 by jhoule@MA_JHOULE Change 654 on 2001/01/19 by liefebvr@liefebvr_r400 Toronto Parser (Corrina Lee, Michael Liu et al.) state changes presentation + cravola template Code from Continuum (Feb. 2 2001) Builds as a library (see ReadMe file)
Adds VTX_Texture in VERTEX (but ApplyTransform scraps infos). Change 631 on 2001/01/16 by Iseiler@ma_Iseiler Updated to support direct-mapped caching and to fix bugs in counting the number of Change 1372 on 2001/02/16 by jhoule@MA_JHOULE flushed cache entries Mark Fowler's rasterizer with QuadData structure put in by Larry Seiler. The project builds a library (see ReadMe.txt file) Change 625 on 2001/01/15 by llefebvr@llefebvr_r400 stats on the number of new render states per frame and total Change 1371 on 2001/02/16 by jhoule@MA_JHOULE Change 619 on 2001/01/12 by llefebvr@llefebvr r400 Initial check-in. This does some texture cache modeling. completed stats on efficiency, streaks, and caching. Added an excel sheet on caching in Change 1335 on 2001/02/13 by llefebvr@llefebvr r400 Change 616 on 2001/01/11 by smorein@smorein_r400 per pixel validity testing Updates area to include some of the comments from andy gruber in his email of january Change 871 on 2001/02/02 by smorein@smorein r400 2, 2001 Added a bunch of new documents, also updated area Change 614 on 2001/01/10 by llefebvr@llefebvr r400 the list of possible instructions for the unified shader Change 830 on 2001/01/31 by llefebvr@llefebvr r400 rasterizer with variable tile size and some pipe statistics gathering + stats on fifo deepness Change 610 on 2001/01/08 by liefebvr@liefebvr_r400 Change 802 on 2001/01/30 by llefebyr@llefebyr r400 adding data for evolva and proCDRS Spreadsheet and graphs on pipe efficiency Change 609 on 2001/01/08 by llefebvr@llefebvr_r400 Change 801 on 2001/01/30 by llefebvr@llefebvr_r400 updating statistics and adding vertex vs pixel worlkload working rasterizer. Not optimized only to be used to gather stats... Change 592 on 2000/12/22 by Iseiler@ma Iseiler Change 761 on 2001/01/26 by llefebvr@llefebvr_r400 New files needed for the updated PM4 parser Working full precision block scan converter Change 591 on 2000/12/22 by Iseiler@ma Iseiler Version used for data at 12/22/2000 meeting; uses new parser and works with quake & ProCDRS. Change 683 on 2001/01/23 by smorein@smorein r400 added new document Change 587 on 2000/12/19 by Iseiler@ma Iseiler Change 655 on 2001/01/19 by llefebvr@llefebvr_r400 Page 101 of 106 Ex. 2051 --- R400 Architecture FH --- folder history Ex. 2051 --- R400 Architecture FH --- folder history Supports limits on cache size Change 493 on 2000/12/08 by Hefebyr@Hefebyr r400 Change 585 on 2000/12/19 by smorein@smorein r400 documents explaining the stats and new stats new area estimate and intial re spec Change 489 on 2000/12/08 by lseiler@ma_lseiler Change 575 on 2000/12/18 by lseiler@ma_lseiler Program to test tile sizes in R400 Uses class FragCache to compute cache merging Change 480 on 2000/12/07 by llefebvr@llefebvr_r400 Change 571 on 2000/12/15 by llefebvr@llefebvr r400 added cache statistics gathering class Change 476 on 2000/12/07 by llefebvr@llefebvr_r400 Change 568 on 2000/12/15 by llefebvr@llefebvr_r400 submit befor switch to new parser render state cache statistics Change 466 on 2000/12/06 by lseiler@ma_lseiler Change 557 on 2000/12/13 by llefebvr@llefebvr_r400 quadpixel() call now includes the Z slope as part of the prim parameter statistics on render states along with explanatory readme file Change 465 on 2000/12/06 by Iseiler@ma Iseiler Change 528 on 2000/12/12 by llefebvr@ilefebvr_r400 rasterization block size is now settable by variables BlockWidth and BlockHeight, defined in ew.cpp and declared external in raster.h. Formerly, the block size was fixed at 32x8. revised statistics on the number of pixels drawn between state changes and 2x2 raster stamp efficiency, render pixels stats, doc is a document explaining how and what was gathered in the excel spread sheets. Change 451 on 2000/12/04 by llefebvr@llefebvr_r400 $\,$ Change 526 on 2000/12/12 by Iseiler@ma Iseiler creating new shadow buffer project ReadMe files for traces that are available on \ma | lseiler\perforce Change 450 on 2000/12/01 by Iseiler@ma Iseiler Change 506 on 2000/12/11 by lseiler@ma_lseiler quadpixel() now takes object parameters These files describe PM4 traces and show where to find them in the sharable on my local disk. They are not checked in to perforce since they exist on the Toronto server and because they are so large. Change 448 on 2000/11/30 by llefebvr@llefebvr r400 Change 447 on 2000/11/30 by llefebvr@llefebvr r400 Change 501 on 2000/12/11 by llefebyr@llefebyr r400 Useless and obsolete. Do not consider the stats in those files as they are wrong new project files for perfsim using shared directory

Change 500 on 2000/12/11 by llefebvr@llefebvr r400

Change 496 on 2000/12/11 by smorein@smorein_r400 added block descriptions, added tiling

Page 103 of 106

Ex. 2051 --- R400 Architecture FH --- folder_history

Corrupted numbers do not use..

Ex. 2051 --- R400 Architecture FH --- folder_history

Page 104 of 106

Change 446 on 2000/11/30 by llefebvr@llefebvr r400

creation of a shared directory

Change 445 on 2000/11/30 by flefebvr@flefebvr_r400

guard clipping added

stats with new 2x2 rasterizer for pixel streaks Change 443 on 2000/11/22 by llefebvr@llefebvr_r400 stats on quads efficiency for vectors of 4,8,16,32 Change 442 on 2000/11/21 by llefebvr@llefebvr_r400 new corrected data Change 441 on 2000/11/21 by llefebvr@llefebvr_r400 Change 439 on 2000/11/21 by llefebvr@llefebvr_r400 added stats for quad efficiency and vectors of 4 quads efficiency Change 437 on 2000/11/20 by llefebvr@llefebvr_r400 old rasteriser files Change 436 on 2000/11/20 by llefebvr@llefebvr_r400 changed the rasterizer to a 2x2 quad based rasterizer Change 435 on 2000/11/17 by llefebvr@llefebvr_r400 added pixel_streaks stats (pixels streaks between state changes) and raw data plus program to generate those numbers Change 431 on 2000/11/16 by llefebvr@llefebvr_r400 Simulations of the performance of the rasterisers Change 430 on 2000/11/15 by smorein@smorein_r400 Adding the initial versions of several specs. Change 417 on 2000/11/09 by llefebvr@llefebvr_r400 Change 416 on 2000/11/09 by pmitchel@ma_shusaku

Page 105 of 106

Ex. 2051 --- R400 Architecture FH --- folder history

Change 444 on 2000/11/27 by llefebvr@llefebvr_r400

Change 415 on 2000/11/09 by llefebvr@llefebvr_r400 bit shifts optimisations for the precomputed tables Change 414 on 2000/11/07 by llefebvr@llefebvr_r400 updated rng and completed documenting the whole thing Change 413 on 2000/11/07 by llefebvr@llefebvr_r400 documentation about mipmaped noise (optimized version) Change 412 on 2000/11/07 by llefebvr@llefebvr_r400 8 different small gradient tables instead of one identical one Change 411 on 2000/11/06 by llefebvr@llefebvr_r400 working mipmaping using precomputed tables Change 410 on 2000/11/06 by pmitchel@ma_shusaku test of perforce word plugin Change 408 on 2000/11/03 by llefebvr@llefebvr_r400 Change 407 on 2000/11/03 by llefebvr@llefebvr_r400 added VC ++ project file and removed useless files Change 406 on 2000/11/03 by llefebvr@llefebvr_r400 not needed anymore in this folder Change 405 on 2000/11/03 by llefebvr@llefebvr_r400 initial submission of all the files of the noise project Change 404 on 2000/11/03 by llefebvr@llefebvr r400 Media files needed by the noise project Change 400 on 2000/11/01 by pmitchel@_pmitchel Initial creation of r400 area under //depot

Page 106 of 106

Delete most unused Cravola tiling formats, which required changing addrR5xxArrayToAddr to addrCoordToAddr to distinguish z and s (always z in Xenos) copy from xenos, need to integ up to pele Change 180000 on 2004/07/22 by mkelly@fl_mkelly_r400_xp Change 210508 on 2005/02/28 by Iseiler@Iseiler win m r400 Restore some changes made to find ADDR 64 bug copy to r400 for integ to pele Change 210295 on 2005/02/27 by lseiler@lseiler_linux_r400 Change 173946 on 2004/06/16 by lseiler@lseiler_linux_r400 Linux gold images with 64-bit device addresses Adding gold image for multiwrites test Change 210279 on 2005/02/27 by Iseiler@Iseiler_win_h_r400 Change 172559 on 2004/06/09 by lseiler@lseiler_win_m_r400 Verify addr 64 to uint32 conversions Breaking RB into RBT, RBD, and RBC Change 172507 on 2004/06/08 by lseiler@lseiler_win_m_r400 Change 210266 on 2005/02/26 by Iseiler@Iseiler win h r400 Gold images (with 32-bit device addresses) for tests that fail sim with 64-bit device Move RB registers to RBT, RBD, or RBC addresses Change 172322 on 2004/06/08 by Iseiler@Iseiler_win_m_r400 Change 207027 on 2005/02/04 by Iseiler@Iseiler_win_m_r400 Split RB block some more, move RB FETCH registers to RBC Eliminate references to addrenum Change 171396 on 2004/06/02 by Iseiler@Iseiler win m r400 Change 205811 on 2005/01/28 by Iseiler@Iseiler win m r400 RB registers separated into RBT, RBD, and RBC blocks Pad pitch and height for R5xx tilings Change 171053 on 2004/06/01 by mkelly@fl mkelly r400 xp Change 202171 on 2005/01/05 by lseiler@lseiler_win_m_r400 comment out until revised to work with the new MP IB packet update address library naming convention Change 168831 on 2004/05/19 by ihoule@ihoule r400 linux marl Change 201801 on 2005/01/03 by Iseiler@Iseiler_win_m_r400 Integrating to checksum and associated files to verify register write path Changed address library naming convention Change 168643 on 2004/05/18 by fliljero@fl_knarf_xenos Change 187224 on 2004/09/10 by lseiler@lseiler_win_m_r400 removed multipass test as it will not be applicable until the test itself & primlib are back integrated from Xenos. Changed to 64-bit device addresses Change 186463 on 2004/09/02 by jhoule@jhoule r400 linux marl Change 165023 on 2004/04/29 by vgoel@fl vgoel2 Integrated latest emulator testbench files from Xenos order of acessing vertices was causing tessellation factor mismatches Change 180013 on 2004/07/22 by mkelly@fl mkelly r400 xp Change 164313 on 2004/04/26 by jhoule@jhoule r400 linux marlboro Page 2 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Reverse integrating latest TP/TC emulator code from Xenos in order to eventually get going with R600 developement. reverting the tests back to their R400 version and replacing events 25,26 and 27 with 24 as Frank had suggested that those events were removed Change 162605 on 2004/04/15 by lseiler@lseiler_win_l_r400 Change 155244 on 2004/03/15 by ashishs@fl ashishs r400 win2 adding a golden image to test a failure case correcting the shaders since had uninitialised exports Change 161203 on 2004/04/09 by Iseiler@Iseiler win 1 r400 Change 155209 on 2004/03/15 by ashishs@fl ashishs xenos xp2 Switch r400 addr library names to r600 names files from xenos to R400 Change 158336 on 2004/03/29 by mangeshn@fl mangeshn Change 155197 on 2004/03/15 by ashishs@fl ashishs r400 win edited test changed the script so that we can use the "fail reason" inside the xls Change 158300 on 2004/03/29 by ashishs@fl ashishs r400 win Change 155161 on 2004/03/15 by ashishs@fl ashishs r400 win2 if Test PASSES then remove the FAIL REASON comment same as xenos, removing some uninitialised export registers not used so as to avoid failing in hardware Change 157701 on 2004/03/24 by lseiler@lseiler_win_1_r400 Change 154507 on 2004/03/11 by ashishs@fl_ashishs_r400_win2 replaced old r400 names with r600 names copying from xenos Change 157214 on 2004/03/22 by ashishs@fl_ashishs_r400_win Change 154471 on 2004/03/11 by ashishs@fl ashishs r400 win2 swapping the fb backgorund to match xenos enabling the stress test (still need to add actual test data, will be done soon) Change 157188 on 2004/03/22 by ashishs@fl_ashishs_xenos_xp Change 154182 on 2004/03/10 by csampayo@fl csampayo1 r400 win integrating the latest changes in r400 Changed background color to display the same as Xenos Change 156636 on 2004/03/19 by ashishs@fl_ashishs_xenos_xp2 Change 154181 on 2004/03/10 by csampayo@fl_csampayo1_r400_win integrating the change in r400 Update from Xenos and, change background color to display the same as Xenos. Change 156223 on 2004/03/18 by vgoel@fl_vgoel2 Change 154032 on 2004/03/10 by csampayo@fl_csampayo1_r400_win modified vertex shaders which were using uninitialzed GPRs components. Update from Xenos version Change 155953 on 2004/03/17 by ashishs@fl_ashishs_xenos_xp2 Change 153947 on 2004/03/10 by mkelly@fl_mkelly_r400_win_laptop integrating the changes from xenos back to r400 update Change 155877 on 2004/03/17 by ashishs@fl ashishs r400 win Change 153946 on 2004/03/10 by mkelly@fl_mkelly_r400_win_laptop changing the gold path to t:\xenos\gold_r400 update Change 155287 on 2004/03/15 by ashishs@fl ashishs r400 win Change 153944 on 2004/03/10 by mkelly@fl_mkelly_r400_win_laptop Page 3 of 510 Page 4 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history ATI 2052

Change 180011 on 2004/07/22 by mkelly@fl mkelly r400 xp

Change 238013 on 2005/10/06 by lseiler@lseiler win 1 r400

LG v. ATI IPR2015-00325

AMD1044 0258234

removed a comment update Change 152877 on 2004/03/05 by ashishs@fl ashishs r400 win2 Change 153511 on 2004/03/08 by ashishs@fl_ashishs_r400_win2 adding another jmp pred test adding loop export tests Change 152848 on 2004/03/05 by mmantor@mmantor_xenos_linux_test Change 153356 on 2004/03/08 by ashishs@fl_ashishs_r400_win2 Sixed a bug in the loading of aluconst, back integrated removal of realtime space from aluconst and texconst mems and control logic in rbi and all hookups, altered sq_regress per adding sq_debug register tests carlos test set> Change 153078 on 2004/03/05 by csampayo@fl csampayo4 r400 win Change 152790 on 2004/03/04 by ashishs@fl_ashishs_r400_win2 Increased image buffer size to 160 (multiple of both 40 and 32) adding another jump pred test Change 152998 on 2004/03/05 by ashishs@fl ashishs r400 win2 Change 152667 on 2004/03/04 by ashishs@fl_ashishs_r400_win2 removing TCL dump since not necessary in R400 dumps adding IM_LOAD in all so that they don't fail in hardware Change 152991 on 2004/03/05 by mangeshn@fl mangeshn Change 152525 on 2004/03/03 by ashishs@fl ashishs r400 win2 added looped pred_set_pop test checking result register behavior and clamp value correcting the shader Change 152931 on 2004/03/05 by ashishs@fl_ashishs_r400_win2 Change 152484 on 2004/03/03 by ashishs@fl_ashishs_r400_win adding an impportant comment Change 152930 on 2004/03/05 by ashishs@fl_ashishs_r400_win2 Change 152483 on 2004/03/03 by ashishs@fl_ashishs_r400_win converted from xenos back to R400 updating comment Change 152915 on 2004/03/05 by mangeshn@fl_mangeshn Change 152480 on 2004/03/03 by ashishs@fl_ashishs_r400_win added test: executing pred_sete_push in a loop simple test to show that the conditional jump doesn't work correctly Change 152907 on 2004/03/05 by ashishs@fl ashishs r400 win2 Change 152451 on 2004/03/03 by ashishs@fl_ashishs_r400_win adding tests over from xenos just to show that the cond jmp doesn't work correctly Change 152884 on 2004/03/05 by ashishs@fl_ashishs_r400_win2 Change 152438 on 2004/03/03 by ashishs@fl_ashishs_r400_win adding the jump and call pred tests adding another cond call test Change 152880 on 2004/03/05 by ashishs@fl_ashishs_r400_win2 Change 152431 on 2004/03/03 by ashishs@fl_ashishs_r400_win call pred simple test adding another cond call Change 152879 on 2004/03/05 by ashishs@fl ashishs r400 win2 Change 152404 on 2004/03/03 by ashishs@fl_ashishs_r400_win Page 6 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history adding test with nested LOOP and REP and UNTIL finalizing the test Change 150706 on 2004/02/24 by ashishs@fl ashishs r400 win2 Change 152380 on 2004/03/03 by ashishs@fl_ashishs_r400_win having one outer for loop and 3 inner nested REP loops and each rep loop using the outer simple test to check the cond call Change 152363 on 2004/03/03 by ashishs@fl ashishs r400 win Change 150548 on 2004/02/23 by ashishs@fl_ashishs_r400_win2 adding serialize keyword since failing in hardware correcting the test, i was expecting the wrong answer when the test was generating the correct answer Change 151670 on 2004/02/27 by csampayo@fl_csampayo1_r400_win Change 150336 on 2004/02/20 by ashishs@fl ashishs r400 win2 Adding tests for hardware sanity checking Change 151660 on 2004/02/27 by mkelly@fl_mkelly_r400_win_laptop Change 150333 on 2004/02/20 by ashishs@fl ashishs r400 win2 remove real time tests from regression The simplest nested LOOP and REP Change 151658 on 2004/02/27 by mkelly@fl mkelly r400 win laptop Change 150304 on 2004/02/20 by ashishs@fl ashishs r400 win2 another loop rep test Change 151547 on 2004/02/27 by ashishs@fl_ashishs_r400_win2 Change 150285 on 2004/02/20 by ashishs@fl ashishs r400 win2 adding new short tests correcting the test Change 151544 on 2004/02/27 by ashishs@fl_ashishs_r400_win2 Change 150261 on 2004/02/20 by ashishs@fl ashishs r400 win2 adding the shortened versions to r400 also(already aded to xenos) adding test to show problem Change 151507 on 2004/02/27 by tmartin@tmartin_r400_win

Change 150182 on 2004/02/20 by Iseiler@Iseiler_r400_win_marlboro1 Change address library r400 names to r600 names Change 149968 on 2004/02/19 by mkelly@fl_mkelly_r400_win_laptop add pipe 0 to rsp 07, test simd 1, pipes 0 - 15 Change 149850 on 2004/02/18 by csampayo@fl_csampayo1_r400_win Adding new mem export test Change 149824 on 2004/02/18 by mkelly@fl_mkelly_r400_win_laptop Change 149823 on 2004/02/18 by mkelly@fl_mkelly_r400_win_laptop Page 8 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

Page 7 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

improved test

Change 151484 on 2004/02/27 by ashishs@fl_ashishs_r400_win

Change 150972 on 2004/02/25 by ashishs@fl ashishs r400 win

Adding loop, subroutine, REP, UNTIL combo tests

removing xenos related settings since they were copied from xenos Change 150803 on 2004/02/24 by ashishs@fl ashishs r400 win2

Change 150971 on 2004/02/25 by ashishs@fl ashishs r400 win

correcting a small error in the script

temp checkin for the cond call test, need to correct the syntax for instruction more rsp coverage Change 148880 on 2004/02/12 by ashishs@fl ashishs r400 win2 Change 149631 on 2004/02/17 by mkelly@fl_mkelly_r400_win_laptop changed disp dim Change 148561 on 2004/02/11 by jayw@jayw r400 linux marlboro3 Change 149619 on 2004/02/17 by mkelly@fl_mkelly_r400_win_laptop added regrss6 targer and major reduction in db depth cache raddr.v Changed to 4 cases only, added predication on SIMD/PIPE combination Change 148482 on 2004/02/10 by ashishs@fl ashishs r400 win2 Change 149490 on 2004/02/17 by ashishs@fl ashishs r400 win2 same as loop pred_03 but does the predicate checking just before the end of the loop. But also shows that the UNTIL behaves like a loop rather than REPEAT...UNTIL checkin final test for LOOP REP after the instruction was fixed Change 149487 on 2004/02/17 by smoss@smoss_xenos_linux_orl Change 148470 on 2004/02/10 by ashishs@fl ashishs r400 win2 Change 149273 on 2004/02/13 by ashishs@fl ashishs r400 win2 Change 148390 on 2004/02/10 by ashishs@fl ashishs r400 win2 test to show that the loop rep doesnt work correctly just simplifying the shader to show the error Change 149238 on 2004/02/13 by ashishs@fl_ashishs_r400_win Change 148368 on 2004/02/10 by jhoule@jhoule_r400_linux_marlboro removing 2 tests from depot and test_list Updated align_display.h to align to 32 under R400-R600, and to 40 for Xenos Change 149195 on 2004/02/13 by ashishs@fl_ashishs_r400_win adding "serialize" in the shader to not use assembler clauses Change 149175 on 2004/02/13 by llefebvr@llefebvr_r400_emu_montreal Fixing this test by insertion of serialize statement Change 149129 on 2004/02/13 by mkelly@fl mkelly r400 win laptop fixed test bug, vertex buffer override Change 149093 on 2004/02/13 by mkelly@fl_mkelly_r400_win_laptop update Change 149092 on 2004/02/13 by mkelly@fl_mkelly_r400_win_laptop Change 149089 on 2004/02/13 by ashishs@fl ashishs r400 win2 Page 9 of 510 Ex. 2052 --- R400 Testing FH ---foler_history update Change 148026 on 2004/02/09 by mkelly@fl_mkelly_r400_win_laptop Change 147832 on 2004/02/06 by mkelly@fl mkelly r400 win laptop Change 147734 on 2004/02/06 by csampayo@fl_csampayo2_r400 Add new export tests (for SX)

Change 148366 on 2004/02/10 by jhoule@jhoule_r400_linux_marlboro Integrating back from Xenos Change 148112 on 2004/02/09 by domachi@diotargetxp - Prevent the random selection of a mip filter if the texture format does not support mipmapping - Bugzilla 3239
- In the uber_rand test, bias the lod bias value so that it will select values closer to 0.0 more often Change 148062 on 2004/02/09 by ashishs@fl_ashishs_r400_win2 adding the missing retain prev tests to the test list Change 148061 on 2004/02/09 by ashishs@fl_ashishs_r400_win2 currently seems problems in emulator regarding the nested loop with exit condition, so waiting till this is fixed. The test has yet to be finalised Change 148027 on 2004/02/09 by mkelly@fl_mkelly_r400_win_laptop Page 10 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Change 147417 on 2004/02/05 by ashishs@fl ashishs r400 win removed r400sc_simple_triangle_rts_01 Change 147249 on 2004/02/04 by ashishs@fl ashishs r400 win adding files over from xenos for the newly created tests Change 147151 on 2004/02/04 by mkelly@fl mkelly r400 win laptop set constant after SQ const resource setup Change 147146 on 2004/02/04 by jayw@jayw_r400_linux_marlboro3 memory address generation fix for number of pipes. heavily commented and greatly simplified from original. 'missing' casses added too. Change 146971 on 2004/02/03 by mkelly@fl mkelly r400 win laptop Load RT constants after changing eo_rt and ps_const Change 146970 on 2004/02/03 by llefebvr@llefebvre_laptop_r400_emu Removed the explicit alloc for the parameters. When doing an explicit alloc you must put all allocs as explicit which was not done in this test. Change 146943 on 2004/02/03 by mkelly@fl mkelly r400 win laptop Change 146942 on 2004/02/03 by mkelly@fl_mkelly_r400_win_laptop set constant %4 Change 146641 on 2004/01/31 by ashishs@fl_ashishs_r400_win fixing the shaders for the FAILING tests Change 146519 on 2004/01/30 by vromaker@vromaker_r400_linux_marlboro - this file is written by the test so it must not be under perforce control (or it will be read-only and the test will not be able to write it) Change 146470 on 2004/01/30 by ashishs@fl_ashishs_r400_win re-enabling all the tests and sorting

Page 12 of 510

exiting in nested loop, still need to add more Change 147532 on 2004/02/05 by ashishs@fl_ashishs_r400_win2 renaming tests for better organization Change 147531 on 2004/02/05 by mkelly@fl_mkelly_r400_win_laptop Change 147527 on 2004/02/05 by ashishs@fl_ashishs_r400_win2 adding loop break test when the pred condition is false Change 147434 on 2004/02/05 by ashishs@fl_ashishs_r400_win2 updating some comments Change 147431 on 2004/02/05 by ashishs@fl ashishs r400 win2 finalising the test with loop being terminated on condition turning true Change 147424 on 2004/02/05 by ashishs@fl ashishs r400 win checkin for pred loop test Change 147423 on 2004/02/05 by mkelly@fl mkelly r400 win laptop Page 11 of 510

test having 4 nested loops with the outer 2 loops exiting when pred condition is true

Change 147686 on 2004/02/06 by ashishs@fl ashishs r400 win2

Change 147599 on 2004/02/05 by ashishs@fl_ashishs_r400_win2

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258236

Change 145759 on 2004/01/27 by csampayo@fl_csampayo_r400 correcting shaders for the these tests. Re-enabling the tests in the test list, these tests were commented out since they didnt generate image after Laurent put the $\overline{\text{MOVA}}$ error Remove transform since it is not really used because pixels are all being killed. Change 146455 on 2004/01/30 by ashishs@fl ashishs r400 win Change 145661 on 2004/01/27 by llefebyr@llefebyr r400 emu montreal correcting shaders for the these tests. Re-enabling the tests in the test <u>list</u>, these tests were commented out since they didnt generate image after Laurent put the $\overline{\text{MOVA}}$ error Fixing bad shader (was writing to r60 instead of r48 causing the use of an unintialized GPR) Change 146454 on 2004/01/30 by ashishs@fl ashishs r400 win Change 145541 on 2004/01/27 by smoss@smoss_xenos_linux_orl correcting tests since the coissue and scalar shader was incorrectly interchanged causing it to execute scalar twice (needed coissue twice) new output path Change 145425 on 2004/01/26 by jayw@jayw r400 linux marlboro3 Change 146450 on 2004/01/30 by ashishs@fl ashishs r400 win added db depth mux8to1 and muxbus8 for state consolidation and cleanup. copying over the correct shaders from xen-Change 145327 on 2004/01/26 by jhoule@jhoule_r400_linux_marlboro Change 146427 on 2004/01/30 by csampayo@fl_csampayo_r400 Cleaner solution: tp_g1 should now use $\{n\}_s_\{w\}_x\{h\}$ format, where n is the number of samples, and w and h are the dimension of the texture. Adding more stress tests and updated test_list and Test Tracker accordingly Change 146423 on 2004/01/30 by danh@danh xenos linux orl Samples: 4s 32x32 Added 2 additional ALU constant writes so now 4 ALU constants are written (must be a Change 145318 on 2004/01/26 by jhoule@jhoule_r400_linux_marlboro Cleanup of the tp_g* tests. tp_g1 is 1 sample tp_g2 is 2 samples tp_g4 is 4 samples Change 146255 on 2004/01/29 by csampayo@fl_csampayo2_r400 Sort list and re-enabled the following tests since they got fixed r400sq_flow_control_02 r400sq_flow_control_03 Change 145316 on 2004/01/26 by ihoule@jhoule r400 linux marlboro Fixing test to NOT do resolve pass by default. Also killed it from C1 (to avoid compile errors) Change 146253 on 2004/01/29 by csampayo@fl_csampayo2_r400 Update for mova constraints Change 145299 on 2004/01/26 by jayw@jayw_r400_linux_marlboro3 Change 146237 on 2004/01/29 by csampayo@fl_csampayo_r400 Added db_depth_state.v Adjust image size to be compatible with Xenos also Change 145135 on 2004/01/23 by rramsey@rramsey_xenos_linux_orl Change 146020 on 2004/01/28 by csampayo@fl csampayo r400 Update yield_optimize test so it tests the logic better Fix cfsm clause boundary detection for yield_optimize and add setting of exsm_updating to EX_EXEC state when it is going to update Change 145823 on 2004/01/28 by jhoule@jhoule r400 linux mariboro Change 145018 on 2004/01/23 by danh@danh xenos linux or Squashed a warning Page 13 of 510 Page 14 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Added a SERIALIZE; after the vfetch line in the sub buf7 routine because the vfetch is Adding tests and updating test list and tracker accordingly writing r8 and the next instruction uses r8 as a source Change 144767 on 2004/01/22 by mkelly@fl_mkelly_r400_win_laptop Change 144978 on 2004/01/23 by georgev@devel_georgev_r400_lin2_marlboro_tott Added tests to regression to do 2 by multisample. Change 144760 on 2004/01/22 by mkelly@fl mkelly r400 win laptop $Change~144967~on~2004/01/23~by~georgev@devel_georgev_r400_lin2_marlboro_tott$ update First rev of new tests. They don't work yet. Change 144751 on 2004/01/22 by mkelly@fl_mkelly_r400_win_laptop Change 144907 on 2004/01/23 by danh@danh_xenos_linux_orl fixed typo (changed SERIALIZE: to SERIALIZE;) Change 144708 on 2004/01/22 by mkelly@fl_mkelly_r400_win_laptop Change 144882 on 2004/01/23 by mkelly@fl mkelly r400 win laptop Add changes learned from other RTS tests, including eo rt, base and size writes move placement of CP idle Change 144642 on 2004/01/22 by mangeshn@fl_mangeshn Change 144877 on 2004/01/23 by mkelly@fl mkelly r400 win laptop add two more RT constants Change 144639 on 2004/01/22 by kryan@kryan_r400_win_marlboro_XP Change 144871 on 2004/01/23 by mkelly@fl_mkelly_r400_win_laptop Modified test to setup surface height and surface slice registers in update RB. Also removed unnecessary code for allocation. Change 144819 on 2004/01/22 by smoss@smoss xenos linux orl Change 144581 on 2004/01/22 by mangeshn@fl_mangeshn added r400vgt suppress back in after #CL144818 Change 144818 on 2004/01/22 by smoss@smoss_crayola_win Change 144477 on 2004/01/22 by mkelly@fl_mkelly_r400_win_laptop modified these from Kevin Ryan's mail to force IM LOAD instead of type 0 wait !cp rt busy before each RT context write of sq interp control Change 144802 on 2004/01/22 by csampayo@fl_csampayo_r400 Change 144382 on 2004/01/21 by mangeshn@fl_mangeshn Update for R400/Xenos compatibility edited tests Change 144790 on 2004/01/22 by jayw@jayw_r400_linux_marlboro3 Change 144173 on 2004/01/21 by mkelly@fl_mkelly_r400_win_laptop added msaac and msaad targets. split off db_depth_cache_flushdata.v Export the 16th parameter to the pixel shader, to guarantee gpr 15 is initialized Change 144782 on 2004/01/22 by georgev@devel georgev r400 lin2 marfboro tott Change 144055 on 2004/01/20 by jhoule@jhoule_r400_linux_marlboro Fixed test to display resolved multitexture surface. Fixed lowercase vs uppercase clamping mode Change 144779 on 2004/01/22 by csampayo@fl_csampayo_r400 Change 143981 on 2004/01/20 by mangeshn@fl_mangeshn Page 15 of 510 Page 16 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Change 146460 on 2004/01/30 by ashishs@fl ashishs r400 win

edited test Change 143915 on 2004/01/20 by csampayo@fl_csampayo_r400 Switched loading of shaders to use IM LOAD packets Change 143800 on 2004/01/19 by mangeshn@fl_mangeshn changed test for MUL_PREV2 opcode to handle Src X as well as W conditions Change 143716 on 2004/01/19 by kevino@kevino r400 release Updated tp_multitexture?_pix.sp shader programs to fix bugs in them. Change 143697 on 2004/01/19 by jhoule@jhoule_r400_linux_marlboro Fixed to simple 3d tests which are in the to directory, not the tp Change 143645 on 2004/01/19 by tmartin@tmartin r400 win updated DIM field due to texture changes in the emulator Change 143576 on 2004/01/16 by csampavo@fl csampavo r400 Adding more mem export tests. Updated test_list and test tracker accordingly Change 143469 on 2004/01/16 by tmartin@tmartin r400 win updated for DIM texture change Change 143457 on 2004/01/16 by tmartin@tmartin_r400_win updated for DIM texture change Change 143444 on 2004/01/16 by tmartin@tmartin_r400_win undated to work with the DIM texture change Change 143382 on 2004/01/16 by mkelly@fl_mkelly_r400_win_laptop SQ.SQ CONTEXT MISCINST PRED OPTIMIZE, YEILD OPTIMIZE enabling Change 143378 on 2004/01/16 by mkelly@fl mkelly r400 win laptop SQ_CONTEXT_MISC.YEILD_OPTIMIZE = 0x1, otherwise, same test as r400sq_data_dep_pred_18.cpp

Page 17 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Adding new channel masking test Change 143323 on 2004/01/15 by tmartin@tmartin r400 win moved the DIM texture field to dword 5 Change 143279 on 2004/01/15 by jhoule@jhoule r400 linux marlboro Fixed test so that RSP PIPE really driver up to 4b worth. Added real simd as a third parameter.

Changed scene and texture to ultimately drive all 3 simds. Change 143278 on 2004/01/15 by tmartin@tmartin_r400_win DIM texture settings was moved to dword 5 Change 143069 on 2004/01/14 by jhoule@jhoule_r400_linux_marlboro tp g1 now compiles Change 143030 on 2004/01/14 by ashishs@fl_ashishs_r400_win disabling some tests which were causing a hang Change 142925 on 2004/01/14 by georgev@devel_georgev_r400_lin2_marlboro_tott No changes. Change 142909 on 2004/01/14 by georgev@devel_georgev_r400_lin2_marlboro_tott Fix screen sizes for ... mask check and ... max addr 2 tests Change 142463 on 2004/01/12 by csampayo@fl_csampayo_r400 Updated shaders to be the same as _03 Change 142341 on 2004/01/12 by tmartin@tmartin r400 win packed vertex constants so there are a total of 96 constants referenced in the vertex Change 142026 on 2004/01/09 by jhoule@jhoule_r400_linux_marlboro Change 142012 on 2004/01/09 by csampayo@fl csampayo r400 Page 18 of 510

added a vfetch to VS so the index would be initialized for the PS Change 141541 on 2004/01/08 by mkelly@fl mkelly r400 win laptop

Simplify to one framebuffer output, instancing PrimLib only once.

Change 141538 on 2004/01/08 by ashishs@fl ashishs r400 win

Change 143333 on 2004/01/15 by csampayo@fl_csampayo_r400

Ex. 2052 --- R400 Testing FH ---foler_history

Update to use loop index within subroutines called from inside loop Change 141965 on 2004/01/09 by cbrennan@cbrennan r400 release Try again to fix the miss_stall case in a timing performant way. Change 141950 on 2004/01/09 by rramsey@rramsey xenos linux orl Increase DB_TSTATE_SIZE to 2x num constants (64) Change 141913 on 2004/01/09 by jhoule@jhoule r400 linux marlboro reg Adding new GetWeights testcase to verify flipping situations Change 141911 on 2004/01/09 by mearl@mearl_xenos_linux_orl Updated shader so only valid texture fetches will occur. Change 141891 on 2004/01/09 by tien@tien_r400_devel_marlboro Moved DIM to the right place and added ANISO BIAS Change 141880 on 2004/01/09 by mearl@mearl_xenos_linux_orl Updated shader so only valid texture fetches will occur. Change 141817 on 2004/01/09 by ashishs@fl_ashishs_r400_win disabled some tests which were causing a hang Change 141811 on 2004/01/09 by amys@amys_xenos_linux_orl initial add of files for sq register write/read test Change 141789 on 2004/01/09 by mkelly@fl mkelly r400 win laptop Change 141653 on 2004/01/08 by mkelly@fl_mkelly_r400_win_laptop Change 141609 on 2004/01/08 by kevino@kevino r400 release Added first set of aniso_bias testcases and fixed tp_input.v to select aniso_bias from Change 141593 on 2004/01/08 by tmartin@tmartin r400 win

Page 19 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

removed some tests temporarily Change 141537 on 2004/01/08 by cbrennan@cbrennan r400 emu Reverse integrate rg changes from xenos. only really has fixed directory on smoke.rg Change 141424 on 2004/01/08 by tmartin@tmartin_r400_win set r2 in the VS so r0 isn't X's in the PS Change 141321 on 2004/01/07 by rramsey@rramsey_xenos_linux_orl increase DB ALUCST SIZE setting to 64 Change 141171 on 2004/01/07 by mkelly@fl_mkelly_r400_win_laptop SIMD0, pipes 0-15 EN RSP Change 141149 on 2004/01/07 by mkelly@fl_mkelly_r400_win_laptop Write 0 to DISABLE MC included Change 141090 on 2004/01/07 by tmartin@tmartin r400 win idle added after cache flush Change 141085 on 2004/01/07 by tmartin@tmartin r400 win idle added after cache flush Change 141031 on 2004/01/06 by csampayo@fl csampayo r400 Added new counter selects and increased FB size Change 140975 on 2004/01/06 by ihoule@jhoule r400 linux marlboro Adding tp_special test to verify some obscure situations First testcase added (aligner cycle loop) which tests the 4xEE cycling. Change 140910 on 2004/01/06 by smoss@smoss crayola win Page 20 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

 increased number of registers for debug control
 increased number of registers for perf Added a couple test cases to smoke.rg that seem to hit some types of fails others don't. Added a multitexture stress test (e.g. 1 tex low lat, low hit, other high lat, high hit) Change 140790 on 2004/01/06 by tmartin@tmartin_r400_win added r400vc fetch addr range 05 Change 140548 on 2004/01/05 by tmartin@tmartin r400 win Change 140789 on 2004/01/06 by tmartin@tmartin r400 win removed an unnecessesary case so the SQ doesn't export without a fetch changed to program a minimum of 4 constants Change 140536 on 2004/01/05 by mkelly@fl_mkelly_r400_win_laptop Change 140709 on 2004/01/05 by csampavo@fl csampavo r400 Fix constant loading... Update to refresh addrs reg Change 140284 on 2003/12/30 by dclifton@dclifton_xenos_linux_orl Change 140631 on 2004/01/05 by mkelly@fl_mkelly_r400_win_laptop Fixed scalar MOVA_FLOOR opcode; Update.. Change 139405 on 2003/12/23 by jayw@jayw_r400_linux_marlboro2 Change 140621 on 2004/01/05 by mkelly@fl_mkelly_r400_win_laptop LEDA fixes, format from 3 to 2 bits, fix for zcache invalidate, some signal renames Change 139403 on 2003/12/23 by mkelly@fl_mkelly_r400_win_laptop Change 140618 on 2004/01/05 by mkelly@fl_mkelly_r400_win_laptop Update.. Change 139275 on 2003/12/23 by smoss@smoss_xenos_linux_orl Change 140607 on 2004/01/05 by mkelly@fl_mkelly_r400_win_laptop removed failing tests Update.. Change 139204 on 2003/12/22 by jayw@jayw r400 linux marlboro2 Change 140605 on 2004/01/05 by mkelly@fl_mkelly_r400_win_laptop Sync up to 139017. Change 138887 on 2003/12/19 by jhoule@jhoule_r400_linux_marlboro Update.. Removed warnings. Dumping of PPMs is now activated by using 'setenv tp_cubemap_dump_ppm 1'. Change 140603 on 2004/01/05 by mkelly@fl mkelly r400 win laptop Change 138868 on 2003/12/19 by georgev@devel georgev r400 lin2 marlboro tott Change 140590 on 2004/01/05 by kevino@kevino_r400_release Updates and new tests. Added a second instroverride aniso case as well as a $3D_m$ inmag case in order to cover some holes that Tien found in coverage. Change 138580 on 2003/12/19 by mkelly@fl_mkelly_r400_win_laptop Change 140584 on 2004/01/05 by vromaker@vromaker r400 linux marlboro update RT param writes from RT to RB Page 21 of 510 Page 22 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 138461 on 2003/12/18 by amys@amys_xenos_linux_orl remove read-only and write-only registers from write/read test modify test such that fifo depths will be programmed to be less than the physical depths Change 137799 on 2003/12/16 by mkelly@fl mkelly r400 win laptop Change 138459 on 2003/12/18 by mkelly@fl_mkelly_r400_win_laptop Change 137728 on 2003/12/16 by mkelly@fl mkelly r400 win laptop one change update Change 138346 on 2003/12/18 by jayw@jayw_r400_linux_marlboro2 Change 137727 on 2003/12/16 by mkelly@fl mkelly r400 win laptop Fix for hiz failure. wrong depth swizzled for updating quad cache Change 138338 on 2003/12/18 by amys@amys_xenos_linux_orl Change 137679 on 2003/12/15 by csampayo@fl_csampayo_r400 updated to include new registers Adding new channel masking test Change 138106 on 2003/12/17 by csampayo@fl_csampayo_r400 Change 137545 on 2003/12/15 by mkelly@fl_mkelly_r400_win_laptop Updating the test description Change 138105 on 2003/12/17 by mdesai@mdesai_r400_linux Change 137540 on 2003/12/15 by mkelly@fl_mkelly_r400_win_laptop Resolved all hardware issues on bug3077. Fixed Y & Z overflow case update Change 138098 on 2003/12/17 by csampayo@fl_csampayo_r400 Change 137470 on 2003/12/15 by rmanapat@rmanapat_r400_sun_marlboro Adding vtx shader non-sequential mem exports Changes for TCF, TCR, TCM chicken registers Change 138093 on 2003/12/17 by csampayo@fl_csampayo_r400 Change 137469 on 2003/12/15 by cbrennan@cbrennan_r400_emu Turn off mipmapping and packing with interlaced textures. Also disallow interlaced Adding pix shader non-sequential mem exports stacks. Change 138077 on 2003/12/17 by amys@amys xenos linux orl Change 137456 on 2003/12/15 by kryan@kryan_r400_win_marlboro_XP add/delete registers as needed to update test Update test to use IM LOAD packet to load shader programs Change 137953 on 2003/12/16 by tmartin@tmartin_r400_win This is to avoid errors found in HW when using the Type0 updated to program alu constants in groups of 4 updated to program loop constants when boolean constants are changed where the shader programs were not reloaded after the first Change 137842 on 2003/12/16 by csampayo@fl csampayo r400 time they had been loaded Adding test with channel masking (VS,PS) and pixel kill Change 137453 on 2003/12/15 by mkelly@fl_mkelly_r400_win_laptop Change 137837 on 2003/12/16 by amys@amys_xenos_linux_orl Update.. Page 23 of 510 Page 24 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

coverage changes 1) added wait for idle after register writes - fixed shader problems

Change 140578 on 2004/01/05 by kevino@kevino r400 release

AMD1044 0258239

Add one extra RT param Change 137111 on 2003/12/12 by mkelly@fl mkelly r400 win laptop Change 137394 on 2003/12/15 by mkelly@fl_mkelly_r400_win_laptop Change 137074 on 2003/12/11 by mkelly@fl mkelly r400 win laptop Change 137390 on 2003/12/15 by mkelly@fl_mkelly_r400_win_laptop Change postion of eo rt write and packet type Change 137030 on 2003/12/11 by cbrennan@cbrennan_r400_emu Update.. Change 137387 on 2003/12/15 by mkelly@fl_mkelly_r400_win_laptop Flipped nibble order of DXT3A_AS_1_1_1_1 to really match dx spec this time. Change 136941 on 2003/12/11 by csampayo@fl_csampayo_r400 Update Change 137372 on 2003/12/14 by mkelly@fl_mkelly_r400_win_laptop Use IM_LOAD packets to load shaders Update.. Change 136835 on 2003/12/10 by csampayo@fl_csampayo_r400 Change 137366 on 2003/12/14 by smoss@smoss xenos linux orl Adding channel write mask with predicate stress test removing two tests that fail hw until they are resolved Change 136700 on 2003/12/10 by mkelly@fl_mkelly_r400_win_laptop Change 137203 on 2003/12/12 by kevino@kevino_r400_release Switched over to the low lat fifos in tca, fetch fifo , and tcd. Added tcd_ipbuf_fifo_top.v and switched overe to using 2 16x141 mems instead a 1 Change 136697 on 2003/12/10 by mkelly@fl_mkelly_r400_win_laptop 32x141 mems update Put latency params in for latency fifo prog depth testcases Change 136692 on 2003/12/10 by rramsey@rramsey_xenos_linux_orl Change 137189 on 2003/12/12 by mangeshn@fl_mangeshn Change eo rt from RT packet to Ring Buffer directly Change 136682 on 2003/12/10 by kevino@kevino_r400_release Change 137179 on 2003/12/12 by mkelly@fl_mkelly_r400_win_laptop Added low latency fifo controllers to some fifos, but have disabled them with ifdefs change again until the controller works for all cases. Added programmable depth for latency fifos along with corresponding test cases Change 137162 on 2003/12/12 by mkelly@fl_mkelly_r400_win_laptop Change 136643 on 2003/12/10 by amys@amys_xenos_linux_orl Modify eo rt write timing move constant writes to one packet Change 137157 on 2003/12/12 by mkelly@fl_mkelly_r400_win_laptop Change 136496 on 2003/12/09 by tmartin@tmartin r400 win change eo_rt, insert constant 0 to make test match gold streamlined the loop constant programming Change 137138 on 2003/12/12 by mkelly@fl mkelly r400 win laptop Change 136464 on 2003/12/09 by tmartin@tmartin_r400_win Page 25 of 510 Page 26 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history fixed some mistakes set loop constants with each draw command because the boolean constant was also changing Change 136094 on 2003/12/08 by ihoule@ihoule r400 win lt Change 136261 on 2003/12/08 by cbrennan@cbrennan_r400_release New test to verify cube and stack maps Convert tests to use a common function for generating a nice distribution of texture sizes Change 136093 on 2003/12/08 by jhoule@jhoule r400 win lt Updated allocate call Some errors now correctly return error code Change 136251 on 2003/12/08 by ashishs@fl_ashishs_r400_win2 Adding tests to test list and adding another test for AND operation Change 135863 on 2003/12/05 by csampayo@fl_csampayo3 Change 136239 on 2003/12/08 by cbrennan@cbrennan r400 emu Updated test_list and test tracker status for tests: Add common header for to tests which starts with a random_texsize function for better r400sq_gpr_index_05 r400sq_gpr_index_06 r400sq_gpr_index_07 r400sq_gpr_index_08 distributions of texture sizes Change 136208 on 2003/12/08 by tmartin@tmartin_r400_win Change 135853 on 2003/12/05 by csampayo@fl csampayo r400 removed r400vc fetch addr range 05 More GPR indexing tests Change 136205 on 2003/12/08 by tmartin@tmartin r400 win added r400vc_array_size_03 Change 135793 on 2003/12/05 by tmartin@tmartin_r400_win Change 136202 on 2003/12/08 by tmartin@tmartin r400 win fixed some typos that were not affecting the final image output tests a non-zero buffer size constant that is smaller than the true buffer size. This is Change 135651 on 2003/12/05 by ashishs@fl_ashishs_r400_win actually illegal programming. updating the tests and the tracker for CL_BUSY. commenting out CL_BUSY from the Change 136181 on 2003/12/08 by tmartin@tmartin r400 win tests Change 135555 on 2003/12/04 by ashishs@fl_ashishs_r400_win2 updated the description Change 136168 on 2003/12/08 by ashishs@fl ashishs r400 win2 Perf counters reg coverage for SX Adding a CL test which shows the problem in vtx kill flag with "VTX_KILL" in the CLIP_CNTL register set to "OR" mode Change 135522 on 2003/12/04 by csampayo@fl_csampayo_r400 Updated test tracker status and added to test list the following tests: Change 136157 on 2003/12/08 by tmartin@tmartin r400 win r400sq_gpr_index_03 r400sq_gpr_index_04 cleaned up the test a little Change 135512 on 2003/12/04 by csampayo@fl_csampayo_r400 Change 136109 on 2003/12/08 by jayw@jayw r400 linux marlboro2 Testing pixel shader GPR indexing with clamping depth regression Change 135509 on 2003/12/04 by csampayo@fl csampayo r400 Change 136106 on 2003/12/08 by tmartin@tmartin_r400_win Page 27 of 510 Page 28 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

eo rt packet type change

Change 137441 on 2003/12/15 by mkelly@fl_mkelly_r400_win_laptop

Updated image size to accomodate both Xenos and R500 and changed background color for better visibility checkin in again to initalise all the other bits of that register Change 135464 on 2003/12/04 by kevino@kevino_r400_linux_marlboro Change 135283 on 2003/12/04 by kevino@kevino_r400_release Fixed some .sp files that had not gotten integrated properly Integrate of the .sp files somehow went wrong, so it looks like this one was somehow missed from checkin last time (even though it was updated in my area and not reported as Change 135457 on 2003/12/04 by ashishs@fl_ashishs_r400_win2 permuting the registers of SQ_DEBUG_MISC_0 Change 135281 on 2003/12/04 by ashishs@fl_ashishs_r400_win2 Change 135436 on 2003/12/04 by cbrennan@cbrennan r400 emu checking the test back in to report problem to Kevin Enabling the randomizing mip packing Change 135270 on 2003/12/04 by kevino@kevino_r400_release Change 135420 on 2003/12/04 by ashishs@fl_ashishs_r400_win2 fmt61 -only version of tp multitexture 02.cpp Adding a test in which the alternate points clamp on address register. The SQ_DEBUG_MISC_0.DB_PROB_ON = true and SQ_DEBUG_MISC_0.DB_PROB_BREAK Change 135188 on 2003/12/03 by csampayo@fl_csampayo3 = false always inside the test Initial check in Need to know why the test ahngs if DB_PROB_BREAK is turned true And also how to read the context register SQ_DEBUG_MISC_0 after writing to it Change 135140 on 2003/12/03 by kevino@kevino_r400_release Updated tc .sp files with serialize between fetches and alu operations Added fmt61 tests to tp_multitexture_02 Change 135378 on 2003/12/04 by ashishs@fl ashishs r400 win2 simple test just setting the DB PROB ON in this tes Change 135048 on 2003/12/03 by ashishs@fl ashishs r400 win2 Change 135353 on 2003/12/04 by mkelly@mkelly r400 win orl making the bug case true to show the problem Change 135046 on 2003/12/03 by ashishs@fl_ashishs_r400_win2 Update. Change 135344 on 2003/12/04 by domachi@diotargetxp removing the vertex buffer writing and using the index offset feature of the VGT to access the nest packet Avoid creating a 1D interlaced texture. Bugzilla 3067 Change 135009 on 2003/12/03 by ihoule@jhoule r400 linux marlboro Change 135334 on 2003/12/04 by tien@tien_r500_emu Removed last failing directed test Turned off crippling on the "not all" cases Change 134992 on 2003/12/03 by tmartin@tmartin_r400_linux Change 135330 on 2003/12/04 by smburu@smburu_r400_linux_marlboro removed some extra spaces at the end of the files that were causing compile errors on Fixed the Randomized testcase Linux Change 135306 on 2003/12/04 by mkelly@mkelly r400 win or Change 134957 on 2003/12/03 by ashishs@fl_ashishs_r400_win2 Remove one commented test Added the GPR declaration Change 135297 on 2003/12/04 by ashishs@fl_ashishs_r400_win2 Change 134950 on 2003/12/03 by ashishs@fl_ashishs_r400_win2 Page 30 of 510 Page 29 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 134674 on 2003/12/02 by ashishs@fl_ashishs_r400_win2 by mistake had commented out the wait gfx idle, so uncommenting back changing shader... Change 134949 on 2003/12/03 by ashishs@fl_ashishs_r400_win2 Change 134668 on 2003/12/02 by ashishs@fl_ashishs_r400_win2 just switching between the 8 shaders now, earlier was just using 1 shader updating description for perf counters reg coverage test Change 134947 on 2003/12/03 by kevino@kevino r400 release Change 134607 on 2003/12/01 by ashishs@fl_ashishs_r400_win2 Added serialize to shader programs under tp/data/pix and vtx Finalising the test for GPR management, cannot affect image but we can see the register Change 134946 on 2003/12/03 by ashishs@fl_ashishs_r400_win2 printed out at the end of the test, just to verify not being overwritten by anyone else removing loop from all the shaders Change 134596 on 2003/12/01 by jhoule@jhoule r400 win It Change 134845 on 2003/12/02 by llefebvr@llefebvr r400 emu montreal Updated tp bigmaps: now works with most sizes Had to update the Makefile since this test uses the address library directly, and must therefore be linked against it. moved up the seting of the VS shader Change 134837 on 2003/12/02 by kevino@kevino r400 release Change 134580 on 2003/12/01 by jhoule@jhoule r400 linux marlboro Updated tp shader program files to be 2.0 and inserted SERIALIZED directive between fetches and ALU commands.

Updated tp_multitexture_01 and _02 tests that create their own shader programs to Updated text to be gray in order to distinguish between border and texture when using either black or white border color give them a unique name based on testname, testcase, and seed Change 134566 on 2003/12/01 by ashishs@fl_ashishs_r400_win2 Change 134831 on 2003/12/02 by ashishs@fl_ashishs_r400_win2 removing the GPR declaration from the shaders checking in all the shaders for the test Change 134552 on 2003/12/01 by keyino@keyino r400 linux marlboro Change 134829 on 2003/12/02 by domachi@diotargetxp Fixed tp_multitexture tests to force signed_rf_mode to never use NoZero. Updated tp_simple_02 tests to add 4th vertex for round_point testcases. These tests TConst::ValidateTexDim() must return valse for a CubeMap using an Interlaced format. Fix tc_random and uber_rand test so that they never attempt a CubeMap-Interlaced can round the index up to 3, requiring the fourth vertex. Change 134466 on 2003/12/01 by tmartin@tmartin_r400_win Change 134782 on 2003/12/02 by jhoule@jhoule_r400_linux_marlboro removed r400vc stress 02 from test list for r400, will be changed and enabled for xenos Added support for randomization Fixed size-parsing code (wasn't working). Change 134456 on 2003/12/01 by csampayo@fl_csampayo_r400 Change 134742 on 2003/12/02 by ashishs@fl_ashishs_r400_win2 Corrected list to include tests: r400sx multi_chan_pos_param_pred_export_03 r400sx_multi_chan_pos_param_pred_export_04 r400sx_multi_chan_pos_param_pred_export_05 r400sx_multi_chan_pos_param_pred_export_06 test for SQ DEBUF MISC 0 register, currently under review Change 134732 on 2003/12/02 by mkelly@fl_mkelly_r400_win_laptop move eo rt to top Change 134449 on 2003/12/01 by mkelly@fl_mkelly_r400_win_laptop Page 31 of 510 Page 32 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258241

Wait gfx idle before starting test, ie wait for constant writes to complete. Updated script for tp and tc testbenches. Change 134428 on 2003/12/01 by ashishs@fl ashishs r400 win2 Change 134167 on 2003/11/26 by ashishs@fl ashishs r400 win2 Adding another render() as suggested by Laurent SQ perf register coverage test. Need to know if the HI and LOW registers can be written and read the same way as SEL registers Change 134406 on 2003/12/01 by amys@amys xenos lnxrgs orl Change 134165 on 2003/11/26 by llefebvr@llefebvr_r400_emu_montreal Automatic serialization was seriously broken in this test. I changed it to manual and place Change 134405 on 2003/12/01 by amys@amys xenos lnxrgs orl the serial points where they made sense modified alu constant offset to be 0 Change 134132 on 2003/11/26 by cbrennan@cbrennan_r400_emu Change 134238 on 2003/11/26 by csampayo@fl csampayo r400 updated list of directed test failures. Added to test_list and updated status on tracker: r400sx_multi_chan_pos_param_pred_export_03 r400sx_multi_chan_pos_param_pred_export_04 Change 134094 on 2003/11/26 by georgev@devel_georgev_r400_lin2_marlboro_coverage Added to script so that to tests don't have to be processed by hand. r400sx multi chan pos param pred export 05 r400sx_multi_chan_pos_param_pred_export_06 Change 134092 on 2003/11/26 by ashishs@fl ashishs r400 win Change 134235 on 2003/11/26 by csampayo@fl_csampayo2_r400 small correction for r400 Undated for R400/Xenos image size compatibility Change 134018 on 2003/11/25 by ashishs@fl ashishs r400 win Test to check the SQ_GPR_MANAGEMENT register. Currently this register is being Change 134234 on 2003/11/26 by csampayo@fl csampayo2 r400 overwritten by PRIMLIB logic New SX chan mask and pred tests Change 134012 on 2003/11/25 by Iseiler@Iseiler r400 win marlborol Change 134210 on 2003/11/26 by lseiler@lseiler_r400_win_marlboro Update after changing RF16 precision Updated slope delta Change 133998 on 2003/11/25 by jhoule@jhoule r400 linux marlboro Change 134206 on 2003/11/26 by lseiler@lseiler_r400_win_marlboro Forgot the actual test file... [INCOMPLETE] Test of Xenos quad depth accuracy Change 133996 on 2003/11/25 by jhoule@jhoule_r400_linux_marlboro Change 134176 on 2003/11/26 by ashishs@fl ashishs r400 win2 Added sparse texture test to verify very large coordinates without having to generate Added new test to test list Removed bugs from the tracker. The bugs were as follows The test simply allocates and renders the corners (4 x 64x64 tiles). In the grand total in the tracker sheef E284 was 2 times, E272 and E542 were not present therby not giving a correct total and therby not matching the schedule.

Now the tracker is correct and matches the schedule total Change 133903 on 2003/11/25 by tmartin@tmartin r400 win $Change\ 134171\ on\ 2003/11/26\ by\ georgev@devel_georgev_r400_lin2_marlboro_coverage_tc$ Page 33 of 510 Page 34 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history added r400sq_const_map_alu_rts_01, r400sq_const_map_alu_rts_02, Uses 31 texture fetch constants in a PS with one vertex fetch constant r400sq_const_map_fetch_rts_01 fixed some cell formulas Change 133746 on 2003/11/24 by tmartin@tmartin r400 win Change 133899 on 2003/11/25 by tmartin@tmartin_r400_win Stalls the loading of the alu constant re-mapping tables Change 133738 on 2003/11/24 by ashishs@fl ashishs r400 win2 Uses the max number of 32 real time texture constants in a pixel shader updating tracker and description for the latest 2 new tests added for RETAIN_PREV opcodes Change 133884 on 2003/11/25 by ashishs@fl_ashishs_r400_win Adding the ability to sync to top and store the sync number so that it can be used to display on emails thereby keeping track. (xenos already has this ability) Change 133735 on 2003/11/24 by ashishs@fl_ashishs_r400_win2 Change 133847 on 2003/11/25 by rmanapat@rmanapat_r400_release Adding this weeks test as well as description to the SQ test Just a update to the rg file Change 133696 on 2003/11/24 by ashishs@fl ashishs r400 win2 testing PREV_RETAIN instruction with all different types of data. Needed to do mem export 2 times inside the shader since the combination of 2 scalar instructions (ADD and MAX) Change 133839 on 2003/11/25 by tmartin@tmartin_r400_win Uses the max number of 256 real time constants in a pixel shader does cover the whole of data values input to prev retain opcode Change 133695 on 2003/11/24 by mkelly@fl_mkelly_r400_win_laptop Change 133817 on 2003/11/25 by tmartin@tmartin_r400_win Uses real time streams with room for only one constant to be allocated. The pixel shader reads a constant outside of this range. This is invalid programming, but it should still be handled without stalling. Change 133672 on 2003/11/24 by tmartin@tmartin r400 win Change 133813 on 2003/11/25 by amys@amys_xenos_inxrgs_orl test all 1280 constant store locations. previously only test 1024 locations. change KILLe to all lower case--otherwise assembler error when run linux Change 133639 on 2003/11/24 by jhoule@jhoule_r400_linux_marlboro Change 133753 on 2003/11/24 by tmartin@tmartin r400 win Used the scalpel: major modification $added\ r400sq_const_map_alu_07,\ r400sq_const_map_fetch_01,\\ r400sq_const_map_fetch_02,\ r400sq_const_map_fetch_07,\ r400sq_const_map_fetch_08$ Recoded the cylinder generation in order to solve memory overflows, use less memory, allocate automatically, use triangles instead of strips (simpler than to split in multiple strips) Change 133751 on 2003/11/24 by tmartin@tmartin_r400_win Killed non-relevant testcases+functions+variables Testcase is now parsed to determine texture size; this potentially changes the behavior of previous testcases since they weren't properly setting the height 'Construct_texture_h_size' was used for both dimensions in the only useful buildLevel call). Format of the testcase is 'tex_WxH', where W and H can take any valid value for 2D textures. reduced the size of the texture constant store is reduced in order to help stall the loading of the re-mapping tables Change 133749 on 2003/11/24 by tmartin@tmartin_r400_win Uses 31 texture fetch constants in a PS with one vertex fetch constant. Tests all 8 Change 133613 on 2003/11/24 by domachi@diotargetxp contexts. The constants are reprogrammed for each context to make sure all 160 fetch constant store locations are used. Ensure cubemap textures using an interlaced format use an even height Change 133747 on 2003/11/24 by tmartin@tmartin r400 win Change 133587 on 2003/11/24 by ashishs@fl ashishs r400 win2 Page 35 of 510 Page 36 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258242

precision test for retain_prev instruction

Change 133579 on 2003/11/24 by mkelly@fl_mkelly_r400_win_laptop

Fix constant loading

Change 133572 on 2003/11/24 by ashishs@fl_ashishs_r400_win2

Test for RETAIN_PREV instruction. Does have retain_prev with all different types of instructions thereby stressing the opcode.

Change 133461 on 2003/11/21 by kevino@kevino_r400_release

Modified channel mask tests to put color in register than make sure texture channel doens't overwrite it when masked out. This way, the exported color has all channels defined.

Change 133455 on 2003/11/21 by tmartin@tmartin_r400_win

updated and added r400sq_const_map_fetch_01 and 07

Change 133436 on 2003/11/21 by tmartin@tmartin_r400_win

updated descriptions

Change 133385 on 2003/11/21 by cbrennan@cbrennan r400 emu

Cripple formats that crash emu until fixed.. Cripple to random test cases as well for same reason.

Change 133328 on 2003/11/21 by kevino@kevino_r400_release

Made the tp_simple 02^{*} aniso cases smaller so they won't take as log to run. The non-PC cases still hit all aniso ratios. Made the techenom tests smaller as well.

Change 133290 on 2003/11/21 by jhoule@jhoule_r400_linux_marlboro

Updated list with fixes brought by border color fix.

Also, the aniso_2D got fixed somewhere as well, but can't figure out the CL.

Change 133217 on 2003/11/20 by kevino@kevino_r400_release

Made randomized test cases smaller by making prims smaller.

Change 133206 on 2003/11/20 by kevino@kevino_r400_release

Changes to make some of the tests run a bit faster.

Change 133193 on 2003/11/20 by tmartin@tmartin r400 win

Page 37 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Move the VS and PS base addresses in the constant re-mapping tables to make sure the entire range can be used. Every context is used to make sure all 1024 constants are active.

Change 133192 on 2003/11/20 by tmartin@tmartin_r400_win

updated to make sure all 1024 alu constants are programed

Change 133173 on 2003/11/20 by domachi@diotargetxp

Ensure textures with interlaced formats have an even height.

Change 133167 on 2003/11/20 by cbrennan@cbrennan r400 emu

Crippled border color until it works

Change 133166 on 2003/11/20 by cbrennan@cbrennan_r400_emu

Shrunk random test size down.

Change 133145 on 2003/11/20 by domachi@diotargetxp

Add all avaliable texture formats.

Change 133117 on 2003/11/20 by cbrennan@cbrennan_r400_emu

Fixed test to not go above 8192 width textures.

Change 133077 on 2003/11/20 by cbrennan@cbrennan_r400_emu

Fix for stacks with border size set

Change 133060 on 2003/11/20 by tmartin@tmartin r400 win

disabled real time streams so context 0 would be tested

Change 133053 on 2003/11/20 by rmanapat@rmanapat_r400_release

Removed passing tests from list

Change 133048 on 2003/11/20 by ashishs@fl_ashishs_r400_win2

adding some 12 more tests in SQ from last week and this week. Also re-enabled r400sq_auto_wrapping_memories_01

Change 133047 on 2003/11/20 by amys@amys_xenos_linux_orl

Modified all cpp and shader files to pick up changes made to vc tests

Change 133041 on 2003/11/20 by ashishs@fl_ashishs_r400_win2

Page 38 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Not finalised the test yet. Need to know when we have all parameters having the same attributes on all the edges (same as flat shading) it just uses the param0 color of first vertex to be FLAT.

Change 133033 on 2003/11/20 by rmanapat@rmanapat_r400_release

Updated rg file..

Change 133030 on 2003/11/20 by ashishs@fl ashishs r400 win2

same as 2 but keeping another side as constant

Change 133024 on 2003/11/20 by ashishs@fl_ashishs_r400_win2

Testing all 16 parameters with permuting one of the parameter having consatnt attributes on one of the edge.

Change 133021 on 2003/11/20 by amys@amys_xenos_inxrgs_orl

add SERIALIZE statment before dependent fetch or operation

Change 133017 on 2003/11/20 by amys@amys_xenos_linux_orl

replace INT_MAX with tex_map_size for pitch

Change 132956 on 2003/11/19 by kevino@kevino_r400_release

Update to rg file to put in comment about which changelist cubic_2D_MipBaseMap was fixed in

Change 132955 on 2003/11/19 by ashishs@fl_ashishs_r400_win2

changing the shaders and removing the pred optimization.

Change 132954 on 2003/11/19 by kevino@kevino_r400_release

Several fixes for emu errors (mostly timeouts) in tp_multitexture_02_stress. Change to tcb_fetch_generator to make TF_PIPE1 a wire instead of a parameter. Apparently synthesis has some difficulty with characterizing multiple instantiations of the same module with different parameters.

Change 132942 on 2003/11/19 by ashishs@fl_ashishs_r400_win2

Final checkin for the test. The test does 16 textures while doing combinations of switching the constant attrib between parameters over 16 parameters

Change 132919 on 2003/11/19 by kevino@kevino r400 win marlboro

Page 39 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

rg file of the tp_multitexture_02_stress tests failing with emu errors

Change 132906 on 2003/11/19 by kevino@kevino_r400_release

 $cubic_2D_MipBaseMap\ fix\ is\ coming\ soon,\ so\ commented\ this\ out\ in\ the\ rg\ file\ so\ no\ one\ else\ would\ work\ on\ it.\ It\ is\ a\ test\ error.$

Change 132878 on 2003/11/19 by tmartin@tmartin_r400_win

more tests were added to coincide with some emulator fixes for addressing the upper end of memory.

Change 132867 on 2003/11/19 by cbrennan@cbrennan_r400_emu

Fixed precision errors on stack maps. Removed redundant code in addresser. Updated \mbox{rg} file with passing tests. DOWN TO 10!

Change 132842 on 2003/11/19 by chammer@chammer_xenos_linux_orl

Added changes for Xenos, enabled with `define XENOS Includes new rb_id, edram copy mode, zplane changes.

Change 132810 on 2003/11/19 by georgev@devel_georgev_r400_lin2_marlboro_tott

Added test to cover get weights function.

Change 132793 on 2003/11/19 by ashishs@fl_ashishs_r400_win2

Testing interpolation of 1 color when 2 or more attributes of triangle are same with polymode and clipping

Change 132751 on 2003/11/18 by csampayo@fl_csampayo_r400

Fix bad shader version and logic

Change 132743 on 2003/11/18 by ashishs@fl_ashishs_r400_win2

initial checkin for the test

Change 132722 on 2003/11/18 by ashishs@fl ashishs r400 win2

Added 2 more test

Change 132709 on 2003/11/18 by ashishs@fl_ashishs_r400_win2

Adding test using the same structure as before but having clip. Need to know if seperate shaders need to be input for this test or the test! shaders would suffice

Change 132670 on 2003/11/18 by ashishs@fl_ashishs_r400_win2

Page 40 of 510

Change 132661 on 2003/11/18 by csampayo@fl_csampayo_r400 uses the max number of constants in a VS and PS and stresses all 8 contexts. Change 132388 on 2003/11/17 by tmartin@tmartin_r400_win Update to predicate processing compound indices Change 132621 on 2003/11/18 by georgev@devel_georgev_r400_lin2_marlboro_tott r400sq_const_map_fetch_04 - Uses 31 tfetch constants in a PS with one vfetch constant Drew too many triangles that were undefined. This has been corrected. Change 132386 on 2003/11/17 by kevino@kevino_r400_win_marlboro Change 132613 on 2003/11/18 by tmartin@tmartin r400 win TC tests for request size = 512bit changed images sizes to 160x160 so the dimensions are divisible by 32 and 20 Change 132364 on 2003/11/17 by llefebvr@llefebvr_r400_emu_montreal Change 132610 on 2003/11/18 by rmanapat@rmanapat r400 release The test wasn't exporting to all 4 channels causing corruption on the input VC bus. Regression file that holds all failed tests from last night regression runs Change 132339 on 2003/11/17 by ashishs@fl ashishs r400 win Reverted back the changes to the original state. Need to talk to Carlos about the tests Change 132596 on 2003/11/18 by cbrennan@cbrennan r400 emu since error seems to be something different than what I was thinking Cripple stacks because they are known to be broken right now Change 132313 on 2003/11/17 by ashishs@fl_ashishs_r400_win Change 132505 on 2003/11/18 by kevino@kevino r400 release The shaders had index swizzles which according to me causes problems on hardware. Change to CUBE instruction to corrrespond to llefebr's chanelist 132250: "Changing emulator and tests to meet with the new cube swizzles wich now are for SRCA zzxy (instead of zzyx). Also change the assembler to accept the new swizzle code.". This is a shader program Change 132312 on 2003/11/17 by georgev@devel_georgev_r400_lin2_marlboro_tott that was missed in the update. Not finished. Added to keep track of while we're looking at the TC tests. Change 132419 on 2003/11/17 by ashishs@fl_ashishs_r400_win Change 132284 on 2003/11/17 by tmartin@tmartin r400 win Initial checkin for test with GPR management removed unused texture constants Change 132417 on 2003/11/17 by kevino@kevino r400 release Change 132273 on 2003/11/17 by tmartin@tmartin r400 win All tc*agp512 testcases modified to program 1024 constants even though only 512 are used Change 132401 on 2003/11/17 by tmartin@tmartin r400 win Change 132270 on 2003/11/17 by ashishs@fl_ashishs_r400_win r400sq_const_map_alu_01 r400sq const map alu 03 Changing the swizzle for the tests from zzyx -> zzxy on SrcA r400sq_const_map_alu_04 r400sq_const_map_alu_05 r400sq_const_map_alu_06 r400sq_const_map_fetch_03 Change 132265 on 2003/11/17 by tmartin@tmartin_r400_win checkpoint r400sq_const_map_fetch_04 r400sq_const_map_fetch_05 r400sq_const_map_fetch_06 Change 132250 on 2003/11/17 by llefebvr@llefebvr r400 linux marlboro Page 42 of 510 Page 41 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Changing emulator and tests to meet with the new cube swizzles wich now are for SRCA Porting shader to 2.0. zzxy (instead of zzyx). Also change the assembler to accept the new swizzle code Change 132136 on 2003/11/14 by ashishs@fl_ashishs_r400_win2 Change 131974 on 2003/11/14 by ashishs@fl_ashishs_r400_win2 test to load shaders at any chosen location. The shader doesnt wrap in this case as Changinng the description inside the test, to have clear description of the test intention as well as why it is FAILING expected and also need to allocate sufficient memory for shader before hand. But currently aborts in emu ...need to know why Change 131971 on 2003/11/14 by llefebvr@llefebvre_laptop_r400_emu Change 132103 on 2003/11/14 by ashishs@fl_ashishs_r400_win2 porting shader tests to v2.0 Finally correcting the test (debugged by Carlos). Now wraps vtx and pix shader both. The vtx and pix shader have just 1 extra slot of memory more than their size and thats how they wrap everytime they try to load Change 131970 on 2003/11/14 by ashishs@fl_ashishs_r400_win2 Test to show that currently instruction memory wrapping has some problems Change 132054 on 2003/11/14 by kevino@kevino r400 release Change 131965 on 2003/11/14 by tmartin@tmartin_r400_win integrate from branch to tott. These changes include making several testcases use Move the VS and PS base addresses in the constant re-mapping tables to make sure the entire range can be used Change 132040 on 2003/11/14 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 131950 on 2003/11/14 by smoss@smoss_crayola_win Went to 4 (from 8) multisamples per pixel. Change 132031 on 2003/11/14 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 131909 on 2003/11/13 by kevino@kevino r400 release Testing center vs. centroid Added tp loop testcases for 32, 64, 128BPP Change 132006 on 2003/11/14 by cbrennan@cbrennan r400 emu Change 131907 on 2003/11/13 by mangeshn@fl mangeshn Randoms don't need to be that big update - added instructions to the test Change 131991 on 2003/11/14 by mangeshn@fl_mangeshn Change 131902 on 2003/11/13 by tmartin@tmartin r400 win update to mul prev2 opcode Uses the max of 32 fetch constants in a $\ensuremath{\mathrm{VS}}$ Change 131984 on 2003/11/14 by mangeshn@fl_mangeshn Change 131896 on 2003/11/13 by rmanapat@rmanapat r400 release updated mul prev2 opcode in the shader This test was not doing fmt00 and fmt01 as advertised it was Change 131980 on 2003/11/14 by mangeshn@fl_mangeshn tually stuck on fmt02...problem found thanks to code coverage updated opcode for mul prev2 Change 131819 on 2003/11/13 by tmartin@tmartin r400 win Change 131977 on 2003/11/14 by tmartin@tmartin_r400_win fixed alu constant programming fixed alu constant programming to use groups of 4 Change 131773 on 2003/11/13 by ashishs@fl_ashishs_r400_win2 Change 131975 on 2003/11/14 by llefebvr@llefebvre_laptop_r400_emu Page 43 of 510 Page 44 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Change 132400 on 2003/11/17 by tmartin@tmartin r400 win

test for interpolation of constant attributes

Change 131740 on 2003/11/13 by tmartin@tmartin r400 win Restricted memory footprint size of vol 3d to prevent blowing out memory while creating now programs alu constants in groups of 4 Change 131626 on 2003/11/12 by cbrennan@cbrennan_r400_win_marlbord Change 131737 on 2003/11/13 by ashishs@fl_ashishs_r400_win2 texture sizes need to be at least 1 adding test for pixel shader wrapping Change 131618 on 2003/11/12 by kevino@kevino_r400_win_marlboro Change 131719 on 2003/11/13 by kevino@kevino r400 release Added pixel shader program for randomized case that can handle 1-4 textures, any of which can be cube mapped (info about which textures are on and which are cube mapped go into control bits). Also made vertices more contained so smaller prims are produced. include of control bits in tp_multitexture_01 Change 131678 on 2003/11/12 by tmartin@tmartin r400 win Change 131566 on 2003/11/12 by kevino@kevino r400 win marlboro corrected expected output comment For randomized test case, make vertices stay within DISP_DIM ranges. Min tex size is 1 (instead of 0). Change 131676 on 2003/11/12 by tmartin@tmartin_r400_win vc golds Change 131562 on 2003/11/12 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 131675 on 2003/11/12 by tmartin@tmartin_r400_win Added pixel kill tests Change 131536 on 2003/11/12 by rmanapat@rmanapat_r400_release Just touching these files...had to do a sync -f to have them come up even though they were already there...this should fix the EMU problem Change 131671 on 2003/11/12 by mangeshn@fl mangeshn preliminary check in for the first SP stress test for the MaxMag1 and 2 tests Change 131666 on 2003/11/12 by ashishs@fl_ashishs_r400_win2 Change 131522 on 2003/11/12 by rmanapat@rmanapat_r400_release changed the description of the test Fixed * rep * testcases for this test they were EMU error now they Change 131658 on 2003/11/12 by ashishs@fl_ashishs_r400_win2 Change 131418 on 2003/11/11 by tmartin@tmartin r400 win removed the simple test as its not needed anymore r400sq const map_alu_03 - uses all 512 constants in a VS r400sq_const_map_alu_04 - uses all 512 constants in a PS r400sq_const_map_alu_05 - tests context switching when exercising the PS r400sq_const_map_alu_06 - tests context switching when exercising the VS Change 131657 on 2003/11/12 by ashishs@fl ashishs r400 win2 initial checkin for memory wrapping test for vertex shaders. We can wrap the entire memory as many number of times as we want by changing the variable NUM_SHADERS inside the test. But inorder to run the test fast on the emulator the test has been shortened and only wraps the memory once (NUM_SHADERS = 14 will start the auto wrapping) Change 131395 on 2003/11/11 by ashishs@fl_ashishs_r400_win2 re-enabling the vs memory wrap test by Carlos since now it PASSES again in emulator Change 131632 on 2003/11/12 by cbrennan@cbrennan_r400_emu Change 131276 on 2003/11/11 by llefebvr@llefebvre laptop r400 emu Temporarily crippled border until border bugs get cleaned out These shaders were all broken because the address register was not refreshed prior to use. Page 45 of 510 Page 46 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 131102 on 2003/11/10 by mangeshn@fl mangeshn Change 131212 on 2003/11/11 by mangeshn@fl mangeshn edit - updatig test data to reflect denorms are now being flushed correctly Change 131099 on 2003/11/10 by ashishs@fl_ashishs_r400_win2 Change 131158 on 2003/11/10 by mangeshn@fl_mangeshn changing the description. Also adding a var for bug tracking edit - changing order of additions during calculation of the expected value Change 131084 on 2003/11/10 by ashishs@fl_ashishs_r400_win2 Change 131152 on 2003/11/10 by mangeshn@fl_mangeshn Adding a simple test for bug tracking edit - changed order of additions in the opcode Change 131053 on 2003/11/10 by domachi@diotargetxp Change 131147 on 2003/11/10 by mangeshn@fl_mangeshn Pick more suitable random range for S & T texcoord on 1/2/3D textures. update - to flush FP R400 NAN Change 131039 on 2003/11/10 by mangeshn@fl mangeshn Change 131133 on 2003/11/10 by mangeshn@fl_mangeshn update Change 131027 on 2003/11/10 by jhoule@jhoule r400 linux marlboro Change 131129 on 2003/11/10 by jhoule@jhoule_r400_linux_marlboro On second thought, this file needs more fiddling than just a simple copy.. Added *_rep_* testcases just like CL#129941 did for tp_simple_02. Change 131025 on 2003/11/10 by ihoule@jhoule r400 linux marlboro Change 131121 on 2003/11/10 by mangeshn@fl mangeshn Adding missing file which prevents r400tc simple_register_indirect from compiling Simply snatched the one from the $\rm VC$ directory. Change 131120 on 2003/11/10 by cbrennan@cbrennan_r400_win_marlboro Change 131006 on 2003/11/10 by domachi@diotargetxp Turned off AS_8, AS_8_8 and MPEG formats from tp_cubic tests. Add CubeMaps and StackMaps to tc_random test. Change 130857 on 2003/11/07 by ashishs@fl ashishs r400 win Change 131119 on 2003/11/10 by georgev@devel georgev r400 lin2 marlboro tott Added extra texture for MaxMag tests. adding VTX_INST_BASE and PIX_INST_BASE Change 130819 on 2003/11/07 by mangeshn@fl_mangeshn Change 131114 on 2003/11/10 by cbrennan@cbrennan r400 emu Fix test to force tiling on with FMT 1 and FMT 1 REVERSE added export to framebuffer Change 131110 on 2003/11/10 by ashishs@fl_ashishs_r400_win Change 130810 on 2003/11/07 by ashishs@fl_ashishs_r400_win adding hz and rom vars using 64 shaders Change 131104 on 2003/11/10 by mangeshn@fl_mangeshn Change 130802 on 2003/11/07 by mangeshn@fl_mangeshn undate update - added export to memory for Nan/Inf data tracking Page 47 of 510 Page 48 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

test foir pix and vtx shader wrapping together

Change 131630 on 2003/11/12 by cbrennan@cbrennan_r400_emu

Change 130793 on 2003/11/07 by cbrennan@cbrennan_r400_emu Change 130570 on 2003/11/06 by mangeshn@fl_mangeshn Got rid of tp 1D simple 01 test. No need to get rid of it from directed test report. undate Change 130792 on 2003/11/07 by kevino@kevino_r400_release Change 130546 on 2003/11/06 by kevino@kevino_r400_win_marlboro Removed a couple old tests that are no longer used (and now seg fault) 1st checkin of incomplete tp_stress test that uses AGP to have long memory latency to try to fill up fifo.:w Change 130791 on 2003/11/07 by cbrennan@cbrennan r400 emu Change 130520 on 2003/11/06 by kevino@kevino_r400_win_marlboro Fix test to not ask for 1 d tiled textures. illegal case. Made 2D aniso test cases use smaller prims (62.5×62.5 instead of 2.50×250). Since these test cases are not mijmapped, and perspective is used to force the aniso ratios, I think this should leave the functionality the same. Change 130788 on 2003/11/07 by kevino@kevino_r400_release Added stress tests which increase the input drive starve from 0% Change 130511 on 2003/11/06 by kevino@kevino r400 release Change 130774 on 2003/11/07 by mangeshn@fl_mangeshn $Added\ AGP\ version\ of\ tc_perf_2d.cpp.\ \ Also\ put\ in\ 600\ cycle\ AGP\ latency\ for\ all\ of\ these\ test\ cases\ into\ testCaseParams.pl.$ updated tests Change 130689 on 2003/11/07 by mangeshn@fl mangeshn Change 130506 on 2003/11/06 by ashishs@fl ashishs r400 win changing SIZE $_1$ var to (SIZE $_1$ -1) since with TP_V2=3 needs the same and now since TP_V2=3 is ON by defulat (TP_Version 2 ..i think...) Change 130686 on 2003/11/07 by kevino@kevino r400 win marlboro Change 130420 on 2003/11/06 by mkelly@fl_mkelly_r400_win_laptop Small change for to filter validation code for clarity (functionaly it should be identical) Move constant writes to one packet... Change 130673 on 2003/11/07 by kevino@kevino r400 win marlboro Change 130418 on 2003/11/06 by ashishs@fl ashishs r400 win2 Copy of tp_mutlitexture_02 for fmt 16 setting env var TP_V2=3 in the var file Change 130606 on 2003/11/06 by mangeshn@fl mangeshn Change 130408 on 2003/11/06 by amys@amys_xenos_linux_orl code modified so NANs don't cause a discrepancy between windows and linux Change 130596 on 2003/11/06 by cbrennan@cbrennan_r400_emu Change to simple 1d to use denormalized coords so that it could get past a size of 8192. Change 130381 on 2003/11/05 by ashishs@fl ashishs r400 win2 Change 130591 on 2003/11/06 by cbrennan@cbrennan_r400_emu correcting a small error in script Un crippled 1d textures Change 130372 on 2003/11/05 by ashishs@fl ashishs r400 win2 Change 130580 on 2003/11/06 by ashishs@fl ashishs r400 win enabling ROM and HZ blocks in regression scripts reverted the test back so that it runs (need to add inst wrap which was put by carlos and Change 130359 on 2003/11/05 by mangeshn@fl mangeshn check problem) added coissue test for the MUL_PREV2 instruction Page 49 of 510 Page 50 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 130352 on 2003/11/05 by kevino@kevino r400 release Tests were failing due to a change in vcrg.cpp (address clamp disable), now have been $Added\ tp_1D_simple_01,\ tp_border_02,\ and\ tp_simple_01_pos,\ tp_mipmap_smallprim_02\ to\ tp4_tc_random.rg$ Change 130215 on 2003/11/04 by ashishs@fl_ashishs_r400_win2 Change 130344 on 2003/11/05 by mkelly@fl_mkelly_r400_win_laptop corrected the syntax errors in the shaders. Now the kille instruction does require a destination register pipe disable tests are obsolete Change 130197 on 2003/11/04 by kevino@kevino_r400_win_marlboro Change 130335 on 2003/11/05 by mangeshn@fl mangeshn If tfc.validateFilter() returns false, set volume maps to point, and aniso to disabled added coissue tests for the SIN and COS instructions Previously only set min/mag to point, and mip to point if it was linear (leave basemap otherwise). Change 130307 on 2003/11/05 by tmartin@tmartin_r400_win Change 130175 on 2003/11/04 by cbrennan@cbrennan_r400_emu changed how vertex data was assigned because NaNs were causing a problem on Linux turned on uber_rand test for tp4_tc.
Turned off 1d textures in known good version of tc_random tp tests. Change 130299 on 2003/11/05 by eberger@eberger_r400_linux_marlboro Fixed some more errors in r400rb simple z.cop. Change 130153 on 2003/11/04 by ashishs@fl ashishs r400 win Change 130290 on 2003/11/05 by eberger@eberger_r400_linux_marlboro changing the test for TP_V2 with adding each shader for its own combination of sample location for fetch. Also needed to goldenise the image. Fixed one more minor error. Change 130133 on 2003/11/04 by ashishs@fl ashishs r400 win Change 130286 on 2003/11/05 by eberger@eberger_r400_linux_marlboro Changing test for TP_V2. Also needed to add different shader each fetching the texture Corrected an error in a call to the DEPTH SURFACE constructor pixel from center/centroid location Change 130281 on 2003/11/05 by llefebvr@llefebvr_r400_emu_montreal Change 130102 on 2003/11/04 by tmartin@tmartin r400 win Fixing SRCC valid GPR valid channel. Tests a high ratio of pixel threads to vertex threads Putting the SERIAL on the right line the the cubic pixel shader program. Change 130101 on 2003/11/04 by tmartin@tmartin r400 win Change 130280 on 2003/11/05 by eberger@eberger_r400_linux_marlboro Tests a high ratio (3/4) of vertex threads to pixel threads Changed the DEPTH FORMAT in one test Change 130100 on 2003/11/04 by tmartin@tmartin r400 win Change 130269 on 2003/11/05 by eberger@eberger_r400_linux_marlboro Uses each thread ID more than once in order to stress the SQ Created a new test very similar to Xenos's bc_simple_z.cpp. Change 130099 on 2003/11/04 by tmartin@tmartin r400 win Change 130228 on 2003/11/05 by kevino@kevino r400 win marlboro Version of tp_simple_02 where textures reside in AGP. Vertices & color buffer remain in framebuffer. Change 130098 on 2003/11/04 by tmartin@tmartin r400 win Change 130217 on 2003/11/04 by ashishs@fl_ashishs_r400_win2 Overflows the vertex shader reservation station Page 51 of 510 Page 52 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258246

Change 130097 on 2003/11/04 by tmartin@tmartin r400 win Change 129865 on 2003/11/03 by ashishs@fl ashishs r400 win Overflows the pixel shader reservation station Need to change gold for this test too. Change 130093 on 2003/11/04 by tmartin@tmartin r400 win Change 129864 on 2003/11/03 by ashishs@fl ashishs r400 win changed the test as per recom from Jocelyn. Also needed to update golds since the current images seem to be better Change 130092 on 2003/11/04 by tmartin@tmartin_r400_win Change 129849 on 2003/11/03 by ashishs@fl_ashishs_r400_win delete Changing the test as suggested by Jocelyn for the TP_V2 change. Also needed to change the gold image since earlier due to precision isssue was incorrect and now produces a more better Change 130084 on 2003/11/04 by tmartin@tmartin_r400_win attempts to overflows the vertex shader reservation station Change 129835 on 2003/11/03 by kevino@kevino_r400_release Change 130083 on 2003/11/04 by mkelly@fl mkelly r400 win laptop Removed some deug statements I had left in Update test to match Xenos for debugging Change 129833 on 2003/11/03 by kevino@kevino r400 release Change 130044 on 2003/11/04 by ashishs@fl_ashishs_r400_win 1st cut at fixing interlaced formats. Still get seg faults for tex sizes about 32x32 or so (64x64 fails) edited the tests to have BaseMapFilter for TP V2 =3 also needed to goldenise the tests Change 129956 on 2003/11/03 by tmartin@tmartin_r400_win Change 129791 on 2003/11/03 by mkelly@fl_mkelly_r400_win_laptop Overflows the pixel shader reservation stations Update rt state Change 129952 on 2003/11/03 by tmartin@tmartin r400 win Change 129790 on 2003/11/03 by ashishs@fl ashishs r400 win added r400sq_thread_manage_02, r400sq_thread_manage_03, updating golden.lst file r400sq thread manage_04 Change 129788 on 2003/11/03 by ashishs@fl ashishs r400 win Change 129927 on 2003/11/03 by mangeshn@fl_mangeshn Adding gold for one of the CL test to check under Linux added coissue tests for the max and min instructions Change 129785 on 2003/11/03 by mkelly@fl mkelly r400 win laptop Change 129905 on 2003/11/03 by mangeshn@fl mangeshn Update test arrangement, sizing const and const locations. added coissue tests for the mova and mova_floor instructions Change 129783 on 2003/11/03 by ashishs@fl_ashishs_r400_win Change 129902 on 2003/11/03 by ashishs@fl_ashishs_r400_win changing the test so that it PASSES under TP_V2=3 Change 129780 on 2003/11/03 by mkelly@fl_mkelly_r400_win_laptop Change 129897 on 2003/11/03 by ashishs@fl_ashishs_r400_win Move RT const sizing before setting const change for TP_V2 Page 53 of 510 Page 54 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 129767 on 2003/11/03 by mkelly@fl_mkelly_r400_win_laptop Change 129576 on 2003/10/31 by tien@tien r400 devel marlboro Fix test bug where RT const size is now defined before loading RT const Backed out last sim.cfe checking Added .rg file for block perf stuff Change 129766 on 2003/11/03 by mkelly@fl_mkelly_r400_win_laptop Change 129558 on 2003/10/31 by ashishs@fl_ashishs_r400_win2 Fixed test bug. Changing these 2 tests for output $_$ screen $_$ xy which are currently failing in emu but the change in test doesnt cause any difference Change 129691 on 2003/10/31 by tmartin@tmartin_r400_win added r400sq thread manage 01 Change 129554 on 2003/10/31 by ashishs@fl ashishs r400 win2 Change 129688 on 2003/10/31 by tmartin@tmartin r400 win Adding OUTPUT_SCREEN_XY to all these tests since they has PARAM_GEN as 1. Verified after regressing these tests Tests that the expected number of threads are drawn Change 129547 on 2003/10/31 by tmartin@tmartin r400 win Change 129679 on 2003/10/31 by kevino@kevino r400 win marlboro added r400sq_fetch_arb_01 and 02 Fixes for getgradients tests. Added 2D testcase. Make sp normalize gradients to 1 for display. Add testcases to rg file. Change 129536 on 2003/10/31 by amys@amys xenos linux ori Change 129674 on 2003/10/31 by ashishs@fl_ashishs_r400_win modify tests as per r400vc tests initial checkin for a test using SQ PERF counters Change 129498 on 2003/10/30 by tmartin@tmartin_r400_win Change 129669 on 2003/10/31 by llefebvr@llefebvr r400 emu montreal fetch arbitration tests fixing overwrites in mem-export tests. Change 129447 on 2003/10/30 by mangeshn@fl_mangeshn Change 129623 on 2003/10/31 by mangeshn@fl_mangeshn added coissue tests for mul prev, add prev and sub prev updated test status documents Change 129444 on 2003/10/30 by llefebvr@llefebvr_r400_linux_marlboro Change 129606 on 2003/10/31 by mangeshn@fl mangeshn Fixing dangling wires in the sq related to performance module Fixing shader due to Kill opcode assembler change. Fixing trakeer problem in the TB_SQSP when autocount vtx is on. added coissue tests for mul_const, add_const and sub_const instructions Change 129377 on 2003/10/30 by mkelly@fl_mkelly_r400_win_laptop Change 129604 on 2003/10/31 by ashishs@fl ashishs r400 win updating test list and tracker for recent vtx and pix index counter tests Change 129585 on 2003/10/31 by kevino@kevino_r400_win_marlboro Change 129349 on 2003/10/30 by mkelly@fl_mkelly_r400_win_laptop Added 1D, 3D, and Cubic getgradients testcases. None work properly yet Comment out RT and rearrange a bit for full chip test Change 129581 on 2003/10/31 by mangeshn@fl_mangeshn Change 129319 on 2003/10/29 by ashishs@fl_ashishs_r400_win added coissue tests for kille, killge, killgt, killne and killone instructions setting the mip filter to BaseMap as suggested by Jocelyn for TP_V2=3 to get PASSING

Page 55 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 56 of 510

Change 129313 on 2003/10/29 by ashishs@fl_ashishs_r400_win2 Fixed up some of the stack filter and clamp tests. Added some new border size test cases. testing the pix counter when rendering a triangle. Understanding the way pix counter is incremented (pix shader hit) when rendering a pixels in a triangle. Change 129058 on 2003/10/28 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 129283 on 2003/10/29 by mangeshn@fl mangeshn Check in for Laurant to look at it. changed to scalar Change 129023 on 2003/10/28 by mkelly@fl_mkelly_r400_win_laptop Change 129272 on 2003/10/29 by mangeshn@fl_mangeshn Add sc req.dmp adedd coissue tests for add, sub and mul Change 129002 on 2003/10/28 by mangeshn@fl mangeshn Change 129261 on 2003/10/29 by mkelly@fl_mkelly_r400_win_laptop added coissue tests for sete, setne, setge, setgt and pred_set_restore instructions Smaller test for full chip debugging.. Change 128998 on 2003/10/28 by ashishs@fl ashishs r400 win2 Finalising the test with vsisr_cont settings, gen vtx and pix counters and exporting them nory. Also toggling between the destination register for the pix counter between r1-r15 Change 129245 on 2003/10/29 by kevino@kevino r400 linux marlboro Fixed a couple typos that left the stack depth > 64 and were causing emu errors. verey 64 points of total 4224 points Added .rg files for tp4_tc and tc for the tp_multitexture_02 stack map tests Change 128979 on 2003/10/28 by mangeshn@fl_mangeshn Change 129223 on 2003/10/29 by mkelly@fl_mkelly_r400_win_laptop added simple test for kille register export Change a logic | to an add in address calc Change 128964 on 2003/10/28 by kevino@kevino_r400_win_marlboro Change 129216 on 2003/10/29 by kevino@kevino r400 win marlbord Added StackMap testcases to tp_multitexture_02 that are replicas of the 3D testcases. Replaced error messages about base and mip maps not being allocated with warnings not containing the word "error". Have not yet gone through the results to make sure that the testcases are behaving as expected Change 129130 on 2003/10/29 by kevino@kevino_r400_win_marlboro Change 128954 on 2003/10/28 by kevino@kevino_r400_win_marlboro Updated some more of the stackmap testcases to limit the stack depth to 64 Added tp stack test. Current testcases only test getcomplod and getgradients. Change 129079 on 2003/10/28 by tmartin@tmartin r400 win Change 128943 on 2003/10/28 by mkelly@fl mkelly r400 win laptop updated to work when TP V2 is 3 Remove unnecessary constant write. Change 129064 on 2003/10/28 by kevino@kevino_r400_win_marlboro Change 128936 on 2003/10/28 by ashishs@fl_ashishs_r400_win2 Removed a couple hacks from to mt tcfunc stack clamp.h that I had been using for Test to export pix index count to all GPR's (only possible r1-r15) Using index "i" in pix shader so that just using one shader the shader can dynamically change the destination register which it is using, thereby just needing one shader for pix shader as well as testing indexing on gpr's as well as output to all gpr's testine Change 129061 on 2003/10/28 by georgev@devel_georgev_r400_lin2_marlboro_tott First revision Change 128884 on 2003/10/28 by kevino@kevino r400 win marlboro Change 129060 on 2003/10/28 by kevino@kevino_r400_win_marlboro uncommented remove of ppm files Page 57 of 510 Page 58 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 128682 on 2003/10/27 by kevino@kevino_r400_win_marlboro Change 128881 on 2003/10/28 by smoss@smoss xenos linux orl Shader programs for getcomplod and getgrad for texture stacks. New cpp file that uses them not checked in yet updated for primlib files Change 128876 on 2003/10/28 by mkelly@fl_mkelly_r400_win_laptop Change 128680 on 2003/10/27 by ashishs@fl_ashishs_r400_win update. changed the test so that st could bve changed easily Change 128875 on 2003/10/28 by mkelly@fl_mkelly_r400_win_laptop Change 128677 on 2003/10/27 by domachi@diotargetxp Fix proper range for LOD BIAS. SetLODBias should be set as a float Change 128848 on 2003/10/27 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 128672 on 2003/10/27 by amys@amys_xenos_linux_orl Added two debug registers. converted vc tests to tc tests Change 128833 on 2003/10/27 by ashishs@fl_ashishs_r400_win2 Change 128618 on 2003/10/27 by mkelly@fl_mkelly_r400_win_laptop input the reg index in the test. The test doesnt output on higher index values like 4,5,6... Fix syntax error from last update Change 128617 on 2003/10/27 by mkelly@fl_mkelly_r400_win_laptop Change 128771 on 2003/10/27 by mkelly@fl_mkelly_r400_win_laptop Fix syntax error from last update. First HZ test, now need to migrate it to Xenos ... Change 128616 on 2003/10/27 by mkelly@fl mkelly r400 win laptop Change 128769 on 2003/10/27 by mkelly@fl_mkelly_r400_win_laptop Fix wrong CP word type. Add handling for HZ tests

Change 128768 on 2003/10/27 by kevino@kevino_r400_win_marlboro

Updates to getcomplod and getgradients testcases. The lod and gradients come out from the emu differently if the opcode is 2D versus StackMap. Since R=0.0 for all vertices, I would not expect this difference.

Change 128765 on 2003/10/27 by ashishs@fl_ashishs_r400_win

with help from Jocelyn modified the test so that works with TP V2=3. Please see below for desc from Jocely

OK, from what I could observe, you end up hitting mip level 1 for some quads. Adding the following lines right before setting the constants in the render_state solves

your issues:
// Set BASE_MAP filter
point_texture_constant0.setMIP_FILTER(TFetchConst::Mip_BaseMap);
point_texture_constant1.setMIP_FILTER(TFetchConst::Mip_BaseMap); ..and so on

Page 59 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 128498 on 2003/10/24 by ashishs@fl ashishs r400 win2

initial checkin for the test. The test uses vsisr_cont with gen vtx and pix counters and displaying them on framebuffer(currently 4224 points, generating 4224 vtx count and 4224* pixel count since each point is 2X2 pixels. Had to just slightly twist the test from the original test since after at context switch 64 pixels are given to output no matter how many are rendered (pixel vector). So the vertex data had to carry apprepriate number of points so that we get a continous pixel count. Need to still put the register indexing inside the test

Change 128491 on 2003/10/24 by mangeshn@fl mangeshn

added coissue tests for the pred set inv and pred set pop instructions

Change 128406 on 2003/10/24 by kevino@kevino r400 win marlboro

Fixed some of the test cases. Prim dimesnions exceeded display dimensions and were causing an rb assert. Not sure qute why, though. Maybe raster scissors need to be set up as the display dimensions.

Change 128395 on 2003/10/24 by mangeshn@fl_mangeshn

Page 60 of 510

added coissue tests for sqrt_iee, fract, trunc and floor instructions added coissue tests for pred-sete, pred-setne, pred-setgt and pred-setge instructions Change 128202 on 2003/10/23 by georgev@devel georgev r400 lin2 marlboro tott Change 128392 on 2003/10/24 by kevino@kevino_r400_win_marlboro Added tests for non mod 32 texture pitches Added several large odd textures with mipmapping to tp multitexture 02 in tp_mt_tcfunc_2D_filter.h Change 128201 on 2003/10/23 by ashishs@fl ashishs r400 win2 Change 128356 on 2003/10/24 by kevino@kevino r400 win marlboro correcting the test since the test has dounble the number of indices Change 128193 on 2003/10/23 by ashishs@fl ashishs r400 win2 Added getcomplod and getgradients testcases to tp_cubic.cpp Change 128340 on 2003/10/24 by mkelly@fl_mkelly_r400_win_laptop initial checkin for the test with vertex counter, pix counter and the vsisr_cont enabled Moving and modifying pipe disable tests in sys/rom Change 128161 on 2003/10/23 by mkelly@fl mkelly r400 win laptop Change 128338 on 2003/10/24 by cbrennan@cbrennan_r400_emu Change texture to work with Jocelyn's changes. Add stacks to tc's smoke.rg Change 128158 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Change 128333 on 2003/10/24 by mkelly@fl mkelly r400 win laptop Change texture to work with Jocelyn's changes... Add handling for test_lib/src/chip/sys/rom Change 128128 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Change 128317 on 2003/10/24 by mkelly@fl mkelly r400 win laptop Changed stipple auto reset control to "1" instead of "2", since the BOOL data type Change 128124 on 2003/10/23 by cbrennan@cbrennan r400 release Enabled endian swap and border color randomizations. Change 128283 on 2003/10/23 by ashishs@fl ashishs r400 win2 Change 128098 on 2003/10/23 by ashishs@fl_ashishs_r400_win finally got the test working perfectly with help from Carlos. Now just need to have color updated the descriptions and addded test in tracker Change 128261 on 2003/10/23 by smoss@smoss_xenos_linux_orl Change 128090 on 2003/10/23 by ashishs@fl_ashishs_r400_win2 Adding test to do vertex and pixel count in the same test. Thanks for the tip from Carlos added rom, housekeeping the test works correctly Change 128252 on 2003/10/23 by jhoule@jhoule r400 linux marlboro Change 128078 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Added ability to print input and output headers Cleaned up code to be more consistent across testbenches. Move RT idle to after initiator... Change 128247 on 2003/10/23 by kevino@kevino_r400_win_marlboro Change 128067 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Adding mip packing setting to tp_multitexture_02. Defaulted to enabled. Remove two tests from regressions until I fix them... Change 128213 on 2003/10/23 by mangeshn@fl mangeshn Change 128064 on 2003/10/23 by mkelly@fl mkelly r400 win laptop Page 61 of 510 Page 62 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Moved WAIT_RTS_UNTIL.wait_rt_idle to be immediately after RTS initiator. Change 127936 on 2003/10/22 by kevino@kevino r400 win marlboro Change 128050 on 2003/10/23 by keyino@keyino r400 win marlboro $\label{lem:commands} Commented out dumpPPM commands so that the tests wouldn't write out the textures to ppm files.$ Fixed test-created sp file so that settexlod is right before the tfetches that use it. If ALu instr's are in between them Change 127931 on 2003/10/22 by kevino@kevino r400 win marlboro Change 128047 on 2003/10/23 by georgev@devel georgev r400 lin2 marlboro tott Commented out SaveBaseMap and SaveMipLevels where they were set to true- no need to dump them except for when writing the test and making sure the textures come out as Added debug register read on test completion expected. Change 128041 on 2003/10/23 by kevino@kevino r400 win marlboro Change 127911 on 2003/10/22 by mangeshn@fl_mangeshn Needed by tp_multitexture_01 and _02 modified test data set and switch off #VERBOSE. Updated SP test list Change 128031 on 2003/10/23 by ashishs@fl ashishs r400 win Change 127901 on 2003/10/22 by mkelly@fl mkelly r400 win laptop due to s script problem we need to add new line at the end of the test_list More simple texture cases Change 128017 on 2003/10/23 by mkelly@fl mkelly r400 win laptop Change 127891 on 2003/10/22 by tmartin@tmartin_r400_win first complete version of the test pending a fix in the emulator Change 128016 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Change 127889 on 2003/10/22 by tmartin@tmartin r400 win Adjustments... cleaned up a couple areas of the code so they don't cause confusion in the future Change 128015 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Change 127887 on 2003/10/22 by domachi@diotargetxp Adjustments... Add some output to debug random seed problem Change 128013 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Change 127868 on 2003/10/22 by kevino@kevino_r400_win_marlboro Update comments... Added getcomplod tests for 1D, 3D, and Cubic maps. Tex Stacks still need to be done Change 128012 on 2003/10/23 by mkelly@fl_mkelly_r400_win_laptop Change 127867 on 2003/10/22 by mkelly@fl_mkelly_r400_win_laptop More RTS texture samples... Change 127974 on 2003/10/22 by ashishs@fl ashishs r400 win2 Change 127803 on 2003/10/22 by mangeshn@fl_mangeshn Finally got the test working with help from Carlos and Laurent. Had test issues so just

simplified the test to render as many points as needed without caring about the render packet size

added co-issue tests for recip_sqrt_clamped, recip_sqrt_ff and recip_sqrt_ieee. Updated

Ex. 2052 --- R400 Testing FH ---foler_history

Page 63 of 510

Change 127958 on 2003/10/22 by mangeshn@fl_mangeshn

in one render pass

Ex. 2052 --- R400 Testing FH ---foler_history

added coissue test for exp ieee

updated shaders

Change 127801 on 2003/10/22 by mangeshn@fl_mangeshn

Change 127778 on 2003/10/22 by mkelly@fl_xenos_regspec

Page 64 of 510

Update

Change 127770 on 2003/10/22 by mkelly@fl_mkelly_r400_win_laptop

Update for latest simd arch

Change 127757 on 2003/10/22 by mkelly@fl_mkelly_r400_win_laptop

VC address clamp disable by default.

Change 127756 on 2003/10/22 by mkelly@fl_mkelly_r400_win_laptop

VC Address clamp disable by default

Change 127751 on 2003/10/22 by mkelly@fl_mkelly_r400_win_laptop

Address clamp disable by default

Change 127740 on 2003/10/22 by mkelly@fl_mkelly_r400_win_laptop

Disable address clamping in VC

Change 127675 on 2003/10/21 by grayc@grayc_xenos_linux_orl

new script to generate a rg file

Change 127667 on 2003/10/21 by tmartin@tmartin_r400_win

removed some extraneous set fifo depth commands

Change 127663 on 2003/10/21 by tmartin@tmartin_r400_win

made some texture constant changes

Change 127654 on 2003/10/21 by mangeshn@fl mangeshn

added co-issue tests for log_clamped and log_ieee

Change 127636 on 2003/10/21 by mkelly@fl_mkelly_r400_win_laptop

RECTANGLE LIST, 4 textures, 64x64

Change 127631 on 2003/10/21 by mkelly@fl_mkelly_r400_win_laptop

nonRTS, 4 textures, 64x64, using to debug RTS 4 textures..

Change 127627 on 2003/10/21 by mangeshn@fl mangeshn

Page 65 of 510

Ex. 2052 --- R400 Testing FH --- foler history

added recip ieee and recip ff coissue tests

Change 127621 on 2003/10/21 by ashishs@fl_ashishs_r400_win

Added an option -g to goldenise the param tests in PERFORCE, but however this option doesnt check if the image PASSED. Kept this feature for later and just got the above functionality working

Change 127618 on 2003/10/21 by ashishs@fl_ashishs_r400_win

had some unknown problem

Change 127613 on 2003/10/21 by kevino@kevino_r400_win_marlboro

 $\label{eq:Added Several 2D get compled test cases. Still need to add one for each of 1D, 3D, Cubic, and Tex Stack.$

Change 127606 on 2003/10/21 by ashishs@fl ashishs r400 win

Goldenised the r400sc_multi* param tests for AMY after learning how to goldenise the

Change 127558 on 2003/10/21 by mangeshn@fl_mangeshn

added test for - scalar recip clamp inst tested with all vector inst for coissue

Change 127543 on 2003/10/21 by tien@tien r400 devel marlboro

Sanity check-in of TP block perf tests
Did not run release parts_lib.pl, but as these tests
are not in regression and are not RTL, I should be able to
get away with it...
No other test should be using the 2 shader programs either!!!

Change 127536 on 2003/10/21 by ashishs@fl_ashishs_r400_win

Adding 3 new tests to test_list and Test_tracker.

Also updating description inside the tests. Also inside pix shader test increased the count from 512 to 16895 as earlier.

Change 127529 on 2003/10/21 by mkelly@fl mkelly r400 win laptop

Corrected textures 0-3 sizes to match gold image after Chris Brennan's CL 125305.

Change 127505 on 2003/10/21 by domachi@diotargetxp

Ensure random shader generation is seeded with the -seed command line argument.

Page 66 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 127450 on 2003/10/20 by ashishs@fl_ashishs_r400_win2

Changed the test so that it uses the

RENDER ENGINE::INDIRECT_COMMAND_STREAM_MODE as recomended by Kevin Ryan and Carlos so that these tests PASS in hardware.(currently FAILING in hardware due to high number of packets). Need to verify with Dan Clitton if the same PASS in hardware now ???

Change 127429 on 2003/10/20 by ashishs@fl_ashishs_r400_win2

Changing the test so that it uses the auto generated pixel shader counter to create an export address.

Change 127415 on 2003/10/20 by llefebvr@llefebvr_r400_emu_montreal

updated tp_simple_02 vertex shader to new VS 2.0 with serialize.

Change 127409 on 2003/10/20 by llefebvr@llefebvr_r400_emu_montreal

changed the x_mask test to use shader version 2 with serialize instead of the old $v1.0\,$

Change 127381 on 2003/10/20 by tmartin@tmartin_r400_win

added the vc test r400vc_data_format_01

Change 127380 on 2003/10/20 by mkelly@fl_mkelly_r400_win_laptop

Load constants in multiples of 4.

Change 127375 on 2003/10/20 by kevino@kevino r400 win marlboro

Some changes to tp_cubic.cpp to make sure color doesn't go to 0 when one of the tex sizes goes to 1.

Change 127370 on 2003/10/20 by ashishs@fl_ashishs_r400_win2

Editing the FAILING SP tests. These tests were FAILINg due to the predication optimization put by Laurent. Were valid tests earlier, but the emulator was changed to match hardware.

Change 127359 on 2003/10/20 by cbrennan@cbrennan_r400_emu

add cubic rg file.

Change 127352 on 2003/10/20 by mkelly@fl_mkelly_r400_win_laptop

Load constants in multiples of 4.

Change 127350 on 2003/10/20 by mkelly@fl_mkelly_r400_win_laptop

Page 67 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Display exported data in framebuffer for test debugging

Change 127343 on 2003/10/20 by mkelly@fl_mkelly_r400_win_laptop

Load constants in multiples of 4

Change 127340 on 2003/10/20 by mkelly@fl_mkelly_r400_win_laptop

Load constants in multiples of 4.

Change 127335 on 2003/10/20 by mkelly@fl_mkelly_r400_win_laptop

Load constants in multiples of 4.

Change 127331 on 2003/10/20 by tmartin@tmartin_r400_win

first gold check in

Change 127330 on 2003/10/20 by tmartin@tmartin_r400_win

first check in

Change 127327 on 2003/10/20 by tmartin@tmartin_r400_win

updated texture constants

Change 127176 on 2003/10/17 by kevino@kevino_r400_win_marlboro

Added large tex cases.

Change 127172 on 2003/10/17 by tmartin@tmartin_r400_win

added r400vc_cntl_07

Change 127167 on 2003/10/17 by tmartin@tmartin_r400_win

a slight twist on the cntl_04 test that stresses the coherency regs

Change 127163 on 2003/10/17 by tmartin@tmartin_r400_win

cleaned up the code

Change 127151 on 2003/10/17 by ashishs@fl_ashishs_r400_win2

editing the test so now it does the address export as well as the generated counter value for pix. Just to show that the address generated is correct and still the pix shader counter value is incorrect.

Change 127107 on 2003/10/17 by cbrennan@cbrennan_r400_emu

Page 68 of 510

Aesthetic fix.

Change 127101 on 2003/10/17 by tmartin@tmartin_r400_win

added r400vc rsp 01

Change 127097 on 2003/10/17 by tmartin@tmartin_r400_win

fixed typo

Change 127086 on 2003/10/17 by tmartin@tmartin r400 win

one case was drawn overlapping another. this is fixed

Change 127049 on 2003/10/16 by tien@tien r400 devel marlboro

Change 127034 on 2003/10/16 by kevino@kevino r400 win marlboro

Updated tp_multitexture_02 randomized case

Change 127032 on 2003/10/16 by smoss@smoss cravola win

Change 127025 on 2003/10/16 by cbrennan@cbrennan_r400_emu

Saving changes to test that allow me to test to make sure mip faces are flipped properly.

Change 127005 on 2003/10/16 by georgev@devel_georgev_r400_lin2_marlboro_tott

Made tests perspective correct by default

Change 127003 on 2003/10/16 by tmartin@tmartin r400 win

test the redundant shader pipe functionality

Change 126998 on 2003/10/16 by tmartin@tmartin_r400_win

checkpoint

Change 126989 on 2003/10/16 by cbrennan@cbrennan_r400_win_branch

Fix shader program to new new new new new new new cube map instruction

Change 126947 on 2003/10/16 by kevino@kevino r400 win marlboro

Page 69 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Got rid of old highlat test cases that were intended for back when the TC tried to let texture fetches slip past high-latency vtx requests

Change 126925 on 2003/10/16 by tmartin@tmartin_r400_win

added more fifo tests and fixed a calculation error in the spreadsheet

Change 126920 on 2003/10/16 by tmartin@tmartin_r400_win

Change 126912 on 2003/10/16 by tmartin@tmartin r400 win

added new tests to vary the 12 fifo depth

Change 126909 on 2003/10/16 by tmartin@tmartin r400 win

split different fifo depth settings into separate files to work with the vc testbench

Change 126887 on 2003/10/16 by smoss@smoss crayola win

build test list true

Change 126877 on 2003/10/15 by csampayo@fl_csampayo3

Updated for the following tests: r400sq_gpr_index_01 r400sq_gpr_index_02

Change 126864 on 2003/10/15 by tmartin@tmartin r400 win

Change 126858 on 2003/10/15 by cbrennan@cbrennan r400 release

Cube mapping should clamp edge texels to get rid of seams. This is NOT the mip issue

Change 126856 on 2003/10/15 by ashishs@fl_ashishs_r400_win2

Test to generate counter using gen_index_vtx and as well as using the 2 component vsisr to fetch the data and validating it to be correct. Currently the counter is sets to that it can count till 16895 (basically) 16895 points/vertices are rendered in the program). But can be changed to increase and decrease the number of points/vertices and thereby increase/decrease the auto counter generated by gen_index_vtx. Also the counter has been exported to memory to see the value that it is incremented by is correct. Also since the vtx shader uses dual component feature of vsisr, the vertex data as well as indices has been appropriately evaluated to cause a difference in the image for the same effect.

Page 70 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

The counter can be increased or decraesed conveniently using the variable const uint32 aperture = 16895 : //atleast has to be 256 or RENDER PACKET SIZE

Change 126855 on 2003/10/15 by cbrennan@cbrennan_r400_release

Tweaks to cache thrash test to hopefully make it better

Change 126836 on 2003/10/15 by tmartin@tmartin_r400_win

added the rest of the precision tests to the regression and removed the debug register from

Change 126819 on 2003/10/15 by cbrennan@cbrennan_r400_release

Add a cache thrash tes

edit tests to turn off back face culling because half of the randoms werent displaying the

Add some rg files i want to keep around. Add random tests for the cache thrashing and face crossing to the TC and TP suite.

Change 126809 on 2003/10/15 by kevino@kevino_r400_win_marlboro

Added non-pow2 and rectangular test cases. Also added random texture format tests. Made random tex sized non-pow2

Change 126797 on 2003/10/15 by csampayo@fl_csampayo_r400

Change 126785 on 2003/10/15 by tmartin@tmartin r400 win

set the texture constant pitch

Adding GPR loop indexing tests

Change 126759 on 2003/10/15 by kevino@kevino r400 win marlboro

Added w to tp_cubic.cpp. Added persp case which changes w from 1.0.

Change 126754 on 2003/10/15 by georgev@devel_georgev_r400_lin2_marlboro_tott

Even more aniso 14to1 fixes.

Change 126740 on 2003/10/15 by tmartin@tmartin r400 win

enabled the second case

Change 126728 on 2003/10/15 by georgev@devel georgev r400 lin2 marlboro tott

More changes for 14to1 aniso

Page 71 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 126727 on 2003/10/15 by kevino@kevino r400 win marlboro

Added various random test cases: randomized: random stq, ordered random xy random_vtx_stq: random stq, original xy random_vtx_sq. random stq, Gigman xy
random_vtx_xy_ordered : original stq, ordered random xy
random_vtx_xy: original stq, random xy
random_vtx_all: random stq, random xy

ordered random xy means that it will draw a tri strip that does not fold back over itself

Change 126694 on 2003/10/15 by cbrennan@cbrennan r400 release

Renamed tp_mip_cubic to tp_mip_face_cross

Change 126646 on 2003/10/14 by kevino@kevino_r400_win_marlboro

 $Updated \ tp_cubic \ test \ that \ hits \ the faces \ correctly. \ Also, \ draw \ multiple \ rows, \ each \ downscalled \ from \ the last \ to \ hit \ the \ various \ mip \ levels. \ (mip \ level \ is \ encoded \ in$ green=level/16.0)

Change 126644 on 2003/10/14 by tmartin@tmartin_r400_win

updates

Change 126613 on 2003/10/14 by georgev@devel_georgev_r400_lin2_marlboro_tott

Changed texture map for 14to1 aniso debug

Change 126561 on 2003/10/14 by ashishs@fl ashishs r400 win2

Test to validate the gen_index_pix counter. The test doesnt seem to produce the counter correctly, so currently under validation

Change 126551 on 2003/10/14 by georgev@devel_georgev_r400_lin2_marlboro_tott

Reactivated border fraction and get gradients (new shaders)

Change 126546 on 2003/10/14 by kevino@kevino r400 win marlboro

1st cut at cubic test, but I think I am always getting just one face.

Change 126538 on 2003/10/14 by jhoule@jhoule_r400_linux_marlboro_reg

Temporarily adding a simpler version of GetBorderColorFraction for the RTL to test

Change 126537 on 2003/10/14 by cbrennan@cbrennan_r400_release

Page 72 of 510

Changed word counts for lod/coord FIFO to 32 to match RAM Tweaked range of random coords. Added ati dff in to tp4 tc testbench for TP SQ dec Change 126523 on 2003/10/14 by domachi@diotargetxp Misc. changes to perf test.. Fix vertex fetch stride of position shader when using the Random Shader Generator Change 126346 on 2003/10/13 by kevino@kevino r400 win marlboro (RSG) Added grad_exp_adjust_h and _v testcases: aniso_2D_grad_exp_adjust_neg_16_9 aniso_2D_grad_exp_adjust_neg_8_1 Change 126521 on 2003/10/14 by ashishs@fl_ashishs_r400_win2 Tests changed due to Chris Brenan's change #125305 Needed to shift the texture coord by 3 bits. Essentially "SIZE_1" in all the tests below have been shifted by 3 bits aniso 2D grad exp adjust pos0 aniso_2D_grad_exp_adjust_pos8_15 Change 126460 on 2003/10/13 by ashishs@fl_ashishs_r400_win Change 126340 on 2003/10/13 by domachi@diotargetxp Fix problem where multiple parameter cache allocs occured were generated using random shader generation. The position shader should not export to the parameter cache, but let the random shader generator do that. Change 126436 on 2003/10/13 by kevino@kevino r400 win marlboro Added new max/min mip clamp tests Change 126339 on 2003/10/13 by kevino@kevino_r400_linux_marlboro Change 126406 on 2003/10/13 by ashishs@fl_ashishs_r400_win optimizing Change 126403 on 2003/10/13 by ashishs@fl_ashishs_r400_win can safely increase the number of points to 16384 to be displayed on the screen Change 126390 on 2003/10/13 by ashishs@fl ashishs r400 win Adding test to gen_index_vtx Change 126360 on 2003/10/13 by kevino@kevino r400 win marlbord Changed default test Set volume mag.min filter to be linear in the BLL cases Change 126355 on 2003/10/13 by kevino @kevino r400 win marlboro Just added a few commented lines (which show various tfetch options of using comp and/or reg grad) Change 126351 on 2003/10/13 by kevino@kevino_r400_win_marlbore Fixed getset_gradient test to get the grads, square them or double them, and set back to H and V, then lookup texture with new grads Changed texture for grad_exp_adjust tests stress test 1 Change 126348 on 2003/10/13 by tien@tien_r500_emu Page 73 of 510 Ex. 2052 --- R400 Testing FH --- foler history Change 126194 on 2003/10/10 by ashishs@fl_ashishs_r400_win2 Changing the tests so that they output screen XY. The tests had PARAM GEN = 1 or PARAM_GEN_RTS =1 but didnt have OUTPUT_SCREEN_XY = 0 or
OUTPUT_SCREEN_XY_RTS = 0 because of which it caused problem in hardware, getting
uninit data on OUTPUT_SCREEN_XY Change 126090 on 2003/10/10 by ashishs@fl ashishs r400 win Changing the shaders for the HOS adaptive tests so that while doing the mem exports the ea has MULADD instruction in it otherwise it asserts in SX Fixing RT test Change 126067 on 2003/10/10 by llefebvr@llefebvr_r400_emu_montreal Swaping no flush for a real gfxIdle

Changes pos testcase to have exp_adj_all of 31, which is max, not 32. Change 126333 on 2003/10/13 by tmartin@tmartin r400 win added r400vc_fmt_precision_05 and r400vc_fmt_precision_06 Change 126328 on 2003/10/13 by cbrennan@cbrennan_r400_win_branch increase random fmt range to hit 61 Change 126323 on 2003/10/13 by jhoule@jhoule_r400_linux_marlboro Change 126321 on 2003/10/13 by ashishs@fl ashishs r400 win setting up constants inside the test since was being used inside the pix shader Change 126226 on 2003/10/10 by cbrennan@cbrennan_r400_emu Release from my emu branch: texture stacks for TP as well Change 126223 on 2003/10/10 by tmartin@tmartin_r400_win Page 74 of 510 Ex. 2052 --- R400 Testing FH --- foler history changing the shders for the predication optimiztion Change 125965 on 2003/10/09 by omesh@omesh_r400_linux_marlboro Added 2 and 4 sample specific versions of these tests on Larry's request. Verified that they compile and run on Linux Change 125957 on 2003/10/09 by llefebvr@llefebvr_r400_emu_montreal Change 125900 on 2003/10/09 by georgev@devel_georgev_r400_lin2_marlboro_tott Partialy complete files. Do not use. Change 125897 on 2003/10/09 by ashishs@fl_ashishs_r400_win2 changing the shaders to remove the optimizations for predications by manually putting (P) and (!P) and removing ALL IF's Change 125805 on 2003/10/09 by Iseiler@Iseiler_r400_win_marlboro1 Removed 8-sample test from regress_rb Change 125792 on 2003/10/09 by tmartin@tmartin r400 win converted vc test to tc test Change 125730 on 2003/10/08 by ashishs@fl ashishs r400 win Not use the optimization by setting manually (p) or (!p) before each ALU instruction (only the ones having address register, as recom by Laurent) and remove all ifs. Change 125726 on 2003/10/08 by smoss@smoss xenos linux orl added vc stuff Change 125721 on 2003/10/08 by ashishs@fl ashishs r400 win Not use the optimization by setting manually (p) or (!p) before each ALU instruction (only the ones having address register, as recom by Laurent) and remove all ifs. Change 125715 on 2003/10/08 by tmartin@tmartin r400 win

changed the texture size field to reflect the new packing order

Page 76 of 510

Change 125704 on 2003/10/08 by tmartin@tmartin_r400_win

Change 125983 on 2003/10/09 by ashishs@fl_ashishs_r400_win removing pred optimizations Change 125973 on 2003/10/09 by ashishs@fl_ashishs_r400_win2 correcting the path to the gold (t:\r400\gold -> t:\xenos\gold) Change 125969 on 2003/10/09 by ashishs@fl_ashishs_r400_win Page 75 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

Change 126063 on 2003/10/10 by llefebvr@llefebvr r400 emu montreal

Put the wait in the wrong place It wasn't doing anything.

Change 126062 on 2003/10/10 by llefebvr@llefebvr r400 emu montreal

Change 126025 on 2003/10/10 by cbrennan@cbrennan_r400_release

Change 125990 on 2003/10/09 by ashishs@fl_ashishs_r400_win

Change 125987 on 2003/10/09 by ashishs@fl_ashishs_r400_win

Fixed some test errors.

Added S and Q values of 0.5.

changing pred optimizations

changing pred optimization

Inserting wait GFX idle to wait for results of pass 1 before going to 2.

Change 125992 on 2003/10/09 by georgev@devel georgev r400 lin2 marlboro tott

added r400vc_dword_alignment_01, r400vc_dword_alignment_02, commented out r400vc base addr range pci 02 r400vc_dword_alignment_03, r400vc_dword_alignment_04, r400vc_sector_reuse_01, Change 125696 on 2003/10/08 by georgev@devel_georgev_r400_lin2_marlboro_tott r400vc sector reuse 02 Changed border color to white and changed wrap mode Change 125484 on 2003/10/07 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 125677 on 2003/10/08 by tmartin@tmartin r400 win Added some extra code for future tests added "MH.HDP_FB_START.write(frame_buffer_start);" to protect against bugs in future tests that use these as a base Change 125468 on 2003/10/07 by georgev@devel_georgev_r400_lin2_marlboro_tott First set of corrections. Change 125671 on 2003/10/08 by ashishs@fl ashishs r400 win Change 125455 on 2003/10/07 by tmartin@tmartin_r400_win Not use the optimization by setting manually (p) or (!p) before each ALU instruction (only the ones having address register, as recom by Laurent) and remove all ifs. checks sector functionality and 512 bit request sizes Change 125656 on 2003/10/08 by rmanapat@rmanapat_r400_release Change 125451 on 2003/10/07 by georgev@devel_georgev_r400_lin2_marlboro_tott Added til_fmt00_l and til_fmt01_l testcases Changed 1 to 1 Aniso to Disable. Change 125622 on 2003/10/08 by cbrennan@cbrennan r400 emu Change 125443 on 2003/10/07 by georgev@devel_georgev_r400_lin2_marlboro_tott Integrate code from branch Implemented texture stacks in the TO Integrated some rg files back from TOTT.
Tweaked leda rules for tca and tcb.
Added texture stacks to nightly tests and randoms Change 125393 on 2003/10/07 by jhoule@jhoule_r400_linux_marlboro Change 125613 on 2003/10/08 by Iseiler@Iseiler r400 win marlboro2 Change 125367 on 2003/10/07 by mkelly@fl_mkelly_r400_win_laptop Increase precision of bypass path for 16-bit components, so that 16-bit RF can be generated accurately Multi-pass pixel shader data dependent predication, 50% complete Change 125358 on 2003/10/07 by tmartin@tmartin r400 win Change 125588 on 2003/10/08 by georgev@devel_georgev_r400_lin2_marlboro_tott fixed a typo with one of the texture coordinate fetches Fix test bug with new FMT 1 1 1 1 format Change 125347 on 2003/10/07 by tmartin@tmartin_r400_win Change 125569 on 2003/10/08 by kevino@kevino_r400_linux_marlboro test wrapping at the high end of the 32 bit address range rg file to run some of the dxt formats Change 125346 on 2003/10/07 by tmartin@tmartin_r400_win Change 125555 on 2003/10/08 by tmartin@tmartin r400 win test clamping at the high end of the 32 bit address range removed some unused code Change 125341 on 2003/10/07 by tmartin@tmartin r400 win Change 125510 on 2003/10/07 by tmartin@tmartin_r400_win updated some non-essential code to make the test more complete Change 125318 on 2003/10/07 by cbrennan@cbrennan_r400_emu Page 78 of 510 Page 77 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Reenable linear filtering. Change 125270 on 2003/10/07 by mkelly@fl mkelly r400 win laptop Change 125305 on 2003/10/07 by cbrennan@cbrennan_r400_emu Update for Xenos Change 125262 on 2003/10/07 by tmartin@tmartin_r400_win Added fmt61 tests (U1111) and DXN tests that should have been there anyway. $\label{eq:hadx} \begin{tabular}{ll} Had x\%2=0 \ and x\%2=1 \ cases \ swapped \ for \ DXT3A_AS_1_1_1_1. \\ Also \ didnt \ have test \ cases \ defined \ for \ fint 49 \ in \ mip_cubic \ and \ stack \ tests. \\ \end{tabular}$ fixed a typo $% \left(1\right) =\left(1\right) \left(1\right) =\left(1\right) \left(1\right) \left(1\right)$ fixed a typo . reset the case loop start to 0Change 125259 on 2003/10/07 by mkelly@fl_mkelly_r400_win_laptop Changed mip stacks to be multiples of 4 instead of powers of two. Remove cp*e2 tests from other peoples sanity checks since TConst size field change breaks cp microcode. Change for Xenos msaa Change 125255 on 2003/10/07 by mkelly@fl_mkelly_r400_win_laptop Added FMT_DXT3A_AS_1_1_1_1 to emu, test lib, and tx_simple_* tests. Change msaa 8 to msaa 4 for Xenos Separated 2d and stack size teonst packing, but left both at the same 13 bit fully packed. Changed teonst size packing in HW Change 125174 on 2003/10/06 by tmartin@tmartin_r400_win Changed testbench to turn on TPC checking more often. Was ignoring many fields when the final dword of memory is now getting accessed it thought they werent used. Changed tcf_no_tpc in tc testbench to just be called tcf to keep waveform .rc compatibility with tp4_tc testbench.

Removed tests from emulator regress_e, release_parts_lib and daily_regress that failed with new size packing, but they are e2 tests which are no longer supported and need to have a Change 125170 on 2003/10/06 by tmartin@tmartin_r400_win microcode change to pass $Change~1~25161~on~2003/10/06~by~georgev@devel_georgev_r400_lin2_marlboro_tott$ Added texture stacks to tests, primlib, cmn_lib, and emu. Changed interlaced format to 4x4 Change 125302 on 2003/10/07 by tmartin@tmartin r400 win Change 125131 on 2003/10/06 by smoss@smoss xenos linux orl test the dword alignment with strides of 16 to 1 and move the base address so the stride increased time between bsubs reaches to the end of the cache line Change 125057 on 2003/10/06 by kevino@kevino r400 emu Change 125295 on 2003/10/07 by cbrennan@cbrennan r400 linux marlbord Added this in so it can pick up GetEnvPath from gfx_utils Change 125045 on 2003/10/06 by ashishs@fl ashishs r400 win Change 125292 on 2003/10/07 by cbrennan@cbrennan_r400_linux_marlboro Adding Chris Hammer to the nightly regressions rg file that is the release parts lib list

Added some rg files

Change 125276 on 2003/10/07 by tmartin@tmartin r400 win

initialized boolean constants before drawing points

Change 125290 on 2003/10/07 by cbrennan@cbrennan r400 linux marlbord

Page 79 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Forgot to release test change to reduce known broken cases for the time being.

Change 125024 on 2003/10/06 by ashishs@fl_ashishs_r400_win

Change 124946 on 2003/10/03 by cbrennan@cbrennan_r400_release

Added Mark to nightly regressions so he could get the SC results

Page 80 of 510

Change 124815 on 2003/10/03 by mangeshn@fl mangeshn added dot2add inf/nan test to the test list Change 124915 on 2003/10/03 by ashishs@fl_ashishs_r400_win2 Change 124814 on 2003/10/03 by mangeshn@fl_mangeshn making a cp_regress_group and adding John, Alex, Frank and Mark to it Change 124912 on 2003/10/03 by ashishs@ff_ashishs_r400_win2 Change 124808 on 2003/10/03 by kevino@kevino_r400_linux_marlboro Adding Mark Earl to the nightly regressions P4 delete of old outdated aniso test (that didn't do aniso correctly anyway) Change 124911 on 2003/10/03 by mkelly@fl_mkelly_r400_win_laptop Change 124798 on 2003/10/03 by mangeshn@fl_mangeshn Set num samples to 4msaa undated DOT4 inf/nan Change 124909 on 2003/10/03 by mangeshn@fl_mangeshn Change 124794 on 2003/10/03 by ashishs@fl_ashishs_r400_win2 upadting tests sorting test list Change 124902 on 2003/10/03 by tmartin@tmartin r400 win Change 124793 on 2003/10/03 by mangeshn@fl_mangeshn added r400vc_fetch_addr_range_03 updated DOT3 inf/nan to new template Change 124870 on 2003/10/03 by ashishs@fl ashishs r400 win Change 124789 on 2003/10/03 by ashishs@fl_ashishs_r400_win2 updating the path for the trackers which were earlier under t:\r400\ and now under adding tests Change 124868 on 2003/10/03 by georgev@devel georgev r400 lin2 marlboro tott Change 124783 on 2003/10/03 by ashishs@fl ashishs r400 win2 Removed FMT_32_32_32_FLOAT from test list. adding floor scalr instruction Change 124859 on 2003/10/03 by mkelly@fl_mkelly_r400_win_laptop Change 124777 on 2003/10/03 by ashishs@fl_ashishs_r400_win2 Real Time Stream with max nested subroutines and loops with 4 parameter dependent Change 124767 on 2003/10/03 by ashishs@fl ashishs r400 win2 Change 124851 on 2003/10/03 by llefebvr@llefebvr r400 emu montreal Added test for floor vector Interpolation precision change to meet HW and timing Change 124765 on 2003/10/03 by ashishs@fl_ashishs_r400_win2 Change 124830 on 2003/10/03 by mkelly@fl mkelly r400 win laptop editing the test to make it scalar only test Change 124764 on 2003/10/03 by tmartin@tmartin_r400_win Change 124817 on 2003/10/03 by mangeshn@fl mangeshn fixed some bugs Page 81 of 510 Page 82 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 124762 on 2003/10/03 by kevino@kevino_r400_linux_marlboro test when a negative offset causes the fetch address to be less than 0 Fixed display pitch- had not set it to match disp x dim for aniso cases Change 124669 on 2003/10/02 by ashishs@fl ashishs r400 win2 Change 124759 on 2003/10/03 by ashishs@fl_ashishs_r400_win2 adding 'VfUseTc = 0' instead of 'UseVC = 1' disabling print statements and cleaning up Change 124655 on 2003/10/02 by ashishs@fl ashishs r400 win2 Change 124753 on 2003/10/03 by ashishs@fl_ashishs_r400_win2 Adding the sin-cos tests Added trunc vector operation Change 124654 on 2003/10/02 by kevino@kevino r400 linux marlboro Change 124728 on 2003/10/03 by ashishs@fl ashishs r400 win2 Update the aniso tests to hit the advertised ratios. The *128x128* testcases set max aniso to 16:1 no matter what and rely on the prim setup to hit the correct ratios. Change 124628 on 2003/10/02 by cbrennan@cbrennan r400 linux marlboro Change 124727 on 2003/10/03 by mangeshn@fl mangeshn Cripple test temporarily from doing things that we know are broken updated to final version Change 124598 on 2003/10/02 by mkelly@fl_mkelly_r400_win_laptop Change 124725 on 2003/10/02 by ashishs@fl ashishs r400 win2 Checkpoint on RTS parameter dependent predication adding vector instruction Change 124579 on 2003/10/02 by ashishs@fl_ashishs_r400_win2 Change 124724 on 2003/10/02 by ashishs@fl ashishs r400 win2 initial checkin for test to do fract vector operation seperating out scalar and vector instruction, submit scalar Change 124545 on 2003/10/02 by tmartin@tmartin_r400_win Change 124722 on 2003/10/02 by ashishs@fl ashishs r400 win2 32 fixed precision tests finalising the shader and removing scalar instruction specific stuff Change 124542 on 2003/10/02 by georgev@devel_georgev_r400_lin2_marlboro_coverage Change 124691 on 2003/10/02 by kevino@kevino_r400_linux_marlboro First revision. Private use only Fixed tp multitexture 01 and 02 aniso tests so that they do the levels they say they do Change 124527 on 2003/10/02 by ashishs@fl_ashishs_r400_win Change 124677 on 2003/10/02 by mangeshn@fl_mangeshn Adding Mantor and Randy to the list preliminary check in for dot2add inf/nan Change 124523 on 2003/10/02 by kevino@kevino r400 emu Change 124672 on 2003/10/02 by tmartin@tmartin_r400_win Added "USE_TC_FOR_VERTEX_FETCHES;" to remaining shader programs for added - r400vc_fmt_precision_08 - r400vc_fmt_precision_10 - r400vc_fetch_addr_range_02 Change 124519 on 2003/10/02 by ashishs@fl_ashishs_r400_win2 Changing the test to do just scalar operation (prev was doing vector too). Using export to Change 124670 on 2003/10/02 by tmartin@tmartin r400 win Page 83 of 510 Page 84 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Change 124916 on 2003/10/03 by mangeshn@fl_mangeshn

Change 124516 on 2003/10/02 by kevino@kevino_r400_linux_marlboro data dep pred in Viz Query Added rg/tc_vfetch.rg which runs all the test cases in this test. Change 124269 on 2003/10/01 by kevino@kevino_r400_linux_marlboro Change 124436 on 2003/10/01 by ashishs@fl_ashishs_r400_win2 A large change to to multitexture 02. The testcases are now generated in a slightly different way, using a common telist file instead of individual ones for each much offer and common telist file instead of individual ones for each format. The format commp is cycled through USBG SBGU BGUS GUSB for the 4 textures in all cases. A tfc.validateQamma() call is used to change G to U if the format is not degammable. Adding test for SIN. Currently has some problems which will need to be taken care of Change 124430 on 2003/10/01 by tmartin@tmartin_r400_win $\label{eq:condition} Up dated the tc_weekly file to run formats 7, 10, 11, 12. \ Up dated tp4_tc_weekly rg files to run ALL good formats (0, 1, 43-48 not run since they fail with emu errors.) This adds ~ 9000 cases to tp4_tc_weekly rg$ $added\ r400vc_fmt_precision_int_09,\ r400vc_fmt_precision_09,\ r400vc_fmt_precision_int_08$ Change 124412 on 2003/10/01 by mangeshn@fl_mangeshn Finished off some integer and signed-rf mode tests. Change 124267 on 2003/10/01 by mangeshn@fl mangeshn Change 124401 on 2003/10/01 by gregm@fl_gregm updating tests for framebuffer dump capability update Change 124266 on 2003/10/01 by ashishs@fl_ashishs_r400_win2 Change 124388 on 2003/10/01 by kevino@kevino_r400_linux_marlboro Added in 3d aniso test cases (4/format) Change 124246 on 2003/10/01 by tmartin@tmartin_r400_win Change 124370 on 2003/10/01 by ashishs@fl_ashishs_r400_win2 Tests the precision of FMT_32_32_32_5LOAT with an unsigned integer frame Adding test for INF-NAN for COS Change 124353 on 2003/10/01 by mangeshn@fl_mangeshn Change 124244 on 2003/10/01 by tmartin@tmartin_r400_win split all scalar and vector combination tests to separate ones. Updated test list and test updated to test a finer precision tracket to reflect new tests added Change 124231 on 2003/10/01 by mzini@mzini crayola linux orl Change 124332 on 2003/10/01 by tmartin@tmartin_r400_win No longer look at UseVc. VfUseTc in place changed to test when the vertex fetch size constant is 0 and clamping is enabled. Previously it was thought that setting the size to 0 disabled clampling. Change 124226 on 2003/10/01 by mkelly@fl_mkelly_r400_win_laptop Change 124300 on 2003/10/01 by mkelly@fl_mkelly_r400_win_laptop Add some comments.. Change 124217 on 2003/10/01 by mkelly@fl mkelly r400 win laptop Change 124299 on 2003/10/01 by kevino@kevino_r400_linux_marlboro Multi-pass pixel shading, data dep predication on pixel indice for memory export with data dep
pred on color import on second pixel pass. Changed vtx2 to have s,t =1.0, 1.0 (under george's direction) so the aniso test now gets to Change 124207 on 2003/10/01 by tmartin@tmartin_r400_win Change 124297 on 2003/10/01 by mkelly@fl_mkelly_r400_win_laptop Page 85 of 510 Page 86 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history uncommented points Update test comments Change 124205 on 2003/10/01 by tmartin@tmartin_r400_win Change 124040 on 2003/09/30 by mkelly@fl_mkelly_r400_win_laptop added r400vc_fmt_precision_int_07 pred_setne_push default w check with data dep pred fetching Change 124140 on 2003/09/30 by mangeshn@fl_mangeshn Change 124027 on 2003/09/30 by tmartin@tmartin r400 win adding missing test set HDP_FB_START so the test doesn't hang Change 124137 on 2003/09/30 by tmartin@tmartin r400 win Change 124016 on 2003/09/30 by mkelly@fl_mkelly_r400_win_laptop test the precision of the 16_16_16_16_FLOAT format pred_sete_push default mode w/data dep pred and secondary fetching Change 124136 on 2003/09/30 by ashishs@fl_ashishs_r400_win2 Change 123999 on 2003/09/30 by mkelly@fl mkelly r400 win laptop test for SIN precision. Found to be very low precision (almost matching just 1 mantissa bit, but for very low numbers) $\,$ pred_set_inv on W, data dependent secondary fetching... Change 124135 on 2003/09/30 by tmartin@tmartin r400 win Change 123961 on 2003/09/30 by gregm@fl gregm added HDP_FB_START and make some other changes to update the test formatting max min and muladd tests Change 124121 on 2003/09/30 by mangeshn@fl_mangeshn Change 123866 on 2003/09/29 by mangeshn@fl_mangeshn updated tests for framebuffer dumps added missing test to SP test list - thanks for pointing it out Ashish Change 124115 on 2003/09/30 by jhoule@jhoule_r400_linux_marlboro Change 123855 on 2003/09/29 by ashishs@fl_ashishs_r400_win2 Adding endian swap cases Adding 2 missing tests Change 124114 on 2003/09/30 by jhoule@jhoule_r400_linux_marlboro Change 123849 on 2003/09/29 by tmartin@tmartin r400 win Added support for ENDIAN SWAP Makes sure that every select can choose every performance register type Change 124104 on 2003/09/30 by mangeshn@fl_mangeshn Change 123838 on 2003/09/29 by mkelly@fl_mkelly_r400_win_laptop updated tests to include dumps to file for additional validation (switched off in the default pred set inv primary vertex buffer data dependent memory fetching from a secondary buffer, cycling all fetch formats Change 123837 on 2003/09/29 by mangeshn@fl_mangeshn Change 124079 on 2003/09/30 by mkelly@fl_mkelly_r400_win_laptop pred setge push w default check w/data dep pred secondary data fetch updating test tracker and sp test list (inserting new tests according to new alpabhetical Change 124054 on 2003/09/30 by mkelly@fl_mkelly_r400_win_laptop Change 123829 on 2003/09/29 by ashishs@fl_ashishs_r400_win2 pred setgt push default w check w/data dep pred and secondary data fetch sorting test_list Change 124045 on 2003/09/30 by mkelly@fl_mkelly_r400_win_laptop Page 87 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 88 of 510

Change 123827 on 2003/09/29 by mangeshn@fl_mangeshn Change 123543 on 2003/09/26 by eberger@eberger_r400_linux_marlboro added tests for all the PRED * instructions and inf/nan tests for the CND * instructions Created two new tests to verify address calculation with a variety of pitch values. Change 123824 on 2003/09/29 by jhoule@jhoule_r400_linux_marlboro Adding 2 simple aniso test files Change 123521 on 2003/09/26 by ashishs@fl_ashishs_r400_win2 Change 123784 on 2003/09/29 by tmartin@tmartin r400 win updated the description Change 123516 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123772 on 2003/09/29 by tmartin@tmartin_r400_win Finalizing transition from 8 msaa to 4 for Xenos Tests the precision of FMT 32 32 32 with unsigned integers Change 123514 on 2003/09/26 by ashishs@fl ashishs r400 win2 Change 123766 on 2003/09/29 by kevino@kevino_r400_linux_marlboro test for SUB_CONST opcode Decreased from maz tex size to max tez size -1. largetex_05 now hangs in sim, but not Change 123510 on 2003/09/26 by mangeshn@fl_mangeshn sure why. added precision and nan/inf tests for: PRED_SETE, PRED_SETNE, PRED_SETGT, PRED_SETGE Change 123751 on 2003/09/29 by ashishs@fl_ashishs_r400_win Change 123509 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Deleting test r400sc point iss 3X4 01 Change 123628 on 2003/09/26 by ctaylor@ctaylor_xenos_linux_orl Update from 8 to 4 msaa disabled, Xeno Change msaa num_samples to limit to 1,2,4 sample for Xenos and disable Rand Shaders Change 123504 on 2003/09/26 by domachi@diotargetxp Fixed problem where shaders for to random test only fetched from 2 textures. We now fetch from up to 4 separate textures if specified by the test case. Change 123616 on 2003/09/26 by mangeshn@fl_mangeshn precision and nan/inf test fro PRED SETE PUSH Change 123501 on 2003/09/26 by mkelly@fl mkelly r400 win laptop Change 123606 on 2003/09/26 by tmartin@tmartin_r400_win msaa changes for Xenos test precision of 32_32_32_32_float Change 123496 on 2003/09/26 by kevino@kevino_r400_linux_marlboro Change 123602 on 2003/09/26 by mangeshn@fl mangeshn Needed for tp_multitexture_02_perf precision and nan/inf test for PRED_SET_CLR Change 123495 on 2003/09/26 by kevino@kevino_r400_linux_marlboro Change 123601 on 2003/09/26 by mangeshn@fl mangeshn Added a perf case that does 2 textures as dxt1 and 8888. The waves for this case need to be hand-checked to verify performance (and were before checkin) precision and nan/inf test for PRED SET RESTORE Change 123494 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123566 on 2003/09/26 by mangeshn@fl_mangeshn added precision and nan/inf tests for: PRED_SET_INV and PRED_SET_POP Page 89 of 510 Page 90 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history //depot/r400/devel/test_lib/src/chip/gfx/sc/r400sc_line_msaa_8_textured_01_pix.sp_To //depot/r400/devel/test_lib/src/chip/gfx/sc/r400sc_line_msaa_4_textured_01_pix.sp Add recip for new SPI requirements on prim type detection Change 123432 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123490 on 2003/09/26 by eberger@eberger_r400_linux_marlboro update disp size on simple line list Added several new tests to verify pixel formats when the interpolated color is exported without clamping. Changed the test r400rb_max_pitch.cpp to activate subtests that enable multisampling with a depth buffer. Change 123428 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123488 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123381 on 2003/09/25 by ashishs@fl_ashishs_r400_win 4 msaa changes for Xenos Adding 5 more tests Change 123487 on 2003/09/26 by mkelly@fl mkelly r400 win laptop Change 123371 on 2003/09/25 by ashishs@fl ashishs r400 win 8 msaa to 4 for Xenos Adding test for MUL_CONST Change 123486 on 2003/09/26 by mkelly@fl mkelly r400 win laptop Change 123361 on 2003/09/25 by brianf@brianf_r400_linux_marlboro Removed from crayola Change 123484 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123357 on 2003/09/25 by ashishs@fl ashishs r400 win del and rename test Added test for ADD_CONST Change 123482 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123355 on 2003/09/25 by brianf@brianf r400 linux marlboro Enable 4 msaa for Xenos Updated include path Change 123459 on 2003/09/26 by kevino@kevino_r400_linux_marlboro Change 123352 on 2003/09/25 by tmartin@tmartin_r400_win Added ifdef for fmt independent cases so they don't show up everywhere. added some fmt_precision tests Change 123454 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123340 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop Temporarily comment out SIMD testing. Modify shaders for new Xenos SPI on primtype detection Change 123444 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123336 on 2003/09/25 by brianf@brianf_r400_linux_marlboro del some tests Moved az tst library tests update test list Change 123442 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123335 on 2003/09/25 by eberger@eberger_r400_linux_marlboro 8 to 4 msaa for Xenos.. Initial version of a test to verify the memory export paths Change 123435 on 2003/09/26 by mkelly@fl_mkelly_r400_win_laptop Change 123334 on 2003/09/25 by tmartin@tmartin_r400_win Page 91 of 510 Page 92 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

added SERIALIZE instructions Change 123326 on 2003/09/25 by ashishs@fl_ashishs_r400_win PRECISION test for SUB CONST opcode Change 123323 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop 8 to 4 msaa for Xenos Change 123320 on 2003/09/25 by ashishs@fl ashishs r400 win PRECISION test for MUL COSNT opcode Change 123316 on 2003/09/25 by ashishs@fl ashishs r400 win PRECISION test for ADD CONST opcode Change 123313 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop 8 to 4 msaa for Xenos Change 123309 on 2003/09/25 by mkelly@fl mkelly r400 win laptop 8 to 4 MSAA for xenos Change 123306 on 2003/09/25 by tmartin@tmartin_r400_win test precision in unsigned integer mode Change 123305 on 2003/09/25 by tmartin@tmartin_r400_win test precision of FMT 16 16 16 16 Change 123304 on 2003/09/25 by tmartin@tmartin r400 win updated to draw all intended points Change 123277 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop 8 to 4 msaa for xenos Change 123273 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop 8 to 4 msaa for xenos Change 123267 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop Page 93 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Change 123195 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop Change 123157 on 2003/09/24 by gregm@fi_gregm submit Change 123155 on 2003/09/24 by gregm@fl_gregm infNan & precision mul prev2 Change 123119 on 2003/09/24 by ashishs@fl_ashishs_r400_win Change 123102 on 2003/09/24 by mangeshn@fl mangeshn added tests fro nan/inf data for vector adn scalar forms for the following: KILLGE, KILLOT, KILLNE and KILLONE Change 123099 on 2003/09/24 by ashishs@fl_ashishs_r400_win2 changed the script gold path to t:\xenos\gold\ Change 123096 on 2003/09/24 by mkelly@fl mkelly r400 win laptop xenos update.. Change 123095 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop

Change 123060 on 2003/09/24 by georgev@devel_georgev_r400_lin2_marlboro_tott

//depot/r400/devel/test_lib/src/chip/gfx/sc/r400sc_msaa_8_simple_triangle_01.cpp To //depot/r400/devel/test_lib/src/chip/gfx/sc/r400sc_msaa_4_simple_triangle_01.cpp

Page 95 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 123045 on 2003/09/24 by mkelly@fl mkelly r400 win laptop

Change 123033 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop

Change 123032 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop

Added truncate and round tests

Change 123239 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop Xenos change to 4 msaa Change 123232 on 2003/09/25 by mkelly@fl mkelly r400 win laptop del, renamed to r400sc_xenos* and modified.. Change 123230 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop Update msaa for xenos Change 123229 on 2003/09/25 by kevino@kevino_r400_linux_marlboro tp_mutlitexture_02 testcase with 5 formats instead of 10. (10 still fails on windows) Change 123221 on 2003/09/25 by kevino@kevino r400 linux marlboro One forgotten file fromlast submit Change 123220 on 2003/09/25 by kevino@kevino r400 linux marlboro Added 3D texoffset and texsize tetscases

Reworked tp_multitexture_02 to be able to split it into multiple tests (since the 10K testcases causes Windows to report too many exceptions.) The "real" tp_multitexture_02 test code is in tp_multitexture_02 basecode.cpp. This (can be but) shouldn't be run by itself as a test. The other tp_multitexture_02® opp tests define which formats they want to cover then include Note that the versions I checked in cover 10 formats each I also added a format06 -only test which compiles a lot faster, which is useful for testcase development. Change 123206 on 2003/09/25 by mkelly@fl_mkelly_r400_win_laptop 8 MSAA -> 4 MSAA change Page 94 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Change 123029 on 2003/09/24 by mkelly@fl mkelly r400 win laptop Change 123026 on 2003/09/24 by mkelly@fl mkelly r400 win laptop $Rename $$/depot/r400/devel/test_lib/src/chip/gfx/sc/r400sc_line_expand_width_msaa_8_0^*.cpp\ To //depot/r400/devel/test_lib/src/chip/gfx/sc/r400sc_line_expand_width_msaa_4_0^*.cpp$ Change 123020 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop Change 123018 on 2003/09/24 by mkelly@fl mkelly r400 win laptop Update msaa for xenos Change 123009 on 2003/09/24 by eberger@eberger r400 linux marlboro Initial version of a test to verify that the zplane value is different from the Z value that gets exported from the shader Change 122996 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop Change 122984 on 2003/09/24 by kevino@kevino_r400_linux_marlboro Added 3D mip and texture address offset cases. Currently available for fmt06 only. Change 122973 on 2003/09/24 by mkelly@fl mkelly r400 win laptop del (backed up in sc_r500) Change 122972 on 2003/09/24 by mkelly@fl mkelly r400 win laptop Need to back up these tests for any possibility of R500, since tests are starting to change Change 122957 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop del Change 122953 on 2003/09/24 by mkelly@fl mkelly r400 win laptop 1. regress e tests added to Makefile for 2 and 4 MSAA Page 96 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

8 -> 4 msaa for xenos

Change to 4 msaa for xenos

 $Change\ 123261\ on\ 2003/09/25\ by\ mkelly@fl_mkelly_r400_win_laptop$

Change 123251 on 2003/09/25 by kevino@kevino_r400_linux_marlboro

Updated tc_nightly and weekly to addd new test cases Added fmt_independent test cases

Tp_multitexture_02 broken into tests with 5 formats each (10 doesn't compile on

2. changed num_samples in r400sc_poly_offset_05 to 0 3. added 2 and 4 MSAA tests to golden.lst Change 122948 on 2003/09/24 by mkelly@fl_mkelly_r400_win_laptop Remove immediately recogizable tests that are > 4 MSAA and will not Change 122938 on 2003/09/24 by ashishs@fl ashishs r400 win2 completed with dumping expected image and also changing VTE settings to offset the normal data at a different place Change 122937 on 2003/09/24 by ashishs@fl ashishs r400 win2 changing the data set to show that the overflow in shader causes clamp to MAX FLOAT Change 122936 on 2003/09/23 by ashishs@fl_ashishs_r400_win2 created a simple bug case for checking combinations of hex values on the input Change 122933 on 2003/09/23 by mangeshn@fl_mangeshn Added tests: INF/NAN for: SETE(scalar and vector), SETGE(scalar and vector), SETGT(scalar and vector), SETNE(scalar and vector), KILLE saciar and KILLE vector Change 122907 on 2003/09/23 by tmartin@tmartin_r400_win added more endian swap tests Change 122905 on 2003/09/23 by tmartin@tmartin r400 win test endian swap with pci and ago Change 122898 on 2003/09/23 by ctaylor@fl_ctaylor_r400_dtwin_marlboro Removed 3,6,8 sample MSAA for Xenos. Removed 8-sample regression tests. Change 122895 on 2003/09/23 by mangeshn@fl_mangeshn Added the source code, updated SP test list and the test tracker for the following tests: Precision MOVA (both scalar and vector), Inf/Nan MOVA (scalar and vector), Precision Mova_Floor and Inf/Nan Mova_Floor. Change 122887 on 2003/09/23 by smoss@smoss_xenos_linux_orl comment out full chip only test Page 97 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Changed test to force it to use the Texture Cache by default Change 122707 on 2003/09/23 by mkelly@fl mkelly r400 win laptop Xenos specific 4 MSAA related test... Change 122705 on 2003/09/23 by mkelly@fl mkelly r400 win laptop Change 122695 on 2003/09/23 by jhoule@jhoule_r400_win_lt Simple test to verify minimal functionality of opcodes Change 122688 on 2003/09/23 by kevino@kevino r400 linux marlboro Both textures 0 and 1 were set to none. Set 0 back to an endian swap. Change 122685 on 2003/09/23 by mkelly@fl mkelly r400 win laptop Change from 8 Msaa to 4 Msaa Change 122682 on 2003/09/23 by mkelly@fl_mkelly_r400_win_laptop 4 MSAA CENTERS, CENTROIDS, CENTERS AND CENTROIDS Change 122656 on 2003/09/22 by georgev@devel_georgev_r400_lin2_marlboro_tott Added mask tests for pixel shaders. Change 122654 on 2003/09/22 by gregm@fl_gregm submit Change 122652 on 2003/09/22 by gregm@fl_gregm

Change 122826 on 2003/09/23 by mzini@mzini_r400_win Removed useTC flag Change 122813 on 2003/09/23 by kevino@kevino r400 linux marlboro Had mislabeled fints 57-59 (format number didn't match format name). Fixed this. Change 122804 on 2003/09/23 by mkelly@fl mkelly r400 win laptop New golds for 2/4 MSAA, Xenos... Change 122802 on 2003/09/23 by mkelly@fl_mkelly_r400_win_laptop Change 122797 on 2003/09/23 by kevino@kevino_r400_linux_marlboro Added some useful .rg files to the rg subdirectory Added tests to move mip address and added to tc_nightly.rg Added tex offset cases from -8 to -4 and 4 to 7.5 Added unfinished 3d mip cases Change 122795 on 2003/09/23 by georgev@devel_georgev_r400_lin2_marlboro_tott Shortened max address tests so that they don't blow out buffers. This did not work for sx_advanced_test. Change 122770 on 2003/09/23 by mkelly@fl_mkelly_r400_win_laptop Change 122761 on 2003/09/23 by mkelly@fl mkelly r400 win laptop Change 122760 on 2003/09/23 by mkelly@fl_mkelly_r400_win_laptop New test for xenos Change 122754 on 2003/09/23 by mkelly@fl_mkelly_r400_win_laptop New xenos test Change 122719 on 2003/09/23 by mkelly@fl mkelly r400 win laptop New xenos test Change 122712 on 2003/09/23 by mzini@mzini_r400_win Page 98 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Change 122637 on 2003/09/22 by gregm@fl gregm Change 122636 on 2003/09/22 by ashishs@fl ashishs r400 win initial checkin for infNan test for CUBE Change 122635 on 2003/09/22 by tmartin@tmartin_r400_win added r400vc debug 01 Change 122634 on 2003/09/22 by georgev@devel_georgev_r400_lin2_marlboro_tott Odd size texture maps added. Change 122633 on 2003/09/22 by tmartin@tmartin_r400_win tests the accessability and control of the debug registers Change 122619 on 2003/09/22 by tmartin@tmartin_r400_win added the expected output to the test Change 122598 on 2003/09/22 by tmartin@tmartin_r400_win test precision of FMT 16 16 Change 122582 on 2003/09/22 by rmanapat@rmanapat_r400_release Some of the 1D functions were not setting there dimension to 1D thus causing Change 122573 on 2003/09/22 by ashishs@fl_ashishs_r400_win Adding test for precision of CUBE instruction. Performing a local CUBE function and calculating the the cube values in the test itself and then passing those output values to the shader and comparing with the output of the shader. This test is different from r400sp_recision_cube_0 in terms of the data set on which it checks on. This test has data set ranging over a larger area of the valid data range. Change 122535 on 2003/09/22 by mangeshn@fl mangeshn added NAN/INF test for the DST instruction. Added source files and updated the test tracker and the SP test list

Page 99 of 510

Change 122646 on 2003/09/22 by georgev@devel_georgev_r400_lin2_marlboro_tott

mul prev precision and inf Nan tests

Add test names to previous update.

Change 122643 on 2003/09/22 by gregm@fl gregm

Change 122639 on 2003/09/22 by gregm@fl gregm

Ex. 2052 --- R400 Testing FH ---foler_history

Ex. 2052 --- R400 Testing FH ---foler_history

Change 122519 on 2003/09/22 by mangeshn@fl mangeshn

Page 100 of 510

Change 122417 on 2003/09/20 by gregm@fl_gregm added precision test for the DST instruction. Adding source code files, updating the SP test list and the test tracker submit Change 122494 on 2003/09/22 by llefebvr@llefebvr_r400_emu_montreal Change 122416 on 2003/09/20 by gregm@fl_gregm now waiting for GFX idle between each pass. add prev precision test Change 122488 on 2003/09/22 by mangeshn@fl mangeshn Change 122415 on 2003/09/20 by gregm@fl_gregm submit Change 122485 on 2003/09/22 by mangeshn@fl_mangeshn Change 122414 on 2003/09/20 by gregm@fl_gregm updated SP test list add prev infNan Change 122479 on 2003/09/22 by jhoule@jhoule_r400_win_lt Change 122412 on 2003/09/20 by gregm@fl_gregm Small fix concerning number of arguments passed update Change 122469 on 2003/09/22 by mangeshn@fl mangeshn Change 122411 on 2003/09/20 by gregm@fl gregm updating some old tests vector fract infNan Change 122456 on 2003/09/22 by chammer@chammer_xenos_linux_orl Change 122390 on 2003/09/19 by gregm@fl gregm Added RB TILECONTROL register to list of SC registers which are randomized. Change 122455 on 2003/09/22 by ashishs@fl ashishs r400 win Change 122387 on 2003/09/19 by gregm@fl gregm Sorting the test_list and removing 3 duplicate tests which was causing the total tests to show up as 52 and test run as $49\,$ Change 122385 on 2003/09/19 by gregm@fl gregm Change 122453 on 2003/09/22 by mangeshn@fl_mangeshn pending test checkins and updates to test tracket Change 122384 on 2003/09/19 by gregm@fl_gregm Change 122449 on 2003/09/22 by mkelly@fl_mkelly_r400_win_laptop scalar fract inf/nan Change 122382 on 2003/09/19 by gregm@fl_gregm Change 122442 on 2003/09/22 by tmartin@tmartin r400 win Fixed problem that effected random number generation added performance counter tests and some format conversion tests Change 122349 on 2003/09/19 by ashishs@fl_ashishs_r400_win Change 122425 on 2003/09/21 by smoss@smoss_xenos_linux_orl adding tests to test list update Change 122346 on 2003/09/19 by ashishs@fl_ashishs_r400_win Page 101 of 510 Page 102 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Adding test for precison of Cube. Has 512 vectors over whioch the data is checked, Each Reverted a change where base map mip filtering was tested thereby increasing test vector with random x,y,z,w ranging between -100000000 to +100000000. Built a function t calculate cube value before hand and pass that value to the shaders for comparison with the times. This change should reduce test time Change 122255 on 2003/09/19 by ashishs@fl_ashishs_r400_win Change 122332 on 2003/09/19 by mkelly@fl mkelly r400 win laptop Changed the precison cosnt to 2**21 so the image will change a little bit but has been validated to be okay Save work in progress.. Also changed the test to the new template to cause the instruction to work on all the shader pipes as well as generalising a little bit so that we could just run the case number needed Change 122317 on 2003/09/19 by domachi@domachi xenos Ensure msaa num samples is not 0 when msaa is enabled. Fixes assert in emulator seen with this test. Change 122240 on 2003/09/19 by mkelly@fl_mkelly_r400_win_laptop Save work in progress, data dependent vertex fetching.. Change 122305 on 2003/09/19 by tmartin@tmartin r400 win Change 122187 on 2003/09/19 by smoss@smoss xenos linux orl added printing of select values and cleaned up files update for tb_vc Change 122296 on 2003/09/19 by mangeshn@fl_mangeshn Change 122155 on 2003/09/19 by jayw@jayw_r400_linux_marlboro2 added INF/NAN data test for the SUB PREV instruction Change 122290 on 2003/09/19 by mangeshn@fl_mangeshn Change 122107 on 2003/09/18 by eberger@eberger r400 linux marlboro added precision test for the SUB PREV instruction Added code to set the WINDOW_SCISSOR correctly. Added comments. Change 122278 on 2003/09/19 by ashishs@fl_ashishs_r400_win Change 122070 on 2003/09/18 by tmartin@tmartin_r400_win Also adding the ability to dump data in image, but not actually dumping the data to keep FMT 11 11 10 Change 122275 on 2003/09/19 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 122069 on 2003/09/18 by tmartin@tmartin_r400_win Added extra swizzle case for combination values FMT 10 11 11 Change 122264 on 2003/09/19 by ashishs@fl_ashishs_r400_win Change 122056 on 2003/09/18 by georgev@devel_georgev_r400_lin2_marlboro_tott just getting the test cases to 512 to support the template and adding dummy data at the Border tests with and without W forced to max. Formats added to Change 122263 on 2003/09/19 by mangeshn@fl_mangeshn Change 122042 on 2003/09/18 by mkelly@fl_mkelly_r400_win_laptop

added test for INF/NAN data for the SUB instruction

- Changes to do some TP random testing. Only Fetch Constants have randomized values.

Ex. 2052 --- R400 Testing FH ---foler_history

Page 103 of 510

Change 122258 on 2003/09/19 by domachi@diotargetxp

Still need to add support to randomize Fetch Instruction values

Page 104 of 510

Change 122040 on 2003/09/18 by mkelly@fl_mkelly_r400_win_laptop

Update for new SPI.

Updates to work with new SPI.

Change 122038 on 2003/09/18 by tmartin@tmartin_r400_win Change 121914 on 2003/09/17 by kevino@kevino_r400_linux_marlboro Fix tp_mutlitexture_02 to have all formats (have a define in there to only do fmt06 to make build faster when developing tests.)
Added basemap, tcdenorm, and tp_mutlitexture_02 fmt02 tests to regressions. performance counter tests Change 122028 on 2003/09/18 by mkelly@fl_mkelly_r400_win_laptop Undate to work in the new SPI Change 121910 on 2003/09/17 by ashishs@fl_ashishs_r400_win Change 122021 on 2003/09/18 by domachi@domachi xenos Currently just doing 44 bad test cases Checkpoint changes to random tests. Change 121889 on 2003/09/17 by smoss@smoss_xenos_linux_orl Change 122018 on 2003/09/18 by mkelly@fl_mkelly_r400_win_laptop added better failure reporting, new output path Change for new SPI. Change 121885 on 2003/09/17 by ashishs@fl_ashishs_r400_win Change 122015 on 2003/09/18 by tmartin@tmartin_r400_win changing the data since had incorrect values tests precision of fmt_2_10_10_10 Change 121882 on 2003/09/17 by gregm@fl_gregm Change 122013 on 2003/09/18 by tmartin@tmartin r400 win Special infNan test for add instruction and vertex cache. tests precision of fmt_8_8_8_8 Change 121881 on 2003/09/17 by gregm@fl_gregm Change 122001 on 2003/09/18 by mkelly@fl mkelly r400 win laptop Change shader to work with new SPI. Add catch in test for debugging help Change 121879 on 2003/09/17 by kevino@kevino r400 linux marlbord Test to put the texture basemap right at the upper edge of memory (where $tc_BaseMapOffset$ couldn't reach) Change 121986 on 2003/09/18 by mkelly@fl_mkelly_r400_win_laptop Update test to work with new SPI implementation on prim type detection in the pixel Change 121878 on 2003/09/17 by kevino@kevino_r400_linux_marlboro $\label{total decomposition} \begin{tabular}{lll} Updated tp_multitexture_01 & and _02 to draw framebuffer correctly. Added to denorm ed some new texture maps to data/tex. Updated a few of the 3d testcases \end{tabular}$ Change 121985 on 2003/09/18 by mkelly@fl_mkelly_r400_win_laptop tests. Added some no Increase NUM CASES = 64 from 9 Change 121829 on 2003/09/17 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 121976 on 2003/09/18 by tmartin@tmartin r400 win New file because last one had bad format. set clamp_disable to 1 Change 121760 on 2003/09/17 by mkelly@fl_mkelly_r400_win_laptop Change 121975 on 2003/09/18 by mkelly@fl mkelly r400 win laptop Move STATE read data out of framebuffer Data dependent predicated fetch of secondary data buffer Change 121729 on 2003/09/17 by mkelly@fl mkelly r400 win laptop Change 121963 on 2003/09/18 by smoss@smoss_xenos_linux_orl Update for SPI undated for new tree Change 121723 on 2003/09/17 by mkelly@fl_mkelly_r400_win_laptop Page 105 of 510 Page 106 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Properly SERIALIZE. Update for SPI Change 121626 on 2003/09/16 by mkelly@fl_mkelly_r400_win_laptop Change 121709 on 2003/09/17 by tmartin@tmartin r400 win SERIALIZE properly. This test fills the Index fifo to test its handling of overflows Change 121620 on 2003/09/16 by mkelly@fl mkelly r400 win laptop Change 121706 on 2003/09/17 by mkelly@fl mkelly r400 win laptop Add SERIALIZE correctly Change 121618 on 2003/09/16 by mkelly@fl_mkelly_r400_win_laptop Change 121705 on 2003/09/17 by mkelly@fl_mkelly_r400_win_laptop Need SERIALIZE after all fetch routines before first ALU dependent on fetch. Changes for new SPI.. Change 121615 on 2003/09/16 by mkelly@fl_mkelly_r400_win_laptop Change 121704 on 2003/09/17 by mkelly@fl mkelly r400 win laptop Remove gpr allocation from shaders... Add RECIP for faceness/XY detection in SPI. Change 121606 on 2003/09/16 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 121676 on 2003/09/16 by csampayo@fl csampavo r400 Added extra formats. Began conversion for max W registers Adding pixel shader export test Updated test_list and test tracker accordingly Change 121572 on 2003/09/16 by mkelly@fl_mkelly_r400_win_laptop Change 121669 on 2003/09/16 by ashishs@fl ashishs r400 win2 Window and screen scissor set to 8192,32 render two points 1 point at X = 8190, 1 point at X = 8191. initial checkin for cube test, simple data set covering all of the statements inside the cube Change 121551 on 2003/09/16 by mkelly@fl_mkelly_r400_win_laptop 2 vert POINT LIST test case for scissor BR X = 8192, BR Y = 32 Change 121667 on 2003/09/16 by tmartin@tmartin r400 win This test fills the L2 request fifo to test its handling of overflows Change 121550 on 2003/09/16 by jhoule@jhoule_r400_win_lt Change 121637 on 2003/09/16 by domachi@diotargetxp Meaningless space to avoid make error Add random shader generation to sc_rand test Change 121519 on 2003/09/16 by tmartin@tmartin_r400_win Change 121634 on 2003/09/16 by mkelly@fl mkelly r400 win laptop added more float4's to the vfetches SERIALIZE properly. Change 121499 on 2003/09/16 by jhoule@jhoule_r400_win_lt Change 121632 on 2003/09/16 by liefebvr@liefebvre_laptop_r400_emu Made the XYs be sent as floating point numbers instead of fix point so you can use them directly in the shader. Also modified regress_ e tests that this change broke. Also added register fields for SIMD memory control. Change 121496 on 2003/09/16 by jhoule@jhoule r400 win It New vertex shader program file

Change 121628 on 2003/09/16 by mkelly@fl_mkelly_r400_win_laptop

Page 107 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Ex. 2052 --- R400 Testing FH ---foler_history

Change 121495 on 2003/09/16 by jhoule@jhoule r400 win lt

Page 108 of 510

Change 121494 on 2003/09/16 by jhoule@jhoule r400 win It Change 121316 on 2003/09/15 by mkelly@fl_mkelly_r400_win_laptop Putting simple aniso test files Update to correct shader.. Change 121418 on 2003/09/15 by tmartin@tmartin r400 win Change 121305 on 2003/09/15 by mangeshn@fl mangeshn added r400vc simple register indirect and r400vc fifo 11 req 01 added precision test for the DOT2ADD instruction Change 121417 on 2003/09/15 by tmartin@tmartin r400 win Change 121304 on 2003/09/15 by mkelly@fl mkelly r400 win laptop fixed some typos del unnecessary file Change 121412 on 2003/09/15 by tmartin@tmartin_r400_win Change 121303 on 2003/09/15 by mkelly@fl_mkelly_r400_win_laptop This test fills the L1 request fifo to test its handling of overflows Update comments in $_11$ Further looping index testing with nested predication and subroutines. Change 121405 on 2003/09/15 by eberger@eberger_r400_linux_marlboro Turned off the depth buffer whenever multisampling is enabled. Change 121289 on 2003/09/15 by jhoule@jhoule_r400_win_lt Change 121392 on 2003/09/15 by tmartin@tmartin_r400_win Adding Set* opcodes tp_lod_deriv q_lot Geth.

Added inputs (is_set_lod_command, is_set_grad_command, pix_mask, p3xyz)

- Updated the parser and testbench program accordingly Change 121384 on 2003/09/15 by mkelly@fl_mkelly_r400_win_laptop Test carrying the (i) loop index down through nested subroutines, data dependecy predication Added overrides for SetTexLOD and SetRegGradients in ComputeLODs V2 - Put placeholder for other opcodes Change 121379 on 2003/09/15 by vromaker@vromaker_r400_linux_marlboro Change 121275 on 2003/09/15 by mkelly@fl_mkelly_r400_win_laptop added SERIALIZE commands within the subroutines Nested looping with predicated execution, boolean calling subroutines. Change 121368 on 2003/09/15 by eberger@eberger r400 linux marlboro Change 121274 on 2003/09/15 by ashishs@fl_ashishs_r400_win Added tile_surface.Dump() and cleaned up some other problems. correcting the FALLNG tests. These tests were sending uninitialised data thru the alpha channel due to which initially it was getting clamped to 1 and now it gets clamped to 0. So initialising the alpha of verts to 1.0 $\,$ Change 121365 on 2003/09/15 by mangeshn@fl_mangeshn test updates Change 121235 on 2003/09/14 by gregm@fl_gregm Change 121341 on 2003/09/15 by ashishs@fl_ashishs_r400_win updated description of some tests. Also still some TBD's left but need to revise the test Change 121234 on 2003/09/14 by gregm@fl gregm after running them and then remove these descriptions. Change 121329 on 2003/09/15 by mkelly@fl_mkelly_r400_win_laptop precision scalar add Page 109 of 510 Page 110 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 121229 on 2003/09/14 by gregm@fl gregm Save work in progress. Change 121011 on 2003/09/12 by lseiler@lseiler_r400_win_marlboro2 Change 121228 on 2003/09/14 by gregm@fl_gregm New rb-specific tests scalar add Change 121008 on 2003/09/12 by Iseiler@Iseiler r400 win marlboro2 Change 121225 on 2003/09/14 by gregm@fl_gregm New rb-specific tests Change 121004 on 2003/09/12 by kevino@kevino_r400_linux_marlboro Change 121224 on 2003/09/14 by gregm@fl_gregm Varies offset of texture Basemap from 0 to just under 512MB. Change 120977 on 2003/09/12 by Iseiler@Iseiler r400 win marlborol r400sp infNan add 01 (vector add) Change 121095 on 2003/09/12 by mangeshn@fl_mangeshn Update local gold images (regress_rb) Change 120976 on 2003/09/12 by Iseiler@Iseiler_r400_win_marlboro1 added precision test for the SUB instruction Change 121089 on 2003/09/12 by mangeshn@fl_mangeshn Update local gold image list (regress_rb) Change 120936 on 2003/09/12 by smoss@smoss_crayola_linux_orl added precision test for the DOT3 instruction Change 121085 on 2003/09/12 by tmartin@tmartin r400 win new output directories Tests vertex reuse in the VC. A strip is drawn with a triangle list using indices mulitple times in the index list. Vertex reuse in the VGT is disabled to ensure the only reuse is in the VG. Change 120901 on 2003/09/12 by mkelly@fl_mkelly_r400_win_laptop Single case, 4th nested loop clamping issue. Change 121079 on 2003/09/12 by mangeshn@fl_mangeshn Change 120817 on 2003/09/11 by tmartin@tmartin_r400_win completed version of teh dot4 precision test, points that are red have a bit difference NOT in the LSB. Blue points have a bit difference in teh LSB. Green points are exact matches cleaned up the tests Change 121049 on 2003/09/12 by lseiler@lseiler_r400_win_marlboro Change 120813 on 2003/09/11 by tmartin@tmartin_r400_win Fix windows compile bug due to multiply defined for-loop variable added r400vc size 01 Change 121045 on 2003/09/12 by eberger@eberger_r400_linux_marlboro Change 120810 on 2003/09/11 by tmartin@tmartin r400 win Initial version of a test for a frame buffer with maximum pitch. Checks the cache size and makes sure the cache ways work as expected Change 121044 on 2003/09/12 by kevino@kevino r400 linux marlboro Change 120784 on 2003/09/11 by csampayo@fl_csampayo2_r400 Test with 1 case that pushes the base texture map to 8K before 512MB. Couldn't get it to 512MB - 4K. Not sure why 32x32 32 bit texture takes > 4k even if it is linear. Clen up and finalize for pixel exports Change 120776 on 2003/09/11 by omesh@omesh_r400_linux_marlboro_tott Change 121025 on 2003/09/12 by mkelly@fl_mkelly_r400_win_laptop Page 112 of 510 Page 111 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Data dependent predicate pop, inv, restore, clr nested looping and subroutines.

New textures (for aniso tests)

Fixed a bug with setting the full device start address for the resolved surface. Earlier the resolved image appeared black, as reported by Larry, but now it does produce a non-black pixel.

Change 120768 on 2003/09/11 by csampayo@fl_csampayo_r400

Initial checkin

Change 120718 on 2003/09/11 by mkelly@fl_mkelly_r400_win_laptop

Changed write from VGT_EVENT_INITIATOR for VS_DONE_TS to an

EVENT_WRITE packet3 type.

Change 120703 on 2003/09/11 by mangeshn@fl_mangeshn changed test to showcase a set of 44 failing points

Change 120667 on 2003/09/11 by mkelly@fl mkelly r400 win laptop

SET_STATE, creates state buffers, writes them to framebuffer memory, then initiates a SET_STATE packet with pointers to the state buffers.

Change 120594 on 2003/09/10 by kevino@kevino_r400_linux_marlboro

Don't write temp sp files to subdirectory- seemed to somehow write to subdir AND base dir.

Change 120591 on 2003/09/10 by georgev@devel_georgev_r400_lin2_marlboro_tott

Fixed perspective for higher aniso ratios.

Change 120575 on 2003/09/10 by ashishs@fl_ashishs_r400_win

adding 2 more tests

Change 120566 on 2003/09/10 by ashishs@fl ashishs r400 win

test using 64 shaders with each shader uniquely exportin a chosen set of parameters and then using sampling pattern as cetroids on the exported parameters and rest as centers

Change 120554 on 2003/09/10 by ashishs@fl_ashishs_r400_win

removing gfx_idle_no_flush

Change 120548 on 2003/09/10 by ashishs@fl_ashishs_r400_win

test using 64 shaders with each shader uniquely exportin a chosen set of parameters and then using sampling pattern as centers on the exported parameters and rest as centroids

Page 113 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 120527 on 2003/09/10 by tmartin@tmartin_r400_win

added tfetches to shaders in order to test gpr_phase

Change 120526 on 2003/09/10 by mangeshn@fl_mangeshn

added precision test for the DOT4 instruction

Change 120525 on 2003/09/10 by kevino@kevino_r400_linux_marlboro

 $Add\ setalphatograys cale\ to\ tp_multitexture_02\ for\ cases\ where\ textures\ are\ read\ from\ file\ (as\ opposed\ to\ build,\ where\ alpha\ does\ get\ valid\ data)$

Change 120524 on 2003/09/10 by kevino@kevino_r400_linux_marlboro

For tests that create their own pixel shader files, make a unique name for each testcase so they won't overwrite eachotehr when multiple testcases are running at once.

Change 120499 on 2003/09/10 by ashishs@fl_ashishs_r400_win

added 2 new tests

Change 120495 on 2003/09/10 by mkelly@fl_mkelly_r400_win_laptop

Vary packet size, conditional predicated execution max subs and loops

Change 120470 on 2003/09/10 by omesh@omesh r400 linux marlboro tott

Fixed resolve tests so that the single render state being used to dump both multisampled as well as resolved surfaces does not cause incorrect header information (and emulator/primlib assertions) from happening. The tests now run to completion.

Change 120435 on 2003/09/10 by mangeshn@fl_mangeshn

added precision test for checking NAN/INF cases for the EXP_IEEE instruction and undated the tracker

Change 120422 on 2003/09/10 by jhoule@jhoule_r400_win_lt

Added support for local testsuite with testcases

Updated the golden_tc.lst file to support the following test: r400rb_stencil_functions-STENCIL_STENCILFUNC_GREATER_1_S.regress_e

Adding new test should be a matter of adding lines to CHIP_TESTS_TC and keeping the golden_tc.lst up-to-date (note: if the test is not present in the golden_tc.lst file, it won't run).

Change 120409 on 2003/09/10 by mkelly@fl_mkelly_r400_win_laptop

Page 114 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Pixel shader conditional predicate execute contained in maximum nested subroutines and loops.

Change 120344 on 2003/09/09 by tmartin@tmartin_r400_win

test coherency regs, RT and HOST

Change 120343 on 2003/09/09 by tmartin@tmartin_r400_win

test coherency regs, RT and HOST

Change 120338 on 2003/09/09 by ashishs@ff_ashishs_r400_win

changing the orientation of the primitive....number of samples to 2 and randomly switching of sampling_patter in interpolator_cntl

Change 120326 on 2003/09/09 by tmartin@tmartin_r400_win

added tests for VC_CNTL and coherency

Change 120320 on 2003/09/09 by mangeshn@fl_mangeshn

Change 120312 on 2003/09/09 by tmartin@tmartin_r400_win

added new tests to SP test_list

changed test names

Change 120311 on 2003/09/09 by tmartin@tmartin_r400_win changed test names

Change 120307 on 2003/09/09 by tmartin@tmartin_r400_win

changed the test name

Change 120305 on 2003/09/09 by ashishs@fl ashishs r400 win

 $permuting\ INTERPOLATOR_CNTL.SAMPLING_PATTERN\ with\ SC\ output\ as\ centers\ and\ centroids$

Change 120299 on 2003/09/09 by mkelly@fl_mkelly_r400_win_laptop

Conditional execute predication in maximum nested subroutines using vertex stream

Exercises (!P) where r400sq_data_dep_pred_05 did (P).

Change 120287 on 2003/09/09 by mangeshn@fl_mangeshn

Page 115 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

added precision test to handle NAN/INF cases for the LOG_CLAMPED instruction. Also updated the Test Tracker doc

Change 120278 on 2003/09/09 by mkelly@fl_mkelly_r400_win_laptop

Maximum nested loops with data dependent predication execution contained within maximum nested subroutines.

Change 120276 on 2003/09/09 by cbrennan@cbrennan_r400_emu

Remove restriction of disallowing degamma of new DXT formats in random_level4.

Wort actually validate unless #Rfdef C1 is defined in tex lib.

Added degamma test cases for DXN, DXT3a, DXT5a, and CTX1. Dont expect to pass use unless kinky degamma is enabled.

Change 120255 on 2003/09/09 by Iseiler@Iseiler_r400_win_marlboro2

Chroma key gold files

Change 120254 on 2003/09/09 by jhoule@jhoule_r400_linux_marlboro

Added per-channel precision loss in the tp_ch_blend subblock. Precision out of the bilinear lerps are now 20, 20, 16, and 12. Output becomes 30, 30, 26, 22 (10 more than the above); better in hardware too. Added setPreWsPrecision() method to tp_ch_blend to control precision.

 $Modified tp_tt \ to \ account \ for \ precision \ loss \ (calls \ get30bOutput() \ on \ the \ tp_ch_blend).$

Created a new parser which has 3 tp ch blend, each one with a different precision.

Updated the dedicated testbench to use that new parser

Change 120240 on 2003/09/09 by mangeshn@fl_mangeshn

added precision test for INF/NAN checking for the LOG_IEEE instruction

Change 120222 on 2003/09/09 by jhoule@jhoule_r400_win_l

Added MIN/MAG_ANISO_WALK support in the tp_lod_aniso. Updated testbench ins+outs, as well as tracker outputs.

Change 120221 on 2003/09/09 by Iseiler@Iseiler_r400_win_marlboro

Depth test GOLD files

Change 120197 on 2003/09/09 by mkelly@fl_mkelly_r400_win_laptop

Pixel Shader conditional predicate execute in maximum nested subroutines,

Page 116 of 510

Change 120181 on 2003/09/09 by mangeshn@fl mangeshn $Change\ 119989\ on\ 2003/09/08\ by\ mkelly@fl_mkelly_r400_win_laptop$ added precision test to handle NAN/INF cases for teh RECIP_SQRT_FF instruction Conditional execute predication in maximum neste subroutines using vertex stream data. Exercise (!P) as Change 120148 on 2003/09/09 by ashishs@fl ashishs r400 win compare to _01 that exercises (P). Change 119977 on 2003/09/08 by kevino@kevino r400 linux marlbord Change 120143 on 2003/09/09 by Iseiler@Iseiler r400 win marlborol Same test as tp_mutlitexture_01, but now all formats are supported and testcase names use format number instead of name. This will eventually replace tp_mutlitexture_01. Not in this version, interlaced formats do not work. Change 120142 on 2003/09/09 by Iseiler@Iseiler r400 win marlboro1 Change 119976 on 2003/09/08 by mkelly@fl mkelly r400 win laptop Stencil Zfail test Conditional execute predication in maximum nested subroutines using vertex stream Change 120082 on 2003/09/08 by tmartin@tmartin_r400_win Change 119958 on 2003/09/08 by mangeshn@fl_mangeshn added some interface tests added new tests to test_lib Change 120079 on 2003/09/08 by tmartin@tmartin r400 win Change 119956 on 2003/09/08 by mangeshn@fl mangeshn Tests CC FORCE MISS added precision test for the PRED_SETE instruction Change 120078 on 2003/09/08 by tmartin@tmartin_r400_win Change 119925 on 2003/09/08 by kevino@kevino_r400_linux_marlboro Tests L2 INVALIDATE Added setAlphaToGrayscale() to tp simple 01 and 02 Change 120077 on 2003/09/08 by tmartin@tmartin_r400_win Change 119916 on 2003/09/08 by jayw@jayw_r400_linux_marlboro2 Tests the thread id's by performing vfetches in both shader program types Weekly re-integration. sc has changed, need new one for GC TB Change 120070 on 2003/09/08 by mangeshn@fl_mangeshn Change 119888 on 2003/09/07 by mangeshn@fl mangeshn added precision test to handle INF/NAN cases for the RECIP_SQRT_CLAMPED added precision tests for CNDE, CNDGE and CNDGT instructions Change 120059 on 2003/09/08 by mangeshn@fl_mangeshn Change 119866 on 2003/09/06 by mangeshn@fl_mangeshn added precision test to handle INF/NAN cases for teh RECIP SORT IEEE instruction added precision test for the KILLNE instruction for VECTOR operations Change 120056 on 2003/09/08 by mangeshn@fl_mangeshn Change 119865 on 2003/09/06 by mangeshn@fl_mangeshn added precision test to handle INF/NAN for teh SQRT_IEEE instruction added precision test for the KILLNE instruction for SCALAR operations Change 120025 on 2003/09/08 by Iseiler@Iseiler r400 win marlboro1 Change 119864 on 2003/09/06 by mangeshn@fl mangeshn Page 117 of 510 Page 118 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history added precision test for the KILLGE instruction for VECTOR operations added precision test for the SCALAR sete instruction Change 119723 on 2003/09/05 by mkelly@fl_mkelly_r400_win_laptop Change 119863 on 2003/09/06 by mangeshn@fl mangeshn added precision test for the KILLGE instruction for SCALAR operations Save work in progress. Change 119862 on 2003/09/06 by mangeshn@fl mangeshn Change 119664 on 2003/09/05 by tmartin@tmartin r400 win added precision test for the KILLGT instruction for the vector operation Tests PRED_SELECT and PRED_CONDITION in the vfetch instruction Change 119860 on 2003/09/06 by mangeshn@fl mangeshn Change 119660 on 2003/09/05 by mangeshn@fl_mangeshn added precision test for the KILLGT instruction for SCALAR operation added a precision test for inf/nan handling for the recip_clamp instruction Change 119855 on 2003/09/06 by mangeshn@fl_mangeshn Change 119630 on 2003/09/05 by mangeshn@fl_mangeshn adde precision test for KILLE instruction for the VECTOR operation changed the old test template to the new one with 512 points Change 119854 on 2003/09/06 by mangeshn@fl_mangeshn Change 119582 on 2003/09/04 by mangeshn@fl_mangeshn added precision test for the KILLE instruction. SCALAR evaluation only changed test to new framework and colors to previous tests Change 119828 on 2003/09/06 by mangeshn@fl_mangeshn Change 119551 on 2003/09/04 by mangeshn@fl_mangeshn added precision test for the SETNE instruction for both the SCALAR and VECTOR changed color scheme of output to match previous tests Change 119549 on 2003/09/04 by tmartin@tmartin_r400_win Change 119826 on 2003/09/06 by mangeshn@fl_mangeshn added r400vc instr fields 07 and 09 added precision test for the SETGE instruction for both the SCALAR and VECTOR operations. Change 119548 on 2003/09/04 by mangeshn@fl mangeshn Change 119825 on 2003/09/06 by mangeshn@fl_mangeshn changed colors in result to match earlier tests added precision test for the SETGT instruction. Handles SCALAR and VECTOR Change 119546 on 2003/09/04 by tmartin@tmartin r400 win Tests SRC_GPR_AM and DST_GPR_AM Change 119808 on 2003/09/05 by mangeshn@fl mangeshn Change 119539 on 2003/09/04 by vbhatia@vbhatia r400 linux marlboro modified the SETE test to check for both SCALAR and VECTOR operations (each channel is tested individually) cube map related update to standalone lod_deriv testbench Change 119782 on 2003/09/05 by tmartin@tmartin r400 win Change 119523 on 2003/09/04 by mangeshn@fl mangeshn added test r400vc_instr_fields_10 for PRED_SELECT and PRED_CONDITION in the adding mangesh and greg Change 119521 on 2003/09/04 by mangeshn@fl mangeshn Change 119755 on 2003/09/05 by mangeshn@fl mangeshn updated Page 119 of 510 Page 120 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Stencil test gold images

dependent on parameters originated from the vertex stream.

Tests the upper 16 values for CONST_INDEX and all CONST_INDEX_SEL values. The lower 16 values are tested in instr_fields_01 - 04. This test builds on r400vc_instr_fields_01 Change 119505 on 2003/09/04 by mangeshn@fl mangeshn Added test with INF and NAN values along with valid range data tests for recip_ff Change 119292 on 2003/09/03 by ashishs@fl_ashishs_r400_win2 Change 119477 on 2003/09/04 by ashishs@fl ashishs r400 win2 the following tests were failing since they had JSS register setting Change 119282 on 2003/09/03 by ashishs@fl ashishs r400 win2 Change 119464 on 2003/09/04 by mkelly@fl mkelly r400 win laptop updated the test to finalise the template which could be used to test a varied data range for the instruction Save Change 119228 on 2003/09/03 by jhoule@jhoule_r400_win_lt Change 119442 on 2003/09/04 by ashishs@fl ashishs r400 win Added regress it target to be used by Larry to run a more exhaustive emulator regression Editing the test so that we can create a template test which can be used for other Tests must be listed in the LOCAL_CHIP_TESTS variable (which doesn't seem to Change 119424 on 2003/09/04 by mkelly@fl mkelly r400 win laptop support testcases for now) Uses $regress_e_local$ target, which is less rb-specific. Different tests now than before because the random seed has changed due to removal of jss. It is all random based. Change 119200 on 2003/09/03 by tmartin@tmartin_r400_win Change 119405 on 2003/09/04 by tmartin@tmartin_r400_win Tests SRC SEL in the vertex fetch instruction Tests SIGNED RF MODE ALL Change 119125 on 2003/09/02 by ashishs@fl ashishs r400 win Change 119370 on 2003/09/04 by cbrennan@cbrennan r400 emu changing the test so that it renders 128 verts in a packet at a time so that it exercises all the shader pipes Changed tests to target cube mapping range from 1.0 to 2.0 Change 119119 on 2003/09/02 by tmartin@tmartin_r400_win Change 119314 on 2003/09/03 by smoss@smoss cravola linux orl added tests for constant and instruction fields typos in test list, removed jss from rand test Change 119118 on 2003/09/02 by tmartin@tmartin r400 win Change 119306 on 2003/09/03 by tmartin@tmartin_r400_win Tests GPRs as both source and destination added some instruction fields tests Change 119103 on 2003/09/02 by ashishs@fl_ashishs_r400_win Change 119305 on 2003/09/03 by jhoule@jhoule_r400_win_lt initial checkin for the template test to check each instruction for inf, Nan, denorm, special Changed variable name to better behave with Frank Hsien's script numbers along with valid data range Change 119300 on 2003/09/03 by tmartin@tmartin r400 win Change 119044 on 2003/09/02 by tmartin@tmartin r400 win Tests 4 bit patterns in the base_address field. 0x55555554, 0xAAAAAAAA, ests the range of EXP ADJUST ALL (-32 to 31) 0x00007FFC, 0xFFFF0000 Change 119299 on 2003/09/03 by tmartin@tmartin_r400_win Page 121 of 510 Page 122 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 118842 on 2003/08/29 by jhoule@jhoule_r400_linux_marlboro Change 118737 on 2003/08/29 by tmartin@tmartin_r400_win Simple test allowing to easily test all formats. test all vertex data formats and stress all pipes Simpler than the currently existing ones Change 118716 on 2003/08/29 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 118837 on 2003/08/29 by ashishs@fl_ashishs_r400_win Severely stretched all images. adding r400sq mova 01 after it has started PASSING now Change 118698 on 2003/08/29 by jhoule@jhoule_r400_win_lt Change 118834 on 2003/08/29 by ashishs@fl_ashishs_r400_win Added support for setAlphaToGrayscale(adding golds to the SQ directory using make <test name>.golden Change 118582 on 2003/08/28 by omesh@omesh_r400_linux_marlboro_tott Change 118831 on 2003/08/29 by cbrennan@cbrennan_r400_emu Fixed testcases that expand previously rendered to surfaces that use multisampling. During expands, surface origins must be adjusted to the compile fix top left corner of the top left pixel, rather than keeping it at the center of the top left pixel. (The former results in SC generating out of bound addresses towards RC/RB). Verified that the specific testcase Change 118830 on 2003/08/29 by cbrennan@cbrennan_r400_win_marlboro Added seed of a test to check new cube mapping lod changes. that Jay pointed out does not assert any longer. Change 118816 on 2003/08/29 by tmartin@tmartin r400 win Change 118565 on 2003/08/28 by georgev@devel_georgev_r400_lin2_marlboro_tott

Change 118810 on 2003/08/29 by csampayo@fl csampayo2 r400 Cleanup shaders Change 118790 on 2003/08/29 by ashishs@fl ashishs r400 p4D updated the test_list to disable r400sq_vs_memory_wrap_01 test since hangs in emulator

forgot to enable the option -u in the script Change 118754 on 2003/08/29 by llefebvr@llefebvr_r400_emu_montreal

Change 118779 on 2003/08/29 by ashishs@fl ashishs r400 win

Change 118752 on 2003/08/29 by csampayo@fl_csampayo2_r400

Adjus test to remove texture usage in pixel shader

Change 118740 on 2003/08/29 by tmartin@tmartin_r400_win

added data format tests

Page 123 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Put in more perspective so that aniso would work better.

Change 118550 on 2003/08/28 by ashishs@fl ashishs r400 win

Disabling 2 of the jss tests

r400sc_point_jss_3X4_01 r400sc_line_jss_3X4_01

Change 118547 on 2003/08/28 by mkelly@fl_mkelly_r400_win_laptop

Omit resolve tests from regress for now until new RB ready.

Change 118521 on 2003/08/28 by mkelly@fl_mkelly_r400_win_laptop

Stress the parameter cache with clipped verts and many small triangles...

Change 118466 on 2003/08/27 by csampayo@fl_csampayo2_r400

1 Modified constant 0 in both cpp files

2 Further cleaned up of _01 cpp and vtx

Change 118445 on 2003/08/27 by tmartin@tmartin_r400_win

finished the remaining formats

Page 124 of 510

Change 118436 on 2003/08/27 by ashishs@fl_ashishs_r400_win TRIANGLE LIST stress tests of exercising parameter cache indices and wrapping with params 1 - 16. adding VS and PS base to the test Change 118221 on 2003/08/26 by omesh@omesh_r400_linux_marlboro_tott Change 118420 on 2003/08/27 by ashishs@fl ashishs r400 win Fixed a bug with the testcases that use the xpand function (Which was changing the pix and vtx shaders to ver 2.0 and adding alloc for paramteres as well not enabling msaa before sending an xpand operation). Haven't verified this fix on simulation.... Change 118355 on 2003/08/27 by csampayo@fl csampayo2 r400 Change 118220 on 2003/08/26 by ashishs@fl_ashishs_r400_win Revert back to latest version, add alloc inst to vtx shader correcting a optimization in the test. No problem with the test just the tests were doing one extra rendering of 128 vertcies which has been removed now. Change 118349 on 2003/08/27 by ashishs@fl_ashishs_r400_win setting IM LOAD inside the tests Change 118214 on 2003/08/26 by ashishs@fl ashishs r400 win Change 118344 on 2003/08/27 by ashishs@fl_ashishs_r400_win forgot to remove a print statement... changed pixel shader to revert back to the original shader viz. Even if vtx shader Change 118212 on 2003/08/26 by ashishs@fl_ashishs_r400_win exporting 3 parameters, pixel shader only fetching the parameter needed Forgot to initialise the values of the parameters which was causing an error in the script... Change 118273 on 2003/08/26 by csampayo@fl_csampayo_r400 Change 118175 on 2003/08/26 by mkelly@fl_mkelly_r400_win_laptop Temporarily go back to rev 2 to catch problem sync Extensive line_list testing of the parameter cache, 1-16 parameters Change 118269 on 2003/08/26 by tmartin@tmartin_r400_win Update tracker accordingly the wrong shader was being used Change 118155 on 2003/08/26 by ashishs@fl_ashishs_r400_win Change 118262 on 2003/08/26 by csampayo@fl csampayo r400 Perl script Updates: Remove commented blocks and update description With this option we can check the dumps against the gold directory in each test directory Change 118255 on 2003/08/26 by ashishs@fl ashishs r400 win 2. Added option -u
With this option we can update the golds. Currently all the gold files will be updated whichever PASS and for NEW test the gold will be added. Also if the test FAILS then the updated the test to include IM LOAD function since causing problem in hardware Change 118251 on 2003/08/26 by georgev@devel_georgev_r400_lin2_marlboro_tott corresonding gold isn't updated -Need to know if unchanged files should be reverted back to minimize the depot Removed illegal gamma cases and added tp_border_02 for forcing w to max. Change 118224 on 2003/08/26 by omesh@omesh r400 linux marlboro tott Change 118153 on 2003/08/26 by mkelly@fl mkelly r400 win laptop Also set color0 samples, fragments and depth samples and fragments correctly, before an xpand operation. This should REALLY fix the test bug. (Not yet verified on simulation though) Update expected results comments in test for new constant index behaviour Change 118143 on 2003/08/26 by mkelly@fl_mkelly_r400_win_laptop Change 118222 on 2003/08/26 by mkelly@fl mkelly r400 win laptop Remove resolve tests until new RB ready. Fix line tests due to RB assert when msaa = true and samples = 0. Page 125 of 510 Page 126 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history added r400vc_addr_clamping_02 Change 118120 on 2003/08/25 by ashishs@fl ashishs r400 win Change 117855 on 2003/08/22 by ashishs@fl ashishs r400 win removing a duplicate test name corrected the tests since i forgot to use the 4th shader while rendering Change 118100 on 2003/08/25 by csampayo@fl_csampayo2_r400 Change 117851 on 2003/08/22 by ashishs@fl ashishs r400 win Correct number of loaded constants. editing all the tests for being able to run any number of cases Change 118082 on 2003/08/25 by rmanapat@rmanapat_r400_sun_mariboro Change 117844 on 2003/08/22 by kevino@kevino r400 linux marlboro Tests changed so that fints58, 59, and 60 do not use gamma Removed some redundant test cases and relabled interlaced formats to INTERLACED instead of INTERLACE. Change 118067 on 2003/08/25 by ashishs@fl_ashishs_r400_win Change 117841 on 2003/08/22 by ashishs@fl_ashishs_r400_win adding marcos to nightly regressions Change 118051 on 2003/08/25 by jhoule@jhoule_r400_linux_marlboro edited the test so that it could be run for any number of cases. For ease in Hardware Changed VFetch format from 32x2+32x1 to 32+32+32 type Change 117821 on 2003/08/22 by tmartin@tmartin r400 win Change 118050 on 2003/08/25 by mkelly@fl_mkelly_r400_win_laptop made the test a little clearer by changing colors and adding better comments Exercise parameter cache indices with LINE_LIST and TRIANGLE_LIST, 16 parameters, many verts. Change 117808 on 2003/08/22 by tmartin@tmartin r400 win Change 118009 on 2003/08/25 by mkelly@fl_mkelly_r400_win_laptop tests clamp_disable Remainder of POINT LIST paramater cache testing of the memory addressing and Change 117807 on 2003/08/22 by tmartin@tmartin r400 win indice updated to test negative clamping Change 118000 on 2003/08/25 by ashishs@fl_ashishs_r400_win Change 117793 on 2003/08/22 by mkelly@fl_mkelly_r400_win_laptop checking in all the auto generated shader files by VFD with modification regarding the exports viz exports should be sequential starting at 0 and if a parameter is exported on higher export register then need to export all the lower registers too or else doesn't work with hardware Remove JSS state control. Change 117783 on 2003/08/22 by ashishs@fl ashishs r400 win Change 117969 on 2003/08/25 by mkelly@fl mkelly r400 win laptop adding 2 mova tests which were not there in the test. list somehow POINT_LIST, 16 params, exercise the full range of PC addresses with Change 117777 on 2003/08/22 by tmartin@tmartin_r400_win address wrapping. r400vc base addr range pci 02 r400vc_stride_size_01 r400vc_stride_size_02 r400vc_stride_size_02 Change 117870 on 2003/08/22 by csampayo@fl csampayo r400 Partial update Change 117865 on 2003/08/22 by tmartin@tmartin r400 win Change 117774 on 2003/08/22 by csampayo@fl_csampayo_r400 Page 127 of 510 Page 128 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258265

Updated shader functionality, constant setup/data and tests description accordingly Change 117617 on 2003/08/21 by tmartin@tmartin r400 win Change 117756 on 2003/08/22 by kevino@kevino r400 win marlbord added r400vc index rounding 01 Added test case files for tp multitexture based on fmt # instead of name Change 117582 on 2003/08/21 by tmartin@tmartin r400 win Change 117747 on 2003/08/22 by tmartin@tmartin r400 win updated now that spec fields have been reversed test power of 2 stride values Change 117576 on 2003/08/21 by jhoule@jhoule_r400_linux_marlboro Change 117735 on 2003/08/22 by ashishs@fl_ashishs_r400_win Testbench now does invalid fetches edited the test so that it could be run for each single case seperately, easier for hardware Change 117469 on 2003/08/21 by ashishs@fl_ashishs_r400_win adding Todd to nightly regressions Change 117719 on 2003/08/22 by mkelly@fl mkelly r400 win laptop Change 117382 on 2003/08/20 by csampayo@fl csampayo r400 Remove test examples, check in update to one test... Change 117713 on 2003/08/22 by tmartin@tmartin r400 win Change 117381 on 2003/08/20 by csampayo@fl_csampayo_r400 added clamping at the end of pci space as an extra check Add test r400sq const index 06 Change 117675 on 2003/08/21 by ashishs@fl_ashishs_r400_win2 Change 117373 on 2003/08/20 by csampayo@fl_csampayo2_r400 adding Chris Hammer to regressions Correct vfetches when using FMT_32_FLOAT Change 117658 on 2003/08/21 by csampayo@fl_csampayo2_r400 Change 117364 on 2003/08/20 by tmartin@tmartin r400 win Undated to better fulfill test intentions added swizzling tests Change 117642 on 2003/08/21 by tmartin@tmartin r400 win Change 117347 on 2003/08/20 by tmartin@tmartin_r400_win added r400vc_array_size_02 DST_SEL_X sources are SRC_X, SRC_W DST_SEL_Y sources are SRC_X, SRC_Y DST_SEL_Z sources are SRC_Y, SRC_Z, 0 DST_SEL_W sources are SRC_Z, SRC_W, 1 Change 117638 on 2003/08/21 by tmartin@tmartin_r400_win added and removed some comments Change 117637 on 2003/08/21 by tmartin@tmartin_r400_win Change 117345 on 2003/08/20 by tmartin@tmartin_r400_win Sets the vertex fetch size constant to 0 and set the distance between buffers 00 and 01 to greater than the max allowed size. If the triangles are drawn this verifies that the size constant Tests swizzling. DST_SEL_X sources are SRC_X, 0, 1, Mask DST_SEL_Y sources are SRC_Y, 0, 1, Mask DST_SEL_Z sources are SRC_Z, 0, 1, Mask value of 0 effectively disables clamping and allows an extra large address to be calculated Page 129 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history DST_SEL_W sources are SRC_W, 0, 1, Mask Initial checkpoint for testing closely knit ALU constant addressing and indexing Change 117344 on 2003/08/20 by tmartin@tmartin_r400_win throughout the 512 ALU constant store Tests swizzling.
DST_SEL_X sources are SRC_Y, SRC_Z
DST_SEL_Y sources are SRC_Z, SRC_W
DST_SEL_Z sources are SRC_X, SRC_W, 0
DST_SEL_W sources are SRC_X, SRC_Y, 1 Change 117161 on 2003/08/19 by tmartin@tmartin_r400_win added r400vc fetch addr range 01 Change 117141 on 2003/08/19 by jhoule@jhoule_r400_win_lt Change 117339 on 2003/08/20 by csampayo@fl csampayo2 r400 Correct shaders for proper swizzle of FMT 32 and FM 32 FLOAT vfetches Change 117127 on 2003/08/19 by ashishs@fl_ashishs_r400_win Change 117319 on 2003/08/20 by csampayo@fl_csampayo2_r400 Revise test to fit its original intentions. Change 117124 on 2003/08/19 by tmartin@tmartin r400 win Change 117313 on 2003/08/20 by tmartin@tmartin_r400_win changed setAddressRange to Set_Size to reflect the change in primlib Change 117107 on 2003/08/19 by ashishs@fl ashishs r400 win changed to only use x as a write modifier when 32 float is being used Change 117276 on 2003/08/20 by tmartin@tmartin_r400_win adding test for log_clamp instruction. Also verifying whether log_ieee and log_clamp have the same precision removed some unused frame buffer so the test draws fewer pixels Change 117089 on 2003/08/19 by ashishs@fl ashishs r400 win Change 117227 on 2003/08/20 by jhoule@jhoule_r400_linux_marlboro testing precision for recip_clamp and recip_ff instructions and verifying it to be the same Added ch field to the input of the hicolor block as recipsq_ieee in the good data range Change 117223 on 2003/08/20 by mkelly@fl mkelly r400 win laptop Change 117077 on 2003/08/19 by ashishs@fl ashishs r400 win adding tests for precision of recip_clamp and recip_ff and verifying whether the precision Checkpoint 4, added expected output description. for both is the same as recip_ieee instruction in the good data range Change 117222 on 2003/08/20 by mkelly@fl mkelly r400 win laptop Change 117061 on 2003/08/19 by mkelly@fl_mkelly_r400_win_laptop Checkpoint 3, added initial test description. Remove JSS tests. Change 117220 on 2003/08/20 by mkelly@fl mkelly r400 win laptop Change 117059 on 2003/08/19 by mkelly@fl_mkelly_r400_win_laptop 2nd checkpoint, reduced test to 1 case, set all ALU store values to zero except for the clamp constant $\rm K0.\,$ Remove JSS from regress_e, back out this changelist to re-introduce JSS if ever necessary Change 117219 on 2003/08/20 by tmartin@tmartin r400 win Change 117038 on 2003/08/19 by tmartin@tmartin_r400_win Removed a swizzle which broke the test when a bug in the emulator was fixed. This way the test is less likely to fail for non-targeted reasons. test complete Change 117214 on 2003/08/20 by mkelly@fl_mkelly_r400_win_laptop Change 117037 on 2003/08/19 by tmartin@tmartin r400 win Page 132 of 510 Page 131 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Change 117628 on 2003/08/21 by ashishs@fl_ashishs_r400_win

adding Brian Buchner to regressions

Add tests r400sq_const_index_05, _06 to tests list and tracker

Change 117766 on 2003/08/22 by csampayo@fl csampayo2 r400

test complete

Change 116971 on 2003/08/18 by cbrennan@cbrennan_r400_emu

Shrunk max prim size in effort to reduce the maximum runtime of the test.

Change 116962 on 2003/08/18 by georgev@devel_georgev_r400_lin2_marlboro_tott

More border tests for different formats, adding formats, and changes to regressions.

Change 116879 on 2003/08/18 by tmartin@tmartin r400 win

Temporarily modified. The top triangle is rgba and the bottom triangle is bgra. They should not be equal, but they are.

Change 116797 on 2003/08/15 by ashishs@fl_ashishs_r400_win2

cheking precision for fract instruction.

 $\ensuremath{\mathrm{TBD}}$: if scalar precision and vector precision need to be checked seperately or any one can be used for precision.

Change 116790 on 2003/08/15 by ashishs@fl_ashishs_r400_win2

updated

Change 116785 on 2003/08/15 by tmartin@tmartin r400 win

added r400vc_fetch_mode_01 and r400vc_array_size_01

Change 116780 on 2003/08/15 by tmartin@tmartin_r400_win

increased NUM CASES to 4

Change 116778 on 2003/08/15 by tmartin@tmartin_r400_win

support for FMT_32_32_32_FLOAT was added to primlib so the second case was enabled in this test.

Change 116776 on 2003/08/15 by tmartin@tmartin_r400_win

Sets the maximum value in the vertex fetch constant size field and puts vertex data up to the boundary.

Change 116743 on 2003/08/15 by georgev@devel_georgev_r400_lin2_marlboro_tott

Added split triangle.

Change 116632 on 2003/08/14 by jhoule@jhoule_r400_win_lt

Page 133 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Forgot to add shader program for FMT 32 32 32 FLOAT vfetches

Change 116624 on 2003/08/14 by ashishs@fl_ashishs_r400_win

adding ADD_CONST test. Currently ADD_CONST_0,ADD_CONST_1, scalar ADD all have the same execution code. Also there is a problem with ADD_CONST since it doesn't pick up the right value for the SrcGPR and just initialises to 1

Change 116622 on 2003/08/14 by mkelly@fl_mkelly_r400_win_laptop

Update comment in _11 Copy _11 to _12 and use 144 vertices per packet Update test_list and tracker accordingly.

Change 116616 on 2003/08/14 by jhoule@jhoule_r400_win_lt

Added support for FMT_32_32_32_FLOAT

Change 116570 on 2003/08/14 by ashishs@fl_ashishs_r400_win

adding new test

Change 116566 on 2003/08/14 by tmartin@tmartin_r400_win

small changes to aid in figuring out the swizzle bug with floats

Change 116416 on 2003/08/13 by ashishs@fl_ashishs_r400_win

adding test having generalised settings for rendering number of verts per packet as well as controlling number of packets. Also currently having a problem in which no. of vertices > 43 create a failure for the shader logic

Change 116400 on 2003/08/13 by jhoule@jhoule_r400_win_marlboro

Old pixel shaders never submitted

Change 116365 on 2003/08/13 by omesh@omesh_r400_linux_marlboro_tott

Added a few additional testcases to limit the number of registers tested.

Change 116364 on 2003/08/13 by mkelly@fl mkelly r400 win laptop

Checkpoint..

Change 116362 on 2003/08/13 by cbrennan@cbrennan_r400_release

Forced on mipmapping to hopefully make tests take less time

Page 134 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Change 116358 on 2003/08/13 by mkelly@fl_mkelly_r400_win_laptop

Add

Change 116357 on 2003/08/13 by mkelly@fl_mkelly_r400_win_laptop

Final, test combinations of addressing and indexing the ALU constant store with coissue and single issue instructions.

Change 116319 on 2003/08/13 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 116194 on 2003/08/12 by tmartin@tmartin_r400_win

added r400vc_endian_swap_01 and r400vc_endian_swap_02

updated to test bottom of address space and added more triangles

Change 116184 on 2003/08/12 by tmartin@tmartin_r400_win

Change 116174 on 2003/08/12 by tmartin@tmartin r400 win

Tests swizzling during vfetch instructions.

Change 116173 on 2003/08/12 by tmartin@tmartin_r400_win

Tests index rounding with vfetch instructions.

Change 116172 on 2003/08/12 by tmartin@tmartin r400 win

Tests the VC's dynamic range when addressing vertex buffers stored in PCI memory. This test shows the upper end of the address range is accessible through PCI.

Change 116171 on 2003/08/12 by tmartin@tmartin_r400_win

Tests endian swap modes 2 and 3.

Change 116170 on 2003/08/12 by tmartin@tmartin r400 win

Tests endian swap modes 0 and 1

Change 116157 on 2003/08/12 by omesh@omesh_r400_linux_marlboro_tott

Added another testcase that fast clears, normal clears then again fast clears to verify h/w synchronization (2nd fast clear should wait for the normal clear to finish). Ran it on the emulator but haven't run it on h/w yet.

Page 135 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 116139 on 2003/08/12 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint...

Change 116122 on 2003/08/12 by omesh@omesh_r400_linux_marlboro_tott

Disabled multisampling for 1 sample testcases. This fixes emulator assertions.

Change 116112 on 2003/08/12 by omesh@omesh_r400_linux_marlboro_tott

Overlooked adding the FB base start address to color0 buffer base address. It should be fine now.

Change 116109 on 2003/08/12 by jhoule@jhoule_r400_linux_marlboro

Reverting old Toronto Makefile changes which weren't undone here

Change 116108 on 2003/08/12 by mkelly@fl_mkelly_r400_win_laptop

Add more description in shaders, fix vertex constant on a few cases..

Change 116072 on 2003/08/12 by csampayo@fl_csampayo2_r400

Initialize unused R1 components

Change 116022 on 2003/08/12 by ashishs@fl_ashishs_r400_win

updating the test. Shaders with different pred instructions setting the pred reg and clr instruction clearing out the register as well as checking MAX_FLOAT

Change 115943 on 2003/08/11 by omesh@omesh_r400_linux_marlboro_tott

Overlooked adding the FB base start address to color0 buffer base address. It should be fine now.

Change 115922 on 2003/08/11 by ashishs@fl_ashishs_r400_win

initial checkin for pred_set_clr instruction. Still doubts regarding the position of this instruction relative to other pred instructions inside shader

Change 115907 on 2003/08/11 by omesh@omesh_r400_linux_marlboro_tott

Added indirect register R/W testing and I may have used different data structures to access register objects. These tests don't all pass for various reasons: SOme bits are not testable so I have yet to mask r/w

operations on them.

Change 115904 on 2003/08/11 by cbrennan@cbrennan_r400_win_marlboro

Page 136 of 510

Added DXT3A, DXT5A and CTX1 to testcases and added random level4 which includes these Change 115607 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop Change 115871 on 2003/08/11 by ashishs@fl ashishs r400 win test for scalar min instruction Change 115606 on 2003/08/08 by ashishs@fl ashishs r400 win Change 115803 on 2003/08/11 by ashishs@fl ashishs r400 win Change 115587 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop test for max scalar instruction, testing on xyzw channels with different combination of data Change 115676 on 2003/08/08 by ashishs@fl_ashishs_r400_win Change 115576 on 2003/08/08 by omesh@omesh r400 linux marlboro tott wasnt using the input vertex for constant indexing Change 115674 on 2003/08/08 by ashishs@fl ashishs r400 win Change 115562 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop wasnt correctly using the incoming vertex z value for constant indexing Change 115673 on 2003/08/08 by ashishs@fl_ashishs_r400_win Change 115527 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop adding 2 more tests Change 115672 on 2003/08/08 by ashishs@fl_ashishs_r400_win adding test for MAX4 instruction, testing on all pipes as well as input vertex selecting predicates from shader therby selecting constant combination Change 115644 on 2003/08/08 by ashishs@fl_ashishs_r400_win had incorrect name inside the test list Change 115642 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop Update.. Change 115641 on 2003/08/08 by mkelly@fl mkelly r400 win laptop Update but still asserts Change 115618 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop Disable MSAA when number of samples is zero. This allows test to finish and not assert in RB on depth number of samples being zero when msaa is enabled. Change 115608 on 2003/08/08 by mkelly@fl_mkelly_r400_win_laptop Page 137 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Change 115503 on 2003/08/07 by georgev@devel_georgev_r400_lin2_marlboro_tott Added stress test to make big objects to fill queues. Change 115480 on 2003/08/07 by mkelly@fl_mkelly_r400_win_laptop First test of series which checks positive alu constant index clamping Change 115428 on 2003/08/07 by ashishs@fl ashishs r400 win2 adding shaders, one with predicates and sub_prev inserted in an particular order to see the effect and in the shader_004 adding another instruction eg. mova in between the predicate instructions to see the effects and the results have been described in the shaders. Change 115387 on 2003/08/07 by ashishs@fl ashishs r400 win2 adding 10 more tests done during last week and the current week Change 115384 on 2003/08/07 by ashishs@fl ashishs r400 win2 adding 4 shaders to cover the SUB instruction on all channels Change 115372 on 2003/08/07 by csampayo@fl_csampayo2_r400 Page 138 of 510 Ex. 2052 --- R400 Testing FH --- foler history updated the image since with the NEW TP using 'setenv TP_V2 3' as suggested by Jocelyn the test produced a different image compared with old environment. But with pix center as 0 (after test was updated) it produces the same image in old as well as new environment and keeping all other same. Change 115178 on 2003/08/06 by ashishs@fl_ashishs_r400_win changing the pixel centering, since with the NEW TP using 'setem' TP_c V3.2' as suggested by Jocelyn the test produced a different image compared with old environment. But with pix center as 0 it produces the same image in old as well as new and keeping all other same. Change 115063 on 2003/08/05 by mkelly@fl_mkelly_r400_win_laptop Check in to save, not complete Change 115038 on 2003/08/05 by ashishs@fl ashishs r400 win adding test for add_prev instruction with different combination of instructions used to get result in the previousScalar Change 114967 on 2003/08/05 by ashishs@fl ashishs r400 win modifying the script since it was using different search strings in different areas of the script for the same cause Change 114947 on 2003/08/05 by mkelly@fl_mkelly_r400_win_laptop Change HOS reuse depth Change 114930 on 2003/08/05 by jhoule@jhoule r400 linux marlboro Modified tests to set CLAMP_DISABLE bit (second dword, bit 30), since they are setting a size of 0. Change 114913 on 2003/08/05 by ashishs@fl ashishs r400 win forgot to update the test for Write_To_Memory function change $Change\ 11491\ 2\ on\ 2003/08/05\ by\ mkelly@fl_mkelly_r400_win_laptop$ Modify to work with non-zero FB start Change 114905 on 2003/08/05 by smoss@smoss_crayola_linux_orl comment out jss* tests - no longer needed comment out pipe disable - hardware will change

Add const index tests...

Negative ALU VS constant clamping, negative index clamping with negative stepping

Positive constant clamping with negative loop stepping.

ALU positive constant index clamping and constant clamping

Checkpoint VS positive constant indexing and clamping

Added missing depth clear register programming

Extended exports to span 2 framebuffer tiles.

Change 115368 on 2003/08/07 by ashishs@fl_ashishs_r400_win2

performed a test according to Carlos's spec to test if the add and sub instruction yeild any difference/error

Change 115331 on 2003/08/07 by llefebvr@llefebvr_r400_emu_montreal

Conditions were not set correctly (they were swapped)

Change 115328 on 2003/08/07 by llefebvr@llefebvr_r400_emu_montreal

The HW has a 26 bits normilizer so I increased the emulator's precision to match. This fixes r400sq_ripple_01.cpp. I had to re-goldenize 1 test in the regress_e suite.

Change 115304 on 2003/08/06 by csampayo@fl_csampayo2_r400

Fixed color ramp, increased export aperture

Change 115277 on 2003/08/06 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint, temp save of worksheet as well...

Change 115267 on 2003/08/06 by smoss@smoss_crayola_linux_orl

changed to initialize gpr channels

Change 115266 on 2003/08/06 by ashishs@fl ashishs r400 win

initial checkin for testing sub_prev instruction. Seems to have a precision issue and part of shaders 3 and 4 commented out for now.

Change 115226 on 2003/08/06 by ashishs@fl ashishs r400 win

didnt have the correct shaders

Change 115220 on 2003/08/06 by ashishs@fl_ashishs_r400_win

adding test for mul prev with various combination of instructions

Change 115188 on 2003/08/06 by ashishs@fl ashishs r400 win

updating the golden.lst file

Change 115187 on 2003/08/06 by ashishs@fl ashishs r400 win

Page 139 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 140 of 510

Change 114832 on 2003/08/04 by csampayo@fl_csampayo3

Update for Write_To_Memory change, Change 114715 on 2003/08/04 by smoss@smoss_crayola_linux_orl Change 114825 on 2003/08/04 by cbrennan@cbrennan r400 emu makefile for vo Removed clamp mode from tests since TP_V2 is enabled by default. Change 114577 on 2003/08/01 by ashishs@fl ashishs r400 win Change 114813 on 2003/08/04 by mkelly@fl_mkelly_r400_win_laptop adding test for pred_set_inv. each shader checks unique combination of (+,-,0,1) for Change 114810 on 2003/08/04 by mkelly@fl_mkelly_r400_win_laptop Change 114574 on 2003/08/01 by georgev@devel_georgev_r400_lin2_marlboro_tott Simple triangle with SET_STATE Partial complete test. Change 114808 on 2003/08/04 by omesh@omesh r400 linux marlboro tott Change 114560 on 2003/08/01 by ashishs@fl ashishs r400 win Corrected some typos that were mixing up testcase names. Also made some changes that make these tests run without compiler errors on Windows. corrected an error where the script was counting VC tests as SP tests Change 114549 on 2003/08/01 by tmartin@tmartin_r400_win Change 114805 on 2003/08/04 by ashishs@fl ashishs r400 win added r400vc fetch mode 02 adding test for killone instruction checking 1 as well as < and > 1 over all the channels using different shaders as well as over all shader pipes Change 114543 on 2003/08/01 by tmartin@tmartin_r400_win Change 114791 on 2003/08/04 by Iseiler@Iseiler_r400_win_marlboro Tests mega fetch counts of 0 thru 3 Sets msaa enable only with >1 sample Change 114542 on 2003/08/01 by tmartin@tmartin r400 win Change 114778 on 2003/08/04 by ashishs@fl_ashishs_r400_win Tests mega fetch counts of 4 - 7. Including 1 - 4 dword mini fetches. Change 114534 on 2003/08/01 by ashishs@fl_ashishs_r400_win2 adding test for pred_set_restore instruction Change 114768 on 2003/08/04 by ashishs@fl ashishs r400 win added variables for the new changes done in AUTO ...sync.tcsh file adding test for pred_set_pop instruction using 4 shaders to tests each x,y,z,w channel with different data inputs wrt (> = <>) 0 Change 114454 on 2003/08/01 by ashishs@fl_ashishs_r400_win adding vector scalar and coissue instructions Change 114764 on 2003/08/04 by mkelly@fl_mkelly_r400_win_laptop Change 114428 on 2003/08/01 by ashishs@fl_ashishs_r400_win Test Mainline adding scalar vector and coissue shaders Change 114757 on 2003/08/04 by ashishs@fl ashishs r400 win Change 114424 on 2003/08/01 by ashishs@fl_ashishs_r400_win Test had a problem while running hardware since the c31 which was used in pixel shader wasnt initialised explicitly, and in emulator it gets initialised to 0's explicitly Change 114743 on 2003/08/04 by mkelly@fl_mkelly_r400_win_laptop Change 114343 on 2003/07/31 by csampayo@fl_csampayo_r400 Add memory export test, update test list and tracket Page 141 of 510 Page 142 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history Change 114282 on 2003/07/31 by tmartin@tmartin r400 win Fixed a bug of not setting the Z_BASE address correctly (Overlooked adding the FB start address) added r400vc_addr_spanning_01 Tests now pass, as verified by John Chen Change 114277 on 2003/07/31 by tmartin@tmartin_r400_win Change 113962 on 2003/07/30 by ashishs@fl_ashishs_r400_win changed the case for "TOTAL" since Joe's script on web was searching for case sensitive "TOTAL" $\,$ Tests that the VC correctly spans address spaces Change 114221 on 2003/07/31 by ashishs@fl ashishs r400 win Change 113896 on 2003/07/29 by ashishs@fl ashishs r400 win added shaders for scalar, vector and coissue instructions tried to get the automatic submit to P4 to workbut somehow there are issues related to submit and makes it very complicated to do automatic submit. Change 114192 on 2003/07/31 by tien@tien_r400_devel_marlboro Change 113874 on 2003/07/29 by ashishs@fl ashishs r400 win Bug fixes and change in tpc out fifo width Change 114148 on 2003/07/31 by ashishs@fl_ashishs_r400_win2 increased the length of test names from 50 to 80 adding a new line at the end of test_list since my script needs a newline at the end of Change 113871 on 2003/07/29 by tmartin@tmartin r400 win test list. Later would change my script updated to stress all 64 vertex pipes Change 114080 on 2003/07/30 by tmartin@tmartin_r400_win Change 113869 on 2003/07/29 by ashishs@fl_ashishs_r400_win fixed the NUM CASES loop adding option "p" if the script is run with -p then it will update the web as well as tracker else it will just update the tracker Change 114055 on 2003/07/30 by ashishs@fl_ashishs_r400_win added shaders for pred sete with scalar and coissue instructions Change 113864 on 2003/07/29 by ashishs@fl ashishs r400 win Change 114018 on 2003/07/30 by tmartin@tmartin r400 win updated so that the script could be run from any directory. Also corrected a minor error related to the VC page. Also integrated the web script with this script. added strides/offsets tests Change 114004 on 2003/07/30 by tmartin@tmartin r400 win Change 113855 on 2003/07/29 by ashishs@fl ashishs r400 win Check fetch address calculations and range (including negative results) updated the changes for running from any directory Change 113850 on 2003/07/29 by ashishs@fl_ashishs_r400_win Change 114003 on 2003/07/30 by tmartin@tmartin r400 win Tests that the VC correctly clamps addresses that are outside of the constant size. removing 7 files that were duplicated Change 113997 on 2003/07/30 by tmartin@tmartin r400 win Change 113810 on 2003/07/29 by tmartin@tmartin r400 win test currently works, but is restricted to a hardcoded range in the address space. Eventually this restriction will be removed and the test will be modified to span the entire added more vertices to the scenes to saturate all 64 vertex pipes

Change 113981 on 2003/07/30 by omesh@omesh_r400_linux_marfboro_tott

Page 143 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Ex. 2052 --- R400 Testing FH ---foler_history

Change 113809 on 2003/07/29 by omesh@omesh r400 linux mariboro tott

Page 144 of 510

Made index buffer code less sloppy

Change 113795 on 2003/07/29 by omesh@omesh_r400_linux_marlboro_tott adding blocks CP,RBBM, VC,BUGS,SANITY,STRESS,PERF Added a testcase "tri3_8x8_replace_8samp" that Bill needed. Ran it and visually inspected/verified the FB dump. Change 113432 on 2003/07/27 by ashishs@fl_ashishs_r400_win adding option "i" using which the regress r400 script will use the hardcoded paths for Change 113706 on 2003/07/28 by ashishs@fl_ashishs_r400_win each of the tes updating a minor error in update tracker script. And formatting the update web script to have the test number and serial number as well as block name in the report. Also formatting the Change 113284 on 2003/07/25 by tmartin@tmartin r400 win added tests Change 113629 on 2003/07/28 by ashishs@fl_ashishs_r400_win Change 113282 on 2003/07/25 by csampayo@fl_csampayo_r400 Updated status for tests r400sx vtx point size export 01-04 and added them to test list corrected minor error while printing Change 113627 on 2003/07/28 by ashishs@fl_ashishs_r400_win Change 113264 on 2003/07/25 by mkelly@fl_mkelly_r400_win_laptop Upadte for script to update regression tracker update.. 1. Maintain a seperate worksheet for each emulator block 2. Add numbering for each page/block
3. Updated paths for the tracker viz put the tracker in t/v400\ making it available for updating to others

Others $Change\ 113261\ on\ 2003/07/25\ by\ mkelly@fl_mkelly_r400_win_laptop$ Update Tess level, Hos reuse, dealloc distance, reduce fb size Change 113623 on 2003/07/28 by tien@tien_r400_devel_marlboro Change 113226 on 2003/07/25 by mkelly@fl_mkelly_r400_win_laptop Man it's been a long time coming :-) formatter fix for TP to output to 1 simd only drive simd signal from TPC to VC (will prolly need to skew it a bit, but that will fall out Change 113218 on 2003/07/25 by ashishs@fl_ashishs_r400_win from debug) Clean up get/set logic changing names for output files with time stamp Change 113606 on 2003/07/28 by mkelly@fl_mkelly_r400_win_laptop Change 113206 on 2003/07/25 by tmartin@tmartin r400 win Update. Tests the VC's stride range when addressing vertex buffers stored in the frame buffer. Stride range is 0:255. Change 113594 on 2003/07/28 by mkelly@fl_mkelly_r400_win_laptop Change 113179 on 2003/07/25 by ashishs@fl ashishs r400 win Validate upper SIMD1/0 bits for pipe disable corrected the time formatting in output Change 113593 on 2003/07/28 by ashishs@fl_ashishs_r400_win Change 113176 on 2003/07/25 by ashishs@fl ashishs r400 win adding Todd to email list updated to create the statistics page based on the tracket Change 113470 on 2003/07/28 by mkelly@fl_mkelly_r400_win_laptop Change 113154 on 2003/07/25 by csampayo@fl_csampayo2_r400 Checkpoint... Correct test _01 to use IM_LOAD for loading shaders and, add 3 new test with different Change 113444 on 2003/07/27 by ashishs@fl_ashishs_r400_win Page 145 of 510 Page 146 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history dumped (When Z is NOT Fast expanded but Stencil IS, the actual stencil Change 113145 on 2003/07/25 by ashishs@fl ashishs r400 win value does not get written to the Depth Buffer and hence the tile buffer is needed) merging the statistics data generated from report with the tracker also sorting records with test status (PASS/FAIL) Change 112925 on 2003/07/24 by omesh@omesh r400 linux marlboro tott Change 113126 on 2003/07/25 by mkelly@fl mkelly r400 win laptop Added Depth Clear register programming. John/Paul, please verify that this problem is now fixed. Validate new state bit, SC_LINE_CNTL.LAST_PIXEL behaviour Change 112916 on 2003/07/24 by cbrennan@cbrennan_r400_emu Change 113071 on 2003/07/24 by csampayo@fl csampayo2 r400 Added a check for system memory allocation to tests so prevent malloc failing even when Update for non-zero FB start wrt depth buffer setup it would compress into the frame buffer just fine. Change 113023 on 2003/07/24 by ashishs@fl_ashishs_r400_win Change 112898 on 2003/07/24 by ashishs@fl_ashishs_r400_win initial checkin for script which will get the TRACKER data and update it on the web initial checkin for script which will update a centralised tracker located at TBD based on each one's regression rur Change 112997 on 2003/07/24 by ashishs@fl_ashishs_r400_win Change 112888 on 2003/07/24 by mkelly@fl mkelly r400 win laptop using a different way to output runTimes in the Excel PA SU VTX CNTL Round and Quantization variations. Change 112984 on 2003/07/24 by liefebvr@ilefebvre_laptop_r400_emu Change 112821 on 2003/07/23 by ashishs@fl_ashishs_r400_win Fixing test that wasn't initializing all GPR fields before exporting corrected the scaling on the tests to match r390 Change 112980 on 2003/07/24 by mkelly@fl_mkelly_r400_win_laptop Change 112805 on 2003/07/23 by ashishs@fl_ashishs_r400_win Update undating the test list as according to all other test lists with a newline at the end for now Change 112966 on 2003/07/24 by mkelly@fl_mkelly_r400_win_laptop Later on I will change my script to handle this. Change 112792 on 2003/07/23 by ashishs@fl_ashishs_r400_win Extensive round mode testing...

updating the newly added SIN / COS tests

Change 112788 on 2003/07/23 by ashishs@fl_ashishs_r400_win

adding more sin tests after converting from r390

Change 112784 on 2003/07/23 by csampayo@fl_csampayo_r400

Forgot to save updates

Change 112781 on 2003/07/23 by csampayo@fl_csampayo_r400

Add r400vgt vtx export very very simple 05 to 10 tests, sort list

Change 112778 on 2003/07/23 by mkelly@fl_mkelly_r400_win_laptop

Page 148 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Again, modified the condition under which the Tile Buffer is needed: When Stencil is Fast Expanded, this is not reflected in the Depth Buffer, it is only done in the Tile Buffer, so even when Stencil Expand is done, this means the Depth Buffer is not Fully Expanded and hence the Tile Buffer. Tile Buffer is needed. Change 112946 on 2003/07/24 by omesh@omesh r400 linux marlboro tott Added an additional condition under which the Tile Buffer needs to be Page 147 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

Change 112965 on 2003/07/24 by smoss@smoss crayola linux orl

Change 112950 on 2003/07/24 by omesh@omesh r400 linux mariboro tott

removed die, added gold

AMD1044 0258270

Update..

Change 112777 on 2003/07/23 by ashishs@fl_ashishs_r400_win

adding tests converted from r390

Change 112771 on 2003/07/23 by tmartin@tmartin_r400_win

Tests the VC's dynamic range when addressing vertex buffers stored in PCI memory.

Change 112764 on 2003/07/23 by ashishs@fl ashishs r400 win

changed the frame buf background color to match r390

Change 112761 on 2003/07/23 by csampayo@fl csampayo2 r400

Updated for FB start and added missing vtx I and pix I shaders

Change 112714 on 2003/07/23 by ashishs@fl_ashishs_r400_win

adding test for newly added COS opcode. (converted from r390 Carlos's test)

Change 112707 on 2003/07/23 by ashishs@fl_ashishs_r400_win

Adding test for newly added SIN opcode in emulator (converted from Carlos's r390 test)

Change 112685 on 2003/07/23 by cbrennan@cbrennan_r400_release

Fixed test so that cubic dimension was properly loaded into constant before calling aetAllocationSizeInBvtes.

Change 112675 on 2003/07/23 by rmanapat@rmanapat r400 sun mariboro

Fix should reduce how long the test runs

Change 112654 on 2003/07/23 by csampayo@fl_csampayo2_r400

Minimum number of cases that cause problem

Change 112634 on 2003/07/23 by mkelly@fi_mkelly_r400_win_laptop

VC is always on, always use variable FB start (non-zero).

Change 112615 on 2003/07/23 by ashishs@fl ashishs r400 win

Regress r400 script Update:

1. In the Summary report add Regression Start Time and Regression End time

Page 149 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

2. In the Summary report add Total Emulator Elapsed Time for Each Block. So Each block will have the time it used for regressions.

3. Also in "s" option for the regress r400 script now it doesn't search for the sync. It will accept the sync number from parameter command line and then stamp it on the output directory. Also the code for finding the sync number, still exists but the "s" option will no longer use that code.

4. Option "p" for publishing to the web will work the same way it has been working and

Change 112598 on 2003/07/23 by smoss@smoss_crayola_linux_orl

creating golds for one test

Change 112523 on 2003/07/22 by csampayo@fl_csampayo_r400

Add flush before dumping image

Change 112517 on 2003/07/22 by tmartin@tmartin r400 win

Tests the VC's address range when addressing vertex buffers stored in AGP memory.

Change 112516 on 2003/07/22 by csampayo@fl_csampayo_r400

Add flush before dumping image

Change 112501 on 2003/07/22 by csampayo@fl_csampayo2_r400

Update for non-zero FB start

Change 112476 on 2003/07/22 by mkelly@fl_mkelly_r400_win_laptop

Invalidate V

Change 112461 on 2003/07/22 by mkelly@fl_mkelly_r400_win_laptop

Quant mode stepping postion in 1/32 steps, varying quantization

Change 112457 on 2003/07/22 by csampayo@fl_csampayo2_r400

Update for non-zero FB start

Change 112426 on 2003/07/22 by mkelly@fl mkelly r400 win laptop

Validate quant modes 1/16, 1/8, 1/4, 1/2, 1

Change 112409 on 2003/07/22 by ashishs@fl_ashishs_r400_win

added test for setgt instruction with scalar vector and coissue instructions

Page 150 of 510

Ex. 2052 --- R400 Testing FH --- foler_history

Change 112380 on 2003/07/22 by csampayo@fl_csampayo2_r400

Updated pattern for testing

Change 112356 on 2003/07/22 by jyarasca@jyarasca_r400_win_cvd

Makefile changes: WLOPTS, ULOPTS, LFLAGS_WIN, and LFLAGS_SUN variables need only be assigned to S(DEPTM)auto/bin now since. dll and .lib are all copied to that directory

Change 112350 on 2003/07/22 by ashishs@fl ashishs r400 win

finalising tes

Change 112342 on 2003/07/22 by ashishs@fl_ashishs_r400_win2

initial checkin

Change 112339 on 2003/07/22 by mkelly@fl_mkelly_r400_win_laptop
Update
Change 112332 on 2003/07/22 by llefebvr@llefebvre_laptop_r400_emu

I had the old output order for cube: ma,faceid,sc,tc. I changed it for the new one: to so ma faceid

Change 112322 on 2003/07/22 by mkelly@fl_mkelly_r400_win_laptop

Add sx rb.dmp compare for a test, modify regress script to handle it

Change 112312 on 2003/07/22 by jayw@jayw_r400_linux_marlboro

Hooking up register read logic. removed dummy memory from rb_rbt_fragment_fifo.v

Change 112254 on 2003/07/21 by llefebvr@llefebvre_laptop_r400_emu

This is the CUBE opcode change that takes into account the recent HW change. I also modified one test case that was wrongfully picking W as the FACEID (it is Y).

Change 112249 on 2003/07/21 by ashishs@fl_ashishs_r400_win2

updating shaders and test

Change 112226 on 2003/07/21 by tmartin@tmartin_r400_win

Tests the VC's dynamic range when addressing vertex buffers stored in a 32 MB frame buffer.

Page 151 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 112225 on 2003/07/21 by tmartin@tmartin_r400_win

Tests the VC's dynamic range when addressing vertex buffers stored in a 64 MB frame buffer

Change 112224 on 2003/07/21 by tmartin@tmartin_r400_win

Tests the VC's dynamic range when addressing vertex buffers stored in a 128 MB frame buffer

Change 112223 on 2003/07/21 by tmartin@tmartin r400 win

Tests the VC's dynamic range when addressing vertex buffers stored in a 256 MB frame

Change 112221 on 2003/07/21 by tmartin@tmartin_r400_win

 $Tests \ the \ VC's \ dynamic \ range \ when \ addressing \ vertex \ buffers \ stored \ in \ the \ frame \ buffer.$

 $Change~112212~on~2003/07/21~by~kryan@kryan_r400_win_marlboro_XP$

Fix missing; at end of line in shaders

Change 112197 on 2003/07/21 by mkelly@fl_mkelly_r400_win_laptop

Invalidate vc

Change 112177 on 2003/07/21 by mkelly@fl_mkelly_r400_win_laptop

Updates, including invalidating the VC and hos reuse depth setting...

Change 112133 on 2003/07/21 by mkelly@fl_mkelly_r400_win_laptop

Update HOS reuse..

Change 112119 on 2003/07/21 by mkelly@fl_mkelly_r400_win_laptop

Change vs_export from 4 to 3..

Change 112104 on 2003/07/21 by mkelly@fl_mkelly_r400_win_laptop

Update...

Change 112089 on 2003/07/21 by mkelly@fl_mkelly_r400_win_laptop

Prim type detection on RT and non-RT update...

Change 112088 on 2003/07/21 by askende@askende_r400_linux_marlboro

Page 152 of 510

updated the cube tests to comply with the new definition of the CUBE instruction Increased ranges of most tc random tests. Change 111988 on 2003/07/18 by csampayo@fl csampayo2 r400 Change 111663 on 2003/07/17 by omesh@omesh r400 linux marlboro only devel Updated export mode pattern Since Primlib adds a restriction that surface heights need to be 32 aligned, I had to Change 111979 on 2003/07/18 by ashishs@fl ashishs r400 win range from 256 bytes to 256*32 bytes. The tests now don't assert, although we are dumping unnecessarily larger
chunks of memory. Later, maybe Kevin Ryan could introduce an "overide" bit that doesn't require surface heights Change 111975 on 2003/07/18 by csampayo@fl csampayo r400 to be multiples of 32 I also fixed a bug in which the correct area of memory was not being identified (Framebuffer base address was not being added into the full device address) Adding point size export mode test. Updated test_list and test tracker accordingly. Change 111955 on 2003/07/18 by mkelly@fl mkelly r400 win laptop Change 111661 on 2003/07/17 by ashishs@fl ashishs r400 win Update.. Change 111951 on 2003/07/18 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 111658 on 2003/07/17 by ashishs@fl ashishs r400 win Tests for extra format coverage updated so that could do 128 points/pixels per packet therby filling up shader pipes Change 111944 on 2003/07/18 by mkelly@fl_mkelly_r400_win_laptop Change 111657 on 2003/07/17 by georgev@devel georgev r400 lin2 marlboro tott Changed frame_buffer for multicontext texture tests. Change 111937 on 2003/07/18 by ashishs@fl_ashishs_r400_win Change 111655 on 2003/07/17 by mkelly@fl_mkelly_r400_win_laptop adding vector, scalar and coissue instructions Added a separate RT shader for unique param_gen scenarios when comparing Change 111910 on 2003/07/18 by mkelly@fl_mkelly_r400_win_laptop Change 111654 on 2003/07/17 by mkelly@fl mkelly r400 win laptop Revised tests.. Change 111753 on 2003/07/17 by ashishs@fl_ashishs_r400_win Checkpoint on upgrading this test .. added shaders for vector, scalar and coissue instructions using the same test Change 111636 on 2003/07/17 by ashishs@fl_ashishs_r400_win Change 111731 on 2003/07/17 by mkelly@fl mkelly r400 win laptop added vector scalar and coissue shaders Converted test to PM4 and support two pixel shaders... Change 111591 on 2003/07/17 by mkelly@fl_mkelly_r400_win_laptop Change 111723 on 2003/07/17 by jayw@jayw_r400_linux_marlboro Change vs_eport from 4 to 3 on the non-RTS and modify test to work for gpr destination 4 instead of 5 for the generated parameter. This allows the non-RTS and RTS pixel shader to be Change 111720 on 2003/07/17 by cbrennan@cbrennan r400 emu Change 111546 on 2003/07/16 by cbrennan@cbrennan_r400_emu Added utils to calculate allocation sizes of maps in bytes. Page 153 of 510 Page 154 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Add more formats for support to getSize_bits and adjust test to properly deal with DXT size calculations. Fix buffers to work with variable FB Change 111539 on 2003/07/16 by ashishs@fl_ashishs_r400_win Change 111349 on 2003/07/16 by mkelly@fl_mkelly_r400_win_laptop using the same test without changing the output to render 128 pixels/points at a time in a Update Z_BASE to work with variable FB.. packet thereby filling up shader pipes Change 111346 on 2003/07/16 by kevino@kevino r400 emu Change 111511 on 2003/07/16 by jhoule@jhoule_r400_win_lt Added validateTexDim() function- tells if tfc dimension is OK for the data format Updated example file with new vtx fields Change 111334 on 2003/07/16 by ashishs@fl ashishs r400 win2 Change 111500 on 2003/07/16 by mkelly@fl_mkelly_r400_win_laptop updated tests replacing Write_To_Memory function Updated simple reference test to work with variable FB start... Change 111272 on 2003/07/15 by mkelly@fl_mkelly_r400_win_laptop Change 111493 on 2003/07/16 by ashishs@fl ashishs r400 win Fix Z_BASE to work with variable FB updated tests same as previous with scalar, vector and coissue shaders Change 111263 on 2003/07/15 by mkelly@fl mkelly r400 win laptop Change 111490 on 2003/07/16 by mkelly@fl_mkelly_r400_win_laptop Fix Z BASE for variable FB Simple Triangle with POS, COLOR, NORMAL, does a VS_DONE_TS event at end of Change 111253 on 2003/07/15 by mkelly@fl_mkelly_r400_win_laptop Change 111459 on 2003/07/16 by ashishs@fl ashishs r400 win Fix Z BASE to work with variable FB start... added shaders for scalar vector and coissue in the same tes Change 111242 on 2003/07/15 by jhoule@jhoule_r400_win_lt Change 111458 on 2003/07/16 by cbrennan@cbrennan r400 emu Added support for various other interesting primitives... Increased ranges to 2kx2kx1k while decreasing size limit to 64meg. Change 111240 on 2003/07/15 by tmartin@tmartin_r400_win Change 111431 on 2003/07/16 by ashishs@fl ashishs r400 win added r400vc addr alignment 01 noticed that wasnt using w channel in scalar instructions and updated to use w channel as Change 111235 on 2003/07/15 by tmartin@tmartin_r400_win update Change 111423 on 2003/07/16 by ashishs@fl_ashishs_r400_win Change 111225 on 2003/07/15 by ashishs@fl_ashishs_r400_win adding 3 shaders for the test with each shader being the same except they differ as being coissue or vector or scalar shaders therby covering all types of instructions with KILLGT in a changed the Write_to_memory function. shouldnt affect test Change 111212 on 2003/07/15 by ashishs@fl ashishs r400 win Change 111376 on 2003/07/16 by mkelly@fl_mkelly_r400_win_laptop replacing Write_To_Memory function with new primlib function. Shouldnt affect test Change 111210 on 2003/07/15 by kevino@kevino_r400_linux_marlboro Change 111375 on 2003/07/16 by mkelly@fl_mkelly_r400_win_laptop Page 155 of 510 Page 156 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258272

failed image Change 111209 on 2003/07/15 by mkelly@fl mkelly r400 win laptop Change 110981 on 2003/07/14 by kevino@kevino_r400_linux_marlboro Fix Z BASE to work with variable FB to perf 2d test but with 4 textures. They use the same coords, format, etc. Change 111208 on 2003/07/15 by mkelly@fl_mkelly_r400_win_laptop Change 110975 on 2003/07/14 by ashishs@fl_ashishs_r400_win2 forgot to update this test for write_to_memory function Change 111194 on 2003/07/15 by omesh@omesh_r400_linux_marlboro_only_devel Change 110973 on 2003/07/14 by ashishs@fl ashishs r400 win Added RB register Read/Write tests, however, haven't yet incorporated Read/Write Masks and masks to ignore reserved bits in registers. This information is not easily extractable from Autoreg even if it does updated test description as well as shaders exist, so I will add in the masks later Change 110969 on 2003/07/14 by ashishs@fl ashishs r400 win Also, I haven't yet incorporated a tracker (if one exists) for the Host interface to the registers, or found a way to put a test in "test determined pass/fail mode". updated test description and shader There are 102 registers which I may trim down later Change 110951 on 2003/07/14 by csampayo@fl_csampayo2_r400 The tests currently don't pass, even though the script calls it a Cleanup cpp, remove co-issue from pix shader, fix vtx shader since, it was using r32 instead of r35 for predicate condition. Change 111165 on 2003/07/15 by hartogs@fl_hartogs2 Change 110946 on 2003/07/14 by ashishs@fl ashishs r400 win CHanged the HOS_REUSE_DEPTH to reflect the pipe configuration. Change 111130 on 2003/07/15 by ashishs@fl_ashishs_r400_win Change 110931 on 2003/07/14 by ashishs@fl_ashishs_r400_win sortine test list removing unwanted code Change 111126 on 2003/07/15 by ashishs@fl_ashishs_r400_win Change 110929 on 2003/07/14 by ashishs@fl ashishs r400 win updating test description as well as pix shader to output the value produced in the output Change 111035 on 2003/07/14 by ashishs@fl_ashishs_r400_win disabling auto_wrapping_memories test for now Change 110927 on 2003/07/14 by mkelly@fl_mkelly_r400_win_laptop Change 111016 on 2003/07/14 by georgev@devel_georgev_r400_lin2_marlboro_tott Add vc_sq.dmp Change 110921 on 2003/07/14 by mkelly@fl_mkelly_r400_win_laptop Added 128 bit hi color tests and lists for coverage Change 110996 on 2003/07/14 by tmartin@tmartin_r400_win Tests writing and displaying vertex buffers to all 16 dword alignments in the VC. Change 110911 on 2003/07/14 by mkelly@fl_mkelly_r400_win_laptop Change 110994 on 2003/07/14 by ashishs@fl ashishs r400 win Fix to work with variable FB start... Page 158 of 510 Page 157 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 110901 on 2003/07/14 by ashishs@fl_ashishs_r400_win Tests address dword alignment in the Vertex Cache. using the same test as killge but making sure that that when SRC A and B have equal values the pixel isnt killed... Change 110580 on 2003/07/11 by mkelly@fl_mkelly_r400_win_laptop Change 110891 on 2003/07/14 by ashishs@fl_ashishs_r400_win2 Update for FB start variable. updating tests replacing the new Write_To_Memory function with the new primible function. Also cleaning out wait_gfx_idle from inside the loop and adding gfx_idle_no_flush if write_to_memory(index_buffer_ptr) present Change 110571 on 2003/07/11 by ashishs@fl ashishs r400 win updated such that now the shader kills every other alternate 4th pixel out of 500 points Each point is mapped as a pixel with the color register containing data to either kill or save the pixel. The 512 consants and the shader have been setup such a way that it kills 3 pixels and Change 110856 on 2003/07/14 by ashishs@fl_ashishs_r400_win outputs every other alternate 4th pixel. carefully selecting a set of pixel to be killed using constants and kill logic in pixel shader Change 110539 on 2003/07/11 by mkelly@fl_mkelly_r400_win_laptop Change 110837 on 2003/07/14 by mkelly@fl mkelly r400 win laptop Update.. Update.. Change 110523 on 2003/07/11 by llefebvr@llefebvr_r400_emu_montreal Change 110790 on 2003/07/14 by mkelly@fl mkelly r400 win laptop Fixing shader. Was using address register wihout doing a mova at all! Change 110515 on 2003/07/11 by mkelly@fl_mkelly_r400_win_laptop Change 110685 on 2003/07/12 by ashishs@fl_ashishs_r400_win tesselation level ovveride added... updating test to have the same output as the kille using different set of constants than kille test and modifying the pix shader $\frac{1}{2} \int_{\mathbb{R}^{n}} \frac{1}{2} \left(\frac{1}{2} \int_{\mathbb{R}^{n}} \frac{1}{2$ Change 110505 on 2003/07/11 by tien@tien_r400_devel_marlboro Change 110600 on 2003/07/11 by ashishs@fl_ashishs_r400_win tp_lod_deriv fix (denorms -> 0 in fp_fast_mult_dno) formatter fix (1.0 detection for 32- and 16- bit channels) Change 110502 on 2003/07/11 by smoss@smoss_crayola_linux_orl Change 110593 on 2003/07/11 by mkelly@fl_mkelly_r400_win_laptop update Fix vs eport Change 110501 on 2003/07/11 by ashishs@fl_ashishs_r400_win Change 110592 on 2003/07/11 by mkelly@fl_mkelly_r400_win_laptop added tests Change VS EXPORT from 4 to 3 for 4 parameters Change 110468 on 2003/07/11 by mkelly@fl_mkelly_r400_win_laptop Change 110586 on 2003/07/11 by tmartin@tmartin_r400_win Vertex shader for testing address dword alignment in the Vertex Cache Change 110466 on 2003/07/11 by jhoule@jhoule r400 linux marlboro Change 110585 on 2003/07/11 by trnartin@trnartin_r400_win Set the execute bit in the permission Pixel shader for testing address dword alignment in the Vertex Cache Change 110445 on 2003/07/11 by mkelly@fl_mkelly_r400_win_laptop Change 110584 on 2003/07/11 by tmartin@tmartin r400 win Page 159 of 510 Page 160 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

updating the remaining failed SU tests and making sure that the update doesnt affect the

Added 1D and 3D textures.

another clip polymode line fill persp test with one edge going thru frustum corner. also each 2 edges having equal w's to each other Change 110433 on 2003/07/11 by ashishs@fl ashishs r400 win adding 4 cases, one for each frustum corner Change 110229 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Change 110430 on 2003/07/11 by mkelly@fl mkelly r400 win laptop Change 110208 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Change 110412 on 2003/07/11 by ashishs@fl ashishs r400 win another line polymode frustum clipping perspective test Change 110197 on 2003/07/10 by kevino@kevino_r400_win_marlboro Change 110411 on 2003/07/11 by ashishs@fl_ashishs_r400_win2 Had to rebuild the other files from the telist file $updated more than 300 \; CL/VTE \; tests \; with \; a \; new \; function \; that \; replaces \\ Write \; To \; \underline{Memory \; function}. \; Also \; had \; to \; get \; wait \; \underline{gfx} \; \underline{i} dle \; outside \; loop \; and \; no \; \underline{flush \; inside \; loop \; if \; write \; \underline{to} \; \underline{memory \; index} \; \underline{buffer} \; \underline{ptr} \;$ Change 110196 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Updated to work with variable FB start... Change 110385 on 2003/07/11 by ashishs@fl ashishs r400 win2 Change 110195 on 2003/07/10 by kevino@kevino r400 win marlboro needed to capitalize FLOAT in format Change 110306 on 2003/07/10 by csampayo@fl_csampayo2_r400 Change 110186 on 2003/07/10 by csampayo@fl_csampayo2_r400 Remove accessing same register in co-issue instruction by removing scalar part Change 110182 on 2003/07/10 by csampayo@fl_csampayo2_r400 Change 110303 on 2003/07/10 by ashishs@fl_ashishs_r400_win renaming a test and also adding multiple cases to clip on all the frustum corners Disable VC caches Change 110171 on 2003/07/10 by kevino@kevino_r400_win_marlboro Change 110284 on 2003/07/10 by cbrennan@cbrennan r400 emu added all testcases previously available in fmt8888 to the rest of the existing formats Change 110277 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Change 110169 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Update. Update to work with variable FB start... Change 110276 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Change 110141 on 2003/07/10 by ashishs@fl_ashishs_r400_win another polymode line filled test with diff frustum settings Change 110270 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Change 110139 on 2003/07/10 by ashishs@fl ashishs r400 win Invalidate VC for vertex buffer updating. another polymode enabled line fill test with different frustum settings Change 110249 on 2003/07/10 by ashishs@fl_ashishs_r400_win Change 110134 on 2003/07/10 by mkelly@fl_mkelly_r400_win_laptop Page 161 of 510 Page 162 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Update for variable FB start.. Change 109937 on 2003/07/09 by mkelly@fl_mkelly_r400_win_laptop Change 110067 on 2003/07/09 by jhoule@jhoule_r400_win_lt Update to work with any frame buffer address. Removed extension; changed format to 8888 instead of 2101010 (which can't be filtered Change 109877 on 2003/07/09 by mkelly@fl mkelly r400 win laptop anyways). Change 110054 on 2003/07/09 by ashishs@fl_ashishs_r400_win Update offset from FB adding chris to the email_list Change 109869 on 2003/07/09 by mkelly@fl mkelly r400 win laptop Change 110051 on 2003/07/09 by csampayo@fl_csampayo2_r400 Change test to work with variable frame buffer start... Change 109813 on 2003/07/08 by llefebvr@llefebvr_r400_emu_montreal Forgot to cleanup this one. Change 110050 on 2003/07/09 by ashishs@fl ashishs r400 win Adding a test case to mova tests.cpp. Change 109802 on 2003/07/08 by vgoel@fl_vgoel2 Change 110048 on 2003/07/09 by csampayo@fl_csampayo2_r400 fixed for not using uninitialized GPR. Update for multiple discrete vertex buffers Change 109769 on 2003/07/08 by cbrennan@cbrennan_r400_linux_marlboro Change tests to write unique filenames and delete them when finished. Fixes random Change 110034 on 2003/07/09 by ashishs@fl ashishs r400 win see-faults test carried out according to Mike Mang and Carlos's requirements that show that the clipping still fails when polymode line fill is enabled with 2 vertices of a triangle having the same w wheras another vertex having \overline{a} different w. Change 109765 on 2003/07/08 by georgev@devel_georgev_r400_lin2_marlboro_tott Support of 16 bit textures and coverage for TC. Change 110001 on 2003/07/09 by llefebvr@llefebvr r400 emu montreal Change 109734 on 2003/07/08 by mkelly@fl_mkelly_r400_win_laptop Fixing shader, mova and use of mova separated by a clause boundary Update.. Change 109999 on 2003/07/09 by cbrennan@cbrennan r400 emu Change 109733 on 2003/07/08 by mkelly@fl_mkelly_r400_win_laptop Width and height needed to be padded to pitches for randoms. Change 109972 on 2003/07/09 by mkelly@fl mkelly r400 win laptop Change 109731 on 2003/07/08 by smoss@smoss_crayola_linux_orf Update for FB link all subordinate files Change 109968 on 2003/07/09 by ashishs@fl ashishs r400 win Change 109727 on 2003/07/08 by mkelly@fl mkelly r400 win laptop initial checkin for the kille test

Change 109963 on 2003/07/09 by omesh@omesh_r400_linux_marlboro_only_devel

Framebuffer was being set twice (incorrectly the 2nd time). Fixed the

Page 163 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Ex. 2052 --- R400 Testing FH ---foler_history

Change 109722 on 2003/07/08 by mkelly@fl mkelly r400 win laptop

Page 164 of 510

Change 109200 on 2003/07/03 by ashishs@fl_ashishs_r400_win Change 109695 on 2003/07/08 by mkelly@fl mkelly r400 win laptop using PRED_SETE_PUSH description for PRED_SETNE_PUSH instruction Change 109198 on 2003/07/03 by ashishs@fl_ashishs_r400_win Change 109684 on 2003/07/08 by mkelly@fl mkelly r400 win laptop added much needed description to the test. Make new VB each time the VB is updated, work in progress on a few new tests. Change 109175 on 2003/07/03 by ashishs@fl ashishs r400 win Change 109600 on 2003/07/07 by ashishs@fl_ashishs_r400_win updated test-list and trackers adding PRED_SETGT_PUSH test (same as SETGE test with modification to the vtx shader). Also correcting description in the SETGE test Change 109152 on 2003/07/03 by ashishs@fl_ashishs_r400_win added tests Change 109569 on 2003/07/07 by ashishs@fl ashishs r400 win2 Change 109134 on 2003/07/03 by georgev@devel_georgev_r400_lin2_marlboro_tott updated tests as per new function put in by kevin ryan in primlib repacing Write_To_Memory function More support for larger textures. Change 109553 on 2003/07/07 by ashishs@fl ashishs r400 win Change 109125 on 2003/07/03 by ashishs@fl_ashishs_r400_win shrinking more images for faster hardware run These 2 tests changed after change #98332. I was accessing uninitialised color array value which started to give error color values when the service pack for VC was installed in dk_win folder. Hence corrected the color array to correctly have all color values and also kind of rearranged the colors so that in future could better identify if problem occurs. Change 109549 on 2003/07/07 by ashishs@fl ashishs r400 win shrinking test sizes to run faster in hardwar Change 109105 on 2003/07/03 by cbrennan@cbrennan_r400_emu Change 109513 on 2003/07/07 by cbrennan@cbrennan_r400_win_mariboro Enable mip packing in ferret. Enable mip packing in directed tests. Mip packing bug fixes in HW. Fix 2d random cases from erroring out. Enable tiled 2d unit test. Change 109497 on 2003/07/07 by mkelly@fl_mkelly_r400_win_laptop Change 109063 on 2003/07/03 by georgev@devel_georgev_r400_lin2_marlboro_tott Update PrimLib function call to make new VB each packet Change 109462 on 2003/07/07 by cbrennan@cbrennan_r400_linux_marlboro Change 109062 on 2003/07/03 by georgev@devel_georgev_r400_lin2_marlboro_tott Turn off dumpPPMs Fixed texture offset Change 109388 on 2003/07/05 by ashishs@fl ashishs r400 win Change 109016 on 2003/07/03 by cbrennan@cbrennan r400 linux marlboro Fix testcase name mismatch Change 109387 on 2003/07/05 by ashishs@fl_ashishs_r400_win Change 108972 on 2003/07/02 by omesh@omesh_r400_linux_marlboro_code_cover updated test description Modified all tests to include full device address into all base address register programming. Did a simple compile for all Page 165 of 510 Page 166 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history these tests, but haven't verified run time results.... Should be the same, as I have followed Change 108714 on 2003/07/01 by ashishs@fl ashishs r400 win2 all primlib and register guidelines changed pix shader to offset recent change in emulator and also run correctly on Change 108919 on 2003/07/02 by ashishs@fl_ashishs_r400_win hardwar Using the same test as in the clipper for line texture problem and disable clipping for SU Change 108707 on 2003/07/01 by omesh@omesh r400 linux marlboro code cover Allowed Framebuffer Base address to be relocatable by adding in the base into the complete device address used by Color Buffer registers. Verified that the framebuffer still dumps correctly. Will do the other Change 108916 on 2003/07/02 by ashishs@fl_ashishs_r400_win test samne as line_barycentric_clip_perspective_actualClip_01 but with 2 ucp clipping planes clipping off portions at desired location tests in batches. Change 108895 on 2003/07/02 by ashishs@fl_ashishs_r400_win Change 108695 on 2003/07/01 by cbrennan@cbrennan_r400_linux_marlboro added some variables related to synching top level devel dir files and also to sync the Removed size multiple of 4 restrictions from DXT. dk_win dir. Also added the option to make clean and clobber Change 108688 on 2003/07/01 by cbrennan@cbrennan_r400_win_marlboro Change 108859 on 2003/07/02 by donaldl@donaldl_crayola_linux_orl Turned on more formats, gamma, and added testcase tri128 tex4 fb32x32 Added wait gfx idle after plgx init. Backed out previous change. Change 108687 on 2003/07/01 by omesh@omesh_r400_linux_marlboro_only_devel Change 108793 on 2003/07/01 by ashishs@fl_ashishs_r400_win2 Added the missing SMASK enable programming. In the test, other stencil changed the shader to go back to the failed status related programming depended on this bit, so they should all work now Haven't tested the fix though. Relying on Paul Vella to try it out. Change 108788 on 2003/07/01 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 108646 on 2003/06/30 by hartogs@fl_hartogs2 Added new tests Reversing my previous check-in. Accidentally overwrote. Change 108782 on 2003/07/01 by csampayo@fl_csampayo2_r400 Change 108593 on 2003/06/30 by jayw@jayw_r400_linux_marlboro Updated SU test for TP accuracy. Added ME_INT packet to enable RTS in VGT test

Change 108775 on 2003/07/01 by ashishs@fl_ashishs_r400_win

created test case according to Carlos's spec to determine problem in Clipper

Change 108758 on 2003/07/01 by hartogs@fl hartogs2

Changed vertex reuse depth to a legal value

Change 108755 on 2003/07/01 by omesh@omesh r400 linux marlboro code cover

Fixed a bug related to Framebuffer start address.

Change 108747 on 2003/07/01 by llefebvr@llefebvr r400 emu montreal

Bad GPR allocation in the shader was not allocating enough GPRS.

Page 167 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Adding 16 bit pixel mask through DB. NOTE: db_stdrfsdks2p8x136cm1sw0 is now db_stdrfsdks2p8x152cm1sw0

Change 108576 on 2003/06/30 by jhoule@jhoule_r400_linux_marlboro

Now stripping executables...

Change 108559 on 2003/06/30 by omesh@omesh r400 linux marlboro only devel

Making surfaces compliant with Primlib's requirement for multiple of tile sized surfaces to handle assertions. Haven't tested this yet but need to recreate new Perforce client to move to new serve

Change 108540 on 2003/06/30 by csampayo@fl csampayo2 r400

Added DISABLE PERSPECTIVE and DEBUG controls and did some cleanup

Page 168 of 510

Change 108508 on 2003/06/30 by ashishs@fl ashishs r400 win Update to write vertex buffers to unique addresses limiting num of vertcies to 128 to speed up the test Change 108163 on 2003/06/26 by rmanapat@rmanapat_r400_sun_marlboro Change 108425 on 2003/06/27 by georgev@devel_georgev_r400_lin2_marlboro_tott Changed Clamp Policy for these tests except for the cubic tests which already had the clamp_clamptolast policy set on the x and y coords Change 108156 on 2003/06/26 by ashishs@fl ashishs r400 win Change 108423 on 2003/06/27 by ashishs@fl_ashishs_r400_win testing pred_sete_push instruction on the predicate value as well as the result in the initial checkin for PRED SETGE PUSH test output of the comparison Change 108313 on 2003/06/27 by mkelly@fl_mkelly_r400_win_laptop Change 108154 on 2003/06/26 by hartogs@fl_hartogs2 Honefully fixed VGT alloc/dealloc for multi-SIMD vector sets Temporarily remove r400sc_pm4_mp_ib_03 until invalidate VB bit is available toperating face were anoctocanted for infinites and vgt. cegen interface
Put pipedisable comments into several dump files.
Put an "Assert(0)" into the sq_block_model.cpp to prevent access violation. Change 108276 on 2003/06/27 by tien@tien_r400_devel_marlboro Fixed runme script yet again :-) More formatter fixes Change 108122 on 2003/06/26 by mkelly@fl_mkelly_r400_win_laptop Add fmt 10 11 11 case.. Change 108258 on 2003/06/27 by mkelly@fl mkelly r400 win laptop Change 108090 on 2003/06/26 by mkelly@fl mkelly r400 win laptop Create and use new VB on draw initiator fmt 10 11 11 on position, although all 3 verts are zero, TP returns non-zero data... Change 108257 on 2003/06/27 by mkelly@fl_mkelly_r400_win_laptop Change 108082 on 2003/06/26 by csampayo@fl_csampayo2_r400 Create and use new vertex buffer on each draw initiator... Update to use only the 3 valid indices from VGT Change 108248 on 2003/06/27 by mkelly@fl_mkelly_r400_win_laptop Change 108080 on 2003/06/26 by tien@tien r400 devel marlboro Fix case 11, add comments. Fixed mini-regress script for release * area usage Fixed large unnuomed coord handling (for a cp_e^2 test) .. for real this time I think) Misc sp_p formatter fixes Change 108211 on 2003/06/26 by csampayo@fl csampayo2 r400 Remove flushes and unnecessary waits between packets Change 108075 on 2003/06/26 by mkelly@fl_mkelly_r400_win_laptop Change 108197 on 2003/06/26 by ashishs@fl_ashishs_r400_win Get it right this time Changing the vertex shader of the pres sete push to use the same data for comparisons to yield similar results. Change 108074 on 2003/06/26 by mkelly@fl mkelly r400 win laptop Change 108181 on 2003/06/26 by tien@tien_r400_devel_marlboro Changed name to keep consistent with other tests in this directory... Formatter fixes Change 108035 on 2003/06/26 by ashishs@fl_ashishs_r400_win Change 108171 on 2003/06/26 by csampayo@fl_csampayo2_r400 updated description in the shaders Page 169 of 510 Page 170 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history Change 108010 on 2003/06/26 by mkelly@fl mkelly r400 win laptop Updated check method to work for rel area too Change 107731 on 2003/06/24 by ashishs@fl_ashishs_r400_win Change 107968 on 2003/06/25 by ashishs@fl_ashishs_r400_win updating test list entering COREECT description for CNDGT Change 107730 on 2003/06/24 by ashishs@fl ashishs r400 win 16 textures and no color displayed on POLYGON with clipping disabled/enabled and toggling between TRI_FILL and LINE_FILL and also permuting PA_SU_SC_MODE_CNTL_persp_corr_dis with primitive setup in perspective view. Change 107965 on 2003/06/25 by ashishs@fl_ashishs_r400_win entering the CORRECT DESCRIPTION for the test Change 107961 on 2003/06/25 by ashishs@fl_ashishs_r400_win Change 107705 on 2003/06/24 by ashishs@fl_ashishs_r400_win Added CORRECT description for the test combo test having 1 color with 4 cases viz tri_fill, pers_corr_dis(false) tri_fill, pers_corr_dis(true) line_fill, pers_corr_dis(false) Change 107949 on 2003/06/25 by vbhatia@vbhatia_r400_linux_marlboro Example usage stimulus file for standalone vc formatter testbench line fill, pers corr dis(true) Change 107928 on 2003/06/25 by ashishs@fl_ashishs_r400_win same except clipping setup completely removed from r400cl_polymode_persp_l color_combo_01 test. editing constant data in r400sq_cnde_01 to create the test which has the same test logic to Change 107703 on 2003/06/24 by ashishs@fl_ashishs_r400_win compare. combo test having 1 color with 4 cases viz tri_fill, pers_corr_dis(false) tri_fill, pers_corr_dis(true) Change 107890 on 2003/06/25 by ashishs@fl_ashishs_r400_win initial checkin for the CNDGE test, same as CNDE test, but changing the constant data so that the same logic of CNDE test could be used for the CNDGE test as well line fill, pers corr dis(false) Change 107867 on 2003/06/25 by tien@tien_r400_devel_marlboro Change 107689 on 2003/06/24 by mdoggett@mdoggett_r400_linux_local Added back date to output Forgot to update the stdout for sector mask 2 change Change 107859 on 2003/06/25 by ashishs@fl_ashishs_r400_win Change 107688 on 2003/06/24 by mdoggett@mdoggett_r400_linux_local editing r400sq_const_index_03 for coverage to create const_index_04 with diff being in vtx_shader which uses MAX instead of MOV to putput color Changed sector mask 2 by swapping right half of cacheline 8x2 to slice filter performance by giving the slice filter a 8x4 instead of the old 8x2 of contiguous pixels that an individual bilinear quad request can hit. Change 107852 on 2003/06/25 by ashishs@fl_ashishs_r400_win wasnt multiplying color with the result of comparisons (only poistion) Change 107671 on 2003/06/24 by mkelly@fl mkelly r400 win laptop Change 107790 on 2003/06/25 by cbrennan@cbrennan_r400_linux_marlboro Add 1 case for FMT_16_16_FLOAT Added 3d til fmt11-12 I back in. Change 107668 on 2003/06/24 by ashishs@fl ashishs r400 win Change 107776 on 2003/06/25 by tien@tien_r400_devel_marlboro Page 172 of 510 Page 171 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

initial checkin for CNDE test. The test checks 500 xyzw data on all components for onde Change 107423 on 2003/06/23 by ashishs@fl_ashishs_r400_win instruction with with switching between SRC B and SRC C registers as required by the test correcting test and making it eq to setne 01 Change 107665 on 2003/06/24 by tien@tien_r400_devel_marlboro Change 107419 on 2003/06/23 by ashishs@fl ashishs r400 win Added >1.0 mag clamp in formatter A few bug fixes with normalizer mux Added some features to tp_formatter regression script Updated tp4_tc mini regression script undating trackers and test list Change 107648 on 2003/06/24 by georgev@devel_georgev_r400_lin2_marlboro_tott Removed tiling from 1D texture tests Change 107612 on 2003/06/24 by georgev@devel_georgev_r400_lin2_marlboro_tott Removed shrinkage variable, to make tests larger Change 107611 on 2003/06/24 by georgev@devel georgev r400 lin2 marlboro tott Removed shrinking variable to bring tests up to full size. Change 107550 on 2003/06/23 by ashishs@fl_ashishs_r400_win testing polymode line_fill with textures Change 107548 on 2003/06/23 by ashishs@fl_ashishs_r400_win to test polymode line_fill with textures with clipping enabled for primitives... Change 107498 on 2003/06/23 by omesh@omesh_r400_linux_marlboro_only_devel Checkpoint... Added several hundred HiZ/HiStencil test combos Also changed some testcase names from *_zfail_* to *_znever_* and *_zpass_* to *_zalways_* Change 107458 on 2003/06/23 by jayw@jayw_r400_linux_marlboro Change 107432 on 2003/06/23 by rmanapat@rmanapat r400 sun mariboro Temp changes to these tests that allow only even sized texture maps Change 107424 on 2003/06/23 by jayw@jayw_r400_linux_marlboro pre move Page 173 of 510 Ex. 2052 --- R400 Testing FH --- foler history

Change 107280 on 2003/06/20 by vbhatia@vbhatia r400 linux marlboro changes for new tp_formatter and vc_formatter standalone testbenches Change 107273 on 2003/06/20 by ashishs@fl_ashishs_r400_win forgot to remove some debug statements Change 107272 on 2003/06/20 by ashishs@fl_ashishs_r400_win updated to change as per Carlos's requirements and verifying the image with r300 which doesn't match currently Change 107267 on 2003/06/20 by tien@tien_r400_devel_marlboro Added run privs Change 107257 on 2003/06/20 by tien@tien_r400_devel_marlboro Complewted first pass and vc part of formatter Made regression script more thorough Change 107247 on 2003/06/20 by mkelly@fl_mkelly_r400_win_laptop Change 107195 on 2003/06/20 by llefebvr@llefebvr_r400_emu_montreal Forgot to place back the right exporting register. Change 107194 on 2003/06/20 by llefebvr@llefebvr r400 emu montreal Fixing shader, it was doing ALU operations in a texture clause Change 107152 on 2003/06/20 by ashishs@fl ashishs r400 win changing the test to ouput 500 points instead of triangle list. Also removing textures from shaders and tests since wasn't necessary.. Change 107142 on 2003/06/20 by mdoggett@mdoggett_r400_linux_local Page 174 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Translate test to use shadow registers.. Change 106733 on 2003/06/18 by llefebvr@llefebvr_r400_emu_montreal changing parameters slightly Change 106712 on 2003/06/18 by jhoule@jhoule r400 linux marlboro Moving from hicolor to tp_hicolor subdirectory. Change 106708 on 2003/06/18 by jhoule@jhoule_r400_linux_marlboro Now strips binaries. Change 106694 on 2003/06/18 by jhoule@jhoule r400 linux marlboro Now stripping binaries Change 106687 on 2003/06/18 by smoss@smoss crayola win added to cover min max register Change 106686 on 2003/06/18 by mkelly@fl_mkelly_r400_win_laptop Minor comment update...Also note previous version, case buffers were modified to have more unique vertex and texture data per case. Change 106685 on 2003/06/18 by mkelly@fl mkelly r400 win laptop Cleaned up some build warnings by initializing buffers, turned off Change 106647 on 2003/06/17 by ashishs@fl ashishs r400 win initial checkin for the sete test Change 106620 on 2003/06/17 by mkelly@fl mkelly r400 win laptop Change 106619 on 2003/06/17 by mkelly@fl_mkelly_r400_win_laptop First release, testing 4 data formats

Added fetch_valid_only to pixel shader. Switched test back to 256x256 at 0,0

Change 107102 on 2003/06/19 by ashishs@fl_ashishs_r400_win

removing texture setup since wasnt necessary. Also adding point_list instead of triangle_list and diplaying >500 points thereby passing enough data to fill up the shader pipe..

Change 107101 on 2003/06/19 by csampayo@fl_csampayo2_r400

Updated for better visualizing clamped addrs reg values

Change 106982 on 2003/06/19 by csampayo@fl_csampayo_r400

nitial checkin

Change 106981 on 2003/06/19 by ashishs@fl_ashishs_r400_win

Adding SETNE test...

Change 106954 on 2003/06/19 by mkelly@fl_mkelly_r400_win_laptop

Update test, but still doesn't get pixels in the RB due to many recent changes...

Change 106944 on 2003/06/19 by mkelly@fl_mkelly_r400_win_laptop

 $Add\ test\ r400vgt_hos_pm4_01\ to\ regression$

Change 106943 on 2003/06/19 by mkelly@fl_mkelly_r400_win_laptop

Convert hos test from auto reg unions to shadow register useage Simplified includes further in vc data format 01.

Change 106897 on 2003/06/18 by tien@tien_r400_devel_marlboro

Added mip_packed output on tpc More fixed to formatter

Change 106894 on 2003/06/18 by ashishs@fl_ashishs_r400_win

forgot to remove the unused subroutine

Change 106893 on 2003/06/18 by ashishs@fl_ashishs_r400_win

updating the test. Now checks all the 512 constants on all the components, generating the result in a predetermined fashion to detect any errors if any...

Change 106748 on 2003/06/18 by mkelly@fl_mkelly_r400_win_laptop

Page 175 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

 $Change\ 106606\ on\ 2003/06/17\ by\ georgev@devel_georgev_r400_lin2_marlboro_tott$

Fixed multicontext texture tests.

Page 176 of 510

Change 106556 on 2003/06/17 by mkelly@fl_mkelly_r400_win_laptop Change 106294 on 2003/06/16 by ashishs@fl ashishs r400 win Checkpoint.. Change 106533 on 2003/06/17 by llefebvr@llefebvr_r400_emu_montreal Change 106291 on 2003/06/16 by ashishs@fl_ashishs_r400_win Changing name of test per Mike Kelly's request Change 106529 on 2003/06/17 by llefebvr@llefebvr r400 emu montreal Change 106288 on 2003/06/16 by mkelly@fl_mkelly_r400_win_laptop Cylindrical wrap precision test Remove 3 tests that break with new frame buffer address Change 106489 on 2003/06/17 by mkelly@fl_mkelly_r400_win_laptop Change 106280 on 2003/06/16 by mkelly@fl_mkelly_r400_win_laptop Checkpoint... Change 106484 on 2003/06/17 by mkelly@fl_mkelly_r400_win_laptop Change 106279 on 2003/06/16 by mkelly@fl mkelly r400 win laptop Add support for VC Change to work with new FB start, added RTS WAIT UNTIL Change 106480 on 2003/06/17 by mkelly@fl mkelly r400 win laptop Change 106278 on 2003/06/16 by mkelly@fl_mkelly_r400_win_laptop Remove empty line.. Update.. Change 106415 on 2003/06/16 by ashishs@fl_ashishs_r400_win Change 106107 on 2003/06/13 by ashishs@fl_ashishs_r400_win updating the test to perform all combinations of scalar operations like precision_mul_01 and also updating the test description testing precision for the add instruction Change 106413 on 2003/06/16 by ashishs@fl_ashishs_r400_win Change 106103 on 2003/06/13 by mkelly@fl mkelly r400 win laptop testing precision of MUL instruction. Also testing all combinations of scalar as well as Checkpoint, not ready for test vector operation in the same test. Change 106093 on 2003/06/13 by llefebvr@llefebvr r400 emu montreal Change 106389 on 2003/06/16 by csampayo@fl_csampayo_r400 Emulator now clamps the address register to the range -256...255 Updated test description Change 106033 on 2003/06/13 by smoss@smoss_crayola_linux_orl Change 106371 on 2003/06/16 by mkelly@fl mkelly r400 win laptop unix output is \$user, and compressed Change 105938 on 2003/06/12 by ashishs@fl_ashishs_r400_win testing Constant memory to output buffers data path. Needed to explicitly allocate position and parameter in shader. Also needed to reassign the address register after position allloc? Change 106333 on 2003/06/16 by mkelly@fl mkelly r400 win laptop Re-enable 3 tests that broke with non-zero FB addresses, fixed now Change 106332 on 2003/06/16 by mkelly@fl_mkelly_r400_win_laptop Change 105923 on 2003/06/12 by smoss@smoss_crayola_linux_orl Updates to make tests work with any framebuffer address Page 178 of 510 Page 177 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history changed x,y to 128 Change 105409 on 2003/06/10 by csampayo@fl csampayo2 r400 Change 105886 on 2003/06/12 by ashishs@fl_ashishs_r400_win Fixed problem with Export_Base_Address being erroneously changed after first pass testing setgt instruction Change 105369 on 2003/06/10 by mkelly@fl_mkelly_r400_win_laptop Change 105859 on 2003/06/12 by Iseiler@Iseiler r400 win marlboro Setup to regress for VC Changes GL_XXX blendop names to BLEND_XXX Change 105365 on 2003/06/10 by mdoggett@mdoggett_r400_linux_local Change 105828 on 2003/06/12 by ashishs@fl ashishs r400 win added scissor, doing 2x2 top left quad point sampled Change 105363 on 2003/06/10 by mkelly@fl_mkelly_r400_win_laptop Change 105818 on 2003/06/12 by ashishs@fl_ashishs_r400_win Add UseVc = 0 to both registery files initialising c31 explicitly to 0.0,0.0 since the constant wasn't initialised and was being used in the pixel shader. The VFD uses c31 as color0 if it doesn't find any color set in the vertex Change 105325 on 2003/06/10 by jhoule@jhoule_r400_linux_marlboro Adding first to ch blend binary Change 105736 on 2003/06/12 by jhoule@jhoule_r400_win_lt Changed FMT_32_AS_8_8_INTERLACED to use FMT_8_8 as faux_format instead of Updated Makefile to allow p4_releases. Change 105318 on 2003/06/10 by jhoule@jhoule r400 win It Change 105699 on 2003/06/11 by csampayo@fl_csampayo_r400 Added border_color and xor mask. Removed data_format field, which is deprecated by Add compare file Updated example in file to account for new columns. Change 105635 on 2003/06/11 by ashishs@fl_ashishs_r400_win Change 105074 on 2003/06/09 by csampayo@fl_csampayo_r400 removing any code which could be the cause of suspicion for failure for the test. Just to show that the test still fails even without the previous suspicious code in the test. Initialize directory Change 105608 on 2003/06/11 by mkelly@fl mkelly r400 win laptop Change 105039 on 2003/06/09 by ashishs@fl ashishs r400 win Minor comment update.. Change 105606 on 2003/06/11 by mkelly@fl_mkelly_r400_win_laptop Change 105030 on 2003/06/09 by tien@tien_r400_devel_marlboro VGT HOS PM4 conversion CHanged TP_SQ_fetch_stall to TP_SQ_dec Change 105512 on 2003/06/11 by mkelly@fl mkelly r400 win laptop Change 105019 on 2003/06/09 by ashishs@fl ashishs r400 win Add more sq dumps updated description in test Change 105506 on 2003/06/11 by mkelly@fl mkelly r400 win laptop Change 105015 on 2003/06/09 by ashishs@fl ashishs r400 win Add sq_shaders.dmp same as horz 01 but with texture offsets of 0.4 and 0.6 respectively Page 179 of 510 Page 180 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

same as vert_01 but with texture offsets of 0.4 and 0.6 respectively Change 104965 on 2003/06/09 by ashishs@fl ashishs r400 win testing texture wrap over T with 64 cases each with a different level of wrapping from 1 Change 104944 on 2003/06/09 by llefebvr@llefebvr_r400_emu_montreal Modified the emulator to generate the same number of passes than the HW on a waterfall instruction. Only the number of passes is correct at this point not the write mask. Also corrected 2 MOVA tests where the address register wasn't loaded correctly before Change 104937 on 2003/06/09 by mkelly@fl_mkelly_r400_win_laptop $Add\,r400sc_pm4_mp_ib_03$ Change 104936 on 2003/06/09 by mkelly@fl_mkelly_r400_win_laptop Add a couple of VC dumps to the regression maintenance Change 104736 on 2003/06/06 by ashishs@fl ashishs r400 win updated the tracker and test_list for the newly added 4 tests Change 104729 on 2003/06/06 by csampayo@fl_csampayo2_r400 Updated for FB start move Change 104719 on 2003/06/06 by ashishs@fl_ashishs_r400_win testing texture wrap over S with 64 cases each with a different level of wrapping from 1 Change 104707 on 2003/06/06 by jhoule@jhoule_r400_linux_marlboro Changed p4 release dependencies to strip the executable Change 104689 on 2003/06/06 by mkelly@fl_mkelly_r400_win_laptop Update to make it easier to see memory management and work with adjustable frame buffer start. Change 104595 on 2003/06/06 by csampayo@fl_csampayo_r400 Page 181 of 510 Ex. 2052 --- R400 Testing FH --- foler history Aniso step order change Change 104256 on 2003/06/05 by smoss@smoss_crayola_linux_orl added picasso.h copy, rm *.h $Change\ 104246\ on\ 2003/06/05\ by\ jhoule@jhoule_r400_linux_marfboro$ Removed countdown when releasing binary Change 104203 on 2003/06/05 by ashishs@fl ashishs r400 win texture coords to 64 and updated texture Change 104202 on 2003/06/05 by ashishs@fl ashishs r400 win simple test to show that currently texture wrapping currently has problem Change 104192 on 2003/06/05 by mkelly@fl mkelly r400 win laptop Change 104191 on 2003/06/05 by mkelly@fl_mkelly_r400_win_laptop Don't count a test name with sq in the sq category if it also is Change 104157 on 2003/06/04 by ashishs@fl ashishs r400 win updated the test list fo SQ Change 104132 on 2003/06/04 by ashishs@fl_ashishs_r400_win lots of mixed instructions, seems to have problem with texture(commented instructionsin the shader) Change 104067 on 2003/06/04 by jhoule@jhoule r400 win It Dedicated testbench for tp_hicolor Supports integer, float, and rf8. Change 104049 on 2003/06/04 by jhoule@jhoule r400 win It Reactivated NEAREST_CLAMP_POLICY support. Change 104025 on 2003/06/04 by csampayo@fl csampayo2 r400 Add FB start offset at correct place Page 183 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 104999 on 2003/06/09 by ashishs@fl ashishs r400 win

Update address for vtx shader load Change 104594 on 2003/06/06 by georgev@devel_georgev_r400_lin2_marlboro_tott Added new tests for TP testing. Change 104449 on 2003/06/05 by ashishs@fl_ashishs_r400_win This test is intended to validate the shader constant memory using up 256 constants in the vertex shader program Change 104336 on 2003/06/05 by csampayo@fl_csampayo2_r400 Updates for new FB start Change 104319 on 2003/06/05 by mkelly@fl_mkelly_r400_win_laptop Emulator rbbm.dmp coverage tool. Useful info. to determine test coverage n register bits. A bit is considered covered if it changes state from Simple steps to follow: 2. perl build_regspec.pl -b VGT 3. regcover -r <root path of regress_r400 test dirs> -tl 4. results can be found in all_regcover.txt, regcover_warnings.txt Change 104315 on 2003/06/05 by llefebvr@llefebvr_r400_emu_montreal Nasty GPR allocation GPR error in the test that was causing the test to break on the HW. Change 104312 on 2003/06/05 by ashishs@fl ashishs r400 win testing exp instruction. Has problems with texture wrapping which is being looked into Change 104285 on 2003/06/05 by ashishs@fl_ashishs_r400_win changing some of the texture coords to show the difference between r300 and r400 for Change 104279 on 2003/06/05 by jhoule@jhoule_r400_linux_marlboro Fixed missing clamp for out-of-range result of the final subtract in the correction. Also added Linux binary to parts_lib/sim/gfx/tp. Change 104271 on 2003/06/05 by tien@tien r400 devel marlboro Page 182 of 510 Ex. 2052 --- R400 Testing FH --- foler history Change 103999 on 2003/06/04 by llefebvr@llefebvr r400 emu montreal Missing a constant load (509) Change 103973 on 2003/06/04 by mdoggett@MA_MDOGGETT_LT Changed to 256 x 256 directly mapped bilinear Change 103925 on 2003/06/03 by csampayo@fl_csampayo2_r400 Update for moving framebuffer Change 103919 on 2003/06/03 by danh@danh_crayota1_linux_orl Changed * SHADER FILE file names.

Changed *_SHADER_FILE file names.

Change 103917 on 2003/06/03 by danh@danh_r400_win

Changed the *_SHADER_FILE strings so they have the correct file names.

Change 103901 on 2003/06/03 by ashishs@fl_ashishs_r400_win

updated the shader and the .cpp file the way it was supposed to be according to r300. The shader had some instructions commented out and was exporting the 4th texture directly as it recieved instead of doing the calculations but now is turned back on with the same calculations as in r300 and works perfectly.

the reason they were commneted out were that that time I had not developed a subroutine for LIT instruction which was present in r300 but not on r400 $\,$

Change 103896 on 2003/06/03 by ashishs@fl_ashishs_r400_win

changing some instructions as they were supposed to be..

Change 103895 on 2003/06/03 by ashishs@fl_ashishs_r400_win

test converted from r300. Has lots of instructions mixed together

102000 2020/07/07 (07.1 A.D. 1/2 A.D. 1

Change 103890 on 2003/06/03 by georgev@devel_georgev_r400_lin2_marlboro_tott

New textures for testing

Change 103853 on 2003/06/03 by llefebvr@llefebvr_r400_linux_marlboro

Making screen size 64x64 instead of 512x512 so test runs faster

Change 103825 on 2003/06/03 by georgev@devel_georgev_r400_lin2_marlboro_tott

Page 184 of 510

Modified for automatic files.

Change 103782 on 2003/06/03 by ashishs@fl ashishs r400 win

adding comments and extending the shaders for 7th and 8th textures

Change 103779 on 2003/06/03 by ashishs@fl_ashishs_r400_win

loop instruction test with random loop constants and some of loop "i" registers being reused

Change 103728 on 2003/06/02 by ashishs@fl_ashishs_r400_win

initial checkin for the test

Change 103725 on 2003/06/02 by ashishs@fl ashishs r400 win2

adding R400ZeroBufferStart to the dumps registry script

Change 103688 on 2003/06/02 by georgev@devel_georgev_r400_lin2_marlboro_tott

Added a few comments.

Change 103685 on 2003/06/02 by georgev@devel georgev r400 lin2 marlboro tott

First revision so others could use it.

Change 103660 on 2003/06/02 by paulv@paulv_r400_linux_marlboro

Changed r400_regression queue to r400_regression_ncv.

Change 103627 on 2003/06/02 by omesh@omesh_r400_linux_marlboro

Added another 1152 Stencil Pass ZFail testcases for Backface Stencil modes.

Change 103622 on 2003/06/02 by omesh@omesh_r400_linux_marlboro

Added another 1152 Stencil Pass ZFail testcases.

Change 103620 on 2003/06/02 by ashishs@fl_ashishs_r400_win

corrected the files. I had exported a level higher than I was supposed to export from the registry resulting in a lot of other my own PC related data being exported too. I have fixed that and now these dumps have just the data which they should have. Sorry for the inconvenience and anyone using this if breaks please let me know.

Change 103614 on 2003/06/02 by mkelly@fl mkelly r400 win laptop

Page 185 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Fix DISP_BASE to be offset from framebuffer address. If we want these tests to work with the frame buffer start address, the rb base registers must be changed to use frame buffer start address and not DISP_BASE. Currently, these tests work with the registery key R400/ZeroBufferStart = 1.

Change 103566 on 2003/06/02 by mkelly@fl mkelly r400 win laptop

Fix syntax error...

Change 103434 on 2003/05/30 by ashishs@fl_ashishs_r400_win

undated the test list

Change 103394 on 2003/05/30 by ashishs@fl_ashishs_r400_win

changing the loop increment to match the vap_pvs_iLoop_02 test in R300 instead of vap_pvs_loop_02

Change 103359 on 2003/05/30 by ashishs@fl_ashishs_r400_win

testing constant memory addressing with several instruction types and different number of operands

Change 103335 on 2003/05/30 by georgev@devel_georgev_r400_lin2_marlboro_tott

kewed more texture.

Change 103332 on 2003/05/30 by mkelly@fl_mkelly_r400_win_laptop

Change hard coded frame buffer start to use method Get_Start()...

Change 103331 on 2003/05/30 by ashishs@fl_ashishs_r400_win

Testing MULADD instruction with multiple accesses to input and constant memories

Change 103303 on 2003/05/30 by llefebvr@llefebvr_r400_emu_montreal

Fixing ashish's test.

Change 103288 on 2003/05/30 by ashishs@fl_ashishs_r400_win

Testing constant memory store indexing and addr registers and exporting using constant memory indexed by address registers.

Currently the test has a problem which has been expained in the vtx shader of the test

Change 103277 on 2003/05/30 by tien@tien_r400_devel_marlboro

Mipmapping fixes

Page 186 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Change 103186 on 2003/05/29 by csampayo@fl csampayo2 r400

Remove commented instructions

Change 103173 on 2003/05/29 by ashishs@fl_ashishs_r400_win

Testing constant memory store indexing and addr registers using various different swizzles $% \left(1\right) =\left(1\right) \left(1$

Change 103116 on 2003/05/29 by mkelly@fl mkelly r400 win laptop

Fix syntax error introduced by script which changed DISP_BASE

Change 103103 on 2003/05/29 by llefebvr@llefebvr_r400_emu_montreal

Fixing Carlos's bug

Change 103100 on 2003/05/29 by ashishs@fl_ashishs_r400_win

testing precision for exp instruction. Found a lot of differences between the Hardware accurate shader emulator calculations wrt to the C compiler generated exp values. Fot the same data set the Non Hardware acurate emulator (using C compiler functions) generates exactly equal results (could be used for verification since both the values viz shader as well as the expected values are genereted using the same functions)

Change 103086 on 2003/05/29 by omesh@omesh_r400_linux_marlboro_only_devel

Added 24_8_FLOAT versions of the ZFunction tests (49 testcases)

Change 103060 on 2003/05/29 by csampayo@fl_csampayo_r400

Added max constant memory addrs reg indexing test. Updated test_list and test tracker accordingly.

Change 103039 on 2003/05/29 by mkelly@fl_mkelly_r400_win_laptop

Only plgx::wait_rt_idle before frame buffer dump, implement rts_wait_until

Change 102988 on 2003/05/28 by ashishs@fl_ashishs_r400_wir

testing precision of log_iece instruction to $1/2^{**}21$ Also found that there is a possible precision loss (same as sqrt instruction) between 0 to 1 for values less than $10^{*}2$. Found that for some values the comparison is exact between precomputed and shader computed values and for some values there is a difference in even the last 3 bits of the mantissa value. Also testing in the same test(same as sqrt test) if the instruction executes correctly on all the channels and also if the result is replicated on all the 4 channels.

Change 102944 on 2003/05/28 by smoss@smoss_crayola_linux_orl

Page 187 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

add sp sx

Change 102941 on 2003/05/28 by smoss@smoss_crayola_linux_orl

add * h files

Change 102923 on 2003/05/28 by mkelly@fl_mkelly_r400_win_laptop

Implement RTS_WAIT_UNTIL, minimizing plgx::wait_rt_idle(s)

Change 102912 on 2003/05/28 by ashishs@fl ashishs r400 win

updated the description to have more information on the problem cases. Also updated the VTE Y scale to multiply with the very small constant (1e-038) so that all the points lie within the Y dim of image

Change 102897 on 2003/05/28 by jhoule@jhoule_r400_linux_marlboro

Fixed early-terminated help string.

Change 102895 on 2003/05/28 by ashishs@fl_ashishs_r400_win

updated the description to have more information on the problem cases. Also updated the VTE Y scale to multiply with the very small constant (1e-025) so that all the points lie within the Y dim of image

Change 102856 on 2003/05/28 by ashishs@fl_ashishs_r400_win

testing precision of recipsq instruction to $1/2^{**}21$ Also found that there is a possible precision loss (same as sqrt instruction) between 0 to 1 for values less than $10^{\circ}2$. Also testing in the same test/same as sqrt test) if the instruction executes correctly on all the channels and also if the result is replicated on all the 4 channels.

Change 102838 on 2003/05/28 by ashishs@fl_ashishs_r400_win

testing precision of sqrt instruction to $1/2^{\circ}21$. Also found that there is a possible precision loss for values between 0 and 1 (exclusive) having values less than $10^{\circ}2$. Currently some of those points are outside the display area wrt the precision constant.

Change 102835 on 2003/05/28 by mkelly@fl_mkelly_r400_win_laptop

Update..

Change 102832 on 2003/05/28 by mkelly@fl_mkelly_r400_win_laptop

Update for debugging..

Change 102821 on 2003/05/28 by mkelly@fl_mkelly_r400_win_laptop

Page 188 of 510

Changed test to use the rbbm WAIT_RTS_IDLE before each RTS initiator and only use plgx::wait_rt_idle before the framebuffer dump.

Change 102777 on 2003/05/27 by mkelly@fl_mkelly_r400_win_laptop

Undate..

Change 102768 on 2003/05/27 by mkelly@fl_mkelly_r400_win_laptop

Update...

Change 102722 on 2003/05/27 by mkelly@fl_mkelly_r400_win_laptop

Update display base to start at beginning of frame buffer.Get Start()

Change 102717 on 2003/05/27 by omesh@omesh_r400_linux_marlboro_only_devel

Disabled Color Blending. It seems to produce all samples for Alpha = 1.0. Will do some further checking to find out if some other testcases look fine.

Change 102698 on 2003/05/27 by mkelly@fl_mkelly_r400_win_laptop

hecknoint...

Change 102426 on 2003/05/23 by jhoule@jhoule_r400_linux_marfboro

Removed the countdown under p4_release

Change 102399 on 2003/05/23 by georgev@devel_georgev_r400_lin2_marlboro_tott

Additional tests for MIP mapping and aniso.

Change 102392 on 2003/05/23 by ashishs@fl ashishs r400 win

adding test

Change 102391 on 2003/05/23 by ashishs@fl_ashishs_r400_win

changing the dataset to have more cases. Also changing the constant to 2\0003-23

Change 102382 on 2003/05/23 by ashishs@fl_ashishs_r400_win

changing the precision constant to $2^{\mbox{$\sim$}}23$

Change 102363 on 2003/05/23 by ashishs@fl ashishs r400 win

Page 189 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Testing precision of trunc instruction (found to be same as the $\ensuremath{\mathbb{C}}$ compiler generated trunc value)

The test uses 500 points in a packet to carry the reciprocal values and visually identify the problem

locations. Tests both the vector as well as scalar operation.

This test sends predetermined test data as well as random data through the z channel of the vector data or well as the company of the vector data.

ins test sends predefinited test data as wen as random data in ough one 2 channel of the vertex data, as well as the precomputed TRUNC values through the y channel of

vtx data. Hex values of the floating point numbers are evalauated and sent to avoid other rounding issues. The shader then gets the data on the z channel and TRUNCS it, compares with the precomputed TRUNC value passed in the y channel of vtx data, and plots the RELATIVE difference after multiplying with the PRECISION CONSTANT (set to 2**42) on the Y axis of the image. Also to better identify problem points, a color coding scheme is given to the

points
as follows. The point that have difference of "0" between precomputed and shader

computed values get BLUE color. When the same difference is between 0 and <= 1, the points get GREEN color.

When the difference is greater than I which identifies them as problem points, they get RED color.

 $\ensuremath{\mathsf{TBD}}$: Some number combinations do not work, I guess due to rounding issues. Need to find the exact problem.

For now those numbers are commented out.

According to me the NAN's and INF's will still be needed to be checked seperately.

Change 102274 on 2003/05/23 by ashishs@fl_ashishs_r400_win

removed from SX and putting it in SP, since by mistake thought them to be in SX. Also updating the test_list for both blocks

Change 102260 on 2003/05/23 by ashishs@fl ashishs r400 win

updated for the new sx precision tests

Change 102240 on 2003/05/23 by mkelly@fl_mkelly_r400_win_laptop

Undate...

Change 102198 on 2003/05/22 by mdoggett@mdoggett_r400_linux_local

Changes for testing to cache.

Change 102171 on 2003/05/22 by ashishs@fl ashishs r400 win

checking scalar as well as vector floor instruction in the same test

Change 102166 on 2003/05/22 by ashishs@fl_ashishs_r400_win

Page 190 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Testing precision of floor instruction

The test uses 500 points in a packet to carry the reciprocal values and visually identify the problem

locations. This test sends predetermined test data as well as random data through the z channel

of the vertex data, as well as the precomputed FLOOR values through the y channel of

vtx data. Hex values of the floating point numbers are evalauated and sent to avoid other rounding issues. The shader then gets the data on the z channel and FLOORS it, compares with the precomputed FLOOR value passed in the y channel of vtx data, and plots the RELATIVE difference after multiplying with the PRECISION

CONSTANT (set to 2**42) on the Y axis
of the image. Also to better identify problem points, a color coding scheme is given to the

as follows. The point that have difference of "0" between precomputed and shader computed values

get BLUE color. When the same difference is between 0 and <= 1, the points get GREEN

When the difference is greater than 1 which identifies them as problem points, they get RED color. TBD: According to me the NAN's and INF's will still be needed to be checked seperately.

Change 102151 on 2003/05/22 by ashishs@fl_ashishs_r400_win

changing to pix center as 0

Change 102146 on 2003/05/22 by mkelly@fl_mkelly_r400_win_laptop

Final, 4 textures on an RT rectangle...

Change 102118 on 2003/05/22 by ashishs@ff_ashishs_r400_win

Testing precision of recip_ieee instruction to 1.0f/2**23

The test uses 500 points in a packet to carry the reciprocal values and visually identify the problem locations.

This test sends predetermined test data as well as random data through the z channel of the vertex data, and the precomputed reciprocals of those values through the y channel

vtx data. Hex values of the floating point numbers are evalauated and sent to avoid other rounding issues. The shader then gets the data on the z channel and reciprocates it, compares with the precomputed reciprocal value passed in the y channel of vtx data, and plots the RELATIVE difference after multiplying with the PRECISION STANT to set the difference.

and prossure RELEATIVE outlier and the application and the application of the image. Also to better identify

problem points, a color coding scheme is given to the points as follows.

The point that have difference of "0" between precomputed and shader computed values

Page 191 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

get BLUE color. When the same difference is between 0 and $\mathrel{<\!\!=} 1$, the points get GREEN color.

When the difference is greater than I which identifies them as problem points, they get RED color.

TBD: According to me the NAN's and INF's will still be needed to be checked separately.

Change 102069 on 2003/05/22 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 102048 on 2003/05/22 by llefebvr@llefebvre laptop r400 emu

ixing test

Change 102046 on 2003/05/22 by mkelly@fl_mkelly_r400_win_laptop

Changed to gouraud shading...

Change 102018 on 2003/05/21 by csampayo@fl csampayo r400

Updated test description, test_list and test tracker

Change 102000 on 2003/05/21 by tien@tien_r400_devel_marlboro

Cleaned up clamping logic

Change 101947 on 2003/05/21 by mkelly@fl_mkelly_r400_win_laptop

Break out pipe disable tests into separate tests...

Change 101931 on 2003/05/21 by georgev@devel_georgev_r400_lin2_marlboro_tott

Added new MipMap tests.

Change 101901 on 2003/05/21 by ashishs@fl_ashishs_r400_win

updated for 2 new tests. (also corrected problem with no new line at the end of test list)

Change 101895 on 2003/05/21 by mkelly@fl mkelly r400 win laptop

Fix frame buffer start, fix RB asserts on samples

Change 101890 on 2003/05/21 by mkelly@fl_mkelly_r400_win_laptop

Fix eo_rt in test for HW

Change 101865 on 2003/05/20 by csampayo@fl_csampayo_r400

Page 192 of 510

SImple address register constant indexing tests test with points setup on 4 corners of user defined frustum with varying z values. horizontal as well as vertical clipping applied on all the points using ucp planes Change 101845 on 2003/05/20 by mkelly@fl mkelly r400 win laptop Change 101619 on 2003/05/19 by mdoggett@mdoggett_r400_linux_local Added command line option to print cacheline and sector at beginning of line. Command Change 101830 on 2003/05/20 by mkelly@fl_mkelly_r400_win_laptop line option -clinesectorprint must be used to turn on printing Change 101616 on 2003/05/19 by mkelly@fl_mkelly_r400_win_laptop Change 101786 on 2003/05/20 by mkelly@fl mkelly r400 win laptop Break out simd cases into separate tests to shorten run time. Change 101609 on 2003/05/19 by mkelly@fl_mkelly_r400_win_laptop Change 101784 on 2003/05/20 by mkelly@fl mkelly r400 win laptop Break out simd cases to individual tests.. Break out cases for simd into separate tests. Change 101598 on 2003/05/19 by mkelly@fl_mkelly_r400_win_laptop Change 101699 on 2003/05/19 by csampayo@fl_csampayo_r400 Memory violation occurs at the end of the second packet Undate for coissue (dual) instructions Change 101579 on 2003/05/19 by ashishs@fl ashishs r400 win Change 101675 on 2003/05/19 by ashishs@fl_ashishs_r400_win test with points in perspective view having different z values and being clipped by ucp (different ucp clipping modes and setting point size in vtx and su registers) adding scalar as well as vector operation to the shader for checking, and also updating the cpp file since the $\mathfrak c$ compiler rounded some of the values Change 101419 on 2003/05/16 by tien@tien_r400_devel_marlboro Change 101653 on 2003/05/19 by ashishs@fl_ashishs_r400_win Moved input flops out of sp_tp_formatter performing scalar as well as vector operation to check both Change 101351 on 2003/05/16 by mkelly@fl mkelly r400 win laptop Change 101648 on 2003/05/19 by ashishs@fl_ashishs_r400_win test for the floor instruction. Change 101331 on 2003/05/16 by mkelly@fl_mkelly_r400_win_laptop Change 101646 on 2003/05/19 by mkelly@fl mkelly r400 win laptop Break out simd cases into separate tests... Change 101327 on 2003/05/16 by mkelly@fl mkelly r400 win laptop Change 101630 on 2003/05/19 by ashishs@fl_ashishs_r400_win Checkpoint.. updated for the new perspective tests added. Change 101311 on 2003/05/16 by ihoule@ihoule r400 win lt Change 101629 on 2003/05/19 by mkelly@fl_mkelly_r400_win_laptop Updated golden images, without randoms Break out cases for simd testing Change 101310 on 2003/05/16 by jhoule@jhoule_r400_win_lt Change 101622 on 2003/05/19 by ashishs@fl ashishs r400 win Removed randomness in Set Default Values() Page 193 of 510 Page 194 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 101259 on 2003/05/15 by ashishs@fl_ashishs_r400_win Fix for SIMD updated for r400sq trunc 01 Change 100963 on 2003/05/14 by mkelly@fl_mkelly_r400_win_laptop Change 101258 on 2003/05/15 by ashishs@fl ashishs r400 win test for trunc instruction created as directed by Carlos. It shows that it currently has a Change 100956 on 2003/05/14 by vbhatia@vbhatia r400 linux marlboro problem with scalar trunc operation where it fails on -ve integer values like -1.0, -2.0... but doesnot fail on fractional -ve integers. A part of code missing on the scalar side for the trunc operation. Adding skeleton tp_formatter with standalone testbench Change 100944 on 2003/05/14 by ashishs@fl ashishs r400 win Change 101137 on 2003/05/15 by csampayo@fl_csampayo_r400 testing sqrt function by using 500 points with square root values between 0 and 2 to plot the sqrt graph Updated test status for tests: r400sq_auto_wrapping_memories_01 Change 100932 on 2003/05/14 by mkelly@fl_mkelly_r400_win_laptop r400sq_vs_memory_wrap_01 Sorted test_list Update eo_const_rt, ps_const.base and size Change 101121 on 2003/05/15 by csampayo@fl_csampayo2_r400 Change 100900 on 2003/05/14 by csampayo@fl csampayo2 r400 Reduce screen size and update description New instruction store wrap test. Updated test_list accordingly Change 101092 on 2003/05/14 by csampayo@fl_csampayo2_r400 Change 100890 on 2003/05/14 by mkelly@fl_mkelly_r400_win_laptop Updated to wrap vertex and pixel shaders Made test less weird:) Change 101048 on 2003/05/14 by jhoule@jhoule_r400_linux_marlboro Change 100811 on 2003/05/13 by ashishs@fl_ashishs_r400_win Added strip target to reduce binary size, as well as p4 * targets for emu tb release using z and w channels in the shader to do the square root. Need to verify if the w channel is selected by default... Change 101046 on 2003/05/14 by jhoule@jhoule_r400_linux_marlboro Change 100797 on 2003/05/13 by ashishs@fl_ashishs_r400_win Added binary testbench into parts_lib Change 101022 on 2003/05/14 by jhoule@jhoule r400 win It cleaning up code.. Added address library to Makefile under Windows. Change 100781 on 2003/05/13 by ygiang@ygiang_r400_pv2_marlboro Cleaned up golden.1st file fixed: sp tests emulation errors - Removed duplicates
- Removed r400tc_simple_texture since Mike uses it for personnal tests Change 100779 on 2003/05/13 by ashishs@fl_ashishs_r400_win correcting an error in the test Change 100975 on 2003/05/14 by ashishs@fl ashishs r400 win Change 100778 on 2003/05/13 by mkelly@fl_mkelly_r400_win_laptop updated the tracker and test_list All kinds of RT constant indexing and clamping, using all 256 bool bits Change 100972 on 2003/05/14 by mkelly@fl_mkelly_r400_win_laptop Change 100775 on 2003/05/13 by jhoule@jhoule_r400_win_lt Page 195 of 510 Page 196 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Changed block name to tc (was perf)

Change 100760 on 2003/05/13 by ashishs@fl_ashishs_r400_win

another SQRT test, same as r400sq sqrt ieee comp 02, but multiplying the vertex data with nan and inf data in x channel and then passing the inverse nan_multiplier in z channel to get the proper vertex data back.

Change 100719 on 2003/05/13 by jhoule@jhoule_r400_linux_marlboro

Fixed early-terminated help string

Change 100715 on 2003/05/13 by ashishs@fl_ashishs_r400_win

another sqrt test, plotting the difference in precision between shader and c++ complier for

Change 100702 on 2003/05/13 by csampayo@fl_csampayo2_r400

Adjust the SQ_PS_CONST register BASE and SIZE fields settings as per RT

Change 100700 on 2003/05/13 by mkelly@fl mkelly r400 win laptop

Finalize RT constant indexing positive and negative clamping variations

Change 100684 on 2003/05/13 by kevino@kevino_r400_linux_marlboro

Got rid of til fmt 11 and 12 testcases for the 3D tests. These are not valid 3D formats.

Change 100643 on 2003/05/13 by ashishs@fl ashishs r400 win

testing sort instruction

Change 100432 on 2003/05/12 by jhoule@jhoule_r400_linux_marlboro

Adding testbench binary for tp_addresser. Updated Makefile's p4 targets

Change 100401 on 2003/05/12 by jhoule@jhoule_r400_ma-jhoule-linux

Point sampling now sets incr_{x|y} to 0, just like hardware. Added p4_release target to be used for putting the binary under Perforce.

Change 100397 on 2003/05/12 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint...

Page 197 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Change 100273 on 2003/05/09 by csampayo@fl_csampayo2_r400

Initial check in

Change 100246 on 2003/05/09 by ashishs@fl ashishs r400 win

undated the excel tracker sheet and the test, list un-to-date

Change 100229 on 2003/05/09 by ashishs@fl ashishs r400 win

This test processes 112 packets of 4 vertices each. The pvs program uses the address register to calculate color0

For each packet the test changes the parameter used for the address calculation randomly, for each of the four vertices.

Addressing of constant memory spans locations 0 thru 255

Change 100218 on 2003/05/09 by omesh@omesh r400 linux marlboro

Enabled ZMASK for multisampling rendering, as described in the RB Register specs.

Change 100215 on 2003/05/09 by omesh@omesh_r400_linux_marlboro

Enabled ZMASK for multisample rendering, as described in the RB Register

Change 100214 on 2003/05/09 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 100209 on 2003/05/09 by omesh@omesh_r400_linux_marlboro

Enabled ZMASK in these tests, as Stencil Compression does require ZMASK to be enabled.

Change 100173 on 2003/05/09 by mkelly@fl mkelly r400 win laptop

Fix ps_const and eo_rt variables to work in HW

Change 100143 on 2003/05/09 by ashishs@fl_ashishs_r400_win

This test processes 18 packets of 1 vertex each. The pvs program uses the address register to calculate color0. For each packet the test changes the parameter used for the address calculation for each vertex.

Change 100138 on 2003/05/09 by ashishs@fl_ashishs_r400_win

This test processes 6 packets of 2 vertices each. The pvs program uses the address register to calculate color0.For each packet the test changes the parameter used for the address

Page 198 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

calculation for each of the two vertices, permuting all possibilities where some of the parameters are equal to each other

Change 100130 on 2003/05/09 by ashishs@fl_ashishs_r400_win

This test processes 10 packets of 3 vertices each. The pvs program uses the address register to calculate color0. For each packet the test changes the parameter used for the a0 calculation for each of the three vertices, permuting all possibilities where some of the parameters are equal to each other, while the remaider are also equal to each other

Change 100126 on 2003/05/09 by ashishs@fl ashishs r400 win

r400sq_addrs_reg_waterfall_03: This test processes 10 packets of 3 vertices each. The pvs program uses the addr register to calculate coloro? For each packet the test changes the parameter used for the ad calculation for each of the three vertices, permuting all possibilities where some of the parameters are equal to each other, while the remaider are not equal to each

r400sq_addrs_reg_waterfall_02: cleaned up the test

Change 100120 on 2003/05/09 by ashishs@fl ashishs r400 win

This test processes 18 packets of 4 vertices each. The shader program uses the address register to calculate coloro. For each packet the test changes the parameter used for the address calculation for each of the four vertices, permitting all possibilities where some of the parameters are equal to each other, while the remaider are also equal to each other.

Change 99995 on 2003/05/08 by mkelly@fl_mkelly_r400_win_laptop

Change 99994 on 2003/05/08 by ashishs@fl ashishs r400 win

somehow again there were some incorrect names.

Change 99993 on 2003/05/08 by ashishs@fl ashishs r400 win

somehow there was a wrong test name..

Change 99982 on 2003/05/08 by jhoule@jhoule_r400_win_lt

Changed opcode enc from 2 hex to a single one (since it's 3b)

Change 99971 on 2003/05/08 by llefebvr@llefebvr r400 emu montreal

test had an error.

Change 99966 on 2003/05/08 by mkelly@fl mkelly r400 win laptop

Checkpoint..

Page 199 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 99953 on 2003/05/08 by mkelly@fl mkelly r400 win laptop

Zero out eo_rt and ps_const registers at test beginning

Change 99948 on 2003/05/08 by omesh@omesh_r400_linux_marlboro

Added 1152 Backface versions of the same Multisample tests.

Change 99872 on 2003/05/08 by ashishs@fl_ashishs_r400_win

removing a small error with the script which made it to loop infinitely

Change 99807 on 2003/05/07 by jhoule@jhoule_r400_win_lt

Added to addresser testbench

tp_types.h - Added PackedCoord_32, intented to be shared by addresser as well as TP_TC interface $\,$

Change 99797 on 2003/05/07 by mdoggett@mdoggett r400 linux local

Removed setting frame buffer to 256M. In attempt to fix emulator assert on tptc testbench.

General clean up of file.

Change 99795 on 2003/05/07 by ashishs@fl_ashishs_r400_win

added variables for the $AUTO_R400_REGRESS_getError$ script. The variables have to be present while executing that script or else not needed.

Change 99775 on 2003/05/07 by ashishs@fl_ashishs_r400_win

The script will now check the boundary values if at the end of the script if the test fails all over the range and then give the user appropriate error message. Changed some formatting also. Updated the description for the test in the header. For more information on the script pls see the script header.

Change 99652 on 2003/05/07 by mkelly@fl mkelly r400 win laptop

This should fix regress_e, I needed to update the pix shader to use k0 instead of c0 since that is the way I set up the constant store for RT.

Change 99646 on 2003/05/07 by mkelly@fl_mkelly_r400_win_laptop

I fixed the assert by programming eo rt.ps cons.size and base but now image is not right, will continue debugging.

Page 200 of 510

Change 99593 on 2003/05/07 by mkelly@fl_mkelly_r400_win_laptop fixed: VTXs out side of frame buffer problem for sp tests Nice Assert, reverted back to original test... Change 99344 on 2003/05/06 by mkelly@fl mkelly r400 win laptop Change 99589 on 2003/05/07 by omesh@omesh_r400_linux_marlboro Update comments on 06, finalized 07 Change 99319 on 2003/05/06 by ashishs@fl_ashishs_r400_win Changed an earlier enumeration to match a revised emulator enumeration. Verified that Primlib now supports the Fill_Data function for multisample depth correctly and verified that the dumped file looks ok. can now accept command line parameter "To Group" to be used as group values while running the script Change 99566 on 2003/05/07 by ashishs@fl ashishs r400 win perl AUTO_R400_REGRESS_getError [group1,group2....] sorry ...a bad error due to my mistake p.s. groups have been defined in the pa_regress/email_list Change 99564 on 2003/05/07 by ashishs@fl ashishs r400 win Change 99317 on 2003/05/06 by mdoggett@mdoggett r400 linux local removed some small errors again relating to email: the attachment of log file with email Fixed two layer formats to swizzle x,y in the 2nd layer Change 99556 on 2003/05/07 by llefebvr@llefebvr r400 emu montreal Change 99286 on 2003/05/06 by mkelly@fl mkelly r400 win laptop fixing the RT assertion. Change 99551 on 2003/05/07 by ashishs@fl ashishs r400 win Change 99281 on 2003/05/06 by smoss@smoss cravola linux orl removed some small errors. fixed small error Change 99548 on 2003/05/07 by ashishs@fl_ashishs_r400_win Change 99257 on 2003/05/05 by ashishs@fl_ashishs_r400_win logging actions to a log file as the script progresses.. also uncommenting the print to screen option Change 99547 on 2003/05/07 by mkelly@fl_mkelly_r400_win_laptop Change 99256 on 2003/05/05 by ashishs@fl_ashishs_r400_win Undate comments... forgot to change the MIME directory permissions in the script for the email to work. Change 99518 on 2003/05/07 by mkelly@fl_mkelly_r400_win_laptop Change 99223 on 2003/05/05 by ashishs@fl ashishs r400 win Positive and Negative Constant Index clamping for RT.. adding time related details to the output viz start time, end time, elapsed time for each time the script performs sync-make-regress. Also the script based on the values gives the syn numbers on which the test status has changed. (But I would prefer to look at the log of all the sync number runs in the email to be sure) Change 99435 on 2003/05/06 by georgev@devel_georgev_r400_lin2_marlboro_tott Fix some of the missing tests. Change 99195 on 2003/05/05 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 99385 on 2003/05/06 by mkelly@fl_mkelly_r400_win_laptop Update comments, new tests checking RT Constant indexing... Change 99178 on 2003/05/05 by kevino@kevino r400 linux marlboro Change 99375 on 2003/05/06 by ygiang@ygiang_r400_pv2_marlboro Removed setting of max mip level to 5 or 6 to keep tests from going to the x1 mip level. Page 201 of 510 Page 202 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 99136 on 2003/05/05 by mkelly@fl mkelly r400 win laptop Change 98911 on 2003/05/02 by kryan@kryan r400 win marlboro XP Change reg naming for pipe disable. chip/gfx/tc/ golden images Change 99130 on 2003/05/05 by smoss@smoss_crayola_linux_orl chip/gfx/tc/Makefile added scissor to remove rb asserts Add basic gold files for standard test cases for each of the Change 99117 on 2003/05/05 by mkelly@fl_mkelly_r400_win_laptop tests in the gfx/tc branch. This is to aid the regression Change Bad pipe reg naming of the PrimLib library to make sure 1d, 2d, and 3d textures Change 99110 on 2003/05/05 by mkelly@fl_mkelly_r400_win_laptop always work Change bad pipe reg naming / field naming... Change 99101 on 2003/05/05 by mkelly@fl_mkelly_r400_win_laptop Ideally these golden images should be updated by people working Update nonRT shader names. on the TC, but will at least be updated if PrimLib regression Change 99098 on 2003/05/05 by mkelly@fl_mkelly_r400_win_laptop finds a difference in them that is supposed to be there. Also updated the tc/Makefile to add the tests so that they Change 99082 on 2003/05/05 by smoss@smoss crayola linux orl can all be run with the command make emu These tests are NOT and should NOT be added to the Emulator regression. Change 99068 on 2003/05/05 by mkelly@fl mkelly r400 win laptop SQ RT constants and flow control testing Change 98908 on 2003/05/02 by jhoule@jhoule_r400_ma-jhoule-linux Change 98922 on 2003/05/02 by ashishs@fl ashishs r400 win Added 'copy' target to help binary releases. adding few more template variables for the AUTO_R400_REGRESS_getError script

Change 98874 on 2003/05/02 by ashishs@fl_ashishs_r400_win

Initial checkin for Script used for finding the error sync(sync on which the test fails). Depending on the range provided (pass.fail range), it will search for the sync at which the test started first failing. This is done using the binary search with the starting range as the PASS range and the ending range as the FAIL range. Currently, according to my estimates the script takes an less than an hour to find out the error sync on average, but I guess with more testing and heuristics this should be decreased.

Please also consider that you have to take in consideration of the range values while taking in account time taken for this script. The estimated time is less than 1 hour for a range of 1000 sync's(93000..94000 pass..fail range) currently.

Page 204 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 98917 on 2003/05/02 by csampayo@fl csampayo2 r400 Page 203 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

Change 98921 on 2003/05/02 by ashishs@fl ashishs r400 win

Change 98918 on 2003/05/02 by ashishs@fl_ashishs_r400_win

checkin for initally changing the file permissions on some files to writable and then at the end of the script change the file permissions to read only.

added to do list

New channel mask tests

Change 98859 on 2003/05/02 by mmang@mmang_crayola_linux_orl Change 98800 on 2003/05/02 by csampayo@fl_csampayo2_r400 Fix compile - bad previous merge Position and color channel mask and predicate mask tests Change 98858 on 2003/05/02 by mkelly@fl_mkelly_r400_win_laptop Change 98798 on 2003/05/02 by mkelly@fl_mkelly_r400_win_laptop Reman pine disable Change 98852 on 2003/05/02 by mkelly@fl_mkelly_r400_win_laptop Change 98791 on 2003/05/02 by jhoule@jhoule r400 win lt Update.. Changed GRAD EXP ADJUST from 3b (instr) to 5b (const). Change 98850 on 2003/05/02 by mkelly@fl_mkelly_r400_win_laptop Change 98782 on 2003/05/02 by liefebvr@llefebvr_r400_emu_montreal Fixing RT read constant test. Also fixed the eo rt register to 8 bits (max aperture prevents Remap for new pipe disable registers.. us to go bigger anyways). Change 98830 on 2003/05/02 by mkelly@fl_mkelly_r400_win_laptop Change 98777 on 2003/05/02 by ashishs@fl_ashishs_r400_win Fix test bug where RT prim was going outside of surface.. deleting and building test list from blocks only if respective variables for regressions is turned ON. If all of the regression variables are off then by defualt the script uses the test_list in the pa_regress directory Change 98829 on 2003/05/02 by omesh@omesh r400 linux marlboro Change 98773 on 2003/05/02 by mmang@mmang_crayola_linux_orl Removed multiple occurences of ZRange enabling Added constant address register valids to validate the address register data. The valid is set when address register is written. If valid is not set, sequencer will not waterfall those vertices or pixels. This disables waterfalling for Change 98824 on 2003/05/02 by omesh@omesh_r400_linux_marlboro Enabled Z Range, in order to enable HiZ. urose vertices of pixels. This insafets waterlaining for predicated off writes and improperly initialized contant address registers. 2. Fixed bug in sqs_alu_instr_seq for phase 3 snooping of constant address registers bus. Previously, this snooping Change 98819 on 2003/05/02 by viviana@viviana crayola linux orl Changed the values written into PA_SC_AA_CONFIG.MSAA_NUM_SAMPLES to a did not account for predication of those registers.

5. Fixed bug where ais load_done bits was not hooked up. This signal disables previous vector/scalar management which needs to be turned off during constant waterfalling. With bug, Change 98815 on 2003/05/02 by omesh@omesh_r400_linux_marlboro Instead of disabling Z ENABLE (this would not allow me access to the pvps logic went unknown which caused unknowns to eventually propagate in and out of the gprs.

4. Fixed bug where non-optimized offset was not being determined properly, non_opt_offset is determined by a priority encoder of po_done, pl_done, p2_done, and p3_done. STENCILZFAIL operation), I enabled HiZ, so that both ZPass and ZFail are possible outcomes, depending on the specific testcase. Change 98804 on 2003/05/02 by mkelly@fl_mkelly_r400_win_laptop With advent of constant address register valids, created waterfall_active_q to properly init and avoid re-initing of different pixel and vertex done bits. Change pipe disable register and fields. Change 98803 on 2003/05/02 by csampayo@fl_csampayo2_r400 Change 98758 on 2003/05/02 by kevino@kevino r400 linux marlboro Update modified for mini regress Page 205 of 510 Page 206 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 98591 on 2003/05/01 by omesh@omesh_r400_linux_marlboro Change 98756 on 2003/05/02 by mkelly@fl mkelly r400 win laptop Adding 55 Alpha to Sample Mask tests. However, have to clarify the Adding 5 Applies to Sample Mass tests. Involved, have to taken the expected output for some test cases from Larry to confirm that the emulator is doing the right thing. H/W isn't ready yet, so I'm not adding these tests to the nightly regression. Change bad pipe register and field names. Change 98753 on 2003/05/02 by kevino@kevino_r400_linux_marlboro set max mip lvel so we never get to a mip level with a texture width/height of 1. The emu tp_tc has problems with this currently. Remove once this is fixed. Change 98558 on 2003/05/01 by mkelly@fl mkelly r400 win laptop Checkpoint... Change 98745 on 2003/05/02 by mkelly@fl mkelly r400 win laptop Change 98549 on 2003/05/01 by scarter@scarter_emul_r400_linux_marlboro Fix bug in test where RT prim was written outside of Surface extents in RB. Per George V Change 98673 on 2003/05/01 by georgev@devel_georgev_r400_lin2_marlboro_tott Fix z buffer problem. #include <primlib/shader program/control flow/loop id.h> Change 98672 on 2003/05/01 by mdoggett@mdoggett_r400_linux_local Changed: CONTROL_DEFINITION_TABLE::MAX_LOOP_ID Added RF expand from 13 bit output from DXN to 16 bits 1D linear for 4x16 expanding formats didn't do correct 1d linear ordering.

Fixed RF expand for 16 16 16 16 EXPAND. It was commented out for unknown LOOP ID::MAX ID Change 98527 on 2003/05/01 by ashishs@fl_ashishs_r400_win Change 98651 on 2003/05/01 by llefebyr@llefebyr r400 emu montreal updated the regress r400 script to always write to the email contents file. minor update... not fixed.. Change 98468 on 2003/05/01 by markf@markf_r400_lt_marlboro Change 98622 on 2003/05/01 by mkelly@fl_mkelly_r400_win_laptop Fixed tp unsigned32 01.cpp to dump 1D surfaces correctly

Check clamping on RT loop indexing..

 $Change~98603~on~2003/05/01~by~georgev@devel_georgev_r400_lin2_marlboro_tott$

Changed for max loops macro.

 $Change~98602~on~2003/05/01~by~georgev@devel_georgev_r400_lin2_marlboro_totalled and the contract of the cont$

Changed for new max_loops macro.

 $Change~98600~on~2003/05/01~by~georgev@devel_georgev_r400_lin2_marlboro_tott$

Changed for new max_loops variables.

Change 98594 on 2003/05/01 by georgev@devel_georgev_r400_lin2_marlboro_tott

Removed some mc_motion stuff.

Page 207 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 98454 on 2003/05/01 by mkelly@fl_mkelly_r400_win_laptop

Update...

Change 98438 on 2003/04/30 by ashishs@fl_ashishs_r400_win

corrected a minor error with the script and also updated the variables file to add the new variable compare_list which will be used to copy the compare list from the respective directory

Change 98437 on 2003/04/30 by ashishs@fl_ashishs_r400_win

adding code to use compare_list from a regression directory based on the value of the variable set in auto regress. If the variable not set then uses the compare_list from the current directory

Change 98354 on 2003/04/30 by omesh@omesh_r400_linux_marlboro

Fixed this particular emulator assertion by disabling Color and Alpha

Page 208 of 510

blending for non blendable color formats. Verified that the particular Change 98216 on 2003/04/29 by smoss@smoss_crayola_linux_orl seeded random testcase no longer asserts update Change 98345 on 2003/04/30 by ashishs@fl_ashishs_r400_win Change 98202 on 2003/04/29 by csampayo@fl_csampayo2_r400 forgot to put a comment Initial check-in Change 98338 on 2003/04/30 by georgev@devel_georgev_r400_lin2_marlboro Change 98201 on 2003/04/29 by csampayo@fl csampayo2 r400 Added to help coverage. Fine tuned this test to simplify and add more failure detection at output. Change 98337 on 2003/04/30 by georgev@devel georgev r400 lin2 marlboro Change 98176 on 2003/04/29 by omesh@omesh_r400_linux_marlboro Added some cases to cover neg infinity and max negative numbers. Added the 1152 Stencil Multisample tests. However, the initialization for the Stencil per sample is not correct.

1) Primilb's Fill Data routine is not populating the entire multisampled Depth buffer (Will file a Bugzilla for this soon. Kevin already knows about this). Change 98303 on 2003/04/30 by ashishs@fl ashishs r400 win In the variables file if the sync_number is set to "0" viz. then the script wont perform sync and make but will directly jump to the regressions 2) Haven't completely verified if Larry's Address routine is correctly addressing each sample of the Depth Multisample buffer.
Will not add these testcases to nighty regression yet because of the
above reasons. Also, these 1152 testcases only represent 1/32nd of the
total Stencil Multisample directed testcase possibilities. If a scheme Change 98281 on 2003/04/30 by llefebvr@llefebvr_r400_emu_montreal Using 4 loops but only setting up one... I have corrected the shader to use only loop 0. of cycling testcase groups comes up soon that would be nice, else many test conditions may go untested. Change 98273 on 2003/04/30 by mkelly@fl_mkelly_r400_win_laptop Change 98175 on 2003/04/29 by markf@markf_r400_lt_marlboro Checkpoint... Temp change to tc_simple_1d.cpp and tc_simple_2d.cpp randoms to only use maps we even dimensions. Change 98264 on 2003/04/30 by mkelly@fl mkelly r400 win laptop Change 98162 on 2003/04/29 by mkelly@fl mkelly r400 win laptop Change 98258 on 2003/04/30 by ashishs@fl ashishs r400 win Maximum pixel shader nested, control flow subroutines in RTS, with non-RTS in front and back containing simple pixel and vertex shaders. added variables for SP and SX regress Change 98255 on 2003/04/30 by ashishs@fl ashishs r400 win Updated SQ doc with RTS tests needed. added support for SP and SX regressions Change 98121 on 2003/04/29 by ygiang@ygiang_r400_linux_marlboro Change 98249 on 2003/04/30 by mkelly@fl mkelly r400 win laptop fixed: test is using indirect buffer now Change 98097 on 2003/04/29 by markf@markf r400 lt mariboro Change 98247 on 2003/04/30 by mkelly@fl_mkelly_r400_win_laptop Added 24_8 to tc_simple_mip_2d.cpp Add support for SP and SX regressions... Change 98087 on 2003/04/29 by mkelly@fl mkelly r400 win laptop Page 209 of 510 Page 210 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Copied in Makefile from VGT for consistency and to fix a build problem. Fixed extent of x, y fan rendering to screen width x-1 and screen height y-1 in the random number generator. Verified that this fixed atleast 1 of the asserting testcases in the last nightly regression and it will probably fix all 31 others too. Change 98051 on 2003/04/29 by markf@markf r400 lt mariboro Adding trilinear performance tes Change 98004 on 2003/04/28 by csampayo@fl csampayo r400 Change 97545 on 2003/04/24 by mdoggett@MA MDOGGETT LT Added DXT1_AS_4x16 2D Linear. Added DXT2_3/4_5_AS_4x16 - not tested. Initial check-in Change 97980 on 2003/04/28 by mdoggett@mdoggett r400 linux local Change 97524 on 2003/04/24 by ashishs@fl_ashishs_r400_win Fixed bug in Source Address for 32_AS_8_INTERLACE 2D tiled. Change 97908 on 2003/04/28 by omesh@omesh_r400_linux_marlboro Change 97517 on 2003/04/24 by ashishs@fl ashishs r400 win Added 30 multisample testcases that use color blending (SRC+DEST) another flt2fix test Change 97883 on 2003/04/28 by markf@markf_r400_lt_marlboro Change 97504 on 2003/04/24 by ashishs@fl ashishs r400 win Removed some TC performance tests, added some others. cleaned up code Change 97711 on 2003/04/25 by dougd@dougd_r400_linux_marlboro Change 97500 on 2003/04/24 by ashishs@fl_ashishs_r400_win changed the shader programs for the * max aluconst test cases in order to cause the alu constant store to be read Float to fix conversion for address register loads Change 97640 on 2003/04/25 by markf@markf_r400_lt_mariboro Change 97483 on 2003/04/24 by mdoggett@mdoggett_r400_linux_local Added more full set of formats to 3D man to tests Added DXT1 AS 4x16 2D tiled. Change 97602 on 2003/04/25 by mdoggett@mdoggett_r400_linux_local Change 97409 on 2003/04/24 by ashishs@fl_ashishs_r400_win Added DXT2345 as 4x16. Needed to put scissor settings for the tests. The tests caused assertion due to Fixed (hopefully) 1bpp as 2d tiled.

Change 97596 on 2003/04/25 by ashishs@fl_ashishs_r400_win

deleting the registry export since can be done through all dumps off and on

Change 97595 on 2003/04/25 by ashishs@fl_ashishs_r400_win

correcting the TP NoMipPointRound value to the correct key

Change 97592 on 2003/04/25 by ashishs@fl_ashishs_r400_win

inputting the registry key for TP NoMipPointRound

Change 97546 on 2003/04/24 by omesh@omesh_r400_linux_marlboro

Page 211 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 96878 by Iseiler@Iseiler_r400_win_marlboro on 2003/04/22 10:34:50 Asserts if the tile (X,Y) address is beyond (pitch, height).

Change 97246 on 2003/04/23 by ashishs@fl ashishs r400 win

adding laurent to the email groups

Change 97228 on 2003/04/23 by vgoel@fl vgoel2

changed test for loading texture image early in the program and changed texture register to T3 for fetching

Change 97226 on 2003/04/23 by omesh@omesh r400 linux mariboro

Page 212 of 510

Added 144 Multisample Z tests. Next on the list is Multisample Stencil tests. These will be run in Change 96742 on 2003/04/21 by mkelly@fl mkelly r400 win laptop tonight's regression. Looked at the emulator output of 1 or 2 testcases, but haven't completely visually verified most testcases. During Publish = "true" output vectors to t:/r400/regress instead of the old fl_mkelly2 path... Change 97139 on 2003/04/23 by jayw@jayw_r400_linux_marfboro Change 96738 on 2003/04/21 by mmang@mmang_crayola_linux_orl Fixed bug in sq_ais_output.v related to address register write and predication. Fixed a variety of tests to not use uninitialized gpr Change 97113 on 2003/04/23 by jayw@jayw_r400_linux_marlboro or address registers. 2 tests still fail because of previous vector of adutes register. 2 tests sun fan Occaus of previous verset.

Scalar swizzle bug, 1 test still fails because of MOVA hardware bug, and 1 test still fails because of predicated address register write causes XXXXXX which causes waterfalling to hang. AB removal and LEDA fixes, fix for 3 and 6 sample MSAA Change 97072 on 2003/04/23 by mkelly@fl mkelly r400 win lapton Change 96699 on 2003/04/21 by mkelly@fl mkelly r400 win laptop Access full range of GPRs, 32 Booleans, Control Flow, 256 RT Constants 4 levels of nested subroutines, Looping, Maximum pixel shader instruction size 4096 Change 96993 on 2003/04/22 by ashishs@fl_ashishs_r400_win Change 96676 on 2003/04/21 by csampayo@fl_csampayo_r400 added the TP_NoMipPointRound=1 to the dumps on and off Update to version 2.0 Change 96987 on 2003/04/22 by ashishs@fl ashishs r400 win Change 96551 on 2003/04/19 by markf@markf r400 lt marlboro adding the TP NoMipPointRound.reg to the all dumps on and off Disabled mip packing in TC tests. Change 96983 on 2003/04/22 by ashishs@fl_ashishs_r400_win Change 96522 on 2003/04/18 by csampayo@fl_csampayo3 need to set this registry key for some of the failing CL/VTE tests. (r/400vte_Z fmt_02,r400vt_combos_02,r400cl_point_rectangular_vtxXport_clip_01,r40_0cl_point_rectangular_vtxXport_actualClip_01) Updated to print pixel shader multiplier Change 96513 on 2003/04/18 by csampayo@fl_csampayo3 Change 96954 on 2003/04/22 by omesh@omesh r400 linux marlboro Adjust pix shader constant from 765.1 to 765.01 Added 3 and 6 sample testcase (6 each) versions for the various triangle Change 96512 on 2003/04/18 by mdoggett@mdoggett_r400_linux_local Updated to corrected decompression and compression code. Change 96900 on 2003/04/22 by mdoggett@mdoggett_r400_linux_local Change 96496 on 2003/04/18 by mkelly@fl_mkelly_r400_win_laptop Checkpoint, first 16 RT bools with control flow and huge pixel shader... Change 96787 on 2003/04/21 by csampayo@fl_csampayo_r400 Change 96481 on 2003/04/18 by ashishs@fl_ashishs_r400_win Initial chaeck-in of test using mova floor in vtx shader oops forgot to make total cases = 170Change 96785 on 2003/04/21 by mdoggett@mdoggett_r400_linux_local Change 96479 on 2003/04/18 by omesh@omesh r400 linux marlboro Added basic 64 and 128bpp formats. Also 32bpp that expand to 64bpp Page 213 of 510 Page 214 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Changed 128x128 tests to be 0 to 127 rather than 0 to 128, as earlier Added RTL generator for ABCD table. The emulator can now completely generate all tables as well as input index erroneously typed. Still missing index clamping in RTL generator (for invalid sample IDs). Change 96478 on 2003/04/18 by ashishs@fl_ashishs_r400_win Fixed wrong ABCD float format. extending the test to 512 constants... $\label{lem:Added} Added\ missing\ assignment\ which\ gave\ garbage\ values\ when\ SAMPLE_LOCATION=Center.$ Change 96477 on 2003/04/18 by csampayo@fl csampayo3 Some ALU constants reordering Change 96217 on 2003/04/17 by omesh@omesh_r400_linux_marlboro Change 96462 on 2003/04/18 by georgev@devel_georgev_r400_lin2_marlboro_tott Added 8 other minor missing testcase scenarios Added no blend buffers Change 96080 on 2003/04/16 by csampayo@fl_csampayo_r400 Change 96451 on 2003/04/18 by ashishs@fl ashishs r400 win Added Vineet checking in the test so that carlos could further debug it Change 96079 on 2003/04/16 by omesh@omesh_r400_linux_marlboro Change 96450 on 2003/04/18 by ihoule@jhoule r400 win It Added another 12 sub * testcases to cover non tile aligned clear areas to test the combination of tile clear logic as well as non-fully covered tile pixels falling through the shader pipe. These will show up on the day after tommorow's nightly regression, as I just missed tonight's Adding dimmed version for degamma sanity tests Change 96433 on 2003/04/18 by mkelly@fl_mkelly_r400_win_laptop regression. Checkpoint on a simple test.. Change 96068 on 2003/04/16 by omesh@omesh r400 linux marlboro Change 96407 on 2003/04/18 by ashishs@fl_ashishs_r400_win Added 13 Stencil Fast Clear and Expand testcases added few mysteriously missing tests. Change 96050 on 2003/04/16 by dougd@dougd_r400_linux_marlboro

Change 96387 on 2003/04/18 by csampayo@fl_csampayo3

Initial check-in

Change 96365 on 2003/04/18 by mkelly@fl_mkelly_r400_win_laptop

Enhance the hard code option -w to handle c:/proj/crayola client root.

Change 96281 on 2003/04/17 by jhoule@jhoule_r400_win_lt

Adding tp_ch_blend testbench app code

Change 96264 on 2003/04/17 by mdoggett@mdoggett_r400_linux_local

Added formats 45, 46, 47, 48.

Change 96221 on 2003/04/17 by jhoule@jhoule_r400_win_lt

Page 215 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

added many test cases for multi context testing of each of the constant stores

Change 95986 on 2003/04/16 by ashishs@fl_ashishs_r400_win

finalising the script. Ready for use currently.

Change 95970 on 2003/04/16 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint...

Change 95958 on 2003/04/16 by ashishs@fl_ashishs_r400_win

updated to have the correct formatting

Change 95957 on 2003/04/16 by omesh@omesh_r400_linux_marlboro

Added a filler testcase to take the place of an earlier misnamed testcase. This new one has value too....

Page 216 of 510

Change 95954 on 2003/04/16 by ashishs@fl_ashishs_r400_win Add option -e for email. Change 95662 on 2003/04/15 by omesh@omesh_r400_linux_marlboro updated some groups Change 95913 on 2003/04/16 by ashishs@fl ashishs r400 win Split all SMASK accumulation tests into 2 groups: hier stencil enabled. and hier_stencil disabled (r400t)_stencil_compression.cpp). All the Hi Stencil enabled tests can only run on the GC level testbench and the Hi Stencil disabled tests will run on the RBRC testbench. I will update the rg nightly thre regression file soon.... corrected the usage details for the script Change 95888 on 2003/04/16 by ashishs@fl_ashishs_r400_win script now ready for email with -e option. Please see usage for more details Change 95556 on 2003/04/14 by omesh@omesh r400 linux marlboro Change 95887 on 2003/04/16 by ashishs@fl_ashishs_r400_win Changed test to use an explicit Fragment Data fill operation, recently added to Primlib by Kevin. Also used Larry's routine to calculate Slice Size, which enforces the 4KB slice boundary alignment.

I chose not to use the higher level multisample Primitb functions to preserve clarity of the test (enumarating all multisample registers set, to make the test more readable). corrected script to have each line of the "email body" on a new line Change 95874 on 2003/04/16 by omesh@omesh r400 linux marlbord Changed the misleading 64x32 testcase names to 32x64 and also fixed some Change 95546 on 2003/04/14 by smoss@smoss crayola linux orl Change 95861 on 2003/04/16 by jhoule@jhoule_r400_win_lt Renamed into example in Change 95544 on 2003/04/14 by markf@markf r400 lt marlboro Change 95860 on 2003/04/16 by jhoule@jhoule r400 win It Made MSAA test use minimum surface size of 64x64 Renamed bug in into example in Change 95539 on 2003/04/14 by smoss@smoss crayola linux orl Change 95848 on 2003/04/16 by ashishs@fl_ashishs_r400_win updated to have correct paths for all the files (independent of the user's machine config. Change 95536 on 2003/04/14 by smoss@smoss cravola linux orl but depends on r400 environment config) more updates Change 95775 on 2003/04/15 by ashishs@fl ashishs r400 win Change 95520 on 2003/04/14 by jayw@jayw_r400_linux_marlboro adding the base module for the email script Added John's scripts. Change 95772 on 2003/04/15 by ashishs@fl_ashishs_r400_win Change 95492 on 2003/04/14 by omesh@omesh_r400_linux_marlboro utility for sending emails from other applications. Please review readme if you would like Changed test to use an explicit Fragment Data fill operation, recently added to Primilib by Kevin. Also used Larry's routine to calculate Slice Sitze, which enforces the 4KB slice boundary alignment. Checked many (but not all) earlier asserting random testcases which were to use it for your own application. Change 95710 on 2003/04/15 by mkelly@fl_mkelly_r400_win_laptop Checkpoint... asserting due to the 4KB alignment problem and they now don't assert. Change 95665 on 2003/04/15 by mkelly@fl_mkelly_r400_win_laptop Change 95408 on 2003/04/14 by markf@markf_r400_lt_marlboro Page 217 of 510 Page 218 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Simple texture performance test files for auto sync make regression on windows. See readme file for more details Change 95208 on 2003/04/11 by csampayo@fl_csampayo2_r400 Change 95109 on 2003/04/11 by mkelly@fl_mkelly_r400_win_laptop Updated to use new SX MULTIPASS feature Test smallest Z offset and scale to produce a discernable difference in the Zbuffer (1 lsb) Change 95194 on 2003/04/11 by ashishs@fl ashishs r400 win Change 95069 on 2003/04/10 by ashishs@fl_ashishs_r400_win removed the unsetting of env variable since being unset in sync.tcsh updated scripts so that doesnt require any environment variable to be set... Change 95191 on 2003/04/11 by ashishs@fl ashishs r400 win Change 95001 on 2003/04/10 by mkelly@fl_mkelly_r400_win_laptop unsetting the variable Change 95189 on 2003/04/11 by jayw@jayw r400 linux marlboro Change 94987 on 2003/04/10 by omesh@omesh r400 linux marlboro Fixed missing 'not' for Alpha Saturate. Checking in the other 1536 testcases.... I visually verified a few on the emulator. Some Change 95185 on 2003/04/11 by mkelly@fl mkelly r400 win laptop look wrong on the emulator FB output. Will file bugs after consultation with Larry. Test all 32 booleans in RTS pixel shader... Change 94977 on 2003/04/10 by ashishs@fl_ashishs_r400_win Change 95168 on 2003/04/11 by mdoggett@mdoggett_r400_linux_local updated test list Fixed 16_EXPAND bugs. Stdout debug only printed if -debug flag used on commandline. Change 94888 on 2003/04/10 by ashishs@fl_ashishs_r400_win Files added for auto sync, make, regression and emailing results. Change 95157 on 2003/04/11 by smoss@smoss crayola linux orl For these scripts to work the following environment variables have to be set permanently in the Windows system.

AUTO = false // has to be set false all the time
SC_REGRESS = false Change 95154 on 2003/04/11 by smoss@smoss_crayola_linux_orl SQ_REGRESS = false VGT_REGRESS = false SU_REGRESS = false update Change 95148 on 2003/04/11 by smoss@smoss_crayola_linux_orl CL_REGRESS = false
VTE_REGRESS = false
The other env var's could be set to true or false depending on the user's choice. Also these var's are used only in auto mode so the sync.tcsh script isn't affected. Change 95140 on 2003/04/11 by csampayo@fl_csampayo_r400 Add sc sync.tcsh from Steve Moss: Change 95136 on 2003/04/11 by ashishs@fl_ashishs_r400_win changed file names, hence deleted old This script when run manually will prompt for the blocks whose regression is to be performed. On setting value of thos Change 95135 on 2003/04/11 by ashishs@fl_ashishs_r400_win Page 219 of 510 Page 220 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258288

blocks true or false, the script will sync to the top of the tree, make build and then perform the regressions of the blocks that were selected

When the script is run in auto mode, the script performs the same task of sync, make and regressions but the only difference being that it performs the regressions of the blocks, whose value is set in the environment variable by the user. So please setup the environment variable accordingly so that everyday only those regressions will be performed.

Currently the script only sync's the following dir's : $cmn_lib_temu_lib_test_lib$. On request more could be added.

auto.bat

This is a batch file for auto sync, make, regress and email the report. This batch file should be started by the Windows scheduler at the time of your preference, preferably at night. Following are the steps that you need to carry out for this to work.

1) You will need a sync.tcsh in the pa_regress directory. See pa_regress dir in test_lib for

more details.

Set an environment variable "auto" as "false" using Windows Control Panel, System,

2) Set all circummus various.

Environment Variable.

2) You will also need to modify your teshre file so that, if the value of the env variable and the same tesh as mentioned in step 1. auto is true you can bypass the prompt and source the sync.tcsh as mentioned in step 1

This batch file is used to start the auto sync, make and regress.

Change 94879 on 2003/04/10 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 94869 on 2003/04/10 by mkelly@fl_mkelly_r400_win_laptop

Change 94819 on 2003/04/09 by smoss@smoss_crayola_linux_orl

added another dump

Change 94813 on 2003/04/09 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 94664 on 2003/04/09 by mdoggett@mdoggett_r400_linux_local

Added format 43 (8bpp interlace). Fixed inputted txt to have sector address in high bits of 4 bit sector value.

Change 94520 on 2003/04/08 by ashishs@fl_ashishs_r400_win

Page 221 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

testing address register

Change 94509 on 2003/04/08 by mkelly@fl_mkelly_r400_win_laptop

If only test name exists in test list parameterized, then run all DEFINE_TEST_CASE test cases in test .cpp file

Change 94460 on 2003/04/08 by omesh@omesh r400 linux marlbord

Fixed Bugzilla#1664. Fixed test by using the max sample dist table, as used earlier for the r400tb_msaa tests. Verified that sample#2 of pixel (2,3) was broken before the fix and was fixed after the fix, as verified by the DumpView image produced by the emulator (ignoring tile buffer file). This fix also fixed some missing sample#3 pixels

Change 94412 on 2003/04/08 by smoss@smoss_crayola_linux_orl

update

Change 94360 on 2003/04/07 by omesh@omesh r400 linux marlboro

Added 25% of intended testcases. Will add these to regression too

Change 94324 on 2003/04/07 by ashishs@fl ashishs r400 win

testing address register with different set of data

Change 94233 on 2003/04/07 by ashishs@fl ashishs r400 win

testing address instruction

Change 94230 on 2003/04/07 by omesh@omesh r400 linux marlboro

Fixed a stupid problem with the test

Change 94213 on 2003/04/07 by mdoggett@mdoggett_r400_linux_local

Fixed degamma bugs. Degamma channel bits not set correctly. (uint8) cast truncated uint16 values

Change 94170 on 2003/04/07 by smoss@smoss cravola linux orl

Change 94143 on 2003/04/06 by ashishs@fl_ashishs_r400_win

undated

Page 222 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Change 94035 on 2003/04/04 by omesh@omesh_r400_linux_marlboro

A compiler error involving enums was not being caught on Linux and this was causing the emulator to hang when it was running the test!!

Test fixed.... and now runs on the emulator.

Change 94020 on 2003/04/04 by jhoule@jhoule r400 win lt

Fixed missing inputs (register memory). Appropriately modified the writeInput function in the tp lod aniso parser

Added the standalone testbench which was previously missing

Change 93992 on 2003/04/04 by omesh@omesh_r400_linux_marlboro

Added Hi Stencil tests. Finished most of the testing logic, just need to populate extensive testcases. I may use a script to generate this. The "standard" testcase seems to be hanging the emulator.

Change 93962 on 2003/04/04 by jhoule@jhoule r400 win It

tp lod aniso dedicated testbench

Change 93948 on 2003/04/04 by mdoggett@mdoggett_r400_linux_local

Added YUV, 32a8, 32a88

Change 93940 on 2003/04/04 by markf@markf_r400_linux_marlboro

Fixed random TC tests

Change 93873 on 2003/04/04 by ashishs@fl_ashishs_r400_win

corrected the shader to a much better simpler algorithm for LIT

Change 93777 on 2003/04/03 by ashishs@fl_ashishs_r400_win

correted vte setup error, also added some documentation inside the shader

Change 93750 on 2003/04/03 by ashishs@fl ashishs r400 wir

implemented LIT instruction in the shader (implemented using subroutine can be reused), still some modifications needed...

Change 93610 on 2003/04/03 by ashishs@fl_ashishs_r400_win

testing DST instruction

Change 93593 on 2003/04/03 by mdoggett@mdoggett_r400_linux_local

Page 223 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Added cycle to commented input format line.

Change 93589 on 2003/04/03 by mdoggett@mdoggett_r400_win_platypus

Added DXT1 2D tiled and linear

Change 93550 on 2003/04/02 by markf@markf r400 lt marlboro

Constrained TC randoms to subset of formats for now

Change 93547 on 2003/04/02 by markf@markf r400 lt mariboro

Added 2D tiled 1bpp format

Change 93478 on 2003/04/02 by llefebvr@llefebvr r400 emu montreal

This is yet another case where not enough GPRs were reserved. Vincet please be extra carefull with these they take forever to debug. It was in the pass 1 vertex shader where 10 gprs were alloc, but 16 were used. Remove the GPR line to allow the assembler to automatically detect the number of GPRs this is a lot safer. Test works fine now.

Change 93463 on 2003/04/02 by ashishs@fl_ashishs_r400_win

testing call instruction, test gets position, color and 8 textures data from the constant memory, pointer to constant memory is passed to the vertex shader which extracts the data and exports. It Test has 2 subroutines, one for fetching the data from the constant memory into the internal registers and the second is to output the data.

Change 93455 on 2003/04/02 by markf@markf r400 lt marlboro

Switched filter to bilinear in TC video format tests

Change 93449 on 2003/04/02 by markf@markf r400 lt marlboro

Added TC tests for texture formats used in video (ex. interlaced)

Change 93448 on 2003/04/02 by ashishs@fl ashishs r400 win

testing call instruction. Test with 64 triangle list prim packets, vertex shader with 16 call instructions and each subroutine incrementing the value of x or y, thereby toggling between the 16 different subroutines to match the r300 image.

Change 93446 on 2003/04/02 by ashishs@fl ashishs r400 win

testing call instruction. Test having 256 triangle_list primitive packets, with the vertex shader having 16 call instructions and sequentially calling each subroutine in way that the input is transferred to output unchanged.

Page 224 of 510

Change 92956 on 2003/03/31 by markf@markf_r400_lt_marlboro Change 93213 on 2003/04/01 by ashishs@fl ashishs r400 win The test has 16 jump instructions, doing various calculations on input while jumping through various addresses but still keeping output data same as input. The input data is stored in the contisant memory and pointer to that is passed to the vertex shader. Added simple endian test for TC Change 92954 on 2003/03/31 by markf@markf_r400_lt_marlboro Change 93168 on 2003/04/01 by ashishs@fl ashishs r400 win Adding simple Vfetch format tests Change 92931 on 2003/03/31 by jhoule@jhoule_r400_win_lt testing JMP instruction. vertex shader having 16 jumps and randomly switching booleans thereby controlling jump addresses. uber map.h: Change 93158 on 2003/04/01 by markf@markf r400 lt marlboro setMapType now kills dimension sizes in order to set correct packing behavior in UberChain::packLastLevels. TC 1bpp format test Change 93147 on 2003/04/01 by ashishs@fl ashishs r400 win Added various downsample_* routines (including 3D ones). Still missing odd-sized ones though. This should fix $1\mathrm{D}/2\mathrm{D}/3\mathrm{D}$ mipmap generation, as long as sizes are even Change 93128 on 2003/04/01 by markf@markf r400 lt marlboro tp_simple_mip_1d.cpp: Reduced # of random formats in tc_random.cpp Changed buildLevel's height from 1 to 0, since this now correctly works in the UberMap. Change 93112 on 2003/04/01 by markf@markf r400 lt marlboro Change 92929 on 2003/03/31 by abeaudin@abeaudin r400 win marlboro Updated shaders in TC tests to work w/ random formats The test were writing the texture into the frame buffer twice. I removed the write to the start of the framebuffer where the image Change 93107 on 2003/04/01 by mdoggett@mdoggett_r400_win_platypus was also being drawn example input file for tcd standalone testbench Change 92849 on 2003/03/31 by ashishs@fl_ashishs_r400_win Change 93103 on 2003/04/01 by mdoggett@mdoggett_r400_win_platypus updated TCD standalone emulator executable Change 92837 on 2003/03/31 by ashishs@fl_ashishs_r400_win Change 93101 on 2003/04/01 by ashishs@fl ashishs r400 wir changed to compile on linux testing JMP instruction. 256 packets of a simple small triangle processed thru the vertex shader each time using 16 jump addresses. Change 92823 on 2003/03/31 by mkelly@fl_mkelly_r400_win_laptop Change 93034 on 2003/03/31 by markf@markf_r400_lt_marlboro Change 92696 on 2003/03/28 by ashishs@fl_ashishs_r400_win Change 92981 on 2003/03/31 by ashishs@fl ashishs r400 win test for LOOP instruction, the test has 7 loops and fetches all of the vertex data from the Change 92692 on 2003/03/28 by markf@markf_r400_lt_marlboro constant memory using pointers to the constant memory address. More cubic env map tests Page 225 of 510 Page 226 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history fixed: random test time out and number of random instructions Change 92687 on 2003/03/28 by vgiang@ygiang r400 linux marlboro Change 92422 on 2003/03/27 by jayw@jayw_r400_linux_marlboro fixed: default params values for tests result: min instructions calculation is corrected Change 92656 on 2003/03/28 by jayw@jayw_r400_linux_marlboro Change 92414 on 2003/03/27 by mkelly@fl_mkelly_r400_win_laptop New AB fixes for avoiding neg zero out of blender. Two important tests for regress_e Change 92646 on 2003/03/28 by ashishs@fl_ashishs_r400_win Change 92329 on 2003/03/27 by kevino@kevino r400 win marlboro testing loop instruction $Added\ formats\ 2_10_10_10_10_11_11, and\ 11_11_10\ to\ check_tfc_overrides\ code\ to\ turn\ off\ filtering\ in\ tp_multitexture_01.h$ Change 92634 on 2003/03/28 by llefebvr@llefebvre_laptop_r400_emu Change 92282 on 2003/03/26 by markf@markf_r400_lt_marlboro In this test Z is exported in R1 from the vertex shader. Pixel shader was incorectly reading it from R0. Hence the missmatch. I fixed the shader and now the test works fine Added volume map tests Change 92632 on 2003/03/28 by markf@markf_r400_lt_marlboro Change 92216 on 2003/03/26 by omesh@omesh r400 linux marlboro only devel Cubic mipmpapped tests for TC Added other triangle sizes (quad coverage, multiple quad coverage, etc.) Change 92612 on 2003/03/28 by mkelly@fl_mkelly_r400_win_laptop Change 92213 on 2003/03/26 by omesh@omesh r400 linux marlboro only devel Checkpoint. Change 92583 on 2003/03/28 by mkelly@fl_mkelly_r400_win_laptop Added some basic tests for 2 sample and 4 sample modes Update RT state for pixel shader. Change 92193 on 2003/03/26 by kryan@kryan r400 win marlboro XP Change 92581 on 2003/03/28 by omesh@omesh r400 linux marlboro only devel Edit test to avoid compilation error on Windows since cannot Allowed each testcase to customize screen space size, to allow for have auto variable for first index of multi-dimensional array minimal FB file sizes.

Change 92567 on 2003/03/28 by markf@markf_r400_lt_marlboro

Added cubic environment map tests for TC

Change 92564 on 2003/03/28 by smoss@smoss_crayola_linux_ori

added sq stuf

Change 92560 on 2003/03/28 by ashishs@fl_ashishs_r400_win

testing some instructions together

Change 92430 on 2003/03/27 by ygiang@ygiang_r400_linux_marlboro

Page 227 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 92118 on 2003/03/25 by markf@markf_r400_lt_marlboro

Updated texture_manager.cpp to do gradient fills in the buildlevel function. Added some utility functions to tconst.cpp / tconst.h. Added several tc tests.

Change 92076 on 2003/03/25 by ashishs@fl_ashishs_r400_win

testing SETGE inbstruction

Change 92057 on 2003/03/25 by ashishs@fl_ashishs_r400_win

initial checkin for testing muladd instruction

Change 92049 on 2003/03/25 by ygiang@ygiang_r400_linux_marlboro

Page 228 of 510

fixed: random shaders test Fixing mem exports some more. Change 92029 on 2003/03/25 by markf@markf r400 lt marlbord Change 91564 on 2003/03/21 by ashishs@fl ashishs r400 win Change 91967 on 2003/03/25 by jhoule@jhoule_r400_win_lt Change 91503 on 2003/03/21 by jhoule@jhoule_r400_ma-jhoule-linux Added allocate/fillColor/genCheckerBoard in tp_uber_test.
Added appropriate support functions to UberMap and UberChain. Change 91486 on 2003/03/21 by Iseiler@Iseiler r400 win marlboro2 Updated tp_uber_test to enable specifying those. Change 91881 on 2003/03/24 by csampayo@fl_csampayo_r400 Depth buffering was disabled for the pred_ez test case, which exports depth Update to not use w component of input Change 91479 on 2003/03/21 by markf@markf r400 win marlboro Change 91839 on 2003/03/24 by omesh@omesh_r400_linux_marlboro_only_devel random shader test Added several directed color channel mask tests in combo with Change 91438 on 2003/03/20 by csampayo@fl_csampayo3 swap_lowblue (Apparently this combo was found to be bugged in the random regressions on the emulator) VGT output path stress tests Change 91819 on 2003/03/24 by ashishs@fl_ashishs_r400_win Change 91302 on 2003/03/20 by jhoule@jhoule_r400_win_lt testing MAX instruction tp lod deriv dedicated testbench modifications $\begin{array}{l} emu_lib/model/tp: \\ - \ Added \ tp_lod_deriv.\{h|cpp\} \ and \ tp_lod_deriv_parser.\{h|cpp\} \end{array}$ Change 91814 on 2003/03/24 by ashishs@fl_ashishs_r400_win - Rouced by Tourist Passer, righty and pro- Gent Passer, righty?

- Fixed bugs in the tp_lod_corrector (precision loss forced A into BCD)

- Added BD-AC term in ABCD class

- Cleaned up print routines in the corrector

- Added Float_32b, Float_16b, and Float_24b in tp_types.h (used by Gradients) testing MIN instruction Change 91802 on 2003/03/24 by ashishs@fl_ashishs_r400_win testing fract instruction $\label{eq:continuous} \begin{tabular}{l} test_lib/src/chip/gfx/tp/standalone/tp_lod_deriv: \\ - Links statically with gfx_model.lib in order to remove exported symbol issues - Options parsing enabling dumping of the ABCD terms \\ \end{tabular}$ Change 91633 on 2003/03/21 by ashishs@fl_ashishs_r400_win plotting points to get logarithmic curve Change 91627 on 2003/03/21 by ashishs@fl_ashishs_r400_win Note: this subblock is NOT yet integrated in tp.cpp. plotting points to get an exponential curve Change 91276 on 2003/03/20 by jhoule@jhoule r400 ma-jhoule-linux Change 91611 on 2003/03/21 by markf@markf_r400_linux_marlboro Adding simple test to check TP_TC testbench Change 91174 on 2003/03/20 by mkelly@fl_mkelly_r400_win_laptop Change 91585 on 2003/03/21 by llefebvr@llefebvr_r400_emu_montreal Updated based on advise from Harry...
I recommend setting the registry key to speed up the validation Fixing wrong aluId number in arbiter Page 229 of 510 Page 230 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history SC debug register coverage.. [HKEY LOCAL MACHINE\SOFTWARE\ATI Technologies\Debug] "pm4MicroLoadDisable"=dword:00000001 Change 90769 on 2003/03/18 by ashishs@fl ashishs r400 win This key will allow the CP Microcode to be loaded via a back door load rather than many register writes. Testing DOT3 instruction using input memory, constant memory and output buffers

This program loads the constant memory with matrices and constants using the loaded matrices it rotates the position and textures input
vectors and scales the input color, fog and The results are output
to the output buffers and should be the same as passing input thru to output Change 91034 on 2003/03/19 by ashishs@fl ashishs r400 win Testing RECIPSQ_IEEE instruction Change 90744 on 2003/03/18 by mkelly@fl_mkelly_r400_win_laptop Change 91028 on 2003/03/19 by jhoule@jhoule_r400_win_lt Changed VFetch to ready _X1 instead of _Z1 when using FMT_32_FLOAT. Better test citizen for RTL code, since HiColor channel replication is not a HW Test para enable bit, update register coverage. Change 90741 on 2003/03/18 by ashishs@fl ashishs r400 win requirement. Testing DP4 instruction using input memory, constant memory and output buffers

This program loads the constant memory with Change 90991 on 2003/03/19 by omesh@omesh_r400_linux_marlboro Added fragment data surface and initialized it (0xab.....) within the address space matrices and constants using the loaded matrices it rotates the position and textures input vectors and scales the input color. The results are output to the output buffers and should be the same as passing input thru to output Change 90985 on 2003/03/19 by ashishs@fl_ashishs_r400_win Testing: RECIP instruction Change 90713 on 2003/03/18 by ashishs@fl ashishs r400 win This program moves the reciprocal of the input to the output using the RCP instruction with swizzle controls and write enables same as $r400sq_add_01$ but with different set of constant data such that the operations lie within the ieee floating point limits Change 90925 on 2003/03/19 by ashishs@fl ashishs r400 win Change 90711 on 2003/03/18 by ashishs@fl ashishs r400 win

Testing MUL instruction using input memory, constant memory and output This program loads the constant memory with random and constants using the loaded constants and the MUL instruction it massages the position, textures, colors. The results are output to the output buffers and should be the same as passing input thru to output

Change 90907 on 2003/03/19 by omesh@omesh_r400_linux_marlboro

Changed Destination Compare and Color Mask Compare programming to be non-replicating of values (Higher order 0 filled instead), in accordance with spec change. Haven't verified that it does' does not assert with new emulator changes.

Change 90898 on 2003/03/19 by ashishs@fl ashishs r400 win

Testing Move input to output with swizzle and write enables . This shader moves the input to the output using swizzle controls and write enables

Change 90883 on 2003/03/19 by mkelly@fl_mkelly_r400_win_laptop

Page 231 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

This test is intended to check the ADD instruction. After adding and subtractiong random constants to the input vertex data it moves the final result to the output buffers, effectively passing inputs to outputs.

Single triangle with XYZW, 4 colors and 6 textures.

The constants are setup in such a way that the register operations go in and out of the limits of ieee floating point limits during run time.

Change 90698 on 2003/03/18 by omesh@omesh r400 linux marlboro

Fixed the test problem involving max_sample_dist. The test now produces the missing 7th sample (0-7 samples).

Change 90685 on 2003/03/18 by mkelly@fl_mkelly_r400_win_laptop

Change 90673 on 2003/03/18 by jayw@jayw_r400_linux_marlboro

Page 232 of 510

new regress scripts 8 MSAA masked sample 1 with resolve... Change 90655 on 2003/03/18 by omesh@omesh r400 linux marlboro Change 90221 on 2003/03/14 by csampayo@fl_csampayo_r400 Added a fan1_8samp_color8888_bug testcase that scissors the missing sample pixel in question. This will aid the SC people to debug the Update for co-issue instructions symptom better Change 90179 on 2003/03/14 by csampayo@fl_csampayo2_r400 Change 90613 on 2003/03/17 by csampayo@fl_csampayo_r400 Control flow, predicate and multi-context and multi-prim test. Upfdated test_list accordingly Change 90164 on 2003/03/14 by ashishs@fl ashishs r400 win Change 90525 on 2003/03/17 by markf@markf_r400_lt_mariboro corrected texture maps in the test to match R300 test Added some HiZ tests Change 90161 on 2003/03/14 by mkelly@fl mkelly r400 win laptop Change 90501 on 2003/03/17 by smoss@smoss_crayola_linux_orl Change 90144 on 2003/03/14 by mkelly@fl mkelly r400 win laptop Isf makefile for sq Change 90475 on 2003/03/17 by csampayo@fl_csampayo_r400 Adusted timeout setting in cpp (+some cleanup), enabled LOOP 0 in vertex shader and updated some sub-routines for co-issue instructions Change 90081 on 2003/03/13 by georgev@devel georgev r400 lin2 mariboro tott More texture registers Change 90373 on 2003/03/15 by ygiang@ygiang_r400_pv2_marlboro Change 90069 on 2003/03/13 by jayw@jayw_r400_linux_marlboro fixed: cube random test added: vector random tests for sp More LEDA. Change 90054 on 2003/03/13 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 90309 on 2003/03/14 by kmeekins@kmeekins_r400_win Clamped the FIFO size to use a minimum depth of 8 Made texture bigger Change 90047 on 2003/03/13 by llefebvr@llefebvr_r400_emu_montreal Change 90251 on 2003/03/14 by mkelly@fl mkelly r400 win laptop sc sp centers/centroids parameters 13, 14, 15 fixing test to use center instead of centroid on p2 Change 90244 on 2003/03/14 by jhoule@jhoule_r400_win_marlboro Change 90042 on 2003/03/13 by ashishs@fl_ashishs_r400_win Contains 3 forms of VFetches: updated - FMT_32_FLOAT - FMT_32_32_FLOAT + FMT_32_FLOAT Change 90039 on 2003/03/13 by ashishs@fl_ashishs_r400_win - FMT_32_32_32_FLOAT This test processes a single triangle with input/output vertex data: xyzw0; colors 0-3 and Current set to the middle one. textures 0-7 Two sets of vertex data are stored in constant memory and only pointers to them are set Change 90230 on 2003/03/14 by mkelly@fl_mkelly_r400_win_laptop Page 234 of 510 Page 233 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history The vertex shader program loaded has several loops jumps and calls. The test processes 16 packets Change 89829 on 2003/03/12 by ashishs@fl ashishs r400 win randomly selecting booleans so that one or the other set of vertex data is processed and loop controls are also randomly set. added some VS and PS base and size control statements for random changes, commented for now , the test uses VS and PS loaded at 0 and 256 respectively and similarly for constants. Change 90038 on 2003/03/13 by georgev@devel georgev r400 lin2 marlboro tott Change 89800 on 2003/03/12 by mkelly@fl mkelly r400 win laptop Fix /0 error Primtype detection in the pixel shader, gpr positions 2 - 8 Change 90035 on 2003/03/13 by mkelly@fl_mkelly_r400_win_laptop Change 89765 on 2003/03/12 by mkelly@fl mkelly r400 win laptop Add dummy file for script Change 90033 on 2003/03/13 by mkelly@fl_mkelly_r400_win_laptop Change 89699 on 2003/03/12 by mkelly@fl_mkelly_r400_win_laptop sc_sp sampling through interpolators, parameters 3 - 8 Check prim type in the shader for parameter gen pos 2 $\,$ Change 90031 on 2003/03/13 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 89574 on 2003/03/11 by ashishs@fl_ashishs_r400_win Added new tests to parameterized list. changed pix center to better match equivalent r300 test Change 90011 on 2003/03/13 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 89570 on 2003/03/11 by mkelly@fl_mkelly_r400_win_laptop Changed to do textures only for 1 test. It's faster that way Update comments Change 89996 on 2003/03/13 by mkelly@fl_mkelly_r400_win_laptop Change 89569 on 2003/03/11 by mkelly@fl_mkelly_r400_win_laptop Sampling methods on parameter 3.. Check POLY, POINT, LINE prim type detection in SP on parameter 0 Change 89992 on 2003/03/13 by jayw@jayw_r400_linux_marlboro Change 89567 on 2003/03/11 by ashishs@fl_ashishs_r400_win This test is intended to validate the ALU constant and instruction memory auto wrapping function. The test proces es 64 packets each with Change 89989 on 2003/03/13 by mkelly@fl mkelly r400 win laptop

Sample combinations on 2nd parameter in interpolators via sc_sp

Change 89951 on 2003/03/13 by mkelly@fl mkelly r400 win laptop

Prim type detection on gpr position 0, and 9 - 15

Change 89904 on 2003/03/12 by georgev@devel georgev r400 lin2 marlboro tott Added last tests.

Change 89860 on 2003/03/12 by markf@markf r400 lt marlbord

Fixed depth clear value and stencil clear value for r400rb zwave

Page 235 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

one 8 primitive triangle list containing 9 vertices with input/output vertex data: XYZW, 4 colors and 8 textures. For each packet the test sends a new matrix to the constant memory so that the shader rotates vertices differently from the others. The shader uses up all 256 entries of the constant memory and the instruction memory size is 256. Also, for or the Constant month of and the institution than on size its 250-745s, those to each packet the conastant and code memory offsets are updated with random values, as well as, the loading method is selected between 32/128 bits randomly.

Currently the test hasnt been tested with loading shaders at different offsets and thereby checking the wrapping of memory

Change 89553 on 2003/03/11 by georgev@devel_georgev_r400_lin2_marfboro_tott

Changes for bug 1449. Still not done.

Page 236 of 510

Change 89535 on 2003/03/11 by mkelly@fl_mkelly_r400_win_laptop Back face bit check parameters 3 through 8 Test XY on parameters 11 - 15 and 0 for sc sp interface Change 89297 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop Change 89507 on 2003/03/11 by csampayo@fl_csampayo_r400 Back face bit check on parameter 2... Change 89296 on 2003/03/10 by kryan@kryan_r400_win_marlboro_XP Change 89503 on 2003/03/11 by mkelly@fl_mkelly_r400_win_laptop Modified test to generate the correct resolve surface for — the case when HEIGHT > XY position from SC to SP on parameters 8 - 10 32, specifically: Change 89471 on 2003/03/11 by mkelly@fl_mkelly_r400_win_laptop SURFACE_PITCH = 128 Validate XY position from SC to SP, parameters 2 - 7 SURFACE HEIGHT = 64 Change 89419 on 2003/03/10 by jayw@jayw_r400_linux_marlboro Had to add lines to the resolve buffer() function to set Fixes for very 16 bit srepeat and urepeat precision. hang fix, bad state for tiling, the RB SURFACE EXTENTS pitch and height fields unknowns for rc cache signal Change 89382 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop - Also modified the render_state parameter to pass by reference (&render_state) Update.. rather than by value in the Change 89369 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop resolve_buffer() function. Export position as color 0 to the pixel shader to avoid SQ Deallocation Assert on an empty parameter store on a Position Only vertex The test gfx/sc/r400sc_msaa_8_resolve_01.cpp should update its Change 89364 on 2003/03/10 by mkefly@fl_mkefly_r400_win_laptop resolve_buffer() function to match these new changes Change 89289 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop Update.. Change 89359 on 2003/03/10 by omesh@omesh_r400_linux_marlboro_only_devel Changed test name, added to emu regression since it touches perf regs Increased framebuffer size for some larger testcases. Also added Change 89285 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop RB_SURFACE_EXTENT (pitch) field programming. Also added some more Removed separate render state function for resolve and integrated it into Main part of test using same render state throughout. Change 89343 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop Change 89120 on 2003/03/07 by csampayo@fl_csampayo_r400 Undate test based on recommendation from Kevin to fix RB assert for pitch Try and add the right test this time. Change 89328 on 2003/03/10 by mkelly@fl mkelly r400 win laptop Change 89118 on 2003/03/07 by csampayo@fl_csampayo_r400 Finish checking all parameters for face bit in pixel shader.. New test checking single/dual vertex vectors of various sizes. Updated test_list and test Change 89311 on 2003/03/10 by mkelly@fl_mkelly_r400_win_laptop Page 238 of 510 Page 237 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Multi-Pass Pixel shader, segment 0 color exported to segment 1... Change 89106 on 2003/03/07 by georgev@devel georgev r400 lin2 marlboro tott Change 89001 on 2003/03/07 by georgev@devel georgev r400 lin2 marfboro tott Added some new tests for Vic and Doug Added new tests, whacked on old ones Change 89093 on 2003/03/07 by omesh@omesh_r400_linux_marlboro_only_devel Change 88929 on 2003/03/06 by vromaker@vromaker r400 linux marlboro Added some more basic multisample testcases that stress the fragment fix to CFS that prevents a new thread from entering when the thread ID in the input pipe stage is different than the thread ID in the output pipe stage; also changed triangle size to $150\,\mathrm{for}$ sq_tests test case pred_eq_vec Change 89060 on 2003/03/07 by smoss@smoss crayola linux orl queue modified to remove lfcs25 Change 88913 on 2003/03/06 by csampayo@fl csampayo r400 Change 89059 on 2003/03/07 by mkelly@fl_mkelly_r400_win_laptop Adding mixed VGT 2/1 output vectors tests Update.. Change 88912 on 2003/03/06 by ashishs@fl ashishs r400 win Change 89047 on 2003/03/07 by georgev@devel_georgev_r400_lin2_marlboro_tott deleted since added the test r400sq_16tex_flatShade_combo_allFlat_01 Change 88911 on 2003/03/06 by ashishs@fl ashishs r400 win Fixed back jump labels. Change 89037 on 2003/03/07 by llefebvr@llefebvr_r400_emu_montreal Change 88904 on 2003/03/06 by georgev@devel_georgev_r400_lin2_marlboro_tott fixing dumps and memory export test Change 89032 on 2003/03/07 by csampayo@fl_csampayo_r400 Added max GPR multi context tests. Added pass-thru test with large (>64 indices) vertex vectors. Updated test list and test Change 88902 on 2003/03/06 by ashishs@fl ashishs r400 win tracker accordingly Change 89025 on 2003/03/07 by mkelly@fl_mkelly_r400_win_laptop Change 88901 on 2003/03/06 by ashishs@fl_ashishs_r400_win Update... flat Shading all the parameters with ability to determine exact parameter failing using different color combinations Change 89020 on 2003/03/07 by llefebvr@llefebvr_r400_emu_montreal bad GPR alloc on this test Change 88885 on 2003/03/06 by ashishs@fl ashishs r400 win Change 89016 on 2003/03/07 by mkelly@fl mkelly r400 win laptop Change 88877 on 2003/03/06 by dougd@dougd_r400_linux_marlboro Shader face bit check on parameter 2 Change 89008 on 2003/03/07 by csampayo@fl csampayo r400 $added \ " \ DEFINE_TEST_CASE_NAME (reg_indexing_max_gpr);" for the new test case$ Change 88872 on 2003/03/06 by llefebvr@llefebvr_r400_emu_montreal Change 89006 on 2003/03/07 by mkelly@fl_mkelly_r400_win_laptop fixed shader. Page 240 of 510 Page 239 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Change \$8867 on 2003/03/06 by ashishs@fl_ashishs_r400_win if nan_retain is true for x,y,z,w the clipper retains the primitives even if they have nan/infinite data in the vertex, and the primitive is clamped in the vte which has nan/infinite data adding test same as r400sq_16tex_flatShade_combo_first_01 with provoking vtx as (nan/inf data passed from the clipper as well as generated by the vte using scale/offset) Change 88687 on 2003/03/05 by llefebvr@llefebvr_r400_emu_montreal Change 88865 on 2003/03/06 by ashishs@fl ashishs r400 win Fixing +/-0 bug in emu and type setting changed file names by deleting the old files Change 88665 on 2003/03/05 by vromaker@vromaker r400 linux marlbord Change 88864 on 2003/03/06 by ashishs@fl_ashishs_r400_win reduced default triangle size to 15, reduced multi_context triangle size to 5 SQ Interpolation test. This tests checks the "param_shade" field of the SQ INTERPOLATOR. CNTL register. The 16 textures are transferred on 16 different parameters with the texture comers giving the vertex color. 4 different combinations (out of 2°16 possible) of the 16 bit param_shade register thereby having combination of flat as well as Change 88659 on 2003/03/05 by jayw@jayw_r400_linux_marlboro Bug fix for missing define. gourand shading on different parameters with first vertex as the provoking vtx Change 88634 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop Change 88852 on 2003/03/06 by georgev@devel_georgev_r400_lin2_marlboro_tott Update shader New test for GPR registers. Updates to MC test Change 88624 on 2003/03/05 by mkelly@fl mkelly r400 win laptop Change \$8770 on 2003/03/06 by ashishs@fl_ashishs_r400_win changed nan retain to default(false) Change 88592 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop Change 88746 on 2003/03/06 by mkelly@fl_mkelly_r400_win_laptop Completes initial check of prim type detection in the pixel shader checking SQ POINT (r400sc_sp_sample_cntl_09), SQ LINE Change 88588 on 2003/03/05 by mkelly@fl mkelly r400 win laptop c_sp_sample_cntl_11) and SQ POLY (this checkin) (r400sc Pixel shader primtype LINE detection from SC / SQ / SP Change 88740 on 2003/03/06 by mkelly@fl mkelly r400 win laptop Change 88584 on 2003/03/05 by mkelly@fl mkelly r400 win laptop Finalize test now that emu lib bugs have been squashed... Comment update.. Change 88691 on 2003/03/05 by ashishs@fl_ashishs_r400_win Change 88581 on 2003/03/05 by ygiang@ygiang_r400_pv2_marlboro forgot to add Part2 added: more sp cube tests Change 88690 on 2003/03/05 by ashishs@fl_ashishs_r400_win Change 88578 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop removed a test error, checked nan retain bits with CLIPPING DISABLED Zero out event initiator value in test before writing the event field if nan_retain is false for x,y,z,w the clipper discards the primitives having infinite data and the vte generates a null primitive for each of the discarded primitive, also if the vte generates Change 88575 on 2003/03/05 by csampayo@fl csampayo r400 infinity/nan data for the primitive (using scale/offset) primitive is clamped to -4k to 12k (as seen Do not index vector w component since, it does not get to SQ. in ClipGa alg.dmp) Change 88535 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop Page 241 of 510 Page 242 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Gold for multipass IBs and SC loop signaling .. Change 88350 on 2003/03/04 by jhoule@jhoule r400 win marlboro Change 88534 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop MultiPass Indirect Buffer multiple looping. Change 88518 on 2003/03/05 by mkelly@fl mkelly r400 win laptop Change 88298 on 2003/03/04 by mkelly@fl_mkelly_r400_win_laptop Change a comment.. Set scissors to process exactly 2 pixel vectors

Change 88535 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop

Page 242 of 510

Ex. 2052 --- R400 Testing FH --- foler_history

Change 88350 on 2003/03/04 by jhoule@jhoule_r400_win_marlboro

Added support for clipping in frame_buffer block.
Use clip_x, clip_y to specify the top left corner, and clip_w, clip_h to specify the size of the clipped area.

Change 88298 on 2003/03/04 by mkelly@fl_mkelly_r400_win_laptop

Set scissors to process exactly 2 pixel vectors

Change 88293 on 2003/03/04 by smoss@smoss_crayola_linux_orl

Crlando Hardware Regression Results >

Change 88290 on 2003/03/04 by llefebvr@llefebvr_r400_emu_montreal

multiple state setting related issues with this test.

Change 88211 on 2003/03/03 by ashishs@fl_ashishs_r400_win
updated

Change 88187 on 2003/03/03 by ashishs@fl_ashishs_r400_win
commented out r400sq_plane.cpp

Change 88186 on 2003/03/03 by ashishs@fl_ashishs_r400_win
updated to include the SQ block

Change 88142 on 2003/03/03 by ashishs@fl_ashishs_r400_win
checkin for regress_e

Change 88517 on 2003/03/05 by smoss@smoss_crayola_linux_orl

update

Change 88515 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop

MultiPass Indirect Buffer / SC pixel LOOP interaction / 2 Segment / 2 Pass

Change 88514 on 2003/03/05 by smoss@smoss_crayola_linux_orl

update

 $Change~88511~on~2003/03/05~by~omesh@omesh_r400_linux_marlboro_only_devel$

Added all the current changes for multisampling tests recently proved to be pass on $\mbox{\sc h/w}$ vs. emulator in the

basic multisample testcase.

Change 88508 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop

POINT primtype detection in the pixel shader...

Change 88503 on 2003/03/05 by mkelly@fl_mkelly_r400_win_laptop

Update screen to 128x64 to show resolve dump bug...

Change 88445 on 2003/03/04 by csampayo@fl_csampayo_r400

More VGT pass-thru tests checking grouper data types

Change 88419 on 2003/03/04 by smoss@smoss_crayola_linux_orl

add Isf makefile

Change 88351 on 2003/03/04 by jhoule@jhoule_r400_win_marlboro

Better colors. Values are now 0x00, 0x40, 0x80, 0xB0, 0xFF

Page 243 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 88123 on 2003/03/03 by kevino@kevino_r400_win_marlboro

Fixed test

Change 88118 on 2003/03/03 by mkelly@fl_mkelly_r400_win_laptop

Detect point/non-point primtype in shader

Change 88104 on 2003/03/03 by kevino@kevino_r400_linux_marlboro

a couple test fixes

Change 88076 on 2003/03/03 by kevino@kevino_r400_linux_marlboro

Page 244 of 510

Change 87756 on 2003/02/28 by mkelly@fl_mkelly_r400_win_laptop Added a couple simple highlat tests Getting closer on multi-pass IB / SC interaction... Change 88039 on 2003/03/03 by smoss@smoss_crayola_linux_orl Change 87750 on 2003/02/28 by smoss@smoss_crayola_win added 0x8000 line Change 88036 on 2003/03/03 by georgev@devel georgev r400 lin2 marlboro tott Change 87730 on 2003/02/28 by ashishs@fl ashishs r400 win Updated for test name changes. to test the SQ parameter wrapping for para 0 on S and T bits. Change 88028 on 2003/03/03 by omesh@omesh_r400_linux_marlboro_only_devel The test has 2 very simple cases with the first case being wrapped on S Added background clear color register programming to make sure h/w flushes out the color expansion. To demonstrate this 2 color band textures(one vertical and one horizontal color band) are loaded in the texture memory. 2 Shaders are generated using the VFD such that in 1 shader texture 0 is fetched using parameter 0 and in the second shader texture 1 is fetched using the same parameter 0. Change 88003 on 2003/03/03 by georgev@devel georgev r400 lin2 marlboro tott Changed test names for Vic. Currently you can see that the texture is being just wrapped in T and the Change 87844 on 2003/02/28 by jhoule@jhoule r400 win marlboro parameter wrapping in S fails Change 87727 on 2003/02/28 by smoss@smoss_crayola_linux_orl Support for scissoring in frame buffer block Change 87816 on 2003/02/28 by georgev@devel_georgev_r400_lin2_marlboro_tott build test list is true Added Franks test for MC stuff. Change 87688 on 2003/02/28 by smoss@smoss_crayola_win Change 87780 on 2003/02/28 by ihoule@ihoule r400 win marlboro update Missing texture for clamping tests. Change 87678 on 2003/02/28 by mkelly@fl_mkelly_r400_win_laptop Change 87769 on 2003/02/28 by ashishs@fl_ashishs_r400_win Checkpoint on multi-pass indirect buffers with SC signaling... updated to change the texture coords Change 87677 on 2003/02/28 by mkelly@fl mkelly r400 win laptop Change 87765 on 2003/02/28 by mkelly@fl_mkelly_r400_win_laptop You will need this vtx shader for the multi-pass test... Change 87651 on 2003/02/28 by csampayo@fl_csampayo2_r400 Change 87764 on 2003/02/28 by smoss@smoss crayola win Change 87464 on 2003/02/27 by ashishs@fl ashishs r400 win Change 87761 on 2003/02/28 by mkelly@fl_mkelly_r400_win_laptop initial checkin Page 245 of 510 Page 246 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 87462 on 2003/02/27 by ashishs@fl ashishs r400 win Change 87056 on 2003/02/26 by mkelly@fl mkelly r400 win laptop temporary checkin for test Change 87440 on 2003/02/27 by mmang@mmang_crayola_linux_orl Change 87051 on 2003/02/26 by mkelly@fl_mkelly_r400_win_laptop Predicated parameter cache writes. Msaa 8 with resolve Change 87392 on 2003/02/27 by smoss@smoss_crayola_linux_orl Change 87048 on 2003/02/26 by kryan@kryan_r400_win_marlboro_XP removed timestamp for unix Modified test to initialize background of Fragment Data portion of the Color Surface with fragment_background_color Change 87280 on 2003/02/27 by csampayo@fl_csampayo2_r400 Change 87045 on 2003/02/26 by ygiang@ygiang_r400_pv2_marlboro Sorted list added:sq control flow test Change 87279 on 2003/02/27 by mkelly@fl_mkelly_r400_win_laptop Change 87018 on 2003/02/26 by georgev@devel_georgev_r400_lin2_marlboro_tott Update geometry to black and white pinwheel. Added fixes for windows loop counter bug Change 87252 on 2003/02/27 by mkelly@fl_mkelly_r400_win_laptop Change 86896 on 2003/02/25 by smoss@smoss_crayola_linux_orl Name changes for Steve ... update Change 87248 on 2003/02/27 by mkelly@fl mkelly r400 win laptop Change 86822 on 2003/02/25 by ashishs@fl_ashishs_r400_win Name changes for Steve... checking flat shading on each respective parameter export, using 16 shaders for each Change 87247 on 2003/02/27 by mkelly@fl_mkelly_r400_win_laptop Change 86793 on 2003/02/25 by georgev@devel_georgev_r400_lin2_marlboro_tott Name changes for Steve.. Change 87175 on 2003/02/26 by csampayo@fl csampayo r400 Put in constant register writes for Doug. Update test to use all 8 contexts, update test tracker accordingly Change 86782 on 2003/02/25 by markf@markf_r400_linux_marlboro Change 87168 on 2003/02/26 by csampayo@fl csampayo r400 Added bilinear Add new VGT pass-thru tests Change 86728 on 2003/02/25 by mkelly@fl mkelly r400 win laptop Change 87165 on 2003/02/26 by ashishs@fl_ashishs_r400_win Need PrimLib to add example useage, thank you initial checkin for flat shading interpolation on all the 16 parameters each with a different texture and blending color at texture comers for flatShading Change 86721 on 2003/02/25 by mkelly@fl mkelly r400 win laptop Add cp_pfp_ib1.dmp Change 87146 on 2003/02/26 by smoss@smoss crayola linux orl Change 86718 on 2003/02/25 by csampayo@fl_csampayo2_r400 update Page 247 of 510 Page 248 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Changed scissor so SC has more pixel vectors to process..

Tests compile (but not checked)

Change 88068 on 2003/03/03 by kevino@kevino r400 win marlboro

```
Change 86713 on 2003/02/25 by ashishs@fl ashishs r400 win
                                                                                                                                         Adding pass-thru tests with 32 bit indices
       updated for r400sq_16tex_interp_combo_01
                                                                                                                                  Change 86601 on 2003/02/24 by ashishs@fl_ashishs_r400_win
Change 86702 on 2003/02/25 by ashishs@fl ashishs r400 win
                                                                                                                                         correcting the test. list so that there are 21 tests for SO non parameterised
        added GFX IDLE NO FLUSH
                                                                                                                                  Change 86593 on 2003/02/24 by csampayo@fl_csampayo2_r400
Change 86695 on 2003/02/25 by ashishs@fl_ashishs_r400_win
                                                                                                                                         Remove duplicate test name
generating 64 shaders, each unique in terms of combination of parameters it exports, thereby permuting selected few testcases out of the possible 2^16 combinations for parameter
                                                                                                                                  Change 86528 on 2003/02/24 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                         Multi-Pass Pixel shading test, needs CP Indirect Buffer Multi-Pass mode
Change 86686 on 2003/02/25 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                  Change 86472 on 2003/02/24 by jayw@jayw_r400_linux_marlboro_rbrc
                                                                                                                                         Fixed SREPEAT negative values rounding.
Change 86661 on 2003/02/25 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                 Change 86426 on 2003/02/24 by omesh@omesh r400 linux marlboro only devel
       Simple RTS for Christeen...
                                                                                                                                         Added an explicit No Blend programming, as emulator was recently
Change 86653 on 2003/02/25 by smoss@smoss_crayola_linux_orl
                                                                                                                                  Change 86423 on 2003/02/24 by ashishs@fl_ashishs_r400_win
                                                                                                                                         undated
Change 86622 on 2003/02/24 by jhoule@jhoule r400 win mariboro
                                                                                                                                 Change 86397 on 2003/02/24 by omesh@omesh r400 linux marlboro only devel
       Added support for including tp_uber_test.
                                                                                                                                         Added an explicit No Blend programming, as emulator was recently asserting.
       #define INCLUDE_TP_UBER_TEST
#include "tp_uber_test.cpp"
                                                                                                                                 Change 86391 on 2003/02/24 by georgev@devel_georgev_r400_lin2_marlboro_tott
                                                                                                                                         First version to build all tests for diag
        void ParseTestInfo()
                                                                                                                                 Change 86351 on 2003/02/24 by mkelly@fl mkelly r400 win laptop
         //Read TESTINFO structure here
                                                                                                                                         Adding enhancement list for next project at end of script
                                                                                                                                 Change 86147 on 2003/02/21 by jhoule@jhoule r400 win marlboro
Added\ clamping\ test,\ which\ parses\ the\ TEST\_CASE\ name\ to\ extract\ filename,\ clamping\ policies,\ clamping\ mode,\ border\ size,\ and\ filter\ type.
                                                                                                                                         Adding Clamping tests
Change 86614 on 2003/02/24 by georgev@devel_georgev_r400_lin2_marlboro_tott
                                                                                                                                 Change 86146 on 2003/02/21 by jhoule@jhoule_r400_win_marlboro
       Fixed multi-context tests to run ouicker
                                                                                                                                 Modified \ test to \ be \ able \ to \ specify \ texture \ information \ in \ multiple \ texture \{\} \ blocks, potentially \ spread \ across \ multiple \ files (using includes).
                                        Page 249 of 510
                                                                                                                                                                         Page 250 of 510
                                                  Ex. 2052 --- R400 Testing FH ---foler_history
                                                                                                                                                                                    Ex. 2052 --- R400 Testing FH ---foler_history
                                                                                                                                         added DIFF
Change 86072 on 2003/02/21 by smoss@smoss crayola linux orl
                                                                                                                                 Change 85891 on 2003/02/21 by ashishs@fl_ashishs_r400_win
                                                                                                                                         changing test names
Change 86069 on 2003/02/21 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                 Change 85886 on 2003/02/21 by mkelly@fl mkelly r400 win laptop
       Update..
                                                                                                                                         Add Larry's latest RB change control, default to 0 User must set it to 1 to get old RB blender
Change 86067 on 2003/02/21 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                 Change 85871 on 2003/02/21 by mkelly@fl_mkelly_r400_win_laptop
       Update..
Change 86064 on 2003/02/21 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                         Add RB setup, extend timeout...
                                                                                                                                 Change 85868 on 2003/02/21 by mkelly@fl mkelly r400 win laptop
       Update gradient on Line RTS..
Change 86036 on 2003/02/21 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                         Extend timeout
       Update..
                                                                                                                                 Change 85867 on 2003/02/21 by mkelly@fl mkelly r400 win laptop
                                                                                                                                        Extend idle timeout, add RB setup for MSAA, disable JSS when MSAA = true, set msaa num samples = 0 when JSS = true.
Change 86035 on 2003/02/21 by jayw@jayw_r400_linux_marlboro_rbrc
       Fix for one pass fog ONLY precision down to 1.5.12
                                                                                                                                 Change 85774 on 2003/02/20 by csampayo@fl_csampayo_r400
Change 86020 on 2003/02/21 by omesh@omesh r400 linux marlboro only devel
                                                                                                                                         Adding point size clamping tests
       Changed test to use non symmetrical colors for vertices for more interesting testing.
                                                                                                                                 Change 85752 on 2003/02/20 by Iseiler@Iseiler r400 win marlboro2
Change 85994 on 2003/02/21 by mkelly@fl mkelly r400 win laptop
                                                                                                                                         Fix RB blender precision problem and release updated golden images for regress e
       Finish coverage of all x_dir y_dir walk directions for RTS prims
                                                                                                                                  Change 85711 on 2003/02/20 by georgev@devel_georgev_r400_lin2_marlboro_tott
Change 85982 on 2003/02/21 by georgev@devel_georgev_r400_lin2_marlboro_tott
                                                                                                                                         Added predicated Z test (first revision).
       Made buffers indirect.
                                                                                                                                  Change 85667 on 2003/02/20 by smoss@smoss_crayola_linux_orl
Change 85930 on 2003/02/21 by omesh@omesh r400 linux marlboro only devel
                                                                                                                                          removed illegal ,write tests
       Fixed bug in test (color buffer was allocated AFTER the tile buffer, which resulted in an
overlap).

Verified that Primlib now produces a non zero and sensible Tile Buffer Base Address.
                                                                                                                                  Change 85628 on 2003/02/20 by omesh@omesh_r400_linux_marlboro_only_devel
                                                                                                                                         Fixed a typo in the test that was causing some testcases to assert. This
Change 85917 on 2003/02/21 by ashishs@fl ashishs r400 win
                                                                                                                                         should fix about 4 assertions
       added new tests using flat shading in the older tests...
                                                                                                                                  Change 85626 on 2003/02/20 by mkelly@fl_mkelly_r400_win_laptop
Change 85915 on 2003/02/21 by jayw@jayw_r400_linux_marfboro
                                                                                                                                         Undate..
                                                                                                                                                                         Page 252 of 510
                                        Page 251 of 510
                                                  Ex. 2052 --- R400 Testing FH ---foler_history
                                                                                                                                                                                    Ex. 2052 --- R400 Testing FH ---foler_history
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Change 86605 on 2003/02/24 by csampayo@fl_csampayo_r400

Updated to change max mem to 128M

Change 85578 on 2003/02/20 by smoss@smoss_crayola_win · This change was tested with full clobber/sanitize of the environment to make sure old binaries weren't erroneously linked.

Impact should now be minimal, since programs using the old static libraries were already using the address library.

Some large modifications might only be tabs->spaces, or trailing spaces removal only look at rd r file for read tests Change 85577 on 2003/02/20 by mkelly@fl_mkelly_r400_win_laptop (changed default editor behavior in the middle of the process to reduce the Change 85558 on 2003/02/20 by mkelly@fl mkelly r400 win laptop Change 85491 on 2003/02/20 by mkelly@fl_mkelly_r400_win_laptop Increased idle timeout, taking longer now that stipple is reset at each primitive Change 85475 on 2003/02/20 by mkelly@fl_mkelly_r400_win_laptop Change 85502 on 2003/02/20 by smoss@smoss_crayola_linux_orl_regress RTS rectangle walk direction x dir = 0, v dir = 1 <Orlando Hardware Regression Results > Change 85419 on 2003/02/19 by csampayo@fl csampayo r400 Change 85500 on 2003/02/20 by ashishs@fl ashishs r400 win Added r400sq_pressure_context_combo_01 to the list deleting files Change 85377 on 2003/02/19 by smoss@smoss crayola linux orl regress Change 85499 on 2003/02/20 by ashishs@fl_ashishs_r400_win now passes with new VFD change (just removed errorneous data from VFD description) Also removed the shader files since will be generated automatically using the new VFD change. Change 85354 on 2003/02/19 by smoss@smoss_crayola_linux_orl_regress Change 85495 on 2003/02/20 by smoss@smoss crayola linux orl regress changed the queue Change 85334 on 2003/02/19 by ashishs@fl ashishs r400 win Change 85493 on 2003/02/20 by jhoule@jhoule_r400_win_marlboro updated description in the test Removing addrtile and addrenum: look for them in address Change 85331 on 2003/02/19 by ashishs@fl ashishs r400 win This reduces the number of libraries to link against, as well as removing static library SQ interpolation test generating 16 shaders each shader exporting different number of paramters. Thus depending on the number of parameters exported the image gets corresponding number of textures. dependency issues, Under cmn lib/src Moved addrenum. (h|c) and addrtile. (h|c) to address directory, removing them for their old location in the process.

- Changed addrtile and addrenum to import/export symbols correctly (using Larry's defines, ready to be used!). Change 85288 on 2003/02/19 by llefebvr@llefebvr r400 emu montreal Adding a context pressure test to the SQ test list. This test exercices the arbiters to make Changed malloc prototype with an #include <stdlib.h>. sure no threads pass each other in any circomstance. It has overlaping primitives (32) and uses 4 different shaders of different lenghts. The overlaping primitives are used to make sure the Makefiles primitives are rendered in the right order. Changed to NOT link with the static libraries Change 85275 on 2003/02/19 by kryan@kryan_r400_win_marlboro_XP Other source files: - Changed to look at directory 'address' for addrtile.h or addrenum.h Page 254 of 510 Page 253 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history - Modify test to use ${\rm IM_LOAD}$ packet for loading Shader to use Type-0 PM4 packets, Add CP parameterized tests to Full Emulator Regression and Steve's HW Simulations. Use script \$r400/devel/test_lib/src/chip/gfx/pa_regress/runp to run parameterized tests. and this was causing the test to not behave correctly. Edit file \$r400/devel/test_lib/src/chip/sys/cp/test_list_paramterized for controlling which tests are run in the full paramterized emulator regression for the non-t option. - Also had to increase the timeout to 2000 after modifying shader program load method Golds for these test cases should be copied to \\fl00fsr02\TestVectors\R400\gold Change 85235 on 2003/02/19 by jhoule@jhoule_r400_win_lt This checked in file is for full regression running locally in the pa_regress directory which Adding FMT 24 8* formats is one of three options in running the parameterized tests. Just for a reminder, here are the options to running paramterized tests: Change 85026 on 2003/02/18 by mkelly@fl_mkelly_r400_win_laptop -h display useage Real Time Stream primitive type = point, intermixed w/non-RT -c use compare list in pa regress dir by default -d maximum delta allowed between src and gold image and still PASS -p copy regression results to Orlando R400 Web -s get current sync and stamp it on output directory name Change 84987 on 2003/02/18 by ashishs@fl_ashishs_r400_win SQ interpolation test generating 16 shaders each shader exporting different number of -t build and use test list parameterized from all unit test list parameterized files paramteres -z gzip test output files after compare Change 84986 on 2003/02/18 by vbhatia@vbhatia_r400_linux_marlboro 1, you can run "runp" script in the unit directory and it will use the local file test_list_paramterized 2, you can run "runp" in the pa_regress directory and it will use the local file Deleted to save space test_list_paramterized 3, you can run "runp" in the pa_regress directory with option -t as described above Change 84984 on 2003/02/18 by vbhatia@vbhatia_r400_linux_marlboro Deleted some files to save space Change 84890 on 2003/02/18 by mkelly@fl mkelly r400 win laptop Change 84977 on 2003/02/18 by pmitchel@pmitchel r400 laptop 32 single quad prims in one packet, each vert with a different color Change 84881 on 2003/02/18 by mkelly@fl_mkelly_r400_win_laptop moving tp_formatter files to proper place $Change~84974~on~2003/02/18~by~georgev@devel_georgev_r400_lin2_marlboro_tott$ Change 84553 on 2003/02/14 by ashishs@fl_ashishs_r400_win Change 84948 on 2003/02/18 by jhoule@jhoule r400 win It Template and common files for Formats4x4 tests Change 84550 on 2003/02/14 by ashishs@fl_ashishs_r400_win Change 84913 on 2003/02/18 by ashishs@fl ashishs r400 win updated wrapping each of the 16 parameters (16 textures) on either S, T, or ST (test maybe used for hardware verification) Change 84526 on 2003/02/14 by ashishs@fl_ashishs_r400_win to test the SQ parameter wrapping 0 and 1 registers for para 0-15 on S and T bits. Change 84899 on 2003/02/18 by mkelly@fl_mkelly_r400_win_laptop Loading 16 shaders with each shader export on its respective parameter export

Page 255 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258297

Ex. 2052 --- R400 Testing FH ---foler_history

Page 256 of 510

Change 84510 on 2003/02/14 by jhoule@jhoule_r400_win_marfboro Change 84290 on 2003/02/13 by mkelly@fl mkelly r400 win laptop First try for multiple texture loas with the TM. RTS intertwined with Hi-Z viz query Change 84506 on 2003/02/14 by vgoel@fl_vgoel2 Change 84286 on 2003/02/13 by ashishs@fl ashishs r400 win added test r400vgt hos PNQ lp strip no proj 01 SQ 16 texture interpolation test (changed cl_barycentric_perspective tests with 16 Change 84505 on 2003/02/14 by mkelly@fl mkelly r400 win laptop Real Time Stream Line List Primitive Change 84281 on 2003/02/13 by omesh@omesh_r400_linux_marlboro_only_devel Change 84500 on 2003/02/14 by csampayo@fl_csampayo_r400 Used the tile surface class instead of the earlier one and verified that the test dumps a tile Remove test cases that are not complete or obsolete probably doesn't contain accurate data as the emulator doesn't do tile buffer operations. When I run this on h/w, it will hopefully produce a valid tile buffer dump which can be used by Kevin's code and DumpView for an intelligent compare. Will try that next.... Change 84486 on 2003/02/14 by pauld@pauld_r400_win_marlboro sync verification and diag files Change 84481 on 2003/02/14 by pauld@pauld_r400_win_marlboro Change 84276 on 2003/02/13 by omesh@omesh r400 linux marlboro only devel sync verification and diags files Added another testcase for Paul Vella (which seems to assert on the emulator for no aparent reason). I have contacted Larry about this. Change 84452 on 2003/02/14 by omesh@omesh r400 linux marlboro only devel Change 84239 on 2003/02/13 by ashishs@fl_ashishs_r400_win Changed tests to use the new COLOR_SURFACE class instead of the PIXEL_SURFACE class. to test sq interpolation with 16 textures Change 84235 on 2003/02/13 by mkelly@fl mkelly r400 win laptop Change 84441 on 2003/02/14 by mkelly@fl_mkelly_r400_win_laptop Change base color from C1 to C31 Change 84202 on 2003/02/13 by mkelly@fl mkelly r400 win laptop Change 84406 on 2003/02/14 by mkelly@fl_mkelly_r400_win_laptop Finalized using RB TILECONTROL to mimic Hi-Z culling by returning zeroed masks 32 1 quad prims, random color on each vert, each prim Change 84174 on 2003/02/13 by ashishs@fl ashishs r400 win Change 84403 on 2003/02/14 by csampayo@fl_csampayo2_r400 clipping with wrapping texture in S and T for 16 parameters Add new tests created by George Change 84167 on 2003/02/13 by georgev@devel georgev r400 lin2 mariboro tott Change 84333 on 2003/02/13 by ygiang@ygiang_r400_pv2_marlboro Added random test Change 84162 on 2003/02/13 by ashishs@fl_ashishs_r400_win Change 84293 on 2003/02/13 by mkelly@fl mkelly r400 win laptop to test the SQ wrapping 0 and 1 registers for para 0 -15 on S and T bits. Checkpoint Page 258 of 510 Page 257 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 84118 on 2003/02/13 by mkelly@fl_mkelly_r400_win_laptop Change for windows disk Disable poly offset for non-RT Change 83870 on 2003/02/12 by ashishs@fl_ashishs_r400_win Change 84112 on 2003/02/13 by mkelly@fl_mkelly_r400_win_laptop clipping 16 textured triangle_list Remove some comments in 03 new VIZ. Query pixel post hi-z kill test new VIZ. Query pixel post detail mask kill test Change 83834 on 2003/02/12 by georgev@devel_georgev_r400_lin2_marlboro_tott Change 84110 on 2003/02/13 by mkelly@fl mkelly r400 win laptop Change 83832 on 2003/02/12 by georgev@devel georgevhw r400 win marlboro Change 84106 on 2003/02/13 by mkelly@fl_mkelly_r400_win_laptop Change 83830 on 2003/02/12 by georgev@ma georgev Update.. Temp file for messing about. Change 84018 on 2003/02/12 by ashishs@fl_ashishs_r400_win Change 83828 on 2003/02/12 by ashishs@fl ashishs r400 win changed colors for better visibility Test to check context switching in SQ using large number of paramters in first packet and very less parameters in second packet and switching between the 2 types Change 84014 on 2003/02/12 by omesh@omesh_r400_linux_marlboro_only_devel The test is similar to the r400sq_1col_15tex_interp_01 except that this test generates 32 packets. The first 16 packets have alternating data as polygon with 15 textures and gourand shaded triangle. The next 16 packets are randomly switched between the 2 types of packets. Added a special testcase that Paul Vella wanted to check out. Change 83987 on 2003/02/12 by ashishs@fl_ashishs_r400_win rearranged texture coordinates Change 83815 on 2003/02/12 by georgev@devel_georgevhw_r400_win_marlboro Change 83978 on 2003/02/12 by omesh@omesh_r400_linux_marlboro_only_devel Took out sleep function so it would compile and run on windows. Added all tile buffer base address programming. This test should now have tiling Change 83812 on 2003/02/12 by ashishs@fl ashishs r400 win enabled. Will work with Kevin to make sure it produces the right data for compressed multisampled images to display correctly. test updated to generate shaders using VFD and deleting the old shaders Change 83921 on 2003/02/12 by omesh@omesh r400 linux marlboro only devel Change 83782 on 2003/02/12 by ashishs@fl ashishs r400 win Added some more testcases and also fixed some made gourand triangle hit only 4 pixels (single quad) Change 83880 on 2003/02/12 by ashishs@fl_ashishs_r400_win Change 83779 on 2003/02/12 by mkelly@fl_mkelly_r400_win_laptop enabled clipping Update Change 83879 on 2003/02/12 by ashishs@fl_ashishs_r400_win Change 83766 on 2003/02/12 by mkelly@fl_mkelly_r400_win_laptop removed extra data in VTX Checkpoint Change 83876 on 2003/02/12 by georgev@devel_georgev_r400_lin2_marlboro_tott Page 260 of 510 Page 259 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 83761 on 2003/02/12 by mkelly@fl_mkelly_r400_win_laptop Change 83583 on 2003/02/11 by georgev@devel_georgev_r400_lin2_marlboro_tott Add full tracking and reporting of the SQ block Added multiple context tests. Change 83731 on 2003/02/11 by ashishs@fl_ashishs_r400_win Change 83577 on 2003/02/11 by omesh@omesh_r400_linux_marlboro_only_devel adding test list for SO tests Even though there are some assertions I get on the emulator for some of the testcases, I believe Change 83730 on 2003/02/11 by ashishs@fl_ashishs_r400_win these assertions are invalid. I will clarify this with Larry. vtx and pix shaders for r400sq 1col 15tex interp 01 Change 83559 on 2003/02/11 by ashishs@fl_ashishs_r400_win Change 83727 on 2003/02/11 by ashishs@fl_ashishs_r400_win changed test name Test to check context switching in SQ using large number of paramters in first packet and Change 83551 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop very less parameters in second packet update RB setup Change 83666 on 2003/02/11 by ygiang@ygiang_r400_win_marlboro_p4 Change 83526 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop fixed:pixel vector sizes undate rb setup Change 83642 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop Change 83519 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop Handle only blending of textures in pixel shader. Requires setting CONSTANT 1 at the test level for the first blend stage. See r400sc_tri_16_par_64_dwords_02.cpp for example useage. undate rb setun Change 83511 on 2003/02/11 by mkelfy@fl_mkelfy_r400_win_laptop Change 83640 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop Update RB setup Update gold Change 83496 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop Change 83630 on 2003/02/11 by kryan@kryan_r400_win_marlboro Update RB setup for MSAA - Modify test to more closely match r400rb multisample fragmented*.cpp tests Change 83490 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop by setting the number of samples in the RB_COLOR0_INFO and RB_DEPTH_INFO Update RB setup for MSAA registers. Change 83489 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop - Modify test to pass RENDER_STATE into Dump() function of COLOR_SURFACE Disable polyoffset in nonRTS, disable stipple in RTS Change 83487 on 2003/02/11 by jhoule@jhoule r400 win marlboro that proper header is generated for DumpView. Adding the FMT_*_EXPAND formats Change 83617 on 2003/02/11 by ashishs@fl_ashishs_r400_win Change 83483 on 2003/02/11 by ashishs@fl ashishs r400 win updated to test SQ parameter wrapping for 8 textures with clipping(initial checkin) Page 261 of 510 Page 262 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 82921 on 2003/02/07 by csampayo@fl_csampayo_r400 Change 83479 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop Add back some missing tests Disable polyoffset in nonRTS packets. Change 82912 on 2003/02/07 by smoss@smoss_crayola_linux_orl_regress Change 83476 on 2003/02/11 by mkelly@fl_mkelly_r400_win_laptop changed unix output directory and hopefully output from stderr Disable polyoffset in the NON RTS packets. Change 82907 on 2003/02/07 by ygiang@ygiang_r400_win_marlboro_p4 Change 83423 on 2003/02/10 by ygiang@ygiang_r400_win_marlboro_p4 added: sp dot2add test with swizzle added: more mova tests Change 82884 on 2003/02/07 by kryan@kryan_r400_win_marlboro Change 83406 on 2003/02/10 by ygiang@ygiang_r400_win_marlboro_p4 Add PrimLib support for multisample Color Surfaces. added: another random mova test for sq Still in progress. Change 83335 on 2003/02/10 by mkelly@fl_mkelly_r400_win_laptop Checkpoint. COLOR SURFACE Change 83266 on 2003/02/10 by mkelly@fl_mkelly_r400_win_laptop - Modified Dump(RENDER_STATE&) function to reformat the dump for multisample Color Surfaces so that DumpView can Change 83233 on 2003/02/10 by mkelly@fl mkelly r400 win laptop display them correctly. Use all 4 SQ parameters for RT streams.. PIXEL_SURFACE Change 83218 on 2003/02/10 by ihoule@ihoule r400 win marlboro - Modified Fill Solid() function to take into account Added a bunch of useful textures; closer to regression suite integration. the number of samples for multisample Color Surfaces. Change 82977 on 2003/02/07 by markf@markf r400 lt marlboro Modified r400rb_zwave tests to use the tile buffer (depth will now be compressed) Please see gfx/rb/r400rb_msaa.cpp Change 82948 on 2003/02/07 by vromaker@vromaker_r400_linux_mariboro r400rb basic multisample.cpp one pixel vector version r499rb_multisample_fragmented.cpp Change 82945 on 2003/02/07 by ygiang@ygiang_r400_win_marlboro_p4 for examples of how to setup your COLOR SURFACE class for add: new sp const opcode tests multisample Color Surfaces. Change 82937 on 2003/02/07 by mkelly@fl_mkelly_r400_win_laptop Checkpoint... gfx/rb/tests

Page 263 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 264 of 510

- Modify to pass RENDER STATE into COLOR SURFACE::Dump() routine

r400_multisample_fragmented_resolve.cpp

- Make sure to dump multisample Color Surface before modifying RENDER_STATE for resolve Color Surface.

Change 82816 on 2003/02/07 by mkelly@fl mkelly r400 win laptop

Change 82814 on 2003/02/07 by viviana@viviana crayola linux orl

Removed the write/read of PA_SC_ENHANCE and PA_SC_WINDOW_OFFSET since $\ensuremath{\mathsf{PA}}$ they are read by the SC.

Change 82808 on 2003/02/07 by mkelly@fl_mkelly_r400_win_laptop

Validate dummy quad deallocation in pixel vector buffer is good

Change 82792 on 2003/02/07 by viviana@viviana_crayola_linux_orl

Removed PA_SC_CNTL_STATUS from both tests (read only register). Changed the data

written to the PA SC FIFO SIZE so that the maximum of 84 would not be exceeded

Change 82705 on 2003/02/06 by csampayo@fl csampayo r400

Change 82558 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Comment out poly_offset_03/10 until debugged

Change 82518 on 2003/02/06 by ihoule@ihoule r400 win marlboro

Added Fake_SP_TP_Formatter::prepare function to set things up:
- Put old hardware-accurate code in there
- Replaced NaNs with 0, since this is what the HW does (that zeroing is done in the

Changed looping code to better match the xyzw_parity

Page 265 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

TPBlender

Added kCS and kCE to localize loop count boundary calculations

Added mOutputPtr to speed up accesses using pixel and channel IDs Changed exponent adjust code to work only on modified channels

Change 82516 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Change 82507 on 2003/02/06 by mkelly@fl mkelly r400 win laptop

Initialize stipple state = 0x0

Change 82504 on 2003/02/06 by mkelly@fl mkelly r400 win laptop

Initialize pa_sc_line_stipple_state = 0x0

Change 82503 on 2003/02/06 by markf@markf_r400_linux_marlboro Random pixel shader test

Change 82494 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Enter some sq sx tests into main test list paramterized

Change 82490 on 2003/02/06 by mkelly@fl mkelly r400 win laptop

Enable SX and SQ for regression and gold compares using runp

Change 82474 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Parameterized cases for regressions and gold candidates

Change 82444 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Update for debug

Change 82441 on 2003/02/06 by llefebvr@llefebvr r400 emu montreal

not requesting enough GPRs..

Change 82438 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Change 82433 on 2003/02/06 by mkelly@fl mkelly r400 win laptop

Fix interpolator selection on shading.

Page 266 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 82431 on 2003/02/06 by mkelly@fl mkelly r400 win laptop

Fix interpolator selection on shading

Change 82429 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Simplified version of r400sc rts 12 for regress e

Change 82423 on 2003/02/06 by ashishs@fl_ashishs_r400_win

converted r400cl_ucp_combos_01 to write into the CL_ENHANCE (num of Clip Seq and Clip Prim Seq Stall) register and monitor any changes. Also read the CL_BUSY register

Change 82420 on 2003/02/06 by kevino@kevino_r400_win_marlboro

Added 512x512 texture point sampled to 512x512 square case

Change 82396 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Change 82392 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Update..

Change 82391 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Update.

Change 82386 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop

Fix stipple auto reset cntl, lines are now clipped, interpolate p0, not p1

Change 82378 on 2003/02/06 by mkelly@fl_mkelly_r400_win_laptop Stipple auto reset control = true always now

Change 82230 on 2003/02/05 by mkelly@fl_mkelly_r400_win_laptop

Shortened to assertion.

Change 82220 on 2003/02/05 by mkelly@fl mkelly r400 win laptop

Fix stipple auto_reset_cntl, enable CL, change line generation method

Change 82191 on 2003/02/05 by csampayo@fl csampayo r400

Forgot to save changes for this one

Page 267 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 82184 on 2003/02/05 by csampayo@fl csampayo r400

Increase max memory size for tests. Update spreadsheet

Change 82178 on 2003/02/05 by ashishs@fl_ashishs_r400_win

tests with various primitive types and edgeflag and ucp clipping, removing textures from the previous tests and using gouraud shading to check the interpolation

Change 82172 on 2003/02/05 by ygiang@ygiang r400 win marlboro p4

fixed: z16 does not support 32x32 depth buffer

Change 82090 on 2003/02/05 by mkelly@fl_mkelly_r400_win_laptop

Fix syntax error introduced in last checkin.

Change 82083 on 2003/02/05 by mkelly@fl_mkelly_r400_win_laptop

Fix syntax error from previous checkin.

Change 82082 on 2003/02/05 by mkelly@fl_mkelly_r400_win_laptop

Fix syntax error from previous check in.

Change 82081 on 2003/02/05 by mkelly@fl_mkelly_r400_win_laptop

Fixed syntax error preventing build from previous check in by Omesh.

Change 82067 on 2003/02/05 by mkelly@fl_mkelly_r400_win_laptop

Change 82043 on 2003/02/05 by liefebvr@llefebvr r400 emu montreal

This is a test problem. R0 is used whenever the pixel shader is sending front face information. Thus it is parameter 0 which should be FLAT shaded NOT parameter 1 (parameter 1 is the generated one with XYST). I changed line 669 in the test from FFFD to FFFE (flat shade param 0 instead of 1). Now the test works great.

Change 82035 on 2003/02/05 by mkelly@fl_mkelly_r400_win_laptop

Flat/Gouraud Shade interpolation bug

Change 81927 on 2003/02/04 by ashishs@fl_ashishs_r400_win

combination of rectangular points clipped by 6 clipping planes

Page 268 of 510

Change 81889 on 2003/02/04 by omesh@omesh r400 linux marlboro only devel Added RB programming related to multisampling so that the RB emulator does not assert when those changes are put in by Larry. I ran regress_e and the tests seem to work. Change 81877 on 2003/02/04 by mkelly@fl_mkelly_r400_win_laptop Fix VFD to remove invalid texture fetches which became a problem after Fix VFD for vtx kill, now fetches x channel instead of z during vfetch Change 81853 on 2003/02/04 by ygiang@ygiang_r400_win_marlboro_p4 added: rand addressing for mova test Change 81843 on 2003/02/04 by ygiang@ygiang_r400_pv_marlboro added: mova tests file

The goal of the test is to check rectangular points. This test has 64 points with varying

width and height of the point so as to get rectangular points BY setting point size in vtx data and clipping enabled, so that the CL registers for point size are used.

The test shows that rectangular points is not possible when the point size is set in the vertex data. Even putting unequal ratios in the X RADIUS and Y RADIUS of CL point size registers, the CL just uses X RADIUS to construct points when the point size is set thru the vertex data.

Change 81791 on 2003/02/04 by mkelly@fl_mkelly_r400_win_laptop

Change 81798 on 2003/02/04 by ashishs@fl_ashishs_r400_win

RTS intertwined with Viz Query and kill pix post detail mask

Change 81785 on 2003/02/04 by mkelly@fl mkelly r400 win laptop

RTS intertwined with VIZ QUERY and SC Kill pix post hi z..

Change 81769 on 2003/02/04 by smoss@smoss_crayola_win

increased timeout

Change 81731 on 2003/02/04 by mkelly@fl_mkelly_r400_win_laptop

Viz Query intertwined with RT streams, complete..

Change 81672 on 2003/02/03 by ygiang@ygiang_r400_win_marlboro_p4

Page 269 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

fixed: pixel kill tests

Change 81632 on 2003/02/03 by ygiang@ygiang_r400_win_marlboro_p4

Change 81598 on 2003/02/03 by ygiang@ygiang_r400_win_marlboro_p4

Change 81590 on 2003/02/03 by llefebyr@llefebyr r400 emu montreal Interpolation tests.

Change 81553 on 2003/02/03 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint on expanding test..

Change 81541 on 2003/02/03 by ygiang@ygiang_r400_win_marlboro_p4

added: pixel kill test

Change 81484 on 2003/02/03 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint, 2 viz querys / 1 RTS

Change 81453 on 2003/02/03 by llefebvr@llefebvr r400 emu montreal

fixing the segmentation fault on Linux.

Change 81420 on 2003/02/03 by ctaylor@ctaylor_crayola_linux_orl

Added PA SU POINT MINMAX description at request of driver Changed usage of cmdKeyObj in r400sc_rand.cpp to compile

Change 81412 on 2003/02/03 by ashishs@fl_ashishs_r400_win

updated

Change 81390 on 2003/02/03 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint.

Change 81373 on 2003/02/03 by mkelly@fl_mkelly_r400_win_laptop

Create vertex buffer to view for debugging

Change 81180 on 2003/01/31 by jhoule@jhoule r400 win marlboro

Page 270 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Updated flavor script Updated format files.

Change 81178 on 2003/01/31 by jhoule@jhoule_r400_win_marlboro

New simple formats 4x4 tests

Change 81164 on 2003/01/31 by georgev@devel_georgevh2_r400_win_marlboro

Fixed bad shader. Missing a line.

Change 81145 on 2003/01/31 by ashishs@fl ashishs r400 win

rectangular points using point size in SU registers

Change 81140 on 2003/01/31 by mkelly@fl mkelly r400 win laptop

Checkpoint Viz Query with RTS

Change 81134 on 2003/01/31 by omesh@omesh r400 linux marlboro only devel

Found the problem with Primlib and in this test, I have worked around that problem by

not using the equal to (=) assignment operator, as it destroys some data within the source operand render state. Will

file a seperate bug under Primlib for this symptom

Change 81122 on 2003/01/31 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint on Viz Ouerv with RTS..

Change 81116 on 2003/01/31 by jhoule@jhoule_r400_win_marlboro

Update to the Fake SP TP Formatter (or FSTF, for short).

- Added structs to the FSTF: allows runtime values to be managed.
- Added structs to the PSTP, anows funtame values to be man Split parsing code from conversion code. Moved swizzles and NaNs from TexturePipe to TPBlender.
- Removed mIsDegamma in TPBlender as this is no longer needed (formats are split with AS 4x16 flavors)

Do rfExpand outside of convert hw (removes need for mSkipRFExpand variable)

- Fix mantissa clamping issue for 16.16 or 32.0 float conversion (emulator currently

- Verify that the %2 parity works for channels masks

Change 80962 on 2003/01/30 by ygiang@ygiang_r400_pv_marlboro

Page 271 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

fixed: sp mova tests

Change 80918 on 2003/01/30 by llefebvr@llefebvre laptop r400 emu

Adding memory export tests to nightly RBRC regression. Adding 2 more mova tests to stress test the SQ.

Change 80853 on 2003/01/30 by mkelly@fl_mkelly_r400_win_laptop

Better clamping for greater HW range testing inside of HW boundary

Change 80839 on 2003/01/30 by mkelly@fl mkelly r400 win laptop

Enable guard band clipping to avoid exceeding hw boundary with lines Fix bug with indice generation

Change 80817 on 2003/01/30 by ashishs@fl ashishs r400 win

corrected ucp_ps_modes

Change 80809 on 2003/01/30 by omesh@omesh r400 linux marlboro only devel

Another modification of the test in which I use the same render state object instead of 2, but I add the 2D Shadow Register programming after I "add" the 3D register programming. Although this seems to work

hetter than when I used 2 senerate

render state objects (I do get some primitives drawn on the screen), the framebuffer is primitives. I will file this comment in addition to the already existing bug

Change 80799 on 2003/01/30 by ashishs@fl_ashishs_r400_win

to test SU point size set in state registers with different ps_ucp_modes. The test has a generalised test structure where the point size could be toggled between the vertex xport and the SU state registers keeping the output same.

Change 80760 on 2003/01/30 by omesh@omesh_r400_linux_marlboro_only_devel

Checked in trial of code that uses an isolated, seperate render state object for setting 2D

Shadow registers,
after inheriting an entire render state (including vertex buffer parameters) from another

So far, it still doesn't seem to work, so I will redirect Bugzilla ID 1189 to Kevin Ryan for possible Primlib

Change 80739 on 2003/01/30 by ashishs@fl ashishs r400 win

Page 272 of 510

to test vertex xport point size thru shaders with different ps_ucp_modes. The test has a Change 80476 on 2003/01/29 by markf@markf_r400_linux_marlboro generalised test structure where the point size could be toggled between the vertex xport and the SU state registers keeping the output same. Adding basic test for ARRAY 3D SLICE Change 80707 on 2003/01/30 by mkelly@fl_mkelly_r400_win_laptop Change 80442 on 2003/01/29 by omesh@omesh_r400_linux_marlboro_only_devel Undate comments, RTS with SC quad order enable toggling. Who let the dogs out? (Someone clobbered an old change in the test which made it run for too long on the all and random testcases). I restored my old change. Change 80705 on 2003/01/30 by jhoule@jhoule r400 win marlboro Adding templates to comment a bit what input format the fake_sp_tp_formatter takes. Change 80398 on 2003/01/29 by csampayo@fl_csampayo_r400 Change 80686 on 2003/01/30 by mkelly@fl_mkelly_r400_win_laptop Adding new VGT test for missing reg coverage RTS and SC FIFO sizing combinations. Change 80305 on 2003/01/29 by mkelly@fl mkelly r400 win laptop Change 80679 on 2003/01/30 by mkelly@fl_mkelly_r400_win_laptop Check stippled line integrity with real time streams, complete RTS combinations with Vtx and Pix pipes 0/2 disabled with Change 80299 on 2003/01/29 by vromaker@vromaker_r400_linux_marlboro C one quad per clock toggled, shader back pressure, interpolator shading toggling one pixel vector version Change 80514 on 2003/01/29 by jhoule@jhoule_r400_win_marlboro Change 80296 on 2003/01/29 by markf@markf_r400_linux_marlboro Better SP_TP_Formatter testbench support.
- Renamed TP_SP_Formatter to SP_TP_Formatter everywhere
- Added rffSxpand skipping control in the TPBlender
- Added readTTs/writeTTs methods to help parsing of the formatter Fixed background color for sub-rect tests Change 80271 on 2003/01/29 by mkelly@fl mkelly r400 win laptop Update 11, checkpoint on 12 Change 80061 on 2003/01/28 by ashishs@fl_ashishs_r400_win Bug fixes: The test has 110 cases. The value of the field "VTX_KILL" in the CLIP_CNTL register is contsantly toggled randomly as well as in a sequence to generate "OR" or "AND" modes. Also the vtx kill flags in the vtx data are toggled randomly and in sequence to generate 110 cases such that all different combinations of vertex kill flag with a single triangle list are covered. Fixed 16b signed fixed point conversion (was using a bias of 214 instead of 215). Fixed gradient precision loss. Uses grad-putPield(grad.getField()) instead of grad.floor() assignment which only works in $_$ hw mode. Changed 16b float GradientType from 15 to 17 as third parameter. $Change~80054~on~2003/01/28~by~omesh_emoresh_r400_linux_marlboro_only_devel$ Change 80487 on 2003/01/29 by csampayo@fl_csampayo_r400 Restored fragment color parameters. Later will add more corner cases. Add missing write to debug reg cntl select field Change 80051 on 2003/01/28 by omesh@omesh_r400_linux_marlboro_only_devel Change 80479 on 2003/01/29 by mkelly@fl_mkelly_r400_win_laptop Added 2 register fields programming for future expansion for R450 Also added some missing programming in some tests These source files are a bit messy with comments and dead code. Will Vtx and pix pipes 2 and 3 disabled with RTS triangles and rectangles and non-RTS stipple lines, complete clean it up later.... Page 273 of 510 Page 274 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 80027 on 2003/01/28 by jayw@jayw_r400_linux_marfboro Change 79619 on 2003/01/27 by ashishs@fl ashishs r400 win new regression scripts. Change 79999 on 2003/01/28 by markf@markf_r400_linux_marlboro Change 79613 on 2003/01/27 by ashishs@fl_ashishs_r400_win Added resolve test cases added test description and updated tracker Change 79984 on 2003/01/28 by mkelly@fl_mkelly_r400_win_laptop Change 79610 on 2003/01/27 by kmahler@kmahler_r400_win_devel_views Polymode RTS test Added "random pixel shader" test case code to existing tests to generate a Change 79923 on 2003/01/28 by mkelly@fl_mkelly_r400_win_laptop Random Pixel Shader This was done to test the generator and to give people example code of how to create a random pixel shader Change 79914 on 2003/01/28 by grayc@chip_regress_orl "random_centers_and_centroids_state_switching_01" test was taken from changes for new arch "chip/gfx/sc/r400sc_centers_and_centroids_state_switching_01" Change 79911 on 2003/01/28 by ygiang@ygiang_r400_pv_marlboro Change 79593 on 2003/01/27 by mkelly@fl_mkelly_r400_win_laptop more mova test for debug Test bug fix, all verts now have 12 parameters Change 79886 on 2003/01/28 by grayc@chip_regress_orl Change 79489 on 2003/01/25 by markf@markf r400 linux marlboro added variables Fixed numer of samples

Change 79829 on 2003/01/27 by llefebvr@llefebvre laptop r400 emu

Fixing the access violation exeption. Also making RealDOT the default setting for the emulator. Emulator should now be $100\%\,\mathrm{HW}$ accurate in the SP.

Change 79826 on 2003/01/27 by ygiang@ygiang_r400_pv_marlboro

added: more mova tests for debug

Change 79818 on 2003/01/27 by csampayo@fl_csampayo_r400

Adding new VGT fifo tests

Change 79784 on 2003/01/27 by mkelly@fl mkelly r400 win laptop

Change 79715 on 2003/01/27 by georgev@devel georgev r400 lin2 marlboro

Extra tests for Vic.

Page 275 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 79487 on 2003/01/25 by markf@markf_r400_linux_marlboro

random multi-sample test

Change 79419 on 2003/01/24 by jayw@jayw_r400_linux_marlboro

added to to regress5

Change 79415 on 2003/01/24 by jhoule@jhoule r400 win marlboro

Dedicated sp tp formatter testbench

Added fake TP_SP_Formatter

TexturePipe and other classes now get exported under Windows in order to instanciate it outside of full thip setups. Some weird issues were encountered (symbols wouldn't get exported), hopefully, this will work for everyone.

UNFINISHED

Page 276 of 510

Change 79393 on 2003/01/24 by ashishs@fl_ashishs_r400_win Checkpoint... to test the vertex reordering of the CL Change 79137 on 2003/01/24 by mkelly@fl_mkelly_r400_win_laptop Change 79308 on 2003/01/24 by markf@markf_r400_linux_marlboro Checkpoint, RTS face bit, detect in Pixel Shader... Fixed sub * tests Change 79105 on 2003/01/23 by jayw@jayw_r400_linux_marlboro Change 79288 on 2003/01/24 by jhoule@jhoule_r400_win_marfboro 2D shadow register support almost complete Some regression tests Change 79064 on 2003/01/23 by ygiang@ygiang_r400_pv2_marlboro Change 79252 on 2003/01/24 by ashishs@fl_ashishs_r400_win indirect buffer for constants in test varying gbands with valid data as well as nan and inf's to get 100% register coverage Change 79022 on 2003/01/23 by vgiang@vgiang r400 pv2 marlboro Change 79235 on 2003/01/24 by mkelly@fl_mkelly_r400_win_laptop added: indirect buffer to test RT provoking vertex looking good through interpolator on one parameter. Change 79020 on 2003/01/23 by jayw@jayw_r400_linux_marlboro Change 79207 on 2003/01/24 by mkelly@fl_mkelly_r400_win_laptop jay's regression scripts Only compare <test_name>.rd_r during full emu regression on reg read tests Change 79018 on 2003/01/23 by omesh@omesh_r400_linux_marlboro_only_devel Change 79193 on 2003/01/24 by smoss@smoss_crayola_linux_orl_regress Eliminated even more 2 testcases per test of 16 bit "16_number_float" Change 78986 on 2003/01/23 by omesh@omesh_r400_linux_marlboro_only_devel Change 79174 on 2003/01/24 by mkelly@fl_mkelly_r400_win_laptop Removed all occurences of the color 16_number_float testcases which are no longer valid. Instead color 16_float_number_float is now the valid testcase of using 16 bit floating point in RB. Add modified and shortened version of r400sc_rts_09 (back face check on nonRT vs RT prims) to regress_e Change 79162 on 2003/01/24 by mkelly@fl_mkelly_r400_win_laptop Change 78960 on 2003/01/23 by omesh@omesh r400 linux mariboro only devel Fixed tests so they produce more visually predictive results. Later, will split the larger testcases so they don't get rejected by Change 79161 on 2003/01/24 by mkelly@fl mkelly r400 win laptop LSF. Final, validating Pixel Shader face bit detection from sc_sp with nonRT and RT primtives Change 78876 on 2003/01/23 by mkelly@fl_mkelly_r400_win_laptop Change 79148 on 2003/01/24 by omesh@omesh r400 linux marlboro only devel Validate face bit in pixel shader for multi-tile coverage prims Created a seperate version of the ROP3 tests (renamed) using the 2D Shadow Registers. Jay mentioned that we need both versions, so I seperated them. Change 78870 on 2003/01/23 by omesh@omesh_r400_linux_marlboro_only_devel Added a "dest_alpha_problem" testcase to recreate the problem that Dan Willhite from s/w filed a bug for Change 79147 on 2003/01/24 by mkelly@fl_mkelly_r400_win_laptop (Blue Source triangle blended with Red Destination triangle using the ADD function), Page 278 of 510 Page 277 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history produce the right result on the verification environment (Magenta triangle). More memory export tests and bug fixes in the SX (wrapping problem in the export buffer for large quantity of exports) Change 78867 on 2003/01/23 by ashishs@fl ashishs r400 win Change 78447 on 2003/01/22 by mkelly@fl_mkelly_r400_win_laptop oggling the xy_nan_retain, z_nan_retain and w_nan_retain randomly from PA_CL_CLIP_CNTL register Changed wait_rt_idle to occur before wait_gfx_idle. Change 78855 on 2003/01/23 by csampayo@fl csampayo2 r400 Change 78430 on 2003/01/22 by mkelly@fl mkelly r400 win laptop Removed EID# 21 since, causing RB to write garbage to screen Temporarily isolate problem in test Change 78851 on 2003/01/23 by omesh@omesh r400 linux marlboro only devel Change 78418 on 2003/01/22 by mkelly@fl mkelly r400 win laptop Added explicit Color Compare Mask to enable all compares. Restored size of triangles and placement on screen. The EQ and NEQ seems to work for most cases but not all. I will further investigate. Change shader names to test name and add missing simple shader. Change 78415 on 2003/01/22 by mkelly@fl_mkelly_r400_win_laptop Change 78823 on 2003/01/23 by omesh@omesh_r400_linux_marlboro_only_devel Add triangle prim type real time stream. Change 78345 on 2003/01/21 by ashishs@fl ashishs r400 win Made triangles larger and fewer triangles per row, for easier debug, for Change 78797 on 2003/01/23 by smoss@smoss_crayola_linux_orl_regress Change 78261 on 2003/01/21 by omesh@omesh_r400_linux_marlboro_only_devel hopefully it is right now Changed test to use 2D registers (in a new render state, added later) instead of the 3D registers related to ROP3. Verified that the test compiles and runs, but haven't verified that it produces the same result Change 78741 on 2003/01/22 by smoss@smoss_crayola_linux_orl_emu_regress as earlier on the emulator or h/w. Change 78729 on 2003/01/22 by smoss@smoss_crayola_win Change 78240 on 2003/01/21 by ygiang@ygiang_r400_pv2_marlboro change default directory for linux:

Change 78608 on 2003/01/22 by georgev@devel_georgev_r400_lin2_marlboro

Lowered long loop counts to smaller values.

Change 78559 on 2003/01/22 by mkelly@fl_mkelly_r400_win_laptop

Change 78538 on 2003/01/22 by mkelly@fl_mkelly_r400_win_laptop

Move wait_rt_idle to immediately after rt stream reg writes.

Change 78466 on 2003/01/22 by llefebvr@llefebvr r400 emu montreal

Page 279 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

added: sq mova test for debug

Change 78143 on 2003/01/21 by llefebvr@llefebvr_r400_emu_montreal

New memory export tests that do 2 blocks of export. I striped down Vineet's test so that they would run faster on the simulator.

Change 78091 on 2003/01/20 by ashishs@fl_ashishs_r400_win

Change 78076 on 2003/01/20 by georgev@devel_georgev_r400_lin2_marfboro

Made eq test triangle smaller.

Change 78061 on 2003/01/20 by kryan@kryan_r400_linux_marlboro

Page 280 of 510

Fix error in Makefile that causes link error on Linux. Commented out new code to explicitly link in addr* libraries on Unix until error is resolved. Change 78054 on 2003/01/20 by kryan@kryan_r400_win_marlboro Change 77709 on 2003/01/18 by markf@markf_r400_linux_marlboro Modified Makefile since r400rb tb.cpp needs to use address and addrenum libraries on Windows Previously this test was not linking correctly on Windows since it calls a function from the addrenum library which was not being linked in on Change 78050 on 2003/01/20 by markf@markf r400 win marlboro Reset fast_clear_enables only if doing a subsequent clear or expand. Change 77933 on 2003/01/20 by markf@markf r400 win marlboro Updated so it doesn't send extra state at the end of the test Change 77921 on 2003/01/20 by omesh@omesh r400 linux marlboro only devel Added tests for chroma keying. These are fairly extensive for source kill, although I still need to add some more select functions. I also need to add random testcases. These display some emulator bugs, which I am going to enter on Bugzilla. Change 77918 on 2003/01/20 by smoss@smoss_crayola_linux_orl_emu_regress Change 77917 on 2003/01/20 by ashishs@fl ashishs r400 win permuting edgeflags with different primitve types with LINE FILL, and guard band Change 77889 on 2003/01/20 by georgev@devel_georgev_r400_lin2_marlboro Changed JMP to CALL because that's what's being tested. Now the test works Change 77857 on 2003/01/20 by ashishs@fl ashishs r400 wir permuting edgeflags for different primitve types with PointFill Change 77742 on 2003/01/18 by markf@markf_r400_linux_marlboro Page 281 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

Change 77595 on 2003/01/17 by ygiang@ygiang_r400_pv_marlboro fixed: alu constants needed for tests. Change 77582 on 2003/01/17 by omesh@omesh r400 linux marlboro only devel Changed device address passed to the ZPASS_ADDR field, as it seems to be missing 2 shift the LSBs to lose the 2 bits, but the emulator still doesn't seem to write the correct result Change 77554 on 2003/01/17 by mkelly@fl mkelly r400 win laptop Rectangle and triangle real time stream initial functional Change 77514 on 2003/01/17 by llefebvr@llefebvr_r400_emu_montreal Z export is now in the RED channel (was previously ALPHA) Change 77506 on 2003/01/17 by mkelly@fl_mkelly_r400_win_laptop Update.. Change 77498 on 2003/01/17 by rramsey@RRAMSEY_P4_r400_win Incorporate RTS dump routines into emulator, don't need to run create_rts_dumps.pl Fix readback of pa_sc_fifo_size to only return lower 16 bits Remove call to create_rts_dumps.pl from run_vsim scripts Fix prints in qdpr_proc/out_compare to have identify correct tracker Fix a problem with stipple rpt cnt loads in r400sc_rand Add runtime comment to rand r400sc.sh Change 77479 on 2003/01/17 by ashishs@fl_ashishs_r400_win tests guard band clipping Change 77432 on 2003/01/17 by kevino@kevino_r400_win_marlboro Page 282 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

Defaulted the Z component of the texture coordinate to 0.0

Disabled blending on the rb color formats tests when testsing 16bit integer formats.

Manually set pitch in texture constant to the width. Otherwise, it was left at 0. Change 77402 on 2003/01/17 by ashishs@fl ashishs r400 wir

test to determine if the clip guard band works properly and that trivial reject works

Change 77380 on 2003/01/17 by ashishs@fl ashishs r400 win uncommented r400cl gband tcl 01

Change 77373 on 2003/01/17 by ashishs@fl ashishs r400 win

removed class definitions of Vector3, Vector4 and Matrix and changed XDIM YDIM to

Change 77367 on 2003/01/17 by llefebvr@llefebvr r400 emu montreal

Dot product random tests

Change 77274 on 2003/01/16 by ashishs@fl_ashishs_r400_win

Change 77240 on 2003/01/16 by ashishs@fl ashishs r400 win

Primitive types tri list, strip, fan, Wflags, quad list, quad strip and polygon respectively permuting edgeflag combinations in each of the test as well as polymode POINT fill enabled with the ucp combinations enabling and disabling

Change 77220 on 2003/01/16 by ygiang@ygiang_r400_pv_marlboro

fixed: some mova test cases for SQ

Change 77190 on 2003/01/16 by mkelly@fl mkelly r400 win laptop

Change 77187 on 2003/01/16 by mkelly@fl_mkelly_r400_win_laptop

Still need to add proper edge gradients for triangle

Change 77151 on 2003/01/16 by mdoggett@mdoggett r400 linux local

Updated to new framebuffer setup.

Change 77131 on 2003/01/16 by omesh@omesh r400 linux marlboro only devel

Added a basic ZPASS COUNT test functionality. Currently, the ZPASS COUNT

Page 283 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

does not get written to memory at the address being pointed to, although the counter was found to be working correctly by Larry S.

Change 77102 on 2003/01/16 by mkelly@fl_mkelly_r400_win_laptop

Change 77100 on 2003/01/16 by mkelly@fl mkelly r400 win laptop

Change 77086 on 2003/01/16 by mkelly@fl mkelly r400 win laptop

12 non real time packets of one triangle, each with 16 real time rectangle streams...

Change 77015 on 2003/01/15 by georgev@devel georgev r400 lin2 marlboro

Fixed equal and not equal tests.

Change 77003 on 2003/01/15 by ashishs@fl_ashishs_r400_win

changed 8 textures.

Change 76961 on 2003/01/15 by ashishs@fl_ashishs_r400_win

simple triangle gband clipping test

Change 76926 on 2003/01/15 by ashishs@fl_ashishs_r400_win

gband point culling test converted from R300

Change 76890 on 2003/01/15 by mkelly@fl_mkelly_r400_win_laptop

Fixed viewport settings, changed to PrimLib Color Surface and other Surface classes

Change 76888 on 2003/01/15 by ashishs@fl_ashishs_r400_win

initial checkin (same as inf nan 01 except triangle list insted of point list)

Change 76878 on 2003/01/15 by vgoel@fl vgoel2

updated viewport offset to align with pixel position

Change 76844 on 2003/01/15 by mkelly@fl mkelly r400 win laptop

Change 76795 on 2003/01/15 by georgev@devel_georgev_r400_lin2_marlboro

Page 284 of 510

single packet containing around 175 verts and w0 set to true Change 76463 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Change 76716 on 2003/01/14 by ashishs@fl ashishs r400 win OGL rasterization rule check, simple test, To test DX/OGL clip space Change 76452 on 2003/01/14 by mkelly@fl mkelly r400 win laptop Change 76636 on 2003/01/14 by omesh@omesh_r400_linux_marlboro_only_devel Permutations of r400sc_pinwheel_01 where the size, rotation, and location of the triangles are varied. Added tests for using the Export Z path. I ran the "standard" testcase and it didn't seem to Change 76428 on 2003/01/14 by viviana@viviana_crayola_linux_orl the right result, so I will file a bug on the emulator. Added the r400su_simple_register_indirect.cpp to test all reads/writes for the context Change 76626 on 2003/01/14 by viviana@viviana_crayola_linux_orl Changed the test to do a GFX_COPY_STATE write between context switching Change 76427 on 2003/01/14 by viviana@viviana_crayola_linux_orl Change 76611 on 2003/01/14 by ashishs@fl_ashishs_r400_win Tests all the context registers for the pa, as well as non-context registers. tests barycentric proportions generated by the clipper Change 76424 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Change 76570 on 2003/01/14 by ashishs@fl_ashishs_r400_win DX9 rasterization rules check, simple but necessary to confirm... Change 76422 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop to test barycentrics generated by the clipper Change 76566 on 2003/01/14 by ashishs@fl ashishs r400 win Simple DX rasterization check.. to test the braycentrics generated by the clipper Change 76417 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Change 76557 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Simple test, validate DX rasterization rules... OGL Rasterization validation. Change 76412 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Change 76536 on 2003/01/14 by mkelly@fl_mkelly_r400_win_laptop Validate OGL rasterization rules... Change 76286 on 2003/01/13 by vgoel@fl vgoel2 Change 76488 on 2003/01/14 by ygiang@ygiang_r400_pv_marlboro added test with quadstrip with tessellation on. Change 76268 on 2003/01/13 by mkelly@fl_mkelly_r400_win_laptop addedl, test for debug Change 76480 on 2003/01/14 by ashishs@fl_ashishs_r400_win Change 76262 on 2003/01/13 by mkelly@fl mkelly r400 win laptop updated comment Change 76479 on 2003/01/14 by ashishs@fl_ashishs_r400_win Update comments.. Page 285 of 510 Page 286 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 76256 on 2003/01/13 by mkelly@fl mkelly r400 win laptop Change 75929 on 2003/01/10 by ashishs@fl ashishs r400 win Final MSB of veu multiplier output set (use X=1.9999, Xscale = 1.9999, and 1/W = 1.9999) Change 76246 on 2003/01/13 by ashishs@fl_ashishs_r400_win Change 75918 on 2003/01/10 by mkelly@fl_mkelly_r400_win_laptop Set MSB of multipliers: set all three of XSCALE, x and w to 0.9999998 (don't enable W0_FMT). Repeat for YSCALE, y, and w and ZSCALE, z, and w Checkpoint... Change 75891 on 2003/01/10 by kryan@kryan_r400_win_marlboro Change 76225 on 2003/01/13 by vgoel@fl_vgoel2 This changelist in PrimLib which allows the FrameBuffer start added test for 15.0f tessellation to be set to a non-zero value. There are a few caveats with Change 76185 on 2003/01/13 by mkelly@fl_mkelly_r400_win_laptop this which are explained below. Currently I have left Checkpoint... the FrameBuffer start to be zero Change 76144 on 2003/01/13 by viviana@viviana_crayola_linux_orl Added rbbm read back test for every context of the context registers. The following code excerpt and comments is from the file Change 76133 on 2003/01/13 by mkelly@fl_mkelly_r400_win_laptop test_lib/src/testchip/chip/init_mcmh.cpp which explains some of the limitations encountered so far in my testing: Checkpoint.. Change 76120 on 2003/01/13 by ashishs@fl_ashishs_r400_win const static uint32 FB_START_ADDRESS = 0x000000000; updated const static uint32 FB SIZE = 0x07FF0000; // 128M Change 76118 on 2003/01/13 by ashishs@fl_ashishs_r400_win Change 76012 on 2003/01/11 by markf@markf r400 linux marlboro // The combination below works for non-zero starting FB Fixed fast depth clear // but a values causing the top of the FB to be above $64 \mathrm{MB}$ Change 75949 on 2003/01/10 by csampayo@fl_csampayo_r400 // does not currently seem to work because of problems possibly Adding new VGT test, updated test_list // related to the CP not being able to access memory above 64MB Change 75942 on 2003/01/10 by ashishs@fl ashishs r400 win // according to an email from Harry Wise at one time. another vte test Change 75937 on 2003/01/10 by ashishs@fl_ashishs_r400_win // It also seems that if the FB START ADDRESS is non-zero, vte test Page 287 of 510 Page 288 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

enabling/disabling the vte controls for scale/offset as well as changing offsets/scale with

randomised sizes for triangle list packets

Added some new alpha kill tests (not done yet).

Change 76786 on 2003/01/15 by ashishs@fl ashishs r400 win

// then the size should be aligned to 16MB though this is // not proven yet, but FB SIZE of 0x01ff0000 did not work // with FB_START_ADDRESS 0x02000000 even though it did // satisfy the condition of not creating the top of the FB // above 64MB. This still needs to be investigate, but // for now will allow a non-zero FB if it is kept small // with the following known working values: // FB_START_ADDRESS = 0x02000000 // 32MB // FB SIZE = 0x02000000 // 32MB $/\!/ const \ static \ uint 32 \ FB_START_ADDRESS = 0x020000000; \ /\!/ \ 32M$ // const static uint32 FB_SIZE = 0x02000000; // 32M MH.FB_START.write(FB_START_ADDRESS); MH.HDP FB START.write(FB START ADDRESS); MH.ROM_START.write(0xF0000000); //Put ROM_START way up above everything

else for nov

// MH.FB_SIZE.write(memTop <<16); // FB Size determined by arch. MH.FB SIZE.write(FB SIZE); //Hardcoded for now....don't know what this should

In order for all of the Emulator regression tests to pass, I had to modify a few of the tests that fall into the following categories which will also hold true for other tests outside of the Emulator suite that start failing:

Page 289 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

1) Tests using Depth Surfaces

Need to be modified to add the start of the FrameBuffer to the Z. BASE offset to calculate the correct device address for the Depth Surface set in the RB_DEPTH_INFO register.

See the tests below for code examples in the changelist above.

gfx/sc/r400sc poly offset 05.cpp gfx/sc/r400sc_poly_offset_fc_02.cpp gfx/sc/r400sc_zbuffer_list_rectangle_fc_02.cpp

2) Tests using multiple color buffers (but really all tests)

All tests should use the following function RENDER_STATE::Set_Destination_Base(uint32 base, uint32 index) to properly set the base of the Color Surface (taking into account the start of the memory such as FrameBuffer.)

See the tests below for code examples in the changelist above.

gfx/rb/r400rb_mask_color_bits.cpp gfx/rb/r400rb mask color channels.cpp gfx/rb/r400_multiwrites.cpp

3) Any test that does not use the Set_Destination_Base() function described above

Any test that directly sets the RB COLORx BASE registers needs to

Page 290 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

add the start of the FrameBuffer memory area to the offset in the test so that it is calculating the correct device address for this register field.

The code would be as follows:

uint32 device_address = frame_buffer.Get_Start() + DISP_BASE; render_state.Set_RB_COLOR0_BASE_color0_base(device_address);

4) Note that this does not take care of the PM4LIB allocating its buffers in the same memory space (ie. same offset in the FrameBuffer as the PrimLib automatic

management for things like Vertex Buffers, Textures, Shader Programs, etc.) This code still needs to be added later.

The only case that should see this problem is a PrimLib test that is using almost all of the FrameBuffer for its surfaces (or which is manually allocating memory from the top of the FrameBuffer) which may cause the PM4LIB buffers (which start just below the top of the FrameBuffer) to be overwritten. Both of these cases should be rare if non-existent for now. After the code mentioned in 4) is added, then there should not be a problem when the PM4LIB memory management is merged with the

automatic memory management

5) gfx/sys/cp tests that use plgx::fill*(), plgx::dump() routines

Since almost all of these tests use the plgx::fill*() routines which expect an absolute device address, they will all break when the

Page 291 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

FB start address is changed to something non-zero. For example if the FB start is moved to 0x02000000, then all the accesses to fill_solid(0, ...) will fall outside of all the known apertures currently

One way to fix this is to rewrite the plgx::fill*() routines to specify the aperture and an offset or to rewrite the tests to retrieve the start of the FrameBuffer and add it to the values used in the test so they still fall inside the FrameBuffer when it is relocated to a non-zero start value.

Another method would be to rewrite these routines to direct all accesses that fall outside any of the apertures to be treated as an offset into the FrameBuffer. This would probably fix these tests, but may cause other problems.

But at least this should allow Toronto to start some testing with a non-zero FrameBuffer start as long as the guidelines above are followed for the short-term.

PM4LIB

- Began preliminary ground work for modify PM4LIB code to use the PrimLib automatic memory management routines. Still not implemented, but began adding code which will be added to later.

MEMORY FRAMEBUFFER

- Created global object to represent FrameBuffer memory space to store all

Page 292 of 510

memory managed in the FrameBuffer by all PrimLib clients.

FRAMEBUFFER MEMORY

 Modified to just return a pointer to the global FB object so that current code will always be referencing same FB object.

AGP MEMORY

 Modified Set_Size() function to take a uint32 size and then validate it rather than creating an enum for every possible size.

ill dump.cpp

Replaced direct register access code in fill_data(), fill_solid(), dump_image()
 with appropriate function calls for accessing start, size of AGP memory.

init mcmh.cpp

- Use variables for FB start and size values.
- Add comments explaining caveats mentioned at top of message in code excerpt.

COLOR SURFACE

PIXEL SURFACE

 Modify Dump() routines to use relative addresses from MEMORY_AREA rather than absolute device addresses for surfaces.

MANAGED_MEM_AREA

MANAGED_MEM_BLOCK

- Add Reset_Free_Space_Pointer() function to initialize free space

Page 293 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

MEMORY AREA

 Added function Is_Memory_Aperture_Inside_Device_Address_Space() to check if MEMORY_AREA is relocated using Set_Size() functions that it is still inside the device address space.

primlib_template_simple_triangle.cpp

if start/size of MEMORY_AREA is changed.

- Begin groundwork for accesing AGP memory. Currently still uses FrameBuffer.

Thanks,

Kevin

Change 75875 on 2003/01/10 by viviana@viviana_crayola_linux_orl

Added test r400vgt simple register indirect.cpp

Change 75861 on 2003/01/10 by georgev@devel_georgev_r400_lin2_marlboro

Added stacked call returns.

Change 75839 on 2003/01/10 by viviana@viviana_crayola_linux_orl

Added a test to write and read all context registers and changed the vgttbtrk_rbbmrd to handle all contexts.

Change 75820 on 2003/01/10 by ashishs@fl_ashishs_r400_win

 $1\,Point$, cycling Infinity/NANS XYZ scale and Infinity/NANS XYZ offset through all bits including sign changes

Change 75784 on 2003/01/10 by kevino@kevino_r400_win_marlboro

All of the _on_2x2 cases were actually using 3x3 prims, so fixed.

Change 75772 on 2003/01/10 by mdoggett@mdoggett_r400_linux_local

Updated test structure to use latest version of primlib tex tri

Page 294 of 510

Ex. 2052 --- R400 Testing FH --- foler_history

Change 75764 on 2003/01/10 by ashishs@fl_ashishs_r400_win

initial checkin

Change 75726 on 2003/01/10 by mkelly@fl_mkelly_r400_win_laptop

Change test search bug string from "bug" to "_bug"

Change 75665 on 2003/01/09 by csampayo@fl_csampayo_r400

Adding another RTS test

Change 75662 on 2003/01/09 by georgev@devel_georgev_r400_lin2_marlboro

Added new tests

Change 75658 on 2003/01/09 by markf@markf_r400_linux_marlboro

Added some more cases

Change 75642 on 2003/01/09 by csampayo@f1_csampayo_r400

Added 1 VGT performance and 1 VGT debug case, updated test_list and tracker accordingly.

accordingly

Change 75618 on 2003/01/09 by mdoggett@mdoggett_r400_linux_local

Changed temporary setting of format to $16_16_16_16$ to correct DXT1.

Change 75606 on 2003/01/09 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 75533 on 2003/01/09 by ashishs@fl_ashishs_r400_win

added a generalised Matrix class to the test used to calculate the rotations.

Change 75528 on 2003/01/09 by mkelly@fl_mkelly_r400_win_laptop

Finalize comments...

Change 75492 on 2003/01/09 by mkelly@fl_mkelly_r400_win_laptop

Update RB setup using r400rb_tb.cpp as an example...

Change 75450 on 2003/01/09 by mkelly@fl_mkelly_r400_win_laptop

Undate comments in test...

Page 295 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 75439 on 2003/01/09 by smoss@smoss_crayola_linux_orl_regress

<Orlando Hardware Regression Results >

Change 75384 on 2003/01/08 by ashishs@fl_ashishs_r400_win

initial checkin

Change 75383 on 2003/01/08 by ashishs@fl_ashishs_r400_win

initial checkin

Change 75340 on 2003/01/08 by vromaker@vromaker_r400_linux_marlboro

fix for NOP in CFS; reduced triangle size in sq_tests

Change 75334 on 2003/01/08 by omesh@omesh_r400_linux_marlboro_only_devel

Fixed compile time bugs introduced in merge by diagnostics.

Change 75321 on 2003/01/08 by markf@markf_r400_linux_marlboro

Simple texture fill rate test

Change 75305 on 2003/01/08 by llefebvr@llefebvre_laptop_r400_emu

Now using the new mul Add function.

Change 75303 on 2003/01/08 by mkelly@fl_mkelly_r400_win_laptop

Stress vtx and pix pipe disable combinations with stippled LINE LIST

Change 75291 on 2003/01/08 by vgoel@fl_vgoel2

changed maximum allowable tessellation to 15.0f.

Change 75282 on 2003/01/08 by pauld@pauld_r400_win_marlboro

updates for diagnostic environment

Change 75233 on 2003/01/08 by smoss@smoss_crayola_linux_orl_regress

moved to crayola2

Change 75190 on 2003/01/08 by ashishs@fl_ashishs_r400_win

point with 8 textures, added just for own reference

Change 75173 on 2003/01/08 by csampayo@fl_csampayo_r400 $\,$

Page 296 of 510

Change 74925 on 2003/01/07 by csampayo@fl_csampayo2_r400 Added new VGT pass-thru block test, updated test list and test tracker accordingly. Updated for latest RB surface definitions Change 75168 on 2003/01/08 by ashishs@fl_ashishs_r400_win Change 74913 on 2003/01/07 by hartogs@fl_hartogs2 vertex and pixel shaders for r400cl point size ucp combo 01 test(to switch between point size in vertex export and SU state registers) Added VgtGrpOut.dmp Change 74910 on 2003/01/07 by mkelly@fl_mkelly_r400_win_laptop Change 75162 on 2003/01/08 by mkelly@fl_mkelly_r400_win_laptop This test has changed to r400sc_vtx_pipe_disable_combos_03 Temporarily removed MSAA Change 75149 on 2003/01/08 by Iseiler@Iseiler_r400_win_marlboro Change 74897 on 2003/01/07 by hartogs@fl_hartogs2 Blender now uses hardware precision in most places -- resulted in one pixel difference in Added new tracker file "VgtGrpOut.dmp" r400rb_color_source Change 74895 on 2003/01/07 by kevino@kevino_r400_win_marlboro Change 75086 on 2003/01/07 by vgoel@fl vgoel2 Added mipmap test that uses small textures and prims. Added to tp4 tc nightly change for modified vertex export regressions as well. Change 75049 on 2003/01/07 by ygiang@ygiang_r400_win_marlboro_p4 Change 74894 on 2003/01/07 by ashishs@fl_ashishs_r400_win creating 11/12/13/14/15 vertices from 8/9/10/11/12 clip planes respectively modifyied for debugging Change 75040 on 2003/01/07 by ashishs@fl_ashishs_r400_win Change 74890 on 2003/01/07 by llefebvr@llefebvre_laptop_r400_emu increased the xdim and ydim for better visibility Nes template for the memory exports. This is to include the fact that ARRAY_2D is invalif for memory exports AND changes the size of endian to 3 bits. Change 75036 on 2003/01/07 by ashishs@fl ashishs r400 win Change 74883 on 2003/01/07 by kevino@kevino_r400_win_marlboro verify the 64 combinations of ucp control bits with quadstrip primitive MaxMipLevel was=0, so never mipmapped. Fixed this and added equivilant test cases Change 75024 on 2003/01/07 by mkelly@fl_mkelly_r400_win_laptop with the mip filter set to BaseMap. Change 74873 on 2003/01/07 by mkelly@fl_mkelly_r400_win_laptop Change 75017 on 2003/01/07 by ashishs@fl_ashishs_r400_win Two cases isolated for hw debug assistance.. verify the 64 combinations of ucp control bits with polygon primitive Change 74869 on 2003/01/07 by kevino@kevino_r400_win_marlboro Change 75003 on 2003/01/07 by mkelly@fl mkelly r400 win lapton modified to use buildlevel for 3D textures Temporarily remove msaa Change 74848 on 2003/01/07 by hartogs@fl_hartogs Change 74990 on 2003/01/07 by mkelly@fl_mkelly_r400_win_laptop Added vgt_grouper output dump for RTL comparison. =0 as a legitimate value for grouper programming. Use fully Temporarily remove msaa overlapping vectors instead. Page 297 of 510 Page 298 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 74799 on 2003/01/06 by ygiang@ygiang_r400_linux_marlboro Change 74602 on 2003/01/06 by mkelly@fl mkelly r400 win laptop fixed: time out problem for random test case Stress vtx and pix pipe disable in SC. Change 74788 on 2003/01/06 by pauld@pauld_r400_win_marlboro Change 74446 on 2003/01/03 by mkelly@fl_mkelly_r400_win_laptop files updated for diagnostic environment Random pix and vtx pipe disable combos.. Change 74785 on 2003/01/06 by pauld@pauld_r400_win_marlboro Change 74426 on 2003/01/03 by mkelly@fl_mkelly_r400_win_laptop files updated for diagnostic environment VTX and PIX pipe disable combinations Change 74773 on 2003/01/06 by ashishs@fl_ashishs_r400_win Change 74420 on 2003/01/03 by mkelly@fl_mkelly_r400_win_laptop different settings for the cube position than cube_01.cpp and enabling all the 6 user clip planes. Also the culling direction is reversed Pixel pipe disable combinations... Change 74760 on 2003/01/06 by pauld@pauld_r400_win_marlboro Change 74415 on 2003/01/03 by omesh@omesh_r400_linux_marlboro_only_devel fix merge errors adding diag environment Fixed the problem with the test which fixed Bugzilla #951. Even though the pixel center was set to the center of the grid. I was sending down vertex coordinates as if I were rendering with the pixel center at the top-left of the grid. Change 74739 on 2003/01/06 by ashishs@fl_ashishs_r400_win updated to have exact same settings as on R200 legacy test Change 74414 on 2003/01/03 by mkelly@fl mkelly r400 win laptop Change 74708 on 2003/01/06 by pauld@pauld_r400_win_marfboro r400rb files updated dor diagnostic environment Change 74411 on 2003/01/03 by mkelly@fl mkelly r400 win laptop Change 74697 on 2003/01/06 by ashishs@fl ashishs r400 win Make Set_VGT_OUT_DEALLOC_CNTL_dealloc_dist = Set_VGT_VERTEX_REUSE_BLOCK_CNTL_wx_reuse_depth Change 74667 on 2003/01/06 by vgoel@fl_vgoel2 Change 74401 on 2003/01/03 by mkelly@fl mkelly r400 win laptop Initialize MC disable field to zero simplified further for bug tracing Change 74665 on 2003/01/06 by vgoel@fl vgoel2 Change 74383 on 2003/01/03 by ashishs@fl ashishs r400 win

Point sprite frustum culling. This test is intended to validate the shader processing of point sprite primitives with frustum culling.

Change 74369 on 2003/01/03 by omesh@omesh_r400_linux_marlboro_only_devel

Fixed a typo. The OnePixel8Fragment case still doesn't hit the right

Change 74366 on 2003/01/03 by mkelly@fl_mkelly_r400_win_laptop

Page 300 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Ex. 2052 --- R400 Testing FH ---foler_history

changed for bug tracing

Change 74644 on 2003/01/06 by ashishs@fl_ashishs_r400_win

To test user clip plane in clip space A cube is rotated over x and y axis to get a perspective view of the cube and then the cube is clipped with a UCP plane which is parallel to the XY plane and goes through point (0,0,0). The UCP then clips the cube as required. The test also tests the SU_SC_MODE_CNTL

with turning ON the front face culling and turning OFF the back face culling Page 299 of 510

Add initialization of the MC disable field.

Change 74357 on 2003/01/03 by mkelly@fl_mkelly_r400_win_laptop

256 points per packet, all 15 legal combinations of vtx pipe disable

Change 74342 on 2003/01/03 by kevino@kevino_r400_win_mariboro
check_tfc_overrides added. If it is a float format, it overrides any linear filters with point.

Change 74330 on 2003/01/03 by mkelly@fl_mkelly_r400_win_laptop

Fix a bug for the case of sequential tests in test_list which use agp_r for compare.

Change 74323 on 2003/01/03 by ashishs@fl_ashishs_r400_win

This test is intended to validate the vertex reuse functionality with actual clipping. The
test processes 56 packets each with either one 100 primitive triangle list or one 150 primitive line
list containing 16 vertices with input vertex data: XYZWO, 1 color, no textures. For each packet
the test has 300 indices, making up either 100 or 150 primitives, depending on randomly selected
primitive type, unique indices are randomly selected between 0-12 and 0-15. For each packet six
UCP planes are set up so that most of the original vertices get clipped.

Change 74303 on 2003/01/03 by ashishs@fl_ashishs_r400_win

Test processes 64 packets each a set of tri-lists, each with 15 triangles using 10 vertices

Change 74232 on 2003/01/02 by georgev@devel_georgev_r400_lin2_marlboro

Added shader program for existing test.

Change 74223 on 2003/01/02 by kryan@kryan_r400_win_marlboro

Modify test to align pitch and height of texture dump to 32 pixels to avoid error for

Change 74184 on 2003/01/02 by csampayo@fl_csampayo_lt_r400

Updated test and test_list for test r400vgt_real_time_events_06 and updated description/status on the test tracker for tests:

r400vgt_real_time_events_04

r400vgt_real_time_events_05

r400vgt_real_time_events_06

Change 74176 on 2003/01/02 by csampayo@fl_csampayo2_r400

Initial check-in

Page 301 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 74146 on 2003/01/02 by viviana@viviana_crayola_linux_orl

Test to write and read the rbbm/pa registers.

Change 74131 on 2003/01/02 by omesh@omesh_r400_linux_marlboro_only_devel

Added some PA programming that might have caused changes in vertex X,Y data entering the SC. It turns out that this programming didn't change bug symptom Bugzilla#951

Change 74126 on 2003/01/02 by mkelly@fl mkelly r400 win laptop

Duplicate coverage, remove tests...

Change 74122 on 2003/01/02 by mkelly@fl mkelly r400 win laptop

Upda

Change 74112 on 2003/01/02 by mkelly@fl_mkelly_r400_win_laptop

Vary levels of tesselation, rasterize such that each case can be seen

Change 74101 on 2003/01/02 by viviana@viviana crayola linux orl

Added r400su_rbbm_reg_read to the list

Change 74100 on 2003/01/02 by viviana@viviana_crayola_linux_orl

Added r400sc_rbbm_reg_read to the test_list.

Change 74096 on 2003/01/02 by hartogs@fl_hartogs

Added Vivian's test "r400vgt_rbbm_reg_read"

Change 74092 on 2003/01/02 by mkelly@fl_mkelly_r400_win_laptop

Increased framebuffer size from 64x64 to 256x256. Rasterize each case, XY offset by the VTE to display all cases.

Change 74089 on 2003/01/02 by llefebvr@llefebvr_r400_emu

Changed the test to test MUL_PREV2, was checking MUL_PREV

Change 73945 on 2002/12/31 by jhoule@jhoule_r400_ma-jhoule-linux

LoadDefaultTexture no longer sends tiled 1D textures

Change 73939 on 2002/12/31 by jhoule@jhoule_r400_ma-jhoule-linux

Page 302 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Forces linear for 1D textures in LoadDefaultTexture.

Change 73933 on 2002/12/31 by pmitchel@regress_test_r400_linux_marlboro

makefile support for regressing and releasing parameterized tests/testcases see 'make help' from underneath test_lib for details 'fixes' bug 741

Change 73918 on 2002/12/31 by mkelly@fl_mkelly_r400_win_laptop

HOS continue flag indices with vtx pipe disable combinations...

Change 73915 on 2002/12/31 by mkelly@fl_mkelly_r400_win_laptop

All vtx pipe disable combos...

Change 73906 on 2002/12/31 by mkelly@fl_mkelly_r400_win_laptop

Vertex shader outputs two vectors to PA with vtx pipes 2 and 3 disabled.

Change 73896 on 2002/12/31 by mkelly@fl_mkelly_r400_win_laptop

Update for new XY handling...

Change 73891 on 2002/12/31 by smoss@smoss_crayola_linux_orl_regress

increased timeou

Change 73852 on 2002/12/31 by mkelly@fl_mkelly_r400_win_laptop

Centers and Centroids state switching

Change 73841 on 2002/12/31 by mkelly@fl_mkelly_r400_win_laptop

Change...

Change 73840 on 2002/12/31 by mkefly@fl_mkefly_r400_win_laptop

Invalid test, delete...

Change 73765 on 2002/12/30 by ashishs@fl_ashishs_r400_win

error in description, changed the description to as follows, test setup same as earlier tests. THE POINT IS RETAINED WEINEVER THE CENTER OF POINT IS INSIDE THE CLIP PLANE. THE POINT IS THROWN AWAY WHENEVER THE CENTER OF POINT LIES OUTSIDE THE CLIP PLANE.

Change 73764 on 2002/12/30 by ashishs@fl_ashishs_r400_win

Page 303 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

SETUP WITH PS UCP MODE = 1 (CULL USING RADIUS BASED DISTANCE) and CULL ONLY DISABLED.

RESULT:WHENEVER THE CLIP PLANE IS ON OR WITHIN THE CULL RADIUS OF THE POINT, THE POINT IS CULLED. THE POINT IS THROWN AWAY WHENEVER THE CENTER OF THE POINT LIES OUTSIDE THE CLIP PLANE AND THE DISTANCE BETWEEN THE CENTER OF THE POINT AND CLIP PLANE IS GREATER THAN THE CULL RADIUS OF THE POINT.

Change 73762 on 2002/12/30 by ashishs@fl ashishs r400 win

TEST WITH PS MODE AS 0 AND CULL DISABLED:
RESULT:WHENEVER THE CLIP PLANE IS ON OR WITHIN THE HALF WIDTH
OF THE POINT, THE POINT IS CULLED THE POINT IS THROWN AWAY WHENEVER
THE CENTER OF THE POINT LIES OUTSIDE THE CLIP PLANE AND THE DISTANCE
BETWEEN THE CENTER OF THE POINT AND CLIP PLANE IS GREATER THAN THE
HALF WIDTH OF THE POINT.

Change 73754 on 2002/12/30 by ashishs@fl ashishs r400 win

setup same as previous tests with UCP point sprite mode to be 3 (ALWAYS CLIP AND EXPAND AS TRIFAN) and cull only disabled.

Change 73753 on 2002/12/30 by mkelly@fl_mkelly_r400_win_laptop

Add write to MC_DISABLE field = 0x0

Change 73750 on 2002/12/30 by ashishs@fl ashishs r400 win

the test has same setup as the previous tests in the category. The difference being that the point sprite ucp mode is set to 3 (with cull only enabled). Hence the only difference between the the r400c1 point ucp_clip_mode2_cull_enable and this test is that the points are always expanded in this test. No matter if the clip plane is within the cull radius of the point the point is always expanded into trifan. Hence the difference in both tests outputs can be seen on Case 11 in both the cases.

Case 11 of the test: The center of point lies INSIDE the clip plane and distance between the center of point and the clip plane = radius of the point + delta

i.e the point is totally inside or doesnt have any thing to do with the clip plane. Hence when the point spirte mode is 2 the point is such expanded wheras when the point spirte mode is 3 the point is expanded and can be seen with the texture being inverted.

Change 73747 on 2002/12/30 by ashishs@fl_ashishs_r400_win

added more number of cases, generalised this test to be similar to the r400cl_point_ucp_clip_mode2_cull_disable_01.cpp test with cull only enabled

Change 73745 on 2002/12/30 by mkelly@fl_mkelly_r400_win_laptop

Page 304 of 510

HOS test which generates continue flags and coefficient data in the indice stream from vgt to sq for pipe disable testing...

Change 73744 on 2002/12/30 by kryan@kryan_r400_win_marlboro

- Missed this file in the check for changelist 73741
- Changed to set height to 0 when dumping 1D textures.

Change 73741 on 2002/12/30 by kryan@kryan_r400_win_marlboro

MEMORY AREA

 Modify Dump(...) functions to use height parameter to determine if surface is 1D, or 2D. This dimension is then passed to the surface constructor, and will not check height constraints for a 1D surface such as a 1D texture being dumped.

tp unsigned 01.cpp

tp unsigned 01 stmap.cpp

Modify tests to pass height of 0 when dumping 1D textures. This
eliminates the error from PrimLib previously because it was
considering all surfaces being dumped to be 2D and therefore
was checking the height constraint which was 1 for 1D textures.

Change 73721 on 2002/12/30 by ashishs@fl_ashishs_r400_win

The purpose of this test is to test ucp clip for point list with UCP Point Sprite Mode = 2(CULL USING RADIUS BASED DISTANCE FROM CENTER OF THE POINT) with ucp cull only disabled.

THE RESULT CAN BE SUMMARIZED AS FOLLOWS: WHENEVER THE CLIP PLANE IS ON OR WITHIN THE CULL RADIUS OF THE POINT, THE POINT IS EXPANDED. THE POINT IS CLIPPED ON INTERSECTION WITH THE CLIP PLANE(MEANING THE POINT IS THROWN OUT IF THE POINT EDGES

Page 305 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

i.e.HALF WIDTH ARE OUTSIDE THE CLIP PLANE EVEN IF THE CLIP PLANE IS WITHIN THE CULI RADIUS OF THE FOINT AND CLIPPED TO PROPER DIMENSIONS ON INTERSECTION OF THE POINT BOUNDARIES WITH THE CLIP PLANE.)

MORE IN TEST DESCRIPTION

Change 73688 on 2002/12/30 by markf@markf_r400_win_marlboro

Added test for scalar add

Change 73683 on 2002/12/30 by mkelly@fl_mkelly_r400_win_laptop

Two 96bit transfers per vert...

Change 73527 on 2002/12/27 by mkelly@fl_mkelly_r400_win_laptop

Basic MSAA 8 test, need to get it to work on GC

Change 73515 on 2002/12/27 by markf@markf_r400_win_marlboro

Added random testing of mul add precison

Change 73502 on 2002/12/27 by llefebvr@llefebvre_laptop_r400_emu

Changing the XY import to the SP as per Tom Frinsinger's proposal.

Change 73498 on 2002/12/27 by omesh@omesh_r400_linux_marlboro_only_devel

Added the Degamma test with 22 testcases. Ran them, but haven't verified emulator image output yet, as DumpView wasn't working.

Change 73496 on 2002/12/27 by mkelly@fl_mkelly_r400_win_laptop

Undate

Change 73424 on 2002/12/26 by mkelly@fl_mkelly_r400_win_laptop

Update tracker..

Change 73417 on 2002/12/26 by mkelly@fl_mkelly_r400_win_laptop

Enable RTS in test...

Change 73254 on 2002/12/23 by abeaudin@abeaudin_r400_win_marlboro

fixed hardware precison problem

Change 73241 on 2002/12/23 by smoss@smoss_crayola_linux_orl_regress

Page 306 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

increased timeout

Change 73220 on 2002/12/23 by mkelly@fl mkelly r400 win laptop

Fix some test bugs, first cut at rts with SC packer optimize.

Change 73127 on 2002/12/23 by mkelly@fl_mkelly_r400_win_laptop

SC packer optimize with pipe disable variations.

Change 73123 on 2002/12/23 by mkelly@fl mkelly r400 win laptop

Test alternate bits compare to r400sc_viz_query_01

Change 72996 on 2002/12/21 by jhoule@jhoule_r400_win_marlboro

Support for LOD_BIAS while keeping the old ones (_H/_V)

Change 72946 on 2002/12/20 by kryan@kryan_r400_win_marlboro

COLOR_SURFACE

Remove register reads from .rd_r file for all PrimLib Dump() function calls.

MEMORY_AREA

- Modify Dump(..., plgx::pixelType, ...) function to go through one common function for all pixel types. This way the header

will be the same for all dumps.

chip/gfx/rb/

 Update golden images for .rd_r files for two tests since register reads are no longer sent to this file.

DEPTH_SURFACE

- Modify field names in header file for clarity.

Change 72873 on 2002/12/20 by omesh@ma omesh

Page 307 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Made fix to revision 11 to fix compile error on Windows.

Change 72868 on 2002/12/20 by mkelly@fl_mkelly_r400_win_laptop

Complete, stress SC quad packer for coverage, including back pressure and specific pattern insertion of 1qd, 4qd, 2qd, 4qd, 3qd, 4qd

Change 72858 on 2002/12/20 by omesh@omesh_r400_linux_marlboro_only_devel

Added the PA_SC_AA_CONFIG.MAX_SAMPLE_DIST programming but bug symptoms still remain.

Change 72828 on 2002/12/20 by georgev@devel_georgev_r400_lin2_marlboro

Added back test and removed errant instructions.

Change 72775 on 2002/12/20 by georgev@devel_georgev_r400_lin2_marlboro

Added simple jumps (really this time).

Change 72710 on 2002/12/20 by smoss@smoss_crayola_win

SU tests

Change 72707 on 2002/12/20 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 72654 on 2002/12/19 by csampayo@fl csampayo2 r400

Adding 2 new realtime streams tests, updated test_list accordingly

Change 72649 on 2002/12/19 by markf@markf_r400_win_marlbord

Added some cases that only do clears w/ no drawing

Change 72609 on 2002/12/19 by jhoule@jhoule r400 win marlboro

Added support for volume maps and perspective correction

Change 72564 on 2002/12/19 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint...

Change 72545 on 2002/12/19 by ashishs@fl_ashishs_r400_win

updated to have correct mode

Page 308 of 510

Change 72537 on 2002/12/19 by omesh@omesh_r400_linux_marlboro_only_devel Change 72295 on 2002/12/18 by csampavo@fl csampavo lt r400 Changed test to use rectangle primitives instead of quad primitives, to offer a cleaner test stimulus to the RBC interface for Bill. Update frame buffer sizes Change 72535 on 2002/12/19 by vgoel@fl_vgoel2 Change 72250 on 2002/12/18 by omesh@omesh r400 linux maribore only devel simplified the test Fixed test.... Reduced the "all" and "fog_random" testcases exactly by a factor of 16 in Change 72527 on 2002/12/19 by smoss@smoss_crayola_win number of pixels rendered. SU tests Change 72212 on 2002/12/18 by pauld@pauld r400 win marlboro Change 72474 on 2002/12/19 by omesh@omesh_r400_linux_marlboro_only_devel test modified for Diag Environment, Watcom Compiler Changed (fixed) factor for numerical range for the SINTEGER and UINTEGER cases to Change 72182 on 2002/12/18 by ashishs@fl ashishs r400 win Change 72451 on 2002/12/19 by csampayo@fl_csampayo_lt_r400 Change 72161 on 2002/12/18 by grayc@chip_regress_orl Correct shader file names temp compile script Change 72426 on 2002/12/19 by smoss@smoss_crayola_linux_orl_regress Change 72149 on 2002/12/18 by smoss@smoss cravola win test was programming the fifo to a value larger than designed Change 72417 on 2002/12/19 by georgev@devel_georgev_r400_lin2_marlboro Change 72146 on 2002/12/18 by pauld@pauld_r400_win_marlboro Fixed tests. tests modified for Diag Environment, Watcom Compiler Change 72387 on 2002/12/19 by mkelly@fl_mkelly_r400_win_laptop Change 72144 on 2002/12/18 by mkelly@fl_mkelly_r400_win_laptop Update.. Test SC FIFO sizing... Change 72386 on 2002/12/19 by mkelly@fl_mkelly_r400_win_laptop Change 72133 on 2002/12/18 by csampayo@fl csampayo3 r400 basic pipe disable configurations matching vtx and pix Uncomment tests that now run ok Change 72367 on 2002/12/19 by mkelly@fl mkelly r400 win laptop Change 72132 on 2002/12/18 by markf@markf_r400_win_marlboro Pipe disable vtx 0 pix 0 Pass through shaders for a few tests Change 72365 on 2002/12/19 by mkelly@fl_mkelly_r400_win_laptop Change 72130 on 2002/12/18 by mkelly@fl_mkelly_r400_win_laptop simple triangle as a baseline for some other tests. Change 72317 on 2002/12/18 by csampayo@fl_csampayo2_r400 Change 72128 on 2002/12/18 by mkelly@fl mkelly r400 win laptop Update to level at csampayo2 Page 309 of 510 Page 310 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history The purpose of this test is to test ucp clip for point list with UCP Point Sprite Mode = 1(CULL USING RADIUS BASED DISTANCE FROM CENTER OF THE POINT) Initial test, disable pix and vtx pipe 0 Change 72094 on 2002/12/18 by csampayo@fl csampayo3 r400 The test generates 28 textured points in an orderly fashion around the ucp's which areset to clip like gbands (using 4 ucp's). i.e (top,left.right,bottom ucp edge)
The test generates 7 points on each ucp plane. Out of the 7 points, 1 point lies eactly on the ucp plane, the other 6 vary based on the cases specified in the test. Delete currently unavailable test r400vgt_real_time_events_04 Change 72082 on 2002/12/18 by csampayo@fl_csampayo_r400 Updated test status and test_list for the following tests: r400cl_clip_edgeflags_frustum_corners_01 r400cl_clip_edgeflags_frustum_corners_02 The cases are given below (delta = 0.00001f):
Case 1: The center of point lies exactly on the ucp plane.
Case 2: The center of point lies INSIDE the clip plane and distance between the center of point lies. The point delta below the plane and the clip plane. point and the clip plane = radius of the point - delta

Case 3: The center of point lies INSIDE the clip plane and distance between the center of

point and the clip plane = radius of the point

Case 4: The center of point lies INSIDE the clip plane and distance between the center of Change 72075 on 2002/12/18 by mkelly@fl_mkelly_r400_win_laptop Changed to one read at end of viz query tests.. point and the clip plane = radius of the point + delta

Case 5: The center of point lies OUTSIDE the clip plane and distance between the center of point and the clip plane = radius of the point - delta

Case 6: The center of point lies OUTSIDE the clip plane and distance between the center Change 72068 on 2002/12/18 by mkelly@fl_mkelly_r400_win_laptop Test PA_CL_ENHANCE, vertex reorder and clip seq random combinations... of point and the clip plane = radius of the point

Case 7: The center of point lies OUTSIDE the clip plane and distance between the center
of point and the clip plane = radius of the point + delta Change 71995 on 2002/12/17 by ashishs@fl ashishs r400 win initial checkin for the point sprite mode = 2 (CULL USING RADIUS BASED DISTANCE FROM CENTER POINT EXPAND CLIP ON INTERSECTION) with cull only When Clipping is enabled for ucp's, the test retains all the cases except the case 7 enable = true RETAINS THE POINTS WHEN THE DISTANCE BETWEEN THE CENTER OF THE POINT AND THE CLIP PLANE

IS LESS THAN OR EQUAL TO THE RADIUS

DISCARDS THE POINTS WHEN THE DISTANCE BETWEEN THE CENTER OF

THE POINT AND CLIP PLANE IS GREATER THAN THE RADIUS AND THE CENTER OF Change 71988 on 2002/12/17 by ashishs@fl_ashishs_r400_win The purpose of this test is to test ucp clip for point list with UCP Point Sprite Mode = 0(CULL USING DISTANCE FROM CENTER OF THE POINT)THE POINT IS OUTSIDE THE CLIP PLANE The test generates 12 textured points in an orderly fashion around the 4 enabled ucp planes i.e. (top,left,right,bottom gband edge) it generates 3 points on each ucp plane. Out of the 3 points, 1 point lies eactly on the ucp plane, the other 2 points slightly outside and slightly Change 71857 on 2002/12/17 by omesh@omesh_r400_linux_marlboro_only_devel inside(+ or - 0.000001f with respect to the upp plane)

When Clipping is enabled for ucp planes, the test retains all the points lying ON or INDISE the ucp planes wheras discards all the points lying OUTSIDE the ucp planes. Using consolidated register write instead of setting each register field Change 71831 on 2002/12/17 by Iseiler@Iseiler r400 win marlboro2 Change 71966 on 2002/12/17 by csampayo@fl_csampayo_r400 Adding new clipper tests checking polymode comer cases Change 71825 on 2002/12/17 by Iseiler@Iseiler_r400_win_marlboro2 Change 71914 on 2002/12/17 by Iseiler@Iseiler r400 win marlboro2 Support two new endian modes 8IN64 and 8IN128, required new golden images for two tests that wrote out register values $\,$ Added new endian modes to dumpview and rb color format tests

Change 71895 on 2002/12/17 by ashishs@fl ashishs r400 win

Page 311 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258311

Ex. 2052 --- R400 Testing FH ---foler_history

Change 71819 on 2002/12/17 by smoss@smoss crayola win

Page 312 of 510

SU tests

Change 71767 on 2002/12/17 by omesh@omesh_r400_linux_marlboro_only_devel

Changed test to use quad lists instead of triangle lists to eliminate all rasterization concerns associated with per pixel multisample rendering. This seems to produce all quad sample masks

correctly, as verified by Bill, although the tile probes now don't seem to work as expected.

Change 71755 on 2002/12/17 by ashishs@fl_ashishs_r400_win

updated to less number of cases using 3 cases for each plane (exactly on the plane, just outside the plane and just inside the plane)

Change 71740 on 2002/12/17 by markf@markf r400 linux marlboro

Added standard and standard z test cases

Change 71734 on 2002/12/17 by omesh@omesh_r400_linux_marlboro_only_devel

Changed test to use quads lists instead of triangle lists to eliminate all rasterization concerns associated with per pixel multisample rendering. This seems to produce all quad sample masks

correctly, as verified by Bill, although the tile probes now don't seem to work as expected.

Change 71723 on 2002/12/17 by mkelly@fl_mkelly_r400_win_laptop

Robustly check sc_one_quad_per_clock and quad_order_enable...

Change 71716 on 2002/12/17 by ashishs@fl_ashishs_r400_win

updated to less number of cases and decreased the delta for cases that lie inside and outside the gbands

Change 71676 on 2002/12/17 by mkelly@fl_mkelly_r400_win_laptop

Robustly check pkr row disable..

Change 71656 on 2002/12/17 by smoss@smoss_crayola_linux_orl_regress

renamed shader files for unix case

Change 71623 on 2002/12/16 by omesh@omesh_r400_linux_marlboro_only_devel

Added more golden results to list for regress_e. Also added standard testcases to tests that

Change 71593 on 2002/12/16 by ygiang@ygiang_r400_linux_marlboro

Page 313 of 510

Ex. 2052 --- R400 Testing FH --- foler history

added: random testing for sp

Change 71588 on 2002/12/16 by markf@markf_r400_lt_marlboro

New simple test for tile buffer debug

Change 71584 on 2002/12/16 by ygiang@ygiang_r400_linux_marlboro

fixed: emu time out

Change 71579 on 2002/12/16 by georgev@devel_georgev_r400_lin2_marlboro

Added new tests and fixed old ones

Change 71573 on 2002/12/16 by vgoel@fl vgoel2

added stress test for hos which will use all primtitive and tessellation type. It is not complete yet

Change 71503 on 2002/12/16 by ashishs@fl ashishs r400 win

The purpose of this test is to test frustum clip planes for point list The test generates 28 textured points in an orderly fashion around the frustum planes, i.e. (top,left,right,bottom frustum edge) it generates 7 points on each plane. Out of the 7 points, 1 point lies eactly on the frustum plane whereas the remainign 6 point positions vary, with 3 points on the inside and 3 points on the outside of the frustum.

This test generates additionally 6 points for the near and the far planes and the clip space is defined to be OGL clip space. Out of the 6 points, 3 points are close to the near plane wheras points are close to the far plane. Similarly out of the 3 points 1 point lies outside, 1 point lies on the frustum plane and the 3rd point lies inside the frustum plane.

When Clipping is enabled for frustum, the test retains all the points lying ON or INDISE the frustum wheras discards all the points lying OUTSIDE the frustum viz performs culling

Change 71502 on 2002/12/16 by omesh@omesh_r400_linux_marlboro_only_devel

Added 2 valid testcases using a different way of hitting specific samples in screen space (Not using the PA sample mask).

Even if I render subpixel triangles, the SX->RB quad mask waveforms don't show the

right detail masks of the right samples being rendered to

The only 2 valid testcases in this file are "OnePixel8Fragments" and "OnePixel4thFragment".

Change 71501 on 2002/12/16 by omesh@omesh_r400_linux_marlboro_only_devel

Added missing texture constant programming needed for resolve a few days ago, but forgot to check this file in. The resolve seems to work, but

Page 314 of 510

Ex. 2052 --- R400 Testing FH --- foler history

the multisampling does not seem to hit the right samples with the right colors. Will add a Bugzilla by the end of the day after further investigation.

Change 71468 on 2002/12/16 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint..

Change 71461 on 2002/12/16 by abeaudin@abeaudin_r400_win_marlboro

fixed blender GL_ONE precision problem

Change 71454 on 2002/12/16 by ashishs@fl_ashishs_r400_win

The purpose of this test is to test gband clip for point list. The test generates 28 textured points in an orderly fashion around the gbands, i.e (top,left,right,bottom gband edge) it generates 7 points on each gband. Out of the 7 points, 1 point less eactly on the gband whereas the remainign 6 point positions vary with 3 points on the inside and 3 points on the outside of the

When Clipping is enabled for gbands, the test retains all the points lying ON or INDISE the gbands wheras discards all the points lying OUTSIDE the gbands viz performs culling

Change 71348 on 2002/12/16 by mkelly@fl_mkelly_r400_win_laptop

RealDOT = 1 by default

Change 71174 on 2002/12/13 by csampayo@fl_csampayo2_r400

Added 3 new tests

Change 71173 on 2002/12/13 by csampayo@fl csampayo2 r400

Adding new SU polymode culling tests

Change 71144 on 2002/12/13 by markf@markf_r400_win_marlboro

Change 71126 on 2002/12/13 by georgev@devel_georgev_r400_lin2_marlboro

Change 71071 on 2002/12/13 by ctaylor@fl ctaylor r400 dtwin marlboro

Add function to RC to allow test-level interface to enable random hi-z kills for random testing.

Added fuction call to r400sc_rand.cpp

Page 315 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Added SERIALIZE to VFD utility to allow auto-gen tests to run both faster and more realistically

Change 71056 on 2002/12/13 by ctaylor@fl_ctaylor_r400_dtwin_marlboro

re-enable perf counters

Change 70967 on 2002/12/13 by ashishs@fl ashishs r400 win

the problem with the earlier checkin solved using render_engine.Wait_Gfx_Idle_No_Flush(); . Clipping also enabled

The test currently has a problem in which the some clipped points dont get the correct texture. Need to check if its an aliaising effect.

Change 70958 on 2002/12/13 by ashishs@fl ashishs r400 win

The test renders 128 points. 64 points with point size from vertex export and 64 points with point size from state registers of SU alternating each time. Also it varies the point size for the 64 points with point size from vertex export alternating between 2 different point sizes. The points are clipped using 6 UCP clip planes viz 64 combinations thereby generating 64 cases for each of the point size type viz vertex export 64 cases and SU state registers 64 combinations.

The test also verifies the point sprite texturing mechanism built into the SU/SQ thru the

parameter generation feature.

The test currently has a problem in which the last row of the points dont vary the point size from the vertex export which is under review.Clipping is disabled until review.

Change 70883 on 2002/12/12 by csampayo@fl csampayo2 r400

Adding new SU point test for size in vertex

Change 70838 on 2002/12/12 by georgev@devel_georgev_r400_lin2_marlboro

Added new tests

Change 70753 on 2002/12/12 by mkelly@fl_mkelly_r400_win_laptop

Update..

Change 70742 on 2002/12/12 by mkelly@fl_mkelly_r400_win_laptop

ROM disable pixel pipes 2 and 3

Change 70739 on 2002/12/12 by mkelly@fl_mkelly_r400_win_laptop

ROM bad pipe disable 2 & 3 vertex pass

Change 70730 on 2002/12/12 by mkelly@fl_mkelly_r400_win_laptop

Page 316 of 510

PA SC ENHANCE.PKR ROW WRAP DISABLE test Change 70344 on 2002/12/11 by rramsey@RRAMSEY P4 r400 win Change 70726 on 2002/12/12 by ashishs@fl_ashishs_r400_win updated comments and description, corrected cull radius in the test, generalised the test so that the point size can be entered using state registers in SU as well as vertex expot data using a single variable. (there doesn't seem to be problem with the texture as mentioned before because at low resolution its due to aliasing effect) Change 70720 on 2002/12/12 by mkelly@fl_mkelly_r400_win_laptop ROM disabled pipes 2 and 3 Change 70665 on 2002/12/12 by ashishs@fl ashishs r400 win Sample test showing texture failure with vertex export point size. The texture breaks with point sizes of 8, 16 but passes with point size of 32. Also the texture breaks only on vertex export point size and not on the SU point size present. (the test has controls to enable/disable the vertex export point size) Change 70567 on 2002/12/11 by viviana@viviana_crayola_linux_orl Test to read the rbbm bus reads. Change 70546 on 2002/12/11 by georgev@devel_georgev_r400_lin2_marlboro Changed for different picture on output. Change 70539 on 2002/12/11 by georgev@devel_georgev_r400_lin2_marlboro Added new tests for predicated mova and sets. Change 70463 on 2002/12/11 by ashishs@ashishs crayola linux orl Changed this file to run on linux. The test had problems with the Index buffer been written to memory multiple times unnecessarily Change 70450 on 2002/12/11 by vgoel@fl_vgoel2 added r400vgt_hos_tri_adaptive_complex test Change 70448 on 2002/12/11 by vgoel@fl vgoel2 modifed for higher tessellation level and also added texture mapping Change 70416 on 2002/12/11 by vgoel@fl_vgoel2 changed the input texture file name from *.bmp to *.BMP Page 317 of 510

Ex. 2052 --- R400 Testing FH --- foler history

fix problem with loading stipple repeat count value Change 70329 on 2002/12/11 by omesh@omesh r400 linux marlboro only devel Checked in a corner case for OnePixel8Fragments with all Red samples for the one pixel Change 70306 on 2002/12/11 by rramsey@rramsey_crayola_linux_orl Add randomization for perf countters Change 70305 on 2002/12/11 by kevino@kevino r400 win marlboro Added format comp cases to small prim, as well as 4x4, 8x8, and 16x16 (ARGB8888 only for now) Change 70246 on 2002/12/10 by grayc@chip_regress_orl fixed test name Change 70236 on 2002/12/10 by markf@markf tip r400 linux marlboro Fixed Inifinity and NaN cases Change 70208 on 2002/12/10 by markf@markf_tip_r400_linux_marlboro Fixed to give infinity and NaN equal weight Change 70169 on 2002/12/10 by georgev@devel_georgev_r400_lin2_marlboro Change 70160 on 2002/12/10 by csampayo@fl_csampayo2_r400 Renable tests: r400vgt_event_handling_03 r400vgt_event_handling_04 Add tests: r400vgt real time events 03 r400vgt_real_time_events_04 Change 70151 on 2002/12/10 by mkelly@fl_mkelly_r400_win_laptop change to wait gfx idle no flush before read back of status regs Page 318 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Change 69692 on 2002/12/09 by mkelly@fl mkelly r400 win laptop Enable clipper vertex reordering by default and update two test golds for regress_e to match Change 69668 on 2002/12/09 by ashishs@fl_ashishs_r400_win initial checkin of perspective divide clipping tests with different primitive positions with Change 69666 on 2002/12/09 by mkelly@fl_mkelly_r400_win_laptop Change 69640 on 2002/12/09 by omesh@omesh r400 linux marlboro only devel Made some changes to make sure the sample mask is set correctly in the PA, to make sure I render only a single sample within a single pixel for all 8 fragments. The waveforms don't show the right number of tile probes coming down, neither does the course sample mask seem correct. Change 69628 on 2002/12/09 by csampayo@fl_csampayo2_r400 Adjust image size for tiling Change 69617 on 2002/12/09 by omesh@omesh_r400_linux_marlboro_only_devel Added some simplified 1 Pixel testcases for Bill Lawless. Change 69604 on 2002/12/09 by llefebvr@llefebvre laptop r400 emu Backing out the change to the muladd that broke many regression tests Change 69570 on 2002/12/09 by mkelly@fl mkelly r400 win laptop Update test to dump vertex array for debugging.. Change 69566 on 2002/12/09 by mkelly@fl mkelly r400 win laptop Read viz query status registers using r400vgt_viz_query_01 as baseline. Change 69422 on 2002/12/06 by markf@markf tip r400 linux marlboro Change 69362 on 2002/12/06 by omesh@omesh r400 linux marlboro only devel Added code to turn off multisampling for the resolve pass. This still

Change 70080 on 2002/12/10 by omesh@ma_omesh

Reverted back for the One Pixel cases to use seperate contexts for each fragment. I cannot change a register state within the same context, as there is no h/w synchronization featured for this.

Change 70053 on 2002/12/10 by omesh@omesh r400 linux marlboro only devel

Made the One Pixel cases use only a single context to simplify debugging for Bill. The test always seemed to produce the 8 tiles it was supposed to, at the RBT \sim RBC interface. RC \sim RB only sends a single consolidated packed tile which is probably expanded into 8 tiles.

Change 69948 on 2002/12/10 by rramsey@rramsey_crayola_linux_orl

add usage comments

Change 69946 on 2002/12/10 by ctaylor@fl_ctaylor_r400_dtwin_marlboro

Update SC rand shell for new RTS trackers

Change 69901 on 2002/12/10 by georgev@devel_georgev_r400_lin2_marlboro

Added simple move test.

Change 69878 on 2002/12/10 by ctaylor@fl_ctaylor_r400_dtwin_marlboro

Fix Perf Counter PA bug with uninitialized select values.

Change 69834 on 2002/12/09 by georgev@devel_georgev_r400_lin2_marlboro

Added predicated kill tests.

Change 69833 on 2002/12/09 by csampayo@fl_csampayo_r400

Update for tiling

Change 69715 on 2002/12/09 by ctaylor@fl_ctaylor_r400_dtwin_marlboro

Add performance test

Change 69714 on 2002/12/09 by mkelly@fl mkelly r400 win laptop

Change 69709 on 2002/12/09 by omesh@omesh r400 linux marlboro only devel

Added 1 pixel testcases

Page 319 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 320 of 510

didn't make the resolve produce any colors on the final image. Increased range of vertex positions from 32 to 64 Change 69311 on 2002/12/06 by omesh@omesh r400 linux marlboro only devel Change 68906 on 2002/12/05 by vgoel@fl_vgoel2 Increased coverage of the test, so that the output image contains an easily distinguishable visual result. modified this test to output one object for debugging purpose. Change 69294 on 2002/12/06 by omesh@omesh_r400_linux_marlboro_only_devel Change 68878 on 2002/12/05 by ashishs@fl_ashishs_r400_win Made some test fixes: Moved center of sampling area to top left of pixel (where I added tests: r400cl_frustum_LR_TB_01 r400cl_edgeflags_05 r400cl_edgeflags_06 r400cl_edgeflags_07 intended it to be). Added some RB registers that were not programmed. Change 69266 on 2002/12/06 by bbuchner@fl_bbuchner_r400_win r400cl cull only ena 02 r400cl_cull_only_ena_03 r400vte_z_fmt_02 r400vte_z_fmt_03 r400vte_z_fmt_04 corrected instances where I/O signals were being used. Change 69250 on 2002/12/06 by omesh@omesh r400 linux marlboro only devel Added a second seperate surface to test that is meant for the resolved result. I now dump both the multisampled as well as the resolved image The resolved image looks wrong. (All black) Change 68870 on 2002/12/05 by ashishs@fl ashishs r400 win Features Tested:frustum clipping; LRTB clip cases Treatments Tested. Treatment entpring; LR-LB ctip cases
Test Purpose; simple LRTB clip cases; 9 primitives, each primitive has a different
combination of clipping control bits set for vertex 2
Expected Results: The primitives generated are as follows:
1. No clipping
2. Clipped on left edge of viewing frustum
3. Clipped on injust of viewing frustum Change 69158 on 2002/12/06 by llefebyr@llefebyre laptop r400 emu More HW precision fixes for the interpolators. Now matches perfectly HW for regular cases. Still a problem with very large numbers (but they are not used in the regression yet). Change 69153 on 2002/12/06 by Iseiler@Iseiler_r400_win_marlboro2 Clipped on right of viewing frustum Clipped on top edge of viewing frustum Clipped on top/left corner of viewing frustum Clipped on top/right corner of viewing frustum Fixes minor bugs in resolve code and test Change 69080 on 2002/12/06 by markf@markf tip r400 linux marlboro Clipped on bottom edge of viewing frustum Clipped on bottom/left corner of viewing frustung Added more test cases 9. Clipped on bottom/right corner of viewing frustum Change 69008 on 2002/12/05 by markf@markf_tip_r400_linux_marlboro Change 68862 on 2002/12/05 by ashishs@fl_ashishs_r400_win tests having primitve types as QUAD_LIST,QUAD_STRIP and POLYGON. Each test premuting various edgeflag combinations for the primitive edges. UCP Clipping enabled with 4 planes and primitve mapped with 8 texture maps. Made the verts of the rectangle more random Change 68976 on 2002/12/05 by vgoel@fl_vgoel2 Currently all these 3 tests have a problem in which the edgeflag setting overrides the polymode linefill algorithm and hence causing extra edges to show show up inside the primitive. (the extra edges are the edges common to triangles inside the primitives) modified test for tracing bug Change 68960 on 2002/12/05 by ashishs@fl ashishs r400 win Change 68861 on 2002/12/05 by ashishs@fl ashishs r400 win updated Change 68926 on 2002/12/05 by markf@markf_tip_r400_linux_marlboro Page 321 of 510 Page 322 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history The test has a bug currently in which the edgeflag setting overrides the polymode linefill algorithm thereby showing up and extra edge for the POLYGON(common edges between the 2 triangles of a POLYGON). A first cut at the multisample texture fetch and resolve tests. DumpView doesn't display the output image correctly. Its probably not ready for the resolve yet. Will conform with Jocelyn. Change 68860 on 2002/12/05 by georgev@devel_georgev_r400_lin2_marlboro Change 68768 on 2002/12/05 by mkelly@fl_mkelly_r400_win_laptop Added predicated exports. Fix read back Change 68844 on 2002/12/05 by csampayo@fl_csampayo2_r400 Change 68742 on 2002/12/05 by markf@markf_tip_r400_linux_marlboro Updated linear surfaces defs Limited interpolant range to 0.0 to 1.0 Change 68839 on 2002/12/05 by omesh@omesh_r400_linux_marlboro_only_devel Change 68688 on 2002/12/05 by markf@markf_r400_win_marlboro Added 2 testcases per file to test SWAP with 128 bit per pixel color, as Mark told me that this combination showed a bug Added simple pass thru shader for interpolation tests Change 68823 on 2002/12/05 by ashishs@fl_ashishs_r400_win Change 68615 on 2002/12/04 by omesh@omesh_r400_linux_marlboro_only_devel The test has a bug currently in which the edgeflag setting overrides the polymode linefill Added 7 testcases to test RB fog blending in COLOR 8 mode algorithm thereby showing up and extra edge for the QUAD_STRIP(common edge between the 2 triangles of a QUAD) Change 68612 on 2002/12/04 by markf@markf_r400_win_marlboro Change 68803 on 2002/12/05 by omesh@omesh_r400_linux_marlboro_only_devel Simple test for interpolators Fixed the opcode I was using in the pixel shader (It was wrong earlier, used for regular texture fetch, not multisampled texture fetch). However, now the Texture Pipe asserts, so I have informed Jocelyn about Change 68577 on 2002/12/04 by abeaudin@abeaudin r400 win marlboro fixed blender precision problem Change 68542 on 2002/12/04 by omesh@omesh r400 linux marlboro only devel

Change 68800 on 2002/12/05 by markf@markf_tip_r400_linux_marlboro

Added some more random test cases

Change 68787 on 2002/12/05 by ashishs@fl ashishs r400 win

The test has a bug currently in which the edgeflag setting overrides the polymode linefill algorithm thereby showing up and extra edge for the QUAD_LIST(common edge between the 2 triangles of a OUAD)

Change 68786 on 2002/12/05 by omesh@omesh_r400_linux_marlboro_only_devel

Fixed the FETCH COLOR FRAGMENTS field.

Change 68785 on 2002/12/05 by sallen@sallen_r400_lin_marlboro

ferret: look for context done in reg stream to indicate context busy

Change 68784 on 2002/12/05 by omesh@omesh_r400_linux_marlboro_only_devel

Page 323 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Fixed Buzilla bug#886. Color Mask plane bits now replicate within 32 bit word, based on number of bytes per pixel.

Change 68507 on 2002/12/04 by llefebvr@llefebvre_laptop_r400_emu

The emulator was off by 1 bit in the adder. Need to update golds... They should not missmatch by more than 1 LSB

Change 68486 on 2002/12/04 by omesh@omesh_r400_linux_marlboro_only_devel

Fixed bugzilla bug#887, explicitly sending down alpha channel for all vertices, so emulator and h/w don't mismatch. Haven't tested this fix though.

Change 68425 on 2002/12/04 by mkelly@fl_mkelly_r400_win_laptop

Add RealDOT dword = 0 to both scripts, must manually set to 1 for test

Page 324 of 510

Change 68424 on 2002/12/04 by ashishs@fl_ashishs_r400_win Change 68273 on 2002/12/03 by ygiang@ygiang_r400_linux_marlboro updated to run on Unix fixed: alu constant index Change 68421 on 2002/12/04 by ashishs@fl_ashishs_r400_win Change 68269 on 2002/12/03 by markf@markf_r400_win_marlboro cleaned up unused code Simple test for fast color clear and fast color expand Change 68420 on 2002/12/04 by llefebvr@llefebvre laptop r400 emu Change 68191 on 2002/12/03 by llefebvr@llefebvre laptop r400 emu new implementation of the DOT product. Currently turned off by default. Need to set RealDOT to 1 in registry file to turn it on. Changed regular mulladd to reflect implementation This is a test error. Since the test is using C0 to increase the range of the addresses, when you modify PS_BASE you also modify which constant gets picked for range increase. You should have used K0 instead to regardless of PS_BASE the same constant is always picked. The test has been corrected to reflect this. Change 68173 on 2002/12/03 by ashishs@fl ashishs r400 win Change 68413 on 2002/12/04 by rramsey@RRAMSEY P4 r400 win To Test Culling when UCPs are enabled Change 68154 on 2002/12/03 by omesh@omesh_r400_linux_marlboro_only_devel Remove reset of stipple_state register after a packet with auto_reset = NEVER, since it is not needed any more due to the constraint on stipple_repeat loads Fixed bugzilla#881 to program the number format in RB correctly, based on the color surface format used. Add randomization for sc_one_quad and quad_order Change 68126 on 2002/12/03 by ashishs@fl ashishs r400 win Change 68380 on 2002/12/04 by markf@markf r400 linux marlboro To check Z multiply 1/W using $VTX_Z_FMT = 0$ Texture included to assure integrity of parameter cache indices is maintained. Change 68368 on 2002/12/04 by ashishs@fl ashishs r400 win Change 68088 on 2002/12/03 by mkelly@fl mkelly r400 win laptop Remove SC hos test for the time being. updated to work on linux Change 68367 on 2002/12/04 by ihoule@ihoule r400 win marlboro Change 68077 on 2002/12/03 by ashishs@fl ashishs r400 win Various updates:
- Supports loading of cube maps
- Support automatic ordering of mip levels (when no level is specified) fixed texture related problem Change 68073 on 2002/12/03 by rramsey@RRAMSEY_P4_r400_win Support for constants in pixel and vertex shaders (starting at 0 for each) Enhance sc script
Can disable pa sims with 'nopa' cmd line arg
Can run with coverage on linux with 'cov' cmd line arg Exception trapping
 Static allocation workaround (for old primlib issue related to RTTI) Change 68365 on 2002/12/04 by viviana@viviana_crayola_linux_orl Can pause regression by touching pause regression in test directory Took out the writes and reads of the viz query status registers. Change 67985 on 2002/12/02 by markf@markf_r400_win_marlboro Change 68342 on 2002/12/04 by georgev@devel_georgev_r400_lin2_marlboro Added the test cases Init loop counters in default. Change 67969 on 2002/12/02 by ygiang@ygiang_r400_linux_marlboro Page 325 of 510 Page 326 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history fixed: wasn't doing the right lit function before updated Change 67962 on 2002/12/02 by vgoel@fl vgoel2 Change 67778 on 2002/12/02 by markf@markf_r400_lt_marlboro added adaptive tri-patch test Change 67960 on 2002/12/02 by vgoel@fl vgoel2 Change 67759 on 2002/12/02 by ashishs@fl ashishs r400 win added adaptive line patch and rect patch tests to test_list and modified these tests to export to one DWORD for one index ptr. XY multiply 1/W using $VTX_XY_FMT = 0$ Texture included to assure integrity of parameter cache indices is maintained Change 67932 on 2002/12/02 by ashishs@fl ashishs r400 win Change 67756 on 2002/12/01 by ashishs@fl_ashishs_r400_win updated since failing in tiled mode To check the W0 bit in the VTE_CNTL register, primitive mapped with 8 textures. Change 67910 on 2002/12/02 by mkelly@fl mkelly r400 win laptop Change 67748 on 2002/12/01 by ashishs@fl ashishs r400 win Set nan_retain in CL to false... vte test : To check the W0 bit in the VTE_CNTL register Change 67896 on 2002/12/02 by vgoel@fl vgoel2 Change 67548 on 2002/11/29 by smoss@smoss crayola linux orl regress added adaptive line patch tessellation test Change 67881 on 2002/12/02 by georgev@devel_georgev_r400_lin2_marlboro Change 67318 on 2002/11/27 by ygiang@ygiang_r400_linux_marlboro Initialized unused loops for loop_2 test added:more mova tests Change 67857 on 2002/12/02 by ygiang@ygiang_r400_linux_marlboro Change 67302 on 2002/11/27 by ygiang@ygiang r400 linux marlboro fixed: bugs in test cases Change 67849 on 2002/12/02 by smoss@smoss_crayola_linux_ori_regress Change 67285 on 2002/11/27 by ygiang@ygiang_r400_linux_marlboro modified for Linux fixed: test cases Change 67847 on 2002/12/02 by vgoel@fl_vgoel2 Change 67277 on 2002/11/27 by georgev@devel_georgev_r400_lin2_marlboro stored index pointers to rect patches in one dword Added and fixed tests. Change 67801 on 2002/12/02 by mkelly@fl mkelly r400 win laptop Change 67273 on 2002/11/27 by mkelly@fl_mkelly_r400_win_laptop Set R400HardwareAccurate to default on in both scripts. Verify SU SC MODE persp corr disable Set Tiling to default on in both scripts

Change 67782 on 2002/12/02 by rramsey@RRAMSEY_P4_r400_win

Page 327 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 67779 on 2002/12/02 by ashishs@fl_ashishs_r400_win

temp fix to get rands passing vs tb so

Ex. 2052 --- R400 Testing FH ---foler_history

Change 67256 on 2002/11/27 by smoss@smoss_crayola_linux_orl

Change 67255 on 2002/11/27 by mkelly@fl_mkelly_r400_win_laptop

Page 328 of 510

edit for Linux

Update test to pass at GC level, including alloc TILE memory and setting CMASK

Change 67254 on 2002/11/27 by jhoule@jhoule_r400_win_marlboro

Updated SET TEX LOD code generator for new syntax.

Change 67244 on 2002/11/27 by mkelly@fl_mkelly_r400_win_laptop

Update..

Change 67170 on 2002/11/27 by hwise@fl hwise r400 win

Change 67133 on 2002/11/26 by smoss@smoss crayola win

Change 67131 on 2002/11/26 by ygiang@ygiang_r400_linux_marlboro

added: sp mova tests

Change 67101 on 2002/11/26 by ashishs@fl ashishs r400 win

This is a sample test to verify the barycentric coordinates. The test generates a color band texture of 8 colors with each color varying from the lowest intensity to the highest intensity(0-255). The test uses display size of 256X256 so that each row in the frameBufferDump has a different intensity of color for each color band. The primitve is then clipped with guard bands and 6 clipping planes and the result is verified with unclipped image(same test with clip disable) (If the HW accurate mode isnt on then the image will have the center rows 128 and 129 with the same color intensities but the problem disappears when HW accurate mode is turned on)

Change 67081 on 2002/11/26 by vgoel@fl vgoel2

modified to include prim order and pixel shader is modified

Change 67061 on 2002/11/26 by ashishs@fl_ashishs_r400_win

Change 67056 on 2002/11/26 by georgev@devel georgev r400 lin2 marlboro

Ooops. Made negative

Change 67055 on 2002/11/26 by georgev@devel_georgev_r400_lin2_marlboro

Added new tests.

Page 329 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Change 66906 on 2002/11/26 by omesh@omesh_r400_linux_marlboro_only_devel

Increased emulator timeout some more, as 2 of the testcases (all and fog_random failed last night's regression due to the timeout

Change 66905 on 2002/11/26 by omesh@omesh r400 linux mariboro only devel

Changed the other tests that used the memory fill function to do a seperate allocate and load for all sets of vertex data.

Change 66878 on 2002/11/25 by ashishs@fl ashishs r400 win

This is a sample test to verify the perspective divide feature of the VTE along with clipping. Primitve Type: TRIANGLE LIST with 2 triangles forming a rectangle texture mapped with 8 textures. Clipping enabled with horizonatl and vertical guard bands and 6 ucp clip planes.

(found differences in clipped and unclipped images, under review)

Change 66869 on 2002/11/25 by csampayo@fl csampayo2 r400

Adjust non-RTS rect and RTS rect sizes

Change 66868 on 2002/11/25 by csampayo@fl_csampayo2_r400

Added new RTS test

Change 66841 on 2002/11/25 by georgev@devel_georgev_r400_lin2_marlboro

New tests added.

Change 66797 on 2002/11/25 by georgev@devel_georgev_r400_lin2_marlboro

Added new tests

Change 66771 on 2002/11/25 by vgoel@fl vgoel2

added prim order and correct few cpp files.

Change 66770 on 2002/11/25 by omesh@omesh_r400_linux_marlboro_only_devel

Added load vertex code within the render loop to allocate different sections of memory instead of reusing the same section. (This does not require the wait_gfx_idle() call to synchronize between various

passes of memory writes). If this works, I will change all the other files for John Chen.

Change 66727 on 2002/11/25 by viviana@viviana crayola linux orl

Page 330 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

New test to test the reads from the rbbm - sc block.

Change 66683 on 2002/11/25 by mkelly@fl_mkelly_r400_win_laptop

More SC HW coords testing... Fix regress_r400 to unzip framebuf with option z

Change 66678 on 2002/11/25 by vgoel@fl_vgoel2

 $added\ test\ r400vgt_hos_PNT_adaptive_complex\ to\ test_list\\ changed\ r400vgt_hos_PNQ_adaptive_complex.cpp\ to\ include\ prim_order$

Change 66606 on 2002/11/25 by ashishs@fl_ashishs_r400_win

Change 66584 on 2002/11/25 by mkelly@fl mkelly r400 win laptop

SC HW coords extremity testing ..

Change 66576 on 2002/11/25 by mkelly@fl mkelly r400 win laptop

Barycentric test on SC HW coords extremes

Change 66543 on 2002/11/24 by ygiang@ygiang_r400_linux_marlboro

added: fog and other sp tests

Change 66537 on 2002/11/24 by mmantor@mmantor r400 win

increased timeout max in test for Pipe disable testing

Change 66505 on 2002/11/23 by smoss@smoss_crayola_linux_orl_regress

<Orlando Hardware Regression Results >

Change 66401 on 2002/11/22 by ygiang@ygiang_r400_win_marlboro_p4

changes for hardware accurate mode

Change 66374 on 2002/11/22 by ygiang@ygiang_r400_linux_marlboro

added: tests with new names

Change 66373 on 2002/11/22 by ygiang@ygiang_r400_linux_marlboro

deleted: old test name

Change 66372 on 2002/11/22 by georgev@devel_georgev_r400_lin2_marlboro

Page 331 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Added new tests

Change 66367 on 2002/11/22 by csampayo@fl_csampayo_r400

Updated test list and test tracker for the following tests: r400vgt_real_time_events_02

Change 66361 on 2002/11/22 by csampayo@fl_csampayo2_r400

Add new RTS test

Change 66360 on 2002/11/22 by csampayo@fl_csampayo2_r400

Fix initialization of context 0 and general cleanup

Change 66343 on 2002/11/22 by ygiang@ygiang_r400_linux_marlboro

added: shader mova test

Change 66300 on 2002/11/22 by omesh@omesh_r400_linux_marlboro_only_devel

Removed the wait_gfx_idle() call within loops. There's now just one at the end of the test. I must have overlooked these tests when I did the others. Also compiled them to check that they all compile

Change 66265 on 2002/11/22 by mkelly@fl_mkelly_r400_win_laptop

Test barve interpolation of a single line -4k to (12k-1) range in X major

Change 66169 on 2002/11/22 by mkelly@fl_mkelly_r400_win_laptop

Only unzip a framebuf file if that file is to be compared..

Change 66111 on 2002/11/21 by ashishs@fl_ashishs_r400_win

Change 66093 on 2002/11/21 by ygiang@ygiang_r400_linux_marlboro

fixed: alu constant reg in test

Change 66025 on 2002/11/21 by georgev@devel_georgev_r400_lin2_marlboro

Change 66008 on 2002/11/21 by omesh@omesh_r400_linux_marlboro_only_devel

Page 332 of 510

Added tile buffer initialized versions of the Depth tests that use Larry's tile buffer data word initialization routines from addrenum(.h

Change 65995 on 2002/11/21 by smoss@smoss_crayola_linux_orl_emu_regress

Change 65994 on 2002/11/21 by rramsey@RRAMSEY P4 r400 win

tb_sc.v - Put in new method for context management to fix failing vizq test
Add DISABLE_RBBM_FILTER parameter so we can test with all rbbm data

rand r400sc.sh - Add some commenting to rtl sim report files

Change 65987 on 2002/11/21 by mkelly@fl_mkelly_r400_win_laptop

Change 65973 on 2002/11/21 by llefebvr@llefebvr r400 linux marlboro

fixing constant setup bug in the test

Change 65880 on 2002/11/21 by georgev@devel_georgev_r400_lin2_marlboro

Change 65854 on 2002/11/21 by mkelly@fl mkelly r400 win laptop

Change 65847 on 2002/11/21 by mkelly@fl mkelly r400 win lapton

Update.

Change 65842 on 2002/11/21 by ashishs@fl_ashishs_r400_win

removed the dump file compares

Change 65832 on 2002/11/21 by mkelly@fl_mkelly_r400_win_laptop

Fix agp r handling cause I broke it with previous check-in:)

Change 65830 on 2002/11/21 by georgev@devel_georgev_r400_lin2_marlboro

Added more loop tests.

Change 65828 on 2002/11/21 by mkelly@fl_mkelly_r400_win_laptop

Page 333 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

* Added option -w, where the user can define the \$src path, this will allow regress r400 script to run when Perforce is down. The user needs to hardcode his \$src_path in regress r400. Search on variable \$use_default_root and edit \$src_path in the else clause.

* Fixed bug when reading in multiple compare arguments in test list

Change 65827 on 2002/11/21 by georgev@devel georgev r400 lin2 marlboro

Buttoned up test because we're not using it anymore

Change 65768 on 2002/11/20 by ygiang@ygiang_r400_linux_marlboro

added: mova w/ max alu constant regs use

Change 65751 on 2002/11/20 by vgoel@fl_vgoel2

changed it back to displaying 28 objects

Change 65745 on 2002/11/20 by jhoule@jhoule r400 win marlboro

XPLAT format of variable declaration. Cleanup of variables and flags; still some left, but should be easier now.

Flag -v only happens under UNIX.

Change 65630 on 2002/11/20 by mkelly@fl_mkelly_r400_win_laptop

Fix uninitialized W...

Change 65610 on 2002/11/20 by ygiang@ygiang_r400_linux_marlboro

fixed: triangle sizes for debug

Change 65554 on 2002/11/20 by abeaudin@abeaudin r400 win marlboro

regression files

Change 65538 on 2002/11/20 by abeaudin@abeaudin_r400_win_marlboro

adding rb tests

Change 65533 on 2002/11/20 by vgoel@fl_vgoel2

changed test temporarily to output one line curve

Change 65527 on 2002/11/20 by ashishs@fl ashishs r400 win

Page 334 of 510

Ex. 2052 --- R400 Testing FH --- foler history

updated to compare frameBufferDump, VapV300, ClipGa_alg and SuScan

Change 65511 on 2002/11/20 by mkelly@fl mkelly r400 win laptop

add another tricky poly offset quick test to regress_e...

Change 65509 on 2002/11/20 by ashishs@fl ashishs r400 win

changed frameBufferDump in multiples of 32

Change 65503 on 2002/11/20 by ashishs@fl ashishs r400 win

updated the frameBufferDump in multiples of 32

Update..

Change 65481 on 2002/11/20 by mkelly@fl_mkelly_r400_win_laptop

Change 65487 on 2002/11/20 by mkelly@fl_mkelly_r400_win_laptop

Change 65477 on 2002/11/20 by smoss@smoss_crayola_linux_orl_regress

added rom sc.dmp

Change 65420 on 2002/11/19 by ashishs@fl_ashishs_r400_win

updated for texture related problem

 $point_texture_constant.setMIP_FILTER(TFetchConst::Mip_BaseMap);$

Change 65410 on 2002/11/19 by ashishs@fl ashishs r400 win

ucp clipping of triangle strip mapped with 8 textures with edgeflag combinations

Change 65395 on 2002/11/19 by ashishs@fl ashishs r400 win

edgeflag clipping with 8 textures. (primitive types: Triangle with WFLAGS & TRIANGLE FAN)

Change 65369 on 2002/11/19 by georgev@devel_georgev_r400_lin2_marlboro Consolidated SQ tests.

Change 65367 on 2002/11/19 by llefebvr@llefebvre_laptop_r400_emu

Page 335 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

This wasn't hung. Just took a lot of time. I reduced the loop count to something more reasonable. Also changed the R400_NAN to FFC00000.

Change 65318 on 2002/11/19 by omesh@ma omesh

Added an explicit static cast for a conversion from int->enum. These tests should also now compile on Windows, as I verified

Change 65282 on 2002/11/19 by vgoel@fl_vgoel2

added r400vgt hos pnl adaptive complex to gold

Change 65279 on 2002/11/19 by mkelly@fl_mkelly_r400_win_laptop

Change 65249 on 2002/11/19 by mkelly@fl mkelly r400 win laptop

Test which shows an interpolator bug..

Change 65239 on 2002/11/19 by csampayo@fl_csampayo2_r400

Updated for proper timing between packets

Change 65234 on 2002/11/19 by csampayo@fl csampayo r400

Added 3 new VGT tests and updated test_list and test tracker accordingly

Change 65219 on 2002/11/19 by mkelly@fl mkelly r400 win laptop

Change 65199 on 2002/11/19 by llefebvr@llefebvre_laptop_r400_emu

There were two problems with this test: 1) The first pass pixel shader wasn't exporting anything thus the SX wasn't sending anything to the RBs hence the hang. You should never have a dummy pixel shader if there are pixel generated.

2) The time allowed to the test was too short, I incremented it to 10000 (was 1000).

I took the opportunity to do some code cleanup as well. Rerun other memory export tests to make sure I did not break anything

Change 65189 on 2002/11/19 by mkelly@fl mkelly r400 win laptop

Regress e test to check XY position with combinations of CENTERs, CENTROIDs

Change 65181 on 2002/11/19 by mkelly@fl_mkelly_r400_win_laptop

Page 336 of 510

Short test for regress e... r400vgt event handling 04 Change 65180 on 2002/11/19 by mkelly@fl mkelly r400 win laptop Change 64858 on 2002/11/18 by mkelly@fl mkelly r400 win laptop Fix cull direction now that face bit detection is shader is working properly.. Update same changelist 61027, 2°23 bias Change 65168 on 2002/11/19 by mkelly@fl mkelly r400 win laptop Change 64848 on 2002/11/18 by ashishs@fl ashishs r400 win Fix cull direction to CW, now passes with interpolators face bit fix, change 64957. updated to change the framebufferDump size Change 65161 on 2002/11/19 by ashishs@fl_ashishs_r400_win Change 64837 on 2002/11/18 by mkelly@fl mkelly r400 win laptop cleaned up code Add negative window offset to regress_e.. Change 65056 on 2002/11/18 by ashishs@fl ashishs r400 win Change 64829 on 2002/11/18 by ashishs@fl ashishs r400 win redisgned this test since failing in tiled mode. Now the test passes the old linear dump as added triangles with edgeflags and texture test to the tracker well as the Tiled dump compare Change 64795 on 2002/11/18 by mkelly@fl_mkelly_r400_win_laptop Change 65043 on 2002/11/18 by ygiang@ygiang_r400_linux_marlboro * sq_block_model.cpp was not adding the buffer offset for centriods when centers and centriods are sent.

* fixed gold for r400sc_msaa_8_primtypes_01

* add r400sc_sp_sample_cntl_01 to SC regress_e to lock in this test and help minimize fixed: plgx time out for large triangle Change 65006 on 2002/11/18 by omesh@omesh r400 linux marlboro only devel future debugging efforts. Increased default emulator timeout of tests (800), to ensure they don't timeout during nightly regressions. Don't know why the same tests take factors of more emulator cycles. Change 64760 on 2002/11/18 by mkelly@fl_mkelly_r400_win_laptop Correct golds... Change 65002 on 2002/11/18 by georgev@devel_georgev_r400_lin2_marlboro Change 64652 on 2002/11/16 by csampayo@f1_csampayo2_r400 Added wait without flush between packets Change 64926 on 2002/11/18 by vgoel@fl_vgoel2 Change 64564 on 2002/11/15 by ashishs@fl ashishs r400 win added vgt grp prim order type tests updated (vertex buffer not set properly causing tests to FAIL, also added Change 64906 on 2002/11/18 by ygiang@ygiang_r400_linux_marlboro render_engine.Wait_Gfx_Idle_No_Flush();) Change 64563 on 2002/11/15 by ygiang@ygiang_r400_linux_marlboro modified: output channels Change 64870 on 2002/11/18 by mkelly@fl mkelly r400 win laptop added: absolute alu constant registers test Fix for 2/23 bias Change 64562 on 2002/11/15 by ashishs@fl_ashishs_r400_win Change 64863 on 2002/11/18 by csampayo@fl_csampayo_lt_r400 tests updated (vertex buffer not set properly causing tests to FAIL, also added render_engine.Wait_Gfx_Idle_No_Flush();) Temporarily comment out tests: r400vgt_event_handling_03 Change 64555 on 2002/11/15 by omesh@omesh_r400_linux_marlboro_only_devel Page 338 of 510 Page 337 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Increased emulator timeout for these tests. For some reason they worked earlier, but some Added the 7 test names for which I have generated golden images, to be change in the emulator might have caused used with the "make regress e" target. Will add more later these tests to take more "emulator cycles" than before. Verified that these tests don't timeout assert anymore, so they should pass correctly with the next nightly regression Change 64542 on 2002/11/15 by omesh@omesh_r400_linux_marlboro_only_devel Checking in golden result images for 7 testcases which I can predict the image of Change 64360 on 2002/11/15 by jhoule@jhoule r400 win marlboro (offhand). The other testcases, I would have to spend more time to visually verify. Also checking in the magic Modified test program to prevent sending TILED 1D textures file that supposedly keeps track of tests marked as having golden results Change 64354 on 2002/11/15 by ygiang@ygiang_r400_linux_marlboro Change 64525 on 2002/11/15 by mkelly@fl_mkelly_r400_win_laptop Golds for Frank Hsien's regression... Change 64310 on 2002/11/15 by rramsey@rramsey_crayola_linux_orl Change 64504 on 2002/11/15 by jhoule@jhoule r400 win marlboro shell script for running emulator sc rands (works on linux and win) runs pa and sc testbenches Updated shader programs to new SET_* syntax. Change 64284 on 2002/11/15 by mkelly@fl mkelly r400 win laptop Change 64501 on 2002/11/15 by omesh@omesh r400 linux marlboro only devel Added "standard" testcases for tests that we want to include in the RB mini regression. Change 64207 on 2002/11/14 by vgoel@fl_vgoel2 These happen to correspond to some bugs testcases which Alicia is probably working on. For all future golden images, we will wait on trying to freeze the emulator to be hardware accurate to 12 bits of blending and $added\ r400vgt_hos_PNQ_adaptive_complex$ Change 64205 on 2002/11/14 by vgoel@fl_vgoel2 make target that would support testcase based golden file creation / regression modified reuse number and level of tessellation Change 64455 on 2002/11/15 by kevino@kevino r400 win marlboro Change 64200 on 2002/11/14 by ygiang@ygiang_r400_linux_marlboro test case files for 32as8 and 32as88 added: pixel cube test Change 64425 on 2002/11/15 by abeaudin@abeaudin r400 win marlboro Change 64162 on 2002/11/14 by vgoel@fl_vgoel2

added fog test

Change 64399 on 2002/11/15 by ashishs@fl_ashishs_r400_win

updated for texture related problem.

for each texture added

 $point_texture_constant.setMIP_FILTER(TFetchConst::Mip_BaseMap);$

 $Change~64383~on~2002/11/15~by~omesh@omesh_r400_linux_marlboro_only_devel$

Page 339 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

added wait cycles after first pass

Change 64148 on 2002/11/14 by rramsey@RRAMSEY_P4_r400_win

move flush back to end of test, add perfcounter setup/reads

Change 64125 on 2002/11/14 by ashishs@fl_ashishs_r400_win

This test is intended to validate the clippper processing of the edge flags for the triangle list primitive type.

Clipping with 4 UCPs is enabled and actual clipping takes place
The edge flags for each primitive are permuted accross all packets

Page 340 of 510

updated for not writing unknown value to export memory. Also updated is gold. Change gold path back to gold and not gold_tile_enabled! Change 64086 on 2002/11/14 by vgoel@fl vgoel2 Change 63927 on 2002/11/14 by mkelly@fl_mkelly_r400_win_laptop Support for *.agp_r management and compare.... Change 64082 on 2002/11/14 by vgoel@fl vgoel2 Change 63862 on 2002/11/13 by rmanapat@rmanapat r400 sun mariboro changed r400_local_tonemapping to r400vgt_local_tonemapping Updated test so that ATI_MEMPAK error does not occur Change 64068 on 2002/11/14 by mkelly@fl_mkelly_r400_win_laptop Change 63859 on 2002/11/13 by csampayo@fl csampayo2 r400 Add if statement to avoid annoying message about cannot unzip an agp_r file... Added wait between passes to allow memory export to complete Change 64060 on 2002/11/14 by georgev@devel_georgev_r400_lin2_marlboro Change 63852 on 2002/11/13 by ygiang@ygiang_r400_linux_marlboro Fix bad regressions and put in tests for yung to use. fixed:unknown value for vector Change 64024 on 2002/11/14 by ygiang@ygiang_r400_linux_marlboro Change 63846 on 2002/11/13 by csampayo@fl_csampayo2_r400 fixed: else statement for random test case Undates for SO counter undate Change 64023 on 2002/11/14 by mkelly@fl mkelly r400 win laptop Change 63783 on 2002/11/13 by ashishs@fl ashishs r400 win Update.. sample texture tests for customization Change 64022 on 2002/11/14 by mkelly@fl_mkelly_r400_win_laptop Change 63768 on 2002/11/13 by kevino@kevino_r400_win_marlboro Added static render state because primlib can't seem to deal with dynamic ones all of Add textured line to regress e Change 64017 on 2002/11/14 by mkelly@fl_mkelly_r400_win_laptop Change 63750 on 2002/11/13 by kevino@kevino_r400_win_marlboro Update test to behave identically to syncs prior to 60942 Fix pitch to min 32 Change 63973 on 2002/11/14 by kevino@kevino r400 win marlboro Change 63739 on 2002/11/13 by grayc@chip_regress_orl Removes non-existant fmt_32_as_8_float and fmt_32_as_8_8_float cases. golds for chip sims Change 63954 on 2002/11/14 by kevino@kevino_r400_win_marlboro Change 63733 on 2002/11/13 by mkelly@fl_mkelly_r400_win_laptop Was missing a semi-colon at the end of some of the muladd commands in the created .sp Support <test_name>.agp_r in regress_r400 Change 63950 on 2002/11/14 by kevino@kevino_r400_win_marlboro Change 63729 on 2002/11/13 by grayc@chip_regress_orl Page 341 of 510 Page 342 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history sorted test list Change 63728 on 2002/11/13 by grayc@chip_regress_orl Change 63458 on 2002/11/12 by ashishs@fl_ashishs_r400_win golds for chip sims Change 63698 on 2002/11/13 by grayc@chip regress orl Change 63441 on 2002/11/12 by llefebvr@llefebvre laptop r400 emu gold checkins Adding mova stress tests for the SQ. Change 63660 on 2002/11/13 by llefebvr@llefebvre_laptop_r400_emu Change 63435 on 2002/11/12 by mkelly@fl mkelly r400 win laptop New non constant fog test. Change 63616 on 2002/11/13 by omesh@omesh_r400_linux_marlboro_only_devel Change 63359 on 2002/11/12 by mkelly@fl mkelly r400 win laptop Checked in a temporary test I am working on. Will rename later Switch to tiling. Change 63602 on 2002/11/13 by rramsey@RRAMSEY_P4_r400_win Change 63349 on 2002/11/12 by kevino@kevino r400 linux marlboro change rands so we only wait gfx idle once per case Needed for smallprim tests Change 63599 on 2002/11/13 by mkelly@fl_mkelly_r400_win_laptop Change 63333 on 2002/11/12 by smoss@smoss_crayola_win To debug color change issue.. update golds Change 63595 on 2002/11/13 by mkelly@fl_mkelly_r400_win_laptop Change 63325 on 2002/11/12 by mkelly@fl_mkelly_r400_win_laptop Uncomment test. Modify for tiling ... Change 63588 on 2002/11/13 by mkelly@fl_mkelly_r400_win_laptop Change 63313 on 2002/11/12 by omesh@omesh_r400_linux_marlboro_only_devel Comment out aborting test for the time being... Added the color 2 10 10 10 number gamma as upto 12 bit gamma is now supported Change 63552 on 2002/11/12 by csampayo@fl csampayo lt r400 Change 63271 on 2002/11/11 by csampayo@fl_csampayo_r400 Updated test_list and test tracker for the following tests: $Added\ explicit\ initialization\ of\ the\ quad_order_enable\ bit\ in\ PA_SU_SC_MODE_CNTL$ r400vgt_multi_pass_pix_shader_07 r400vgt_multi_pass_pix_shader_08 Change 63547 on 2002/11/12 by csampayo@fl_csampayo_r400 Change 63233 on 2002/11/11 by ashishs@fl_ashishs_r400_win Adding 2 new VGT multi-pass pixel shader tests with quad order enable bit on. edited comment Change 63466 on 2002/11/12 by georgev@devel_georgev_r400_lin2_marlboro Change 63232 on 2002/11/11 by ashishs@fl_ashishs_r400_win Tests guard band clipping(TRIANGLE_WITH_WFLAGS) Changed comments, verify infinity works Change 63464 on 2002/11/12 by ashishs@fl_ashishs_r400_win Top Left Quadrant, gourand shading Page 344 of 510 Page 343 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

fixed pitch select for texture dump to be min of 32.

Change 63928 on 2002/11/14 by mkelly@fl mkelly r400 win laptop

Each primitive has position, 2 colors and 8 textures.

Change 64118 on 2002/11/14 by vgoel@fl vgoel2

Top Right Quadrant, FLAT SHADING with START vertex as provoking vtx Lower Right Quadrant, FLAT SHADING with END vertex as provoking vtx Lower Left Quadrant, SIX TEXTURES, with COLORO as transparent Expected Results: 6 primitives in each of four quadrants, guard band clipped

Change 63229 on 2002/11/11 by georgev@devel georgev r400 lin2 marlboro

Added more random cases

Change 63217 on 2002/11/11 by llefebvr@llefebvre_laptop_r400_emu

Fixing an error with loops in the SQ that caused it to loop indefinitely. Also adding some more predication tests.

Change 63182 on 2002/11/11 by mkelly@fl mkelly r400 win laptop

MSAA Primtypes SC for regress_e

Change 63180 on 2002/11/11 by mkelly@fl_mkelly_r400_win_laptop

Multi-textures, big vertex for regress_e

Change 63173 on 2002/11/11 by mkelly@fl_mkelly_r400_win_laptop

Add test to regress e, SC sample control XY positions

Change 63168 on 2002/11/11 by smoss@smoss crayola win

update golds

Change 63143 on 2002/11/11 by ctaylor@fl_ctaylor_r400_dtwin_marlboro

Changed rands to insert wait_gfx_idle between each packet to get around (temporarily) RBBM issues.

Change 63113 on 2002/11/11 by llefebvr@llefebvre_laptop_r400_emu

Submiting an example of how to use the SQ generated counters.

Change 63109 on 2002/11/11 by georgev@devel_georgev_r400_lin2_marlboro

Fix seg fault

Change 63101 on 2002/11/11 by hwise@fl_hwise_r400_win

Removed blank sapce at end of line which broke the:
export REGRESS_DIFF_OPTIONS = IGNORE_DUMP_HEADERS

Change 63100 on 2002/11/11 by ashishs@fl_ashishs_r400_win

Page 345 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Tests guard band clipping(POLYGON)
4 primitives in 4 quadrants.
Top Left Quadrant, gouraud shading
Top Right Quadrant, FLAT SHADING with START vertex as provoking vtx
Lower Right Quadrant, FLAT SHADING with END vertex as provoking vtx
Lower Left Quadrant, SIX TEXTURES, with COLORO as transparent

Expected Results: 1 polygon in each of four quadrants, guard band clipped

Change 63071 on 2002/11/11 by smoss@smoss cravola win

allowed vte to do 1/w rather than su

Change 62910 on 2002/11/08 by csampayo@fl_csampayo_lt_r400

Updated status in test tracker and added to test_list: r400vgt_real_time_events_01

Change 62841 on 2002/11/08 by omesh@omesh_r400_linux_marlboro_only_devel

Added another series of 4 multibuffer golden images to test if the golden release process works for multibuffer dump testcases.

Change 62832 on 2002/11/08 by omesh@omesh_r400_linux_marlboro_only_devel

Added a first golden image to get familiar with the process and also verify that the golden image release process is working.

Change 62817 on 2002/11/08 by omesh@omesh_r400_linux_marlboro_only_devel

 $Added\ empty\ list\ of\ images\ marked\ as\ "golden"\ to\ start\ using\ Paul's\ gold.pl\ script\ to\ start\ checking\ in\ golden\ images.$

Change 62791 on 2002/11/08 by georgev@devel_georgev_r400_lin2_marlboro

Test mova including rounding

Change 62783 on 2002/11/08 by csampayo@fl_csampayo_r400

Update to properly init RTS context

Change 62780 on 2002/11/08 by subad@subad r400 win marlboro

Updated

Change 62776 on 2002/11/08 by mkelly@fl_mkelly_r400_win_laptop

Add two new registery settings for bad pipe and SC packer optimize

Page 346 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Change 62748 on 2002/11/08 by ashishs@fl_ashishs_r400_win

update

Change 62746 on 2002/11/08 by ashishs@fl_ashishs_r400_win

adding more frustum clipping tests

Change 62733 on 2002/11/08 by vgoel@fl_vgoel2

corrected this test

Change 62731 on 2002/11/08 by csampayo@fl_csampayo2_r400

Update to RTS dat

Change 62711 on 2002/11/08 by ashishs@fl_ashishs_r400_win

updated for last 3 vte tests viz r400vte_pos_neg_combos_01/02/03

Change 62687 on 2002/11/08 by kevino@kevino_r400_win_marlboro

Added texture dumps (ppm and framebuf)

Change 62588 on 2002/11/07 by csampayo@fl_csampayo2_r400

Initial check in of first RTS test

Change 62542 on 2002/11/07 by omesh@omesh r400 linux marlboro only devel

Added 11 more extensive fog with color blending tests. These tests are the same as the plain fog tests, except that they render half the color saturation value as before and write them to the destination. In the second pass, they re-render the same triangles and combine the earlier half saturation from destination using color blending.

Change 62534 on 2002/11/07 by vgoel@fl_vgoel2

added rect adaptive tessellation test : still problem with tessellation factors

Change 62508 on 2002/11/07 by georgev@devel_georgev_r400_lin2_marlboro

Added mul_prev2 tests.

Change 62486 on 2002/11/07 by llefebvr@llefebvre_laptop_r400_emu

New SQ predication tests.

Change 62456 on 2002/11/07 by mkelly@fl_mkelly_r400_win_laptop

Page 347 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Switch from linear to tiling...

Change 62455 on 2002/11/07 by omesh@omesh_r400_linux_marlboro_only_devel

Added 11 more extensive fog tests. The emulator results of the random testcase (fog, random) look strange and are possibly incorrect. I'll wait for the first regression run before I file any bug. May add more testcases to this file later this evening or tommorow.

Change 62419 on 2002/11/07 by mkelly@fl_mkelly_r400_win_laptop

Update for tiling...

Change 62411 on 2002/11/07 by grayc@chip_regress_orl

new test lists

Change 62398 on 2002/11/07 by mkelly@fl_mkelly_r400_win_laptop

Update for tiling...

Change 62315 on 2002/11/07 by mkelly@fl_mkelly_r400_win_laptop

Update to work with COLOR::SURFACE class and tiling mode

Change 62290 on 2002/11/07 by rramsey@RRAMSEY_P4_r400_win

add to depot

Change 62276 on 2002/11/07 by georgev@devel_georgev_r400_lin2_marlboro

Added mova_floor tests to list.

Change 62258 on 2002/11/07 by mkelly@fl_mkelly_r400_win_laptop

Update...

Change 62238 on 2002/11/06 by ashishs@fl ashishs r400 win

to show nan kill for points

Change 62168 on 2002/11/06 by georgev@devel_georgev_r400_lin2_marlboro

New tests for mova_floor.

Change 62144 on 2002/11/06 by vgoel@fl_vgoel2

added compex adaptive tessellation test for PNQ and added some more cool images

Page 348 of 510

Change 62143 on 2002/11/06 by vgoel@fl vgoel2

modified test for exporting to off-screen fram buffer

Change 62116 on 2002/11/06 by omesh@omesh r400 linux marlboro only devel

Fixed a bug related to the 2nd pass of blending over the same triangles, related to bringing out the effects of the Alpha channel using Color. Also switched off the "MAKE VISUAL" option used to bring out Alpha using Color. This will reduce the number of render states sent to the CP ring buffer and hopefully be within the limit of 7 render state sets. Please note that the h/w interface dump files will change and so will the Color channel of the Framebuffer. The Alpha channel of the framebuffer should remain unchanged.

Change 62103 on 2002/11/06 by ashishs@fl_ashishs_r400_win

VTE test: prim type- Point, cycling Z scale and Z offset through all bits including sign changes

Change 62079 on 2002/11/06 by ashishs@fl_ashishs_r400_win

VTE test: prim type- Point, cycling Y scale and Y offset through all bits including sign changes

Change 62056 on 2002/11/06 by mkelly@fl_mkelly_r400_win_laptop

Make frame buffer dump multiple of 32 in DISP X DIM and DISP Y DIM for tiling

Change 62050 on 2002/11/06 by ashishs@fl_ashishs_r400_win

 $\label{eq:toy-toy-point} VTE\ test: prim\ type-\ Point,\ cycling\ X\ scale\ and\ X\ offset\ through\ all\ bits\ including\ sign\ changes$

Change 62012 on 2002/11/06 by kevino@kevino_r400_linux_marlboro

Added test cases for simple2D 2x2 with a bunch of formats

Change 61904 on 2002/11/06 by mkelly@fl_mkelly_r400_win_laptop

Change dump boudaries to multiple of 32 so we can switch to tiling.

Change 61749 on 2002/11/05 by georgev@devel_georgev_r400_lin2_marlboro

Added a NULL check to see if the seg fault is fixed.

Change 61716 on 2002/11/05 by mkelly@fl_mkelly_r400_win_laptop

Page 349 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Comment out texture fills to the tiled framebuffer..

Change 61715 on 2002/11/05 by mkelly@fl mkelly r400 win laptop

Comment out filling framebuffer with texture data to look correct in tiled mode.

Change 61656 on 2002/11/05 by mkelly@fl_mkelly_r400_win_laptop

Possible SO interpolation bug...

Change 61492 on 2002/11/04 by georgev@devel_georgev_r400_lin2_marlboro

Test using the new register sets.

Change 61483 on 2002/11/04 by ygiang@ygiang r400 linux marlboro

added: co-issue and direct scalar export test

Change 61403 on 2002/11/04 by ashishs@fl_ashishs_r400_win

updated

Change 61401 on 2002/11/04 by ashishs@fl_ashishs_r400_win

added another vte performance test

Change 61372 on 2002/11/04 by omesh@omesh_r400_linux_marlboro_only_devel

Removed all multiple occurences of Wait_Gfx_Idle(), except the last one, as h/w automatically synchronizes between multiple render states. Keeping the Wait_Gfx_Idle() between each change of render state would keep the h/w pipeline from being completely full, thus not stressing it

completely.

Change 61356 on 2002/11/04 by ashishs@fl_ashishs_r400_win

another VTE performance test

Change 61335 on 2002/11/04 by omesh@omesh_r400_linux_marlbore_only_devel

Removed some commented code and some dead/junk code. Tested the tiled test for color_8_8_8_8_number_urepeat and it seemed to work, so I'm marking the bug as resolved.

Change 61313 on 2002/11/04 by mkelly@fl_mkelly_r400_win_laptop

Commented out texture data write to framebuffer for tiled mode

Change 61234 on 2002/11/02 by smoss@smoss_crayola_linux_orl_emu_regress

Page 350 of 510

Ex. 2052 --- R400 Testing FH --- foler history

new path for output

Change 61198 on 2002/11/01 by omesh@omesh_r400_linux_marlboro_only_devel

Completed the Various Format testcases in which each color buffer is programmed to have a different (or random) color format. Also introduced 6 more random testcases. Visually verified the results, except atleast COLOR, 8, A which doesn't render correctly in any buffer. There's already a bug filed for this symptom (Bugzilla Bug I.D. 407)

Change 61166 on 2002/11/01 by ashishs@fl ashishs r400 win

undota

Change 61161 on 2002/11/01 by ashishs@fl_ashishs_r400_win

update

Change 61156 on 2002/11/01 by ashishs@fl ashishs r400 win

to test vte control register and also varying display dimesions for texture mapped primitive.

Change 61142 on 2002/11/01 by ashishs@fl_ashishs_r400_win

VTE performance test

Change 61132 on 2002/11/01 by csampayo@fl csampayo2 r400

Removed events from within partial packets

Change 61106 on 2002/11/01 by omesh@omesh_r400_linux_marlboro_only_devel

Added overflow/underflow versions of the RB format tests to test RB clamping. As of now, the emulator seems to have a clamping bug. It does not seem to be doing any clamping, so I will file a Bugzilla on it. Here's another 89 testcases.

Change 61099 on 2002/11/01 by mkelly@fl_mkelly_r400_win_laptop

Clamp bottom right XY scissor to DISP_X_DIM and DISP_Y_DIM

Change 61079 on 2002/11/01 by vgoel@fl_vgoel2

added r400vgt_hos_PNT_adaptive

Change 61076 on 2002/11/01 by vgoel@fl_vgoel2

Page 351 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

added tone ampping and RTL tests

Change 61069 on 2002/11/01 by vgoel@fl_vgoel2

RTL extended to render 228 objects

Change 61067 on 2002/11/01 by vgoel@fl_vgoel2

reduced the image size to 128 x 128

Change 61043 on 2002/11/01 by georgev@devel_georgev_r400_lin2_marlboro

The data tents on the command above and to a buffer

Update tests so they match changes to z buffer.

Change 61027 on 2002/11/01 by llefebvr@llefebvre_laptop_r400_emu

Flipped GPR_MANAGEMENT fields to match CP. Removed float to fix on the XY load.

Modified tests that used the feature accordingly.

Change 61018 on 2002/11/01 by ashishs@fl ashishs r400 win

adding more frustum triangle clipping tests.

Change 60993 on 2002/11/01 by jhoule@jhoule_r400_win_marlboro

Changed ACrYCbBlack to ACbYCrBlack and ACrCbYBlack to ACbCrYBlack. In other words, swapped Cr and Cb.
This was changed in version 1.57 of the Instr/Const.

Change 60949 on 2002/11/01 by mkelly@fl_mkelly_r400_win_laptop

Kill param test.

Change 60937 on 2002/11/01 by mkelly@fl_mkelly_r400_win_laptop

Broken out line list cases from parameterized test Update tracker

Change 60841 on 2002/10/31 by bbuchner@fl_bbuchner_r400_win

updated memory allocations

Change 60826 on 2002/10/31 by vgoel@fl_vgoel2

added new PNT complex adaptive test

Change 60810 on 2002/10/31 by csampayo@fl_csampayo_r400

Page 352 of 510

Added new SU test, updated test_list and test tracker accordingly Change 60528 on 2002/10/30 by vgoel@fl vgoel2 Change 60764 on 2002/10/31 by smoss@smoss crayola linux orl regress corrected shader to compute correct tessellation factor and added support to export to two different base addresses. another new path for linux Change 60516 on 2002/10/30 by georgev@devel_georgev_r400_lin2_marlboro Change 60758 on 2002/10/31 by mkelly@fl_mkelly_r400_win_laptop Fix Range to RangeF conversion Changing test r400sc_parameterized_line_list_01 from parameterized to single case per test Change 60469 on 2002/10/30 by ashishs@fl_ashishs_r400_win To test the VTE control register Cycles unique permutations of the VTE control register Condensed test which runs (vap_vte_00 - vap_vte_09 of R200) in one test. Change 60740 on 2002/10/31 by bbuchner@fl bbuchner r400 win subdivision facet test and vtx shader $Change~60731~on~2002/10/31~by~smoss@smoss_crayola_linux_orl_regress$ Change 60439 on 2002/10/30 by mkelly@fl mkelly r400 win laptop Remove ALL binary and dump files from previous run before next run Change 60671 on 2002/10/31 by ashishs@fl_ashishs_r400_win Change 60438 on 2002/10/30 by mkelly@fl mkelly r400 win laptop added render_engine.Wait_Gfx_Idle_No_Flush(); New test for SC window scissor. Change 60663 on 2002/10/31 by kevino@kevino r400 linux marlboro Change 60347 on 2002/10/30 by georgev@devel georgev r400 lin2 marlboro Updated to accept multiple input values, and a scale value Fix unrepeatable random bug Change 60654 on 2002/10/31 by mkelly@fl_mkelly_r400_win_laptop Change 60270 on 2002/10/30 by frivas@FL_FRivas Update test to ensure msaa_num_samples is not set to 4 or 6. Update to test to correctly determine DMA size Fix runp dumpdiff paths Change 60260 on 2002/10/30 by kevino@kevino_r400_win_marlboro Change 60644 on 2002/10/31 by kevino@kevino r400 linux marlboro Added tex size setting tp tp_all testcase files. Added tp_unsigned32_01_stmap that uses Converts unsigned in version of float to float and shows value * 255 in hex and Change 60253 on 2002/10/30 by mkelly@fl_mkelly_r400_win_laptop Change 60628 on 2002/10/31 by smoss@smoss_crayola_win Update compare_list with new dumps Modify clean_previous_test_run() to work with parameterized tests Change 60622 on 2002/10/31 by kevino@kevino r400 win marlboro Change 60234 on 2002/10/30 by smoss@smoss cravola linux orl emu regress Updated to 10/31 results gold path for unix Change 60600 on 2002/10/31 by mkelly@fl_mkelly_r400_win_laptop Change 60124 on 2002/10/29 by vgoel@fl_vgoel2 Comment out test r400cl gband tel 01 until we resolve the hang issue changed rendering of image to floating point pixel rendering and modified scene data Page 354 of 510 Page 353 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 60110 on 2002/10/29 by vgoel@fl vgoel2 Change 59927 on 2002/10/29 by vgoel@fl vgoel2 updated to to rect patches tessellation of 11.5 modified for multiple objects and multiple spot lights Change 60086 on 2002/10/29 by ashishs@fl_ashishs_r400_win Change 59920 on 2002/10/29 by omesh@omesh_r400_linux_marlboro_only_devel updated $\label{eq:AddedPA_SC_AA_CONFIG_max_sample_dist} Added PA_SC_AA_CONFIG_max_sample_dist programming of 0x8 needed for debug of the sample mask bug for the basic multisample testcase.$ Change 60076 on 2002/10/29 by mkelly@fl_mkelly_r400_win_laptop Change 59912 on 2002/10/29 by kevino@kevino r400 win marlboro * runp: clean intermediate files, add -v (dumpdiff) option * finish multi-prim scissor para test * update test_list_parameterized for new test case: Dump texture to ppm and at end Change 59855 on 2002/10/28 by vgoel@fl_vgoel2 Change 60074 on 2002/10/29 by ashishs@fl ashishs r400 win updated to display 28 objects To test the VTE control register Cycles all permutations of the VTE control register Currently this test has slight(very minor) matching problem with the Change 59810 on 2002/10/28 by frivas@FL_FRivas Initial check-in of HOS RTL test. Test switches between Rect. Tri. and Line patches. It corresponding R200 test when I texture is enabled.(under review) implements texture mapping, lighting, and varies tessellation and reuse 1-14.5 and 4-6, respectively. This test is not yet ready to be used in any regression. Change 60062 on 2002/10/29 by kevino@kevino_r400_win_marlboro Change 59787 on 2002/10/28 by omesh@omesh_r400_linux_marlboro_only_devel added tfc print Change 60058 on 2002/10/29 by kevino@kevino_r400_win_marlboro Added the basic multisample test that Bill Lawless is working with. This is so that the people handling the Quad Mask bug can try this test against which the Bugzilla report is Got rid of randomize base seed- Paul Mitchel said it shouldn't be in tests probably filed, by Bill Change 60020 on 2002/10/29 by omesh@omesh_r400_linux_marlboro_only_devel Change 59746 on 2002/10/28 by hwise@fl hwise r400 win Add include paths to primlib files so the test would compile Change 60014 on 2002/10/29 by frivas@FL FRivas Change 59724 on 2002/10/28 by mkelly@fl_mkelly_r400_win_laptop Fixed a few bugs with test. It now alternates fully between RPatch, TPatch, and LPatch Added -v option for using dumpdiff instead of byte compare for framebuf rendering. Change 59686 on 2002/10/28 by smoss@regress crayola linux orl emu regress Change 60008 on 2002/10/29 by mkelly@fl_mkelly_r400_win_laptop Change 59685 on 2002/10/28 by omesh@omesh_r400_linux_marlboro_only_devel $Change~59928~on~2002/10/29~by~omesh@omesh_r400_linux_marlboro_only_devel$ Added ROP3 tests (29) to rbrc and gc testbenches. Re-enabled Z tests in the rbrc testbench. Removed all occurences of randomizing the Base Seed within a test, as Ran some ROP3 tests, although not all and the results looked good on the emulator this can be done at the Makefile level or runtime, when the test is run. This allows for the Base Seed to be logged and the results can be Changed format of tests to 8888 to get greater coverage Page 356 of 510 Page 355 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258322

Change 59667 on 2002/10/28 by smoss@regress_crayola_linux_orl_emu_regress Change 59381 on 2002/10/25 by kevino@kevino r400 win marlboro test updated 1D test reason and tp_unsigned32_01 Change 59663 on 2002/10/28 by kevino@kevino_r400_win_marlboro Change 59355 on 2002/10/25 by kevino@kevino r400 win marlboro Same test as tp simple 02, but uses buildLevel to generate map that has coords in map Updated 1D failure reason and tp_unsigned32_01 hang info Change 59660 on 2002/10/28 by mkelly@fl_mkelly_r400_win_laptop Change 59344 on 2002/10/25 by tien@ma_spinach Checkpoint... Updated for clamp cases tp_simple_01 Change 59592 on 2002/10/27 by csampayo@fl_csampayo_lt_r400 Change 59318 on 2002/10/25 by frivas@FL_FRivas Updated test list and test tracker status for the following tests: r400vgt_multi_pass_pix_shader_01 r400vgt_multi_pass_pix_shader_02 r400vgt_multi_pass_pix_shader_03 r400vgt_multi_pass_pix_shader_04 Undate to Matrix Class definition to allow test to compile under Linux Change 59313 on 2002/10/25 by csampayo@fl csampayo2 r400 r400vgt multi pass pix shader 05 Updated the framebuffer size to accomodate allocated buffers * Changed texture base address
* Revised multi-pass control event placement
* Revised PV calculation r400vgt_multi_pass_pix_shader_06 Change 59564 on 2002/10/27 by smoss@smoss_crayola_linux_orl_regress Change 59310 on 2002/10/25 by kevino@kevino r400 win marlboro Change 59478 on 2002/10/25 by csampayo@fl_csampayo2_r400 update 1D tp simple 01 to emu fail Add new multi-pass pixel shader test Change 59303 on 2002/10/25 by csampayo@fl_csampayo2_r400 Change 59476 on 2002/10/25 by csampayo@fl_csampayo2_r400 Adjusted framebuffer size to accomodate allocated buffers. Moved texture base address Change 59300 on 2002/10/25 by ashishs@fl ashishs r400 win Increased framebuffer size and general cleanup Change 59437 on 2002/10/25 by ashishs@fl_ashishs_r400_win more gband tests.. Change 59228 on 2002/10/24 by tien@ma_spinach update Change 59428 on 2002/10/25 by vromaker@vromaker r400 linux marlboro Updated tp_simple_01_stmap status Change 59211 on 2002/10/24 by ashishs@fl ashishs r400 win Change 59426 on 2002/10/25 by ashishs@fl_ashishs_r400_win Adding more guard band tests. primitives wih triangle strip, quad list, and quad strip. Each test has 4 quadrants with each quadrant having its primitive clipped or discarded according Change 59207 on 2002/10/24 by ashishs@fl_ashishs_r400_win Gband tests, 4 primitives, each in one of the 4 quadrants, primitive 1 with gourard to guardband settings. 1st quadrant the primitive is gourarad shaded, 2nd and 3rd quadrant the primitive is flat shaded with start and end vertex as provoking vertex respectively and the 4th quadrant has the primitive mapped with 6 texture maps. shading, primitive 2 with flat shading with start vertex as provoking vtx and primitve 3 with flat Page 357 of 510 Page 358 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history shading and LAST vtx as the provoking vtx and 4th primitive with 6 textures. Each test has a different setting of the Guard bands and also differ in type viz Triangle STRIP or Triangle FAN Vertex 2 clipped to guard band No clipping 111 Discard polygon Discard polygon
Vertex 1 clipped to guard band
Discard polygon Change 59157 on 2002/10/24 by mkelly@fl_mkelly_r400_win_laptop Update with new SC para tests.. Discard polygon Vertex 0 clipped to guard band Vertex 0 clipped to guard band Vertex 0 & 2 clipped to guard band Vertex 0 clipped to guard band Change 59100 on 2002/10/24 by ashishs@fl ashishs r400 win 200 Change 59095 on 2002/10/24 by ashishs@fl_ashishs_r400_win 211 Discard polygon Discard polygon Vertex 0 & 1 clipped to guard band Test Purpose:Tests guard band clipping (LINE STRIP) Discard polygon Change 59094 on 2002/10/24 by ashishs@fl ashishs r400 win 222 Discard polygon Test Purpose:Tests guard band clipping (LINE LIST) Change 59077 on 2002/10/24 by llefebvr@llefebvre_laptop_r400_emu Change 59093 on 2002/10/24 by ashishs@fl ashishs r400 win Fixing a problem in the SQ RS management where the call return address wasn't save correctly in some cases. Fixes the advanced test Test Purpose: Tests guard band clipping (POINT LIST) Change 59053 on 2002/10/24 by mkelly@fl_mkelly_r400_win_laptop Change 59090 on 2002/10/24 by ashishs@fl_ashishs_r400_win SC Clip Rect tests, LINE LOOP, STIPPLE, FSAA permutations... Description: Tests guard band clipping (TRIANGLE LIST) Change 58992 on 2002/10/23 by csampayo@fl_csampayo_r400 Method:places vertices at various combinations of positions relative to the discard guard band and the clip guard band. The positions are assigned Adding multi-pass pixel shader with SC processing enabled variable names as follows: Position 0: outside the window, but w/in the discard guard band
Position 1: outside the discard band, but w/in the clipping guard band
Position 2: outside the clipping guard band Change 58990 on 2002/10/23 by tien@ma spinach Just added something I was looking at Expected Results: The test should have polygons with the vertices in the following Change 58987 on 2002/10/23 by csampayo@fl csampayo r400 positions: Vertex 012 Result Adding another multi-pass pixelshader test Change 58981 on 2002/10/23 by vgoel@fl vgoel2 Position 000 No clipping No clipping
Vertex 2 clipped to guard band
No clipping changed the vertex format register for vec 1 in pass 2 No clipping
Vertex 2 clipped to guard band
Vertex 1 clipped to guard band
Vertex 1 clipped to guard band
Vertex 1 & 2 clipped to guard band Change 58970 on 2002/10/23 by ashishs@fl ashishs r400 win 011 Tests guard band clipping 4 primitives in 4 quadrants. Each primitive has 6 vertices and first vert on vertical guard band. 000 No clipping No clipping Top Left Quadrant, gourand shading Page 360 of 510 Page 359 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Top Right Quadrant, FLAT SHADING with START vertex as provoking vtx Lower Right Quadrant, FLAT SHADING with END vertex as provoking vtx Lower Left Quadrant, SIX TEXTURES, with COLORO as transparent

Method: 6 Vert Strip, first vert on vertical guard band Expected Results: 4 primitives, four quadrants, no clipping, no discarding

Change 58927 on 2002/10/23 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint...

Change 58893 on 2002/10/23 by abeaudin@abeaudin_r400_win_marlboro

fixed program so that it does not abort

Change 58815 on 2002/10/23 by mkelly@fl mkelly_r400_win_laptop

All 16 permutations of CLIP RECTS tested...

Change 58813 on 2002/10/23 by vgoel@fl_vgoel2

made changes to incorprate aperture for memory export and adding offsets

Change 58735 on 2002/10/22 by vgoel@fl_vgoel2

added texture map with spot light

Change 58719 on 2002/10/22 by vgoel@fl_vgoel2

GI changes, includes texture mapping

Change 58705 on 2002/10/22 by subad@subad_r400_win_marlboro

looking at standard testcase

Change 58697 on 2002/10/22 by smoss@smoss_crayola_win

su tests

Change 58693 on 2002/10/22 by vgoel@fl_vgoel2

modified scene data

Change 58678 on 2002/10/22 by csampayo@fl_csampayo_r400

Some clean up and minor updates

Change 58636 on 2002/10/22 by vgoel@fl_vgoel2

Page 361 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

changed vtx data type to float from double

Change 58634 on 2002/10/22 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint on clip rect permutations...

Change 58614 on 2002/10/22 by ygiang@ygiang_r400_win_marlboro_p4

added: new opcode sp tests and testcases for existing tests

Change 58609 on 2002/10/22 by kevino@kevino_r400_win_marlboro

Added fmt2101010 to tp_multitexture_01

Change 58571 on 2002/10/22 by vgoel@fl_vgoel2

added test scene for GI

Change 58557 on 2002/10/22 by llefebvr@llefebvre_laptop_r400_emu

resetting the wrong count.

Change 58548 on 2002/10/22 by csampayo@fl_csampayo2_r400

Adding another multi-pass pixel shader test

Change 58541 on 2002/10/22 by subad@subad_r400_win_marlboro

updated

Change 58516 on 2002/10/22 by mkelly@fl_mkelly_r400_win_laptop

Update scripts for LSF

Change 58431 on 2002/10/21 by csampayo@fl_csampayo2_r400

Update per last memory export scheme

Change 58423 on 2002/10/21 by csampayo@fl_csampayo2_r400

Update per latest memory export scheme

Change 58396 on 2002/10/21 by kevino@kevino r400 win marlboro

Added tm.prepare(tfc) to test

Change 58381 on 2002/10/21 by llefebvr@llefebvre_laptop_r400_emu

Page 362 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Memory export architectural change to get rid of the normalize in the SX (and do it in the

Change 58355 on 2002/10/21 by mkelly@fl_mkelly_r400_win_laptop

Checkpoint on load sharing test emulation scripts...

Change 58333 on 2002/10/21 by llefebvr@llefebvre_laptop_r400_emu

Fixing multi-pass shader test.

Change 58315 on 2002/10/21 by $ygiang@ygiang_r400_win_marlboro_p4$

fixed: random test case for GPRS

 $Change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgev@devel_georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgevhw_r400_lin_marlboro~change~58314~on~2002/10/21~by~georgevhw_r400_lin_marlboro~change~58314~by~georgevhw_r400_lin_marlboro~change~58314~by~georgevhw_r400_lin_marlboro~change~58314~by~georgevhw~georgevhw~georgevhw~georgevhw~georgevhw~georgevhw~georgevhw~georgevhw~georgevh$

Fixed out of range loop increment (126 instead of 127

Change 58310 on 2002/10/21 by kryan@kryan_r400_win_marlboro

test_lib/src/chip/gfx/.../Makefile

test_lib/src/chip/sys/cp/Makefile

test_lib/src/chip/perf/Makefile

test_lib/scripts/results_diff.pl

- Added REGRESS_DIFF_OPTIONS variable in results_diff.pl that controls whether the state of the

or not the dumpfile headers are compared. It is set in the Makefile on a

per directory basis for the Marlborough and Orlando test directories.

export REGRESS DIFF OPTIONS = IGNORE DUMP HEADERS

This will not affect Toronto tests since they do not use PrimLib for

creating dumpfiles, and this variable was not set in the Toronto

test suite directories.

Page 363 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

fill_dump.cpp

- Fixed get_FB_start(),get_FB_size(), get_AGP_start(), get_AGP_size()

functions to correctly read registers and return the values. Previously

they were using the register spec from previous chips which required

additional operations to determine the correct value.

DEPTH SURFACE

- Begin work on $\ensuremath{\mathsf{DEPTH_SURFACE}}$ class to handle fill/dump of Depth Surfaces.

Work in progress

 $/cmn_lib/tools/autoreg/gen_testdll/gen_ar_test_render_registers.cpp$

RENDER_REGISTERS

Added copy constructor and assignment constructor (operator=) for this class.
 This will copy all member data (ie. register values from source object to the

current object.

 $RENDER_REGISTER_STATE$

- Added copy constructor and assignment constructor (operator=) for this class.

This will copy all member data, allocating new copies for dynamically allocated memory when necessary. This will update the register_map to include any

registers that have been modified for this object

The incremental register stream is not copied since this is built when

the Get_Incremental_Register_Stream() function is called.

 $- Added \ Set_Destination_Base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set, uint 32\ color_surface_index, and areas of the set_destination_base (uint 32\ memory_area_off set_destination_base$

MEMORY_AREA& memory_area) function that will default

Page 364 of 510

to ColorSurface0, and the FrameBuffer as the memory area. It will add the offset Added a description for one of the tests. to the base address of the memory aperture to determine the final full device Change 58100 on 2002/10/18 by csampayo@fl_csampayo2_r400 address for the RB_COLORn_BASE register. It will also make sure that the Update for export memory aperture. Expand on shader comments base address is aligned properly. Change 58099 on 2002/10/18 by omesh@omesh_r400_linux_marlboro_only_devel RENDER STATE Added the modified ROP3 tests (29 testcases) to Perforce. However, the emulator now - Work on copy constructor and assignment constructor (operator=). Since assert for the FMT 4 4 4 4 format (Which I think it shouldn't). I am also filing a Bugzilla report on this. Also added a modified Makefile. Some of the tests included in the Makefile only exist in it is not complete, throw error if someone uses it my own workspace, but this should not hurt any builds/runs of either the emulator or the Change 58307 on 2002/10/21 by csampayo@fl csampayo lt r400 other Cleaned up tests, added 1 new VGT test to test_list and updated the test tracker accordingly Change 58092 on 2002/10/18 by csampayo@fl_csampayo2_r400 Change 58295 on 2002/10/21 by csampayo@fl_csampayo_lt_r400 Update some comments Change 58089 on 2002/10/18 by csampayo@fl_csampayo2_r400 Change 58294 on 2002/10/21 by kevino@kevino r400 win marlboro Updated second export buffer index offset Change 58084 on 2002/10/18 by csampayo@fl_csampayo2_r400 Change 58292 on 2002/10/21 by csampayo@fl_csampayo_r400 Fixed typo Updated comments Change 58071 on 2002/10/18 by csampayo@fl_csampayo_r400 Change 58278 on 2002/10/21 by csampayo@fl_csampayo2_r400 Updated for export memory aperture Adding new multi pass pixel shader test Change 58063 on 2002/10/18 by kevino@kevino r400 win marlbord Change 58275 on 2002/10/21 by csampayo@fl_csampayo2_r400 Initial checkin Update test description and clean up shaders Change 58049 on 2002/10/18 by jhoule@jhoule_r400_win_marlboro Change 58245 on 2002/10/21 by kevino@kevino_r400_win_marlboro Added full mip packing support. undated based on 10/21 regressions mip_packing: Added C library to be shared by driver people Change 58105 on 2002/10/18 by kevino@kevino r400 win marlboro Updated test case MipMinMag BaseMapLinearLinear 4x4 LL enum_conv:
Added support for MIP_PACKING field. Change 58103 on 2002/10/18 by tien@ma_spinach Page 366 of 510 Page 365 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history tconst: Added MIP_PACKING field. New vtx export case Change 57939 on 2002/10/18 by ashishs@fl_ashishs_r400_win Changed getMipPitch behavior to honor original 0.
This solves 1D mipmap offset calculation problem in the TC. updated test_list and Tracker for the corresponding change in file name viz r400cl_gabnd_04 to r400cl_gband_06 Changed texelPosition when border is set to stricty stay within texture dimension. Border size support still works since it is solely based on the wrap count. Change 57935 on 2002/10/18 by ashishs@fl_ashishs_r400_win Deleted test r400cl_gband_04 and renamed it to r400cl_gband_06. Also updated the Validation_Approach_plan.doc since it had some errors with tests name and numbering Added support for mip offset, when appropriate. Change 57896 on 2002/10/18 by mkelly@fl_mkelly_r400_win_laptop texture_manager: Added mip packing calls.
Added prepare(tfc) function which must be called once and only once prior writing to Update version# memory.

Added address printing calls, #ifdefd with PRINT_ADDRESS Change 57816 on 2002/10/17 by csampayo@fl_csampayo_r400 Update proves that SQ generated indices work but, pixel exports may not be working to uber test: correctly Supports MIP_PACKING, TRI_JUICE.
Can specify frame buffer size. Change 57803 on 2002/10/17 by vgoel@fl_vgoel2 Also updated tp regression tests to call prepare(tfc) prior to writing in memory added shader for spot light for GI Change 58046 on 2002/10/18 by mkelly@fl_mkelly_r400_win_laptop Change 57801 on 2002/10/17 by ygiang@ygiang_r400_win_marlboro_p4 Perl script which runs one r400 test and behaves like the script "regress_r400" added: ; to sp command This will be used for full regressions with LSF A master script will call this script for each test in "test_list" and tally statistics Change 57800 on 2002/10/17 by ygiang@ygiang_r400_win_marlboro_p4 Added aperture checks. Change 57797 on 2002/10/17 by ygiang@ygiang r400 win marlboro p4 more sp boundary and fixed for frame buffer image Change 57790 on 2002/10/17 by ygiang@ygiang_r400_win_marlboro_p4

Change 58034 on 2002/10/18 by llefebvr@llefebvre_laptop_r400_emu Change 58005 on 2002/10/18 by llefebvr@llefebvre_laptop_r400_emu Fixing r400vgt_vtx_export_very_very_simple_04 memory export test.

Change 57980 on 2002/10/18 by vgoel@fl_vgoel2 modifed files for recent vertex export changes

Change 57971 on 2002/10/18 by vgoel@fl_vgoel2

New vertex export test exporting to 2 different buffers

Change 57962 on 2002/10/18 by csampayo@fl_csampayo_r400

Page 367 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

added: more sp boundary tests

Change 57780 on 2002/10/17 by csampayo@fl_csampayo_r400

Simplified to just 1 case

Change 57760 on 2002/10/17 by kevino@kevino_r400_win_marlboro

Added 3D map clamp tests

Page 368 of 510

Add ability to define files to compare against gold on a per-test basis. See test_list file in test_lib/src/chip/sys/cp for an example. Change 57477 on 2002/10/16 by smoss@smoss_crayola_win su tests Change 57752 on 2002/10/17 by ygiang@ygiang_r400_win_marlboro_p4 Change 57468 on 2002/10/16 by ashishs@fl ashishs r400 win updated Change 57731 on 2002/10/17 by vgoel@fl vgoel2 Change 57446 on 2002/10/16 by mkelly@fl mkelly r400 win laptop added GI test files Parameterized LINE LIST, random combinations of PA settings... Change 57705 on 2002/10/17 by ygiang@ygiang_r400_win_marlboro_p4 Change 57445 on 2002/10/16 by ashishs@fl ashishs r400 win fixed:comments adding more CL UCP combos tests Change 57703 on 2002/10/17 by ygiang@ygiang_r400_win_marlboro_p4 Change 57425 on 2002/10/16 by ashishs@fl ashishs r400 win added: boundary abs opcode test Change 57692 on 2002/10/17 by omesh@omesh_r400_linux_marlboro_only_devel Change 57415 on 2002/10/16 by ashishs@fl_ashishs_r400_win Added an additional triangle to testcase to demonstrate fog not working to Alicia, for fog factor = 1.0. I still get a fully fogged tria test edited to include more combinations Change 57678 on 2002/10/17 by kevino@kevino_r400_win_marlboro Change 57318 on 2002/10/16 by mkelly@fl_mkelly_r400_win_laptop Same as tp_simple_01, but uses ST coords in map w/ tm's buildLevel_STmap_8888 Undate shader filenames... Change 57313 on 2002/10/16 by mkelly@fl_mkelly_r400_win_laptop Change 57652 on 2002/10/17 by csampayo@fl_csampayo_r400 Undate. Fix texture base address and add missing vertex shader Change 57310 on 2002/10/16 by mkelly@fl_mkelly_r400_win_laptop Change 57602 on 2002/10/16 by csampayo@fl_csampayo_r400 Reduce number of indices in tests from 1024 to 256. Initial check in for multi-pass pixel shader test Change 57257 on 2002/10/15 by omesh@omesh_r400_linux_marlboro_release Change 57522 on 2002/10/16 by smoss@smoss_crayola_linux_orl_regress Changed test to match latest RB register specs eliminating the higher 32 bit mask for an originally 64 bit masl Also removed all references to any format > 32 bits per pixel. Removed a total of 12 testcases. Regression nightly run list has already been updated with these 12 test cases removed. Change 57510 on 2002/10/16 by csampayo@fl csampayo r400 Added 1 new HOS with index reset test, updated test list and test tracker Change 57247 on 2002/10/15 by csampayo@fl csampayo r400 Change 57478 on 2002/10/16 by mkelly@fl_mkelly_r400_win_laptop Page 369 of 510 Page 370 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Added 5 new VGT index reset tests and updated test. list and test tracker Change 57076 on 2002/10/15 by llefebvr@llefebvre laptop r400 emu Change 57222 on 2002/10/15 by ashishs@fl ashishs r400 win Was rotating the mask in SX and shouldn't (memory exports) Change 56985 on 2002/10/14 by kevino@kevino_r400_win_marlboro Change 57202 on 2002/10/15 by csampayo@fl_csampayo_r400 get rid of tex map dump Updated test_list and test tracker for the following VGT tests: r400vgt_vtx_export_very_very_simple_01 r400vgt_vtx_export_very_very_simple_02 Change 56984 on 2002/10/14 by smoss@smoss_crayola_win r400vgt_vtx_export_very_very_simple_03 multi-context phase III Change 57200 on 2002/10/15 by ashishs@fl_ashishs_r400_win Change 56977 on 2002/10/14 by ashishs@fl_ashishs_r400_win updated update Change 57193 on 2002/10/15 by csampayo@fl_csampayo2_r400 Change 56974 on 2002/10/14 by ashishs@fl_ashishs_r400_win Update description and framebuffer size Features Tested:frustum clipping; LFT rotated to each of 8 corners Test Purpose:LFT rotated to each of 8 corners of clipping frustum 7.51*8 polygons

Expected Results: clipped, overlapping triangles forming polygons in each ordinal direction (E, W, S, N, NW, NE, etc.); several overlapping triangles (forming polygons) in Change 57179 on 2002/10/15 by mkelly@fl_mkelly_r400_win_laptop Locate many of each primtype randomly through all of hardware space in 12 TEST CASES center of image Clipping enabled and Scissor clipping to window. Change 56957 on 2002/10/14 by kevino@kevino_r400_win_marlboro Change 57149 on 2002/10/15 by llefebvr@llefebvre_laptop_r400_emu Update golden files. only writing to EM0 now. Change 56943 on 2002/10/14 by kevino@kevino r400 win marlboro Change 57143 on 2002/10/15 by csampayo@fl_csampayo2_r400 Added more golden images Updated vtx export tests and added a new case Change 56936 on 2002/10/14 by csampayo@fl csampayo r400 Change 57121 on 2002/10/15 by kevino@kevino_r400_win_marlboro Added 3 new VGT tests, updated test_list and test tracker Added simple 3D test case. 3x3x3 volume map is read from texture files volumemap_3x3_n.ppm.
Mapped onto 9x3 rectangle. T goes 0 to 1. S goes 0 to 3 and R goes 0 to 1, so Change 56932 on 2002/10/14 by llefebyr@llefebyre lanton r400 emu should see each layer of map. Fixing addressing errors in tests and SX block for memory exports Change 56930 on 2002/10/14 by mkelly@fl mkelly r400 win laptop Change 57107 on 2002/10/15 by kevino@kevino r400 win marlboro Updated golden files. Old ones had info in rd_r for some reason Change 57093 on 2002/10/15 by ashishs@fl_ashishs_r400_win Change 56927 on 2002/10/14 by mkelly@fl_mkelly_r400_win_laptop update Update.. Page 372 of 510 Page 371 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Add finding and statistics handling for CP tests which begin with "e2"

Change 57754 on 2002/10/17 by mkelly@fl mkelly r400 win laptop

Change 56658 on 2002/10/11 by georgev@devel_georgevhw_r400_lin_marlboro Change 56915 on 2002/10/14 by mkelly@fl mkelly r400 win laptop Addition of new tests that don't work. Expand SC parameterized general random Change 56635 on 2002/10/11 by mkelly@fl_mkelly_r400_win_laptop Change 56892 on 2002/10/14 by mkelly@fl mkelly r400 win laptop Full PA(CL/VTE/SU/SC) control via parameterized template SC parameterized random tests Change 56619 on 2002/10/11 by kevino@kevino r400 win marlbord Change 56889 on 2002/10/14 by csampayo@fl_csampayo_lt_r400 uber_map- in pack function, if nH=0, set nH to 1 sso go through loop once Updated for proper event write mode (tm.buildLevel causes this tp_simple_01 - set up 1D test cases as well as ones where S or T constant and the other ranges from 0-1 or 0-0.5 Change 56879 on 2002/10/14 by kevino@kevino_r400_win_marlboro Changes for buildLevel (instead of reaLevel) to generate texture man Change 56602 on 2002/10/11 by csampayo@fl_csampayo2_r400 Change 56878 on 2002/10/14 by kevino@kevino r400 win marlboro Generated by make tp_simple_01.golden Change 56561 on 2002/10/11 by hwise@fl hwise r400 win CP Emulator Updates (for Real-Time Streams)
1) Added register read/write support for these registers:
a) CP_RT_BASE
b) CP_RT_BUFSZ
c) CP_RT_ST_BASE
d) CP_RT_ST_BUFSZ
2) Added logic to Pre-Fetch Parser to do real-time fetches and send fetched data to appropriate Re-Corfering Outside Change 56876 on 2002/10/14 by kevino@kevino_r400_win_marlboro Golden images from emu for tp_simple_01 standard case Change 56855 on 2002/10/14 by smoss@smoss_crayola_win 2) Audication of the Control of the Control of Control Change 56834 on 2002/10/14 by mkelly@fl mkelly r400 win laptop Change 56723 on 2002/10/11 by csampayo@fl_csampayo2_r400 5) Added logic to correctly set the "rt_enabled" boolean (was always set to zero)

6) Fixed bug in the Real-Time Event Engine for dis-arming and event at the correct cycle Update test for new event writing mode and remove from uncommented list Change 56707 on 2002/10/11 by csampayo@fl_csampayo_r400 7) Fixed bug in the Real-Time Event Engine "Compare Function" to return the "poll_valid" input signal when compare is successful (was always returning "true") Update for new event writing mode Change 56670 on 2002/10/11 by ashishs@fl ashishs r400 win PrimLib / Promo4Lib Updates 1) Changed <BLK < REG > read() to <BLK > <REG > read nochk() in memory, area.cpp so these register reads are not considered for comparison

2) Added Real-Time wait functions to plgx namespace LFT corner clip focus Test Purpose:to test LFT corner clips - 51 polygons a) void plgx::wait_gfx_rt_idle(void) b) bool plgx::wait_gfx_rt_idle_timeout(void) c) void plgx::wait_cp_rt_idle(void) Expected Results: 4 sets of clipped gourand-shaded polygons in each comer of the Page 373 of 510 Page 374 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history d) bool plgx::wait_cp_rt_idle_timeout(void)
3) Increased PCI clocking from 0 to 50 clocks at end of the function void plgx::wait_dma_idle(void)
4) Increased MAX_RB_BUF_SIZE to 1048576 dwords (4 MB) which is used to define maximum size for the ring and indirect buffers used by the CP. The default sizes are still 4KB.
5) By default Promo4Lib::init() will initialize the CP with Change 56438 on 2002/10/10 by jhoule@jhoule r400 win marlboro More sizes. G=y position 5) By derault refront-Linchtild, will including the CP with Real-Time Streams enabled and send ME, INIT packets to both the Non-Real-Time and Real-Time Microengines 5) Added registry key switch to allow user to disable the Real-Time Stream in the Non-Real time ME, INIT packet (debug use only) "HKEY_LOCAL_MACHINE\\SOFTWARE\\ATI Technologies\\Delta \text{Debug} \text{Technologies} \text{Debug} \text{Technologies} \text{Techn Change 56423 on 2002/10/10 by georgev@devel_georgevhw_r400_lin_marlboro Added new sq tests for simple conditional debug Change 56420 on 2002/10/10 by jhoule@jhoule r400 win marlboro Debug\pm4RealTimeInitDisable"

6) Both trace_pm4_packets=="yes" or pm4Verbose!=0 will enable the PM4 stream debug trace to be sent to console (used to Texture where data correspond to texels, meaning that pixel (10, 13) has 10 in R and 13 in B. Useful for cache testing. only be able to activate this with trace pm4 packets="yes" regress_e Golden Files Updated
* Updated golds since the *.rd_r files no longer contain the
register reads introduced by functions in the memory_area.cpp Change 56415 on 2002/10/10 by mkelly@fl_mkelly_r400_win_laptop file and the *.mem_framebuf_r header defines changed once real-time streams were enabled by default Change 56409 on 2002/10/10 by vromaker@vromaker_r400_linux_marlboro Change 56555 on 2002/10/11 by llefebvr@llefebvre_laptop_r400_emu Fixing the export format in export test. Change 56367 on 2002/10/10 by llefebvr@llefebvre laptop r400 emu Change 56547 on 2002/10/11 by mkelly@fl_mkelly_r400_win_laptop Simple memory exports are now working. non-parameterized checkpoint... Change 56299 on 2002/10/10 by csampayo@fl csampayo r400 Change 56487 on 2002/10/10 by csampayo@fl_csampayo2_r400 Change 56233 on 2002/10/09 by csampayo@fl_csampayo_r400 Adding 32bit float vertex export test Change 56485 on 2002/10/10 by csampayo@fl_csampayo2_r400 Updated for multi-context Make this test case into a useful test Change 56171 on 2002/10/09 by csampayo@fl csampayo r400 $\label{logocont} 1. \ Updated tests r400vgt_index_min_max_01 \ and _02 \ for multi-context\\ 2. \ Added new VGT tests_r400vgt_index_min_max_03 \ and _04\\ 3. \ Updated test_list and the test tracker$ Change 56483 on 2002/10/10 by omesh@ma omesh Changed back to the older shader to export vertex colors in different orders for all buffers (2 in this case). This is preferable, as apart from only testing the write to different buffers, I also want to check if the exports to each buffer are unique for each channel. The swizzle achieves Change 56168 on 2002/10/09 by ygiang@ygiang_r400_win_marlboro_p4 added: shader src and dst modifiers tests Change 56455 on 2002/10/10 by jhoule@jhoule r400 win marlboro Change 56142 on 2002/10/09 by vromaker@vromaker r400 linux marlboro Same as tp_simple_01.cpp, but using PerfectGradient_4x4.ppm as texture. Page 375 of 510 Page 376 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

- fix for tp done/ais pop collision - added conditional execution to CFS

Change 56114 on 2002/10/09 by mkelly@fl_mkelly_r400_win_laptop

No outstanding bugs in this directory..

Change 56108 on 2002/10/09 by mkelly@fl_mkelly_r400_win_laptop

Cleaning up old bugs, keeping some as valid tests in related block...

Change 56104 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

Move a test from bug status to good block test for the SC.

Change 56099 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

Move from bugs to permanent test in CL block

Change 56097 on 2002/10/09 by mkelly@fl_mkelly_r400_win_laptop

Move nan kill test to CL block

Change 56078 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

Rasterize 224 triangles, 1 packet. Each triangle should hit 4 horizontal quads. The test moves the triangle 4 quads at a time in X and 2 quads in increasing Y. For each primitive, 4 quads are hit in one tile and the fourth quad hits the next consecutive tile.

Change 56071 on 2002/10/09 by mkelly@fl_mkelly_r400_win_laptop

Change Wait_Gfx_Idle() to Wait_Gfx_Idle_No_Flush() inside of iterative loops. Add Wait_Gfx_Idle() before frame buffer dump

All new tests should contain the Wait_Gfx_Idle() call outside of the test case generation loop, preferably just before the framebuffer dump. If for some reason, you are reusing the index and/or vertex buffers in DMA indexing mode, then, you need to use Wait Gfx Idle No Flush() within and, Wait Gfx Idle() outside the

Also, as you are updating or generating derivative tests, please, update the root

Change 56042 on 2002/10/09 by ygiang@ygiang_r400_win_marlboro_p4

fixed: missing test case definition

Change 56035 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

Page 377 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Uncommented auto shader generation

Change 56033 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

Packed color example usage for VFD

Change 56024 on 2002/10/09 by smoss@smoss_crayola_linux_orl_regress

modifications for Linux, getting extra path stuf

Change 56018 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

Missed update for idle.

Change 56017 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

Change Wait_Gfx_Idle() to Wait_Gfx_Idle_No_Flush() inside of iterative loops Add Wait_Gfx_Idle() before frame buffer dump.

All new tests should contain the Wait Gfx Idle() call outside of the test case generation loop, preferably just before the framebuffer dump. If for some reason, you are reusing the index and/or vertex buffers in DMA indexing mode, then, you need to use Wait_Gfx_Idle_No_Flush() within and, Wait_Gfx_Idle() outside the

loop. Also, as you are updating or generating derivative tests, please, update the root

Change 56008 on 2002/10/09 by mkelly@fl_mkelly_r400_win_laptop

* Rasterize 256 triangles, 1 packet. Each triangle should hit 4 quads. The test moves the triangle 2 quads at a time in X and 2 quads in increasing Y.

Update test list

* Update test documentation in test tracker

Change 56004 on 2002/10/09 by mkelly@fl mkelly r400 win laptop

When -z (zip) option is selected, zip all files except *.mem_framebuf_r

Change 55961 on 2002/10/08 by kevino@kevino_r400_win_marlboro

small prims/textures

Change 55953 on 2002/10/08 by ygiang@ygiang_r400_win_marlboro_p4

idded: boundray values test for sp fixed: image for standard test

Change 55945 on 2002/10/08 by ashishs@fl_ashishs_r400_win

Page 378 of 510

Ex. 2052 --- R400 Testing FH --- foler history

update

Change 55941 on 2002/10/08 by ashishs@fl_ashishs_r400_win

Adding Frustum Line and triangle tests

Change 55938 on 2002/10/08 by kevino@kevino r400 win marlboro

Ooops-- the original was actually a 64x32. This is a 96x32

Change 55914 on 2002/10/08 by georgev@devel_georgevhw_r400_lin_marlboro

Change 55897 on 2002/10/08 by mkelly@fl mkelly r400 win laptop

Checkpoint.

Change 55892 on 2002/10/08 by mkelly@fl mkelly r400 win laptop

Change Wait_Gfx_Idle() to Wait_Gfx_Idle_No_Flush() inside of iterative loops. Add Wait_Gfx_Idle() before frame buffer dump.

All new tests should contain the Wait Gfx Idle() call outside of the test case generation loop, preferably just before the framebuffer dump. If for some reason, you are reusing the index and/or vertex buffers in DMA indexing mode, then, you need to use Wait_Gfx_Idle_No_Flush() within and, Wait_Gfx_Idle() outside the

loop. Also, as you are updating or generating derivative tests, please, update the root

Change 55872 on 2002/10/08 by smoss@smoss_crayola_win

incorrect test names

Change 55869 on 2002/10/08 by smoss@smoss_crayola_win

Change 55863 on 2002/10/08 by mkelly@fl_mkelly_r400_win_laptop

Change Wait Gfx Idle() to Wait Gfx Idle No Flush() inside of iterative loops. Add Wait Gfx Idle() before frame buffer dump

All new tests should contain the Wait_Gfx_Idle() call outside of the test case generation loop, preferably just before the framebuffer dump. If for some reason, you are reusing the index and/or vertex buffers in DMA indexing mode, then,

Page 379 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

you need to use Wait_Gfx_Idle_No_Flush() within and, Wait_Gfx_Idle() outside the loop.

Also, as you are updating or generating derivative tests, please, update the root tests as well.

Change 55847 on 2002/10/08 by omesh@omesh_r400_linux_marlboro_only_devel

Although Alicia checked in a "no clamp" version of the pixel shader, it may have been accidentally
the same old versions of the files checked in. I actually removed the clamp from the pixel

and also modified the tests. However, although "uinteger" seems fixed, "sinteger" still

displays the bug. Also "srepeat" looks incorrect

Change 55844 on 2002/10/08 by mkelly@fl_mkelly_r400_win_laptop

Change Wait_Gfx_Idle() to Wait_Gfx_Idle_No_Flush() inside of iterative loops Add Wait_Gfx_Idle() before frame buffer dump.

All new tests should contain the Wait Gfx Idle() call outside of the test case generation loop, preferably just before the framebuffer dump. If for some reason, you are reusing the index and/or vertex buffers in DMA indexing mode, then, you need to use Wait_Gfx_Idle_No_Flush() within and, Wait_Gfx_Idle() outside the

loop. Also, as you are updating or generating derivative tests, please, update the root

Change 55797 on 2002/10/08 by mkelly@fl mkelly r400 win laptop

Change Wait_Gfx_Idle() to Wait_Gfx_Idle_No_Flush() inside of iterative loops.

All new tests should contain the Wait Gfx Idle() call outside of the test case generation loop, preferably just before the framebuffer dump. If for some reason, you are reusing the index and/or vertex buffers in DMA indexing mode, then, you need to use Wait_Gfx_Idle_No_Flush() within and, Wait_Gfx_Idle() outside the

loop. Also, as you are updating or generating derivative tests, please, update the root tests as well. The goal is to have as many tests modified as we can, as soon as possible.

sn tests

Change 55794 on 2002/10/08 by llefebvr@llefebvre_laptop_r400_emu

Change 55795 on 2002/10/08 by smoss@smoss_crayola_win

Added range check

Also the test was clamping the values to infinities where clamped prior to the interface.

Page 380 of 510

Change 55790 on 2002/10/08 by kevino@kevino r400 win marlboro Change 55576 on 2002/10/07 by mkelly@fl mkelly r400 win laptop Texture created by buildlevel Automatically find path where test is located, properly calc. statistics Change 55775 on 2002/10/08 by mkelly@fl mkelly r400 win laptop Change 55575 on 2002/10/07 by abeaudin@abeaudin r400 win marlboro Change Wait_Gfx_Idle() to Wait_Gfx_Idle_No_Flush() inside of iterative loops. Add Wait_Gfx_Idle() before frame buffer dump. Change 55567 on 2002/10/07 by smoss@smoss_crayola_win All new tests should contain the Wait Gfx Idle() call outside of the test case generation loop, preferably just before the framebuffer dump. If for some reason, you are reusing the index and/or vertex buffers in DMA indexing mode, then, you need to use Wait_Gfx_Idle_No_Flush() within and, Wait_Gfx_Idle() outside the try this again Change 55556 on 2002/10/07 by smoss@smoss_crayola_win loop. Also, as you are updating or generating derivative tests, please, update the root tests as well. The goal is to have as many tests modified as we can, as soon as possible. Change 55549 on 2002/10/07 by smoss@smoss_crayola_linux_orl_regress Change 55730 on 2002/10/07 by csampayo@fl_csampayo_r400 update golds for regress e Added high memory addressing bug Change 55548 on 2002/10/07 by smoss@smoss_crayola_win Change 55727 on 2002/10/07 by csampayo@fl_csampayo_r400 update for multi-context Added VGT index size test and undated test, list and test tracker Change 55535 on 2002/10/07 by mdoggett@mdoggett_r400_linux_local Change 55676 on 2002/10/07 by smoss@smoss crayola win Added update for corrected RG swap in RB. update for multi-context phase 2 Change 55529 on 2002/10/07 by llefebvr@llefebvre_laptop_r400_emu Change 55654 on 2002/10/07 by smoss@smoss_crayola_win The mask sent to the RB for memory exports was always 0. This sends the correct mask regress e passes on windows Change 55613 on 2002/10/07 by smoss@smoss_crayola_linux_orl_regress Change 55528 on 2002/10/07 by jhoule@jhoule_r400_win_marlboro 1D gradient Change 55612 on 2002/10/07 by smoss@smoss crayola linux orl regress Change 55527 on 2002/10/07 by smoss@smoss crayola win taking su offline while I try to get Linux to pass Change 55604 on 2002/10/07 by mkelly@fl_mkelly_r400_win_laptop Change 55514 on 2002/10/06 by ashishs@fl ashishs r400 win Move para tests to test list parameterized reverting back these files for an accidental change made to them Change 55592 on 2002/10/07 by ygiang@ygiang_r400_win_marfboro_p4 Change 55513 on 2002/10/06 by ashishs@fl ashishs r400 win fixed: const alpha value in test Page 382 of 510 Page 381 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Sizes were wrong (8x8 instead of 4x4, 2x2, 1x1). Created them all for each color. Change 55512 on 2002/10/06 by ashishs@fl ashishs r400 win Change 55338 on 2002/10/04 by kevino@kevino_r400_win_marlboro Change 55511 on 2002/10/06 by ashishs@fl_ashishs_r400_win Adding new frustum line tests Change 55333 on 2002/10/04 by mkelly@fl mkelly r400 win laptop Change 55510 on 2002/10/06 by ashishs@fl_ashishs_r400_win Change 55323 on 2002/10/04 by kevino@kevino r400 win marlboro updated for multicontext Change 55414 on 2002/10/04 by csampayo@fl_csampayo2_r400 Changed default mip filter to BaseMap Change 55312 on 2002/10/04 by ashishs@fl ashishs r400 win Comment out tests that do not run correctly due to bugs Change 55404 on 2002/10/04 by ygiang@ygiang_r400_win_marlboro_p4 test list updated added: vector write mask tests Change 55304 on 2002/10/04 by mkelly@fl mkelly r400 win laptop Change 55376 on 2002/10/04 by ashishs@fl ashishs r400 win Add new dump file to regression VgtCcg.dmp for test bench support Change 55282 on 2002/10/04 by mkelly@fl_mkelly_r400_win_laptop updated for multi context Change 55371 on 2002/10/04 by kevino@kevino r400 win marlboro SC performance test #1 3D filter tests (need a lot of work) Change 55281 on 2002/10/04 by ygiang@ygiang_r400_win_marlboro_p4 Change 55365 on 2002/10/04 by kevino@kevino r400 win marlboro added: boundray and write/read mask tests removed : unsupported shader opcode Added 3d level testcases, but commented out read3DLevel function call since it is not checked into primlib's TM yet Change 55269 on 2002/10/04 by kevino@kevino_r400_win_marlboro Change 55355 on 2002/10/04 by mkelly@fl mkelly r400 win laptop Added (uneeded) tex projection test case as well as get/set gradients test.

Updateds scene_data.h to have XYZW_ARGB_STQR4 in case every want Q and R Update multi-chip tests to run test07 as standard, enable SC in para regression script Change 55200 on 2002/10/03 by csampayo@fl csampayo r400 Change 55350 on 2002/10/04 by kevino@kevino r400 win marlboro Updated for multi-context Added 1D filter _UUUU testcase so can seperate 1D problems from signed mode Change 55199 on 2002/10/03 by csampayo@fl_csampayo_r400 Change 55346 on 2002/10/04 by kevino@kevino r400 win marlboro Added 4 new DMA swap tests and updated test list and the test tracker multiply S and T by 1/Q Change 55196 on 2002/10/03 by omesh@omesh_r400_linux_marlboro_only_devel Change 55345 on 2002/10/04 by jhoule@jhoule_r400_win_marfboro Fixed emulator testcases to scale color and alpha channels according to the range allowed, as decided by the COLOR*_NUMBER register setting Page 384 of 510 Page 383 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

(Produces a non-interpolated black and gray triangle for the NUMBER_UINTEGER and NUMBER_SINTEGER modes, respectively. Change 54861 on 2002/10/02 by mkelly@fl mkelly r400 win laptop Change 55126 on 2002/10/03 by llefebvr@llefebvre_laptop_r400_emu Perl script to run parameterized tests, first pass.

Checkpoint on sc template test to be used for stress testing. multiple fixes for memory exports. Change 54839 on 2002/10/02 by kevino@kevino_r400_win_marlboro Change 55093 on 2002/10/03 by abeaudin@abeaudin_r400_win_marlboro Updated test case script to specify all 4 channel's format_comp's. Moved vertex buffer fixed background pointer multiple contextx later on if necessary, Change 55079 on 2002/10/03 by vgoel@fl_vgoel2 Change 54830 on 2002/10/02 by ygiang@ygiang_r400_win_marlboro_p4 added calculation for global ambient added:test for debug Change 55069 on 2002/10/03 by mkelly@fl_mkelly_r400_win_laptop Change 54825 on 2002/10/02 by omesh@omesh_r400_linux_marlboro_release Update runp to summarize PASS/FAIL $\label{eq:AddedRB_SURFACE_SLICE} Added\,RB_SURFACE_SLICE\ programming\ that\ was\ missing\ for\ multisample\ tests,\ as\ pointed\ out\ by\ Bill\ Lawless.\ Compiled\ test\ to\ make\ sure\ it\ compiles\ and\ runs.$ Begin to support block level envoking of runp Change 55053 on 2002/10/03 by kevino@kevino_r400_win_marlboro Moved EC exports to different ALU statements in shader program. Removed ecta Change 54803 on 2002/10/02 by vgoel@fl vgoel2 waitforidle in cpp file. changed the test to non-tiled mode Change 55048 on 2002/10/03 by kevino@kevino_r400_win_marlboro Change 54802 on 2002/10/02 by csampayo@fl_csampayo_r400 Updated to use texture scale and offset in shader pipe, and use the TM muladd function to create appropriate data for the various fcomp values. Added 3 new VGT tests with negative index offsets and updated test_list and the test Change 55006 on 2002/10/03 by kevino@kevino_r400_win_marlboro Change 54797 on 2002/10/02 by vgoel@fl vgoel2 Get's computed LOD value and returns as reg value modified vertex shader and .cpp for perspective projection, and z-buffering Change 55005 on 2002/10/03 by kevino@kevino r400 win marlboro Change 54751 on 2002/10/02 by mkelly@fl_mkelly_r400_win_laptop Basic tmult (before scale/offset change) Changed indentation to more easily read a few lines Change 54970 on 2002/10/03 by mkelly@fl_mkelly_r400_win_laptop Change 54681 on 2002/10/01 by csampayo@fl_csampayo_r400 Move p4 root determination out of get_sync() so it is always done Undated for better test case coverage Change 54892 on 2002/10/02 by llefebvr@llefebvre_laptop_r400_emu Change 54672 on 2002/10/01 by vgoel@fl vgoel2 Fixed some memory export bugs. changed the frame buffer size to 800 x 608 Change 54879 on 2002/10/02 by csampayo@fl csampayo r400 Change 54653 on 2002/10/01 by vgoel@fl_vgoel2 Page 385 of 510 Page 386 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history r400sc_line_strip_stipple_01 first cut in GI shaders r400sc line stipple r400sc line stipple 18 Change 54635 on 2002/10/01 by smoss@smoss_crayola_win Change 54512 on 2002/10/01 by mkelly@fl_mkelly_r400_win_laptop Varying combinations of Positive and Negative vtx window offsets Change 54634 on 2002/10/01 by smoss@smoss crayola win Change 54506 on 2002/10/01 by mkelly@fl_mkelly_r400_win_laptop Negative vtx window offset in X and Y Change 54625 on 2002/10/01 by mkelly@fl_mkelly_r400_win_laptop Change 54488 on 2002/10/01 by mkelly@fl_mkelly_r400_win_laptop Check point on SC template for stress testing... Comment out SC_CHECK for double pixel hits until Change 54600 on 2002/10/01 by omesh@omesh r400 linux marlboro release primlib utility parser is updated to latest sc_quad_pair_proc_out.dmp file Added an explicit specification of "NUMBER_FLOAT" for floating point Change 54443 on 2002/09/30 by csampayo@fl_csampayo_r400 color formats, as h/w is also going to change accordingly Changed the testnames 6 per test series to include the explicit Added vertex export simple test "number_float" in the testname. Also changed nightly regression lists to Change 54435 on 2002/09/30 by ygiang@ygiang_r400_win_marlboro_p4 Change 54582 on 2002/10/01 by ygiang@ygiang_r400_win_marlboro_p4 added: new opcode tests added: shader dotx tests Change 54432 on 2002/09/30 by georgev@devel_georgevhw_r400_lin_marlboro Change 54579 on 2002/10/01 by mkelly@fl mkelly r400 win laptop Changes to support enumerated types in random tests Change 54422 on 2002/09/30 by omesh@omesh_r400_linux_marlboro_release Change 54543 on 2002/10/01 by csampayo@fl_csampayo_r400 Removed testcases that used gamma correction for components larger than 8 bits. If needed, will remove more gamma correction testcases late Renamed vertex shader export test depending on whats supported. Removed a total of 6 testcases from each test series = 12 tests removed. Change 54541 on 2002/10/01 by csampayo@fl_csampayo_r400 Change 54395 on 2002/09/30 by omesh@omesh r400 linux mariboro release Renaming these tests Removed invalid Color Formats (Any color components not 16 or 32 bits) using the NUMBER_FLOAT represention.

Removed a total of 13 testcases from each of 2 test series = 26 Change 54538 on 2002/10/01 by mkelly@fl_mkelly_r400_win_laptop Complete coverage on stipple repeat count values 0 to 7 testcases removed. Change 54357 on 2002/09/30 by ygiang@ygiang_r400_win_marlboro_p4 add: ieee boundary test removed: unsupported sp tests r400sc_line_stipple_16 Page 387 of 510 Page 388 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Updated flush location

However, the emulator still doesn't seem to produce the right result

Change 54308 on 2002/09/30 by frivas@FL_FRivas but I haven't (re)verified the output. Update to "Matrix Class" definition to allow code to compile under Linux. Change 53954 on 2002/09/26 by smoss@smoss crayola win Change 54302 on 2002/09/30 by mkelly@fl_mkelly_r400_win_laptop Add two super tile tests which will only run standard case at this point Change 53953 on 2002/09/26 by smoss@smoss crayola win Change 54288 on 2002/09/30 by mkelly@fl_mkelly_r400_win_laptop Overload VFD to handle specification of vertex buffer address constant in parameter Usage example can be found in r400sanity_vfd_texture_sample_01.cpp Change 53941 on 2002/09/26 by hwise@fl hwise r400 win Adding test for debugging Primlib memory alloc overlap problem. (The Index Buffer is overlapping the Ring Buffer) Change 54285 on 2002/09/30 by mkelly@fl_mkelly_r400_win_laptop Change .sp filename to test name Change 53940 on 2002/09/26 by ygiang@ygiang_r400_test_marlboro Change 54275 on 2002/09/30 by vgoel@fl vgoel2 changed the input file name to "r400_local_tonemapping.hdr" Change 53938 on 2002/09/26 by csampayo@fl csampayo2 r400 Change 54274 on 2002/09/30 by vgoel@fl_vgoel2 Updated flush location Change 53931 on 2002/09/26 by kevino@kevino r400 win marlboro changed the frame.dump() and size of frame Change 54253 on 2002/09/29 by csampayo@fl_csampayo_r400 Explicetly set texture dimension New VGT index offset tests Change 53807 on 2002/09/26 by kevino@kevino_r400_win_marlboro Change 54171 on 2002/09/27 by vgoel@fl_vgoel2 Test case files fixed several bugs in tone mapping shader and .cpp file. Change 53801 on 2002/09/26 by vgoel@fl_vgoel2 Change 54139 on 2002/09/27 by ygiang@ygiang_r400_win_marlboro_p4 undated adaptive tessellation test added: 3 constant alu register muladd operation Change 53780 on 2002/09/26 by csampayo@fl_csampayo2_r400 Change 54111 on 2002/09/27 by ygiang@ygiang_r400_win_marlboro_p4 Uncommented tests that should run now r400vgt hos_simple_linear_PNT_discrete_01 r400vgt_hos_TPatch_01 r400vgt_hos_TPatch_02 fixed: # of args in the set opcode to matched new instruction in the assembler Change 53973 on 2002/09/26 by vgiang@vgiang r400 win marlboro p4 Change 53770 on 2002/09/26 by kevino@kevino_r400_win_marlboro fixed: number of args in shader tests cause changes from the parser Change 53964 on 2002/09/26 by omesh@omesh_r400_linux_marlboro_only_devel Change 53738 on 2002/09/25 by csampayo@fl csampayo2 r400 Changed atleast 2 tests to match Kevin Rvan's new memory dump routine interface. (Added an extra parameter). The tests now continue to run, Commented out test not running: r400vgt_event_handling_01 Page 389 of 510 Page 390 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 53713 on 2002/09/25 by omesh@omesh r400 linux marlboro only devel Change 53499 on 2002/09/25 by mkelly@fl mkelly r400 win laptop Added 20 testcases which cover most cases of testing fragment based multisampling. These tests are geared towards probing the fragment buffer and color cache with most combinations of CMASK values and Max Poly Offset combinations. Change 53470 on 2002/09/24 by georgev@devel_georgevhw_r400_lin_marlboro Fragment coverage per pixel regressed. Another 4 testcases test the fragment buffer overflow condition and 2 random tests randomize color. I have yet to add a series of testcases to test uninitialized samples. Also, I have run these 20 tests on Linux but could not see the output as Done Fixed some bad tests. Change 53451 on 2002/09/24 by csampayo@fl_csampayo_r400 DumpView is not ready to display multisampled images yet Added new VGT test. Updated test list and test tracker Change 53659 on 2002/09/25 by kevino@kevino_r400_win_marlboro Change 53442 on 2002/09/24 by ygiang@ygiang_r400_win_marlboro_p4 Just wanna look at them with xv then delete them fixed: random test case, using large random number now Change 53637 on 2002/09/25 by kevino@kevino r400 win marlboro Change 53414 on 2002/09/24 by omesh@omesh_r400_linux_marlboro_release 1st step of triangle_vertex_buffer replacement. Added the major case of the multisample tests. Need to split this up Change 53607 on 2002/09/25 by mkelly@fl_mkelly_r400_win_laptop into several testcases to simplify possible debugging. It uses Keyi Ryan's new COLOR_SURFACE class that supports multisampled Color Buffer 0, including the Dump.

I have not yet run this test or tested the result (DumpView may not be Poly offset / scale tests Change 53579 on 2002/09/25 by hartogs@fl hartogs ready to display multisampled Color Buffers yet) Need to add: 1) Random testcases to this. 2) Corner cases: Fragment buffer overflow and unassigned samples test cases. Modifications for to fix quads and line-loops for multi-prim reset functionality. Change 53571 on 2002/09/25 by omesh@omesh r400 linux marlboro only devel Change 53409 on 2002/09/24 by ygiang@ygiang r400 test marlboro Fixed some syntax errors, and some warnings and verified that the test runs. Could not verify the output image, as DumpView isn't ready to display fragment based multisampled images yet. Change 53385 on 2002/09/24 by mkelly@fl_mkelly_r400_win_laptop Change 53560 on 2002/09/25 by kevino@kevino r400 win marlboro Polymode poly offset, front/back face, MSAA, sample control permutations Added getcomplod test Change 53342 on 2002/09/24 by frivas@FL_FRivas Change 53535 on 2002/09/25 by kevino@kevino_r400_win_marlboro Finished Line Patch test. Renders 4 line patches, each with 4 control points. Tessellation varies 1-14.5 and reuse varies 4-16

Change 53532 on 2002/09/25 by csampayo@fl csampayo r400 Commented out test hanging the emulator: r400vgt_suppress_eop_05 Change 53502 on 2002/09/25 by mkelly@fl mkelly r400 win laptop Log potential bug

Added line that outputs texture base offset

Page 391 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 392 of 510

Change 53281 on 2002/09/24 by mkelly@fl_mkelly_r400_win_laptop

Change 53200 on 2002/09/23 by csampayo@fl_csampayo_r400

Temporarily remove test which changes out-of-context state

Added new VGT index reset test. Updated test list and test tracker

Change 53185 on 2002/09/23 by ygiang@ygiang_r400_test_marlboro changed: runtest to bruntest

Change 53183 on 2002/09/23 by ygiang@ygiang_r400_test_marlboro

added: sp regression test

Change 53182 on 2002/09/23 by csampayo@fl_csampayo2_r400

Changed buffers used to 1 and Inserted flushes between packets

Change 53154 on 2002/09/23 by ygiang@ygiang_r400_test_marlboro update

Change 53116 on 2002/09/23 by ygiang@ygiang_r400_test_marlboro sp mini regress script

Change 53107 on 2002/09/23 by mkelly@fl_mkelly_r400_win_laptop

Include history file with PASS/FAIL for auto depot submit

Change 53025 on 2002/09/23 by ctaylor@fl_ctaylor_r400_dtwin_marlboro

 $Modified\ Viz\ Query\ test\ to\ make\ begin\ event\ occur\ after\ the\ renderstate\ definition\ since\ the\ event\ uses\ renderstate.$

Change 53019 on 2002/09/23 by mkelly@fl_mkelly_r400_win_laptop

Poly Offset, 8 MSAA, HOS

Change 53015 on 2002/09/23 by vgoel@fl vgoel2

changed tessellation level to 14.9 to match with previous version of test

Change 52934 on 2002/09/21 by ygiang@ygiang_r400_win_marlboro_p4

moded: testcases

Change 52875 on 2002/09/20 by csampayo@fl_csampayo_r400

Updated number of buffers used

Change 52866 on 2002/09/20 by csampayo@fl_csampayo_r400

Added 2 new VGT tests and updated test_list and the test tracker accordingly

Page 393 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 52808 on 2002/09/20 by omesh@omesh_r400_linux_marlboro_release

Modified linear tests to also use the old FRAMEBUFFER, MEMORY class with the FMT.* enumerations for SurfaceFormat, Also added explicit flags to Fill and Dump routines in Primlib to tell it if the framebuffer is tiled or not, so when the timage is brought up on Dump View, it reads the right information encoded in the header and brings up the image in the right

Change 52799 on 2002/09/20 by ygiang@ygiang_r400_win_marlboro_p4

added: test name in make file

Change 52798 on 2002/09/20 by kryan@kryan_r400_win_marlboro

MEMORY AREA

 Begin work on new Dump() function that takes an enumerated type for the type of Surface being dumped.

- Add enumerated types for surface types: CB0,CB1,CB2,CB3,ZB,TB

memory_utility.cpp

 Changed Write_To_Memory(TEXTURE_BUFFER) to use format specified in TEXTURE_BUFFER when calling other functions.

TEXTURE_BUFFER

- Modified code to use SurfaceFormat information to calculate

bits per sample rather than bps value passed in through functions.

This also allowed the elimination of bps parameter to all the

functions

 Added code for all functions including constructor to have the ability to use uint8° in addition to uint32° for storing/ manipulating texture data.

Page 394 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

- Implemented code to store textures as bytes rather than uint32s.

texture_utility.h/.cpp

- Added comments/formatting
- Added uint8* version of Load_Texture_And_Write_To_Memory(uint8*)

SURFACE

- Add depth member and access functions
- Add number of samples member and access functions
- For dump file generation:
- Add Add_Define(), Add_Comment(), Add_Property_Defines() functions
- Add Get_Surface_Type() function to return string for Surface Type.

 Default to "GENERIC".

PIXEL_SURFACE

- Add depth member and access functions
- Added Fill_Solid(color) function that will use default pitch, height values of surface.

COLOR_SURFACE

- Work on class with specific Add_Property_Defines() function

results_diff.pl

 Modify .diff_e target through diff function to ignore all header information in dumpfiles for Marlboro and Orlando sites.

Page 395 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

REGISTER_WRITE_MANAGER

- Add code to initialize pl3d::LibType with value based upon mode of (PM4 or PIO) of constructor call.

test_lib/src/chip/perf/chip/ various tests

 - Updated various tests using the PIXEL_SURFACE class to add the now required depth parameter.

- Also removed the pitch,height parameters from the

 $PIXEL_SURFACE::Fill_Solid(color) \ function \ since \ they \ default \ to$

use the dimensions of the surface itself.

test lib/src/chip/perf/primlib tex tri

 - Update primlib_tex_tri.cpp test to reflect new Dumpfile format and content for multisample ColorSurface0.

Change 52797 on 2002/09/20 by ygiang@ygiang_r400_win_marlboro

added: default alpha fetch value

Change 52786 on 2002/09/20 by mkelly@fl_mkelly_r400_win_laptop

Moved former bug into regular testing regression.

Change 52783 on 2002/09/20 by mkelly@fl_mkelly_r400_win_laptop

Move test to SC for baryc validation

Change 52725 on 2002/09/20 by kevino@kevino_r400_win_marlboro

Some more textures (1D)

Change 52724 on 2002/09/20 by kevino@kevino_r400_win_marlboro

Assortment of files I forgot to check in gen_rg- generates - rg files (w/o header!) by looking for test case defines in the .cpp and it's includes aniso, clamp test cases.

Page 396 of 510

Change 52723 on 2002/09/20 by kevino@kevino_r400_win_marlboro Change 52583 on 2002/09/19 by vgoel@fl vgoel2 Updated alu_const_array stuff
Added basics for functions to put tscale and toffstes into alu const regs 4-7, 8-11. changed z-buffer changed frame.dump() Shader pipe needs to multiply these. Used to shift all the various number formats back into 0-1 range Change 52579 on 2002/09/19 by vgoel@fl_vgoel2 for color export. changed z-buffer Change 52706 on 2002/09/20 by mkelly@fl_mkelly_r400_win_laptop changed frame.dump() Update to clip lines inside HW boundary of +-8k Change 52574 on 2002/09/19 by mkelly@fl_mkelly_r400_win_laptop Change 52701 on 2002/09/20 by mkelly@fl_mkelly_r400_win_laptop Update to properly order draws/flushes/reads/ and writes... Add test to regression since bug is fixed, re: change 49961, last item Change 52569 on 2002/09/19 by vgoel@fl_vgoel2 Change 52672 on 2002/09/19 by omesh@omesh_r400_linux_marlboro_release changed frame.dump() Switched back to using the old FRAMEBUFFER MEMORY class for Primlib fill added compute_dma_size() and dump routines and they seem to work for the most part except for about 8 modes that don't dump and another 3 that dump incorrect images. I have filed Bugzilla bugs for Kevin Ryan to look at. Change 52560 on 2002/09/19 by vgoel@fl_vgoel2 Also, fixed a bug with the tests to program it for tiled mode of changed z-buffer operation. Still haven't validated the output images of these tests due changed frame.dump() operation. Suff invarient variations are output mages of utree tests ute to Dump View's automatic nature of scaling all color channels to full precision even for modes in which other channels do not exit (example COLOR_8 or FMT_8 which looks a little wierd on Dump View). added compute_dma_size() Change 52556 on 2002/09/19 by vgoel@fl_vgoel2 changed to display only one T-patch object changed z-buffer changed frame.dump() function Change 52648 on 2002/09/19 by csampayo@fl_csampayo_r400 Added 1 new VGT event handling test and updated the test_list and test tracker added compute dma size Change 52630 on 2002/09/19 by abeaudin@abeaudin_r400_win_marlboro Change 52541 on 2002/09/19 by mkelly@fl_mkelly_r400_win_laptop changed program and vertex shaderto get a solid red and a solid green triangle Enable GB clipping, adjust W to prevent lines falling exactly on HW boundary and width making them extend beyond HW boundary. Change 52594 on 2002/09/19 by georgev@devel_georgevhw_r400_lin_marlboro Change 52535 on 2002/09/19 by vgoel@fl_vgoel2 Ooops. Fixed dma 32 test. changed z-buffer and frame.dump() Change 52592 on 2002/09/19 by jhoule@jhoule_r400_win_marlboro Change 52533 on 2002/09/19 by georgev@devel_georgevhw_r400_lin_marlboro tp_uber_test:
- updated programs to have cleaner names No changes. - removed RGB from vertex arrays now sets DIM field for loads, since the TEXTURE_MANAGER requires that Change 52506 on 2002/09/19 by mkelly@fl_mkelly_r400_win_laptop - honors DIM field for the same reason (defaults to 2D, though) Page 397 of 510 Page 398 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Cycle SC_SAMPLE_CNTL permutations with all primtypes Cycle MSAA, 192 packets Change 52340 on 2002/09/18 by mkelly@fl_mkelly_r400_win_laptop Re-enable r400sc point list 06 to regression now it mysteriously works. Change 52498 on 2002/09/19 by mkelly@fl_mkelly_r400_win_laptop Change 52336 on 2002/09/18 by mkelly@fl_mkelly_r400_win_laptop Another example for bugzilla 401 Enable regression of fixed bugs Change 52486 on 2002/09/19 by kevino@kevino r400 win marlboro Change 52300 on 2002/09/18 by mkelly@fl_mkelly_r400_win_laptop 1D texture that alternates color and black/grey Cycle primitive types through all MSAA and JSS modes Change 52482 on 2002/09/19 by mkelly@fl mkelly r400 win laptop Change 52286 on 2002/09/18 by kevino@kevino_r400_win_marlboro Primitive should be gouraud shaded, it is flat shaded.
Related to PARAM_GEN = true, CENTERS_ONLY, and SAMPLE_CENTER
If PARAM_GEN = false, gouraud shading works as expected. Added GetBorderColoFraction test updated lod test to hit instr bias, const bias, comp, and reg lod. Change 52464 on 2002/09/19 by mkelly@fl_mkelly_r400_win_laptop Change 52259 on 2002/09/18 by frivas@FL_FRivas Changed PA to TOTAL Change 52463 on 2002/09/19 by mkelly@fl_mkelly_r400_win_laptop Change 52256 on 2002/09/18 by frivas@FL_FRivas Rename MISC to PERF Update to matrix code to allow it to work under Linux Change 52442 on 2002/09/18 by ygiang@ygiang_r400_win_marlboro_p4 Change 52216 on 2002/09/18 by mkelly@fl mkelly r400 win laptop fixed: test case random, now using large random number system and not TG Add flush between packets but assert still occurs... Change 52204 on 2002/09/18 by mkelly@fl_mkelly_r400_win_laptop Change 52439 on 2002/09/18 by georgev@devel_georgevhw_r400_lin_marlboro RB asserts when polygon with MSAA = 0,1,2,3 followed by point list MSAA = 5. If polygon MSAA = 5 or 7 the Fixed 2 tests Change 52429 on 2002/09/18 by csampayo@fl csampayo r400 test completes as expected. Added 5 new VGT prim tests and updated test_list and test tracker accordingly \$/r400/devel/test_list/src/chip/gfx/pa/bugs Change 52417 on 2002/09/18 by ygiang@ygiang r400 test marlboro make r400sc sp sample cntl 08 bug.emu $Assertion\ failed:\ (coverage\&errmask) == 0,\ file\ ./././emu_lib/model/gfx/rb/rb_color_model.cpp,\ line\ 334$ changed: abs code, it's \$ instead of & Change 52355 on 2002/09/18 by csampayo@fl_csampayo_r400 make[2]: [run_emu] Error 3 (ignored) Updated so that it runs with latest Primlib Change 52180 on 2002/09/17 by csampayo@fl csampayo r400 Change 52354 on 2002/09/18 by kevino@kevino_r400_win_marlboro Added 4 new VGT prim tests and updated test_list and the test tracker accordingly.

Added 1D texture clamp cases based on 2D cases.

Page 399 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258333

Ex. 2052 --- R400 Testing FH ---foler_history

Change 52168 on 2002/09/17 by omesh@omesh_r400_linux_marlboro_release

Page 400 of 510

Changed size of display framebuffer and triangles so that DumpView can display the images faster, on Alicia's request. Change 51911 on 2002/09/16 by ygiang@ygiang_r400_win_marlboro_p4 Change 52133 on 2002/09/17 by georgev@devel_georgevhw_r400_lin_marlboro fixed: image for tests Regression fixes Change 51897 on 2002/09/16 by csampayo@fl csampayo r400 Change 52131 on 2002/09/17 by ygiang@ygiang_r400_win_marlboro_p4 Added 3 new VGT prim tests and updated test_list and the test tracker accordingly. added: rb swap color channels register Change 51874 on 2002/09/16 by georgev@devel_georgevhw_r400_lin_marlboro Change 52045 on 2002/09/17 by kevino@kevino r400 win marlboro Fixed bad screen size bug. tcfux for texture offsets (sample shift) Change 51873 on 2002/09/16 by omesh@omesh_r400_linux_marlboro_release Change 52041 on 2002/09/17 by omesh@omesh r400 linux marlboro release Added another 216 test cases. Most of them don't display correctly on DumpView and many don't dump correctly with
Primlib yet. The output image is yet to be verified for these tests Removed Color Format modes (non blendable) that don't support Color Masking, from the random test case. Split 64 bit LOG_PARAMETER call into 2 x 32 bit LOG PARAMETER calls so that the linker on Windows doesn't Change 51868 on 2002/09/16 by ygiang@ygiang_r400_win_marlboro_p4 complain (On Linux this seems to work with no problem) removed: position clamping from vertex shader tests Change 52022 on 2002/09/17 by kryan@kryan_r400_win_marlboro Change 51851 on 2002/09/16 by vgiang@vgiang r400 win marlboro p4 Modified ton-level catch block of test to replace throw statement added: temp golden images cause golden does not support test cases yet. with a return 1; so that the test will exit gracefully without a Change 51838 on 2002/09/16 by ygiang@ygiang_r400_test_marlboro dialog box if an error occurs. added: simple passthrough test for debug. Change 52004 on 2002/09/17 by mkelly@fl_mkelly_r400_win_laptop Change 51812 on 2002/09/16 by ygiang@ygiang_r400_win_marlboro_p4 Fix percent calculations for cp and rbbm Change 51992 on 2002/09/17 by frivas@FL_FRivas Change 51763 on 2002/09/16 by mkelly@fl mkelly r400 win laptop Added a multi-prim HOS test to the list. More extensive back face bit checks Change 51986 on 2002/09/17 by mkelly@fl mkelly r400 win laptop Change 51753 on 2002/09/16 by frivas@FL_FRivas Addition to multi prim test to allow it to work with quads. Change 51984 on 2002/09/17 by mkelly@fl_mkelly_r400_win_laptop Change 51752 on 2002/09/16 by frivas@FL_FRivas Publish Orlando full regression results to //depot/r400/web when "-p" option is true Update. This test now alternates between drawing lines, triangles and quads (PNL, PNT, Change 51963 on 2002/09/17 by mkelly@fl_mkelly_r400_win_laptop PNQ). Cubic position and quadratic normals are used. Change 51748 on 2002/09/16 by mkelly@fl_mkelly_r400_win_laptop regress_r400 Page 401 of 510 Page 402 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 51428 on 2002/09/13 by omesh@omesh r400 linux marlboro release Update Added code for random selection of Color and Surface format. Currently hardcoded the Color/Surface format, to trap a specific dump that doesn't work in Primlib (Also filed a Bugzilla bug (Bug ID 371) on this. Change 51747 on 2002/09/16 by mkelly@fl_mkelly_r400_win_laptop Check back face bit carries from sc_sp to shader export to RB, looking good... Change 51723 on 2002/09/16 by kevino@kevino r400 win marlboro Change 51386 on 2002/09/13 by csampayo@fl csampayo r400 Don't try to delete ptr if null Update for new DMA SIZE calculation Change 51539 on 2002/09/13 by georgev@devel_georgevhw_r400_lin_marlboro Change 51354 on 2002/09/13 by ygiang@ygiang_r400_win_marlboro_p4 Changes for CP changed: tri-size for hardware testing Change 51527 on 2002/09/13 by pmitchel@pmitchel_entire_depot_win Change 51317 on 2002/09/13 by mkelly@fl mkelly r400 win laptop only delete ptr if ptr != NULLEnable GB clipping to ensure verts don't extend beyond HW boundary Change 51516 on 2002/09/13 by ygiang@ygiang r400 win marfboro p4 Change 51311 on 2002/09/13 by mkelly@fl mkelly r400 win laptop added: override Shader Instruction Loading Add CP and RBBM blocks to parse, search, make, and reporting routines Change 51504 on 2002/09/13 by kevino@kevino_r400_win_marlboro Change 51272 on 2002/09/12 by csampayo@fl_csampayo2_r400 Added cubic testcase and support.

Fixed deallocate to check if the ptr is null before it tries to delete it and only deletes it Commented out tests not working Change 51261 on 2002/09/12 by csampayo@fl_csampayo_r400 Change 51490 on 2002/09/13 by csampayo@fl csampayo lt r400 Updated for new dma size calculation Added to test_list and updated status for test Change 51215 on 2002/09/12 by omesh@omesh r400 linux marlboro release

r400vgt_multi_prim_reset_index_all_01

Change 51483 on 2002/09/13 by csampayo@fl_csampayo_r400

Adding new VGT mul-prim index reset test

Change 51468 on 2002/09/13 by ygiang@ygiang_r400_win_marlboro

Changed: buffers and triangles size for hardware testing

Change 51451 on 2002/09/13 by kevino@kevino r400 win marlboro

needed for tp_simple_02/complex_shader testcase

Change 51446 on 2002/09/13 by mkelly@fl_mkelly_r400_win_laptop

Update for Randy to try

Page 403 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Checking in the 14 multiwrite (multiple render target) tests.

The 3 and 4 exports->buffers tests seem to timeout on the emulator and the 2 exports->buffers tests seem to produce the wrong result. I will file a Bugzilla bug.

Change 51201 on 2002/09/12 by csampayo@fl_csampayo_r400

1. Added 5 new VGT provoking vtx tests

2. Updated test list and test tracker

Change 51137 on 2002/09/12 by vgoel@fl_vgoel2

changed the input primitive type to 3D point for adaptive tessellation and added draw_command.Calculate_Dma_Size(render_state1)

Page 404 of 510

```
modified in order to work
 Minor update to all HOS tests that adds the line "draw_command.Calculate_Dma_Size(render_state1);"
                                                                                                                                                                                                                   sq\r400sq_bell.cpp(530):
sq\r400sq_plane.cpp(513):
Change 51080 on 2002/09/12 by mkelly@fl mkelly r400 win lapton
                                                                                                                                                                                                                  sq\r400sq plane env map.cpp(563):
                                                                                                                                                                                                                  sq\u00e4400sq_shell.cpp(530):
sq\u00e4400sq_simple_obj.cpp(515):
sq\u00e4400sq_simple_obj_env_map.cpp(556):
sq\u00e4400sq_sphere.cpp(531):
             SC screen XY output tests
                                                                                                                                                                                                               sqir400sq simple obj.cpp(515):
sqir400sq simple obj.cpp(515):
sqir400sq sphere.cpp(531):
sqir400sq sphere.cpp(531):
sqir400sq sphere env. map.cpp(54):
sqir400sq shere eless cpp(530):
sqir400sq shere eless cpp(530):
sqir400sq shere eless cpp(530):
sqir400sq she seless cpp(540):
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sqir400sq she seless pNL p_ln cont no projection 01.cpp(798):
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sqir400sq she seless pNL p_ln cont no projection 01.cpp(807):
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sqir400sq she seless pNL p_ln cont no projection 01.cpp(781):
sqir400sq she seless pNL p_ln co
Change 50987 on 2002/09/12 by ygiang@ygiang_r400_win_marlboro_p4
            changed: triangles size for hardware testing
 Change 50984 on 2002/09/12 by mkelly@fl_mkelly_r400_win_laptop
            Finalized SC screen XY / centers / centroids initial test, correct
             results are obtained through the RB when in hardware accurate mode otherwise, resort to sp_sx.dmp to confirm
Change 50933 on 2002/09/11 by kmahler@kmahler r400 win devel views
            Fixed setting of DMA_SIZE field in the DRAW_INDX packet for major mode 1.
            Below is how to program Primlib to automatically have the RENDER ENGINE set the
 correct VGT_DMA_SIZE in the DRAW_INDX packet.
            When the test initializes the DRAW COMMAND ...
             // Set up for Major mode 1 (NORMAL NO VERTEX REUSE)
             // Calculate_Dma_Size() should only be invoked when major mode 1 is enabled and // after setting the number of indices in the draw_command.
draw_command.Set_Major_Mode(
DRAW_COMMAND::NORMAL_NO_VERTEX_REUSE);
             draw_command.Set_Number_Indices ( Num_Indx );
            draw command.Calculate Dma Size(render state);
             ****** NOTE
                                            Page 405 of 510
                                                                                                                                                                                                                                                                   Page 406 of 510
                                                                             Ex. 2052 --- R400 Testing FH --- foler history
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            vgt\r400vgt_hos_cubic_pos_pnt_discrete_01.cpp(494):
vgt\r400vgt_hos_simple_linear_PNT_discrete_01.cpp(490):
                                                                                                                                                                                                                  Fixed border size test- TM now sets texture size correctly (-1 per side for border)
             vgt\r400vgt_pass_thru_all_prims_01.cpp(385):
                                                                                                                                                                                                                   Added TFetchInst override of mip, minmag, and aniso in cons
 Change 50932 on 2002/09/11 by fhsien@fhsien r400 linux marlboro
                                                                                                                                                                                                       Change 50581 on 2002/09/10 by csampayo@fl csampayo2 r400
            Update for smaller images
                                                                                                                                                                                                                  Commented out tests that hang regression
 Change 50820 on 2002/09/11 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                                                                                       Change 50569 on 2002/09/10 by mkelly@fl_mkelly_r400_win_laptop
           Check point, test is almost complete.
                                                                                                                                                                                                                  Fix name spelling
 Change 50815 on 2002/09/11 by ctaylor@fl_ctaylor_r400_dtwin_marlboro
                                                                                                                                                                                                       Change 50497 on 2002/09/10 by mkelly@fl_mkelly_r400_win_laptop
Moved \ 6-Sample \ MSAA \ Sample \ \#2 \ location \ from \ ULC-rel \ 2,5 \ to \ 1,5 \ to \ alleviate \ degentri \ in texture lod computations. (HW \ and EMU \ and fixed 1 test).
                                                                                                                                                                                                                  Narrowed down the bug to polymode tri fill in the SC
                                                                                                                                                                                                      Change 50491 on 2002/09/10 by hwise@fl hwise r400 win
 Change 50794 on 2002/09/11 by fhsien@fhsien_r400_linux_marlboro
                                                                                                                                                                                                                  Updating registry files in pa_regress to choose the CP Microengine configuration rather than the 'C' implementation
           Update for smaller images
 Change 50707 on 2002/09/11 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                                                                                       Change 50486 on 2002/09/10 by mkelly@fl_mkelly_r400_win_laptop
             Simple triangle, polymode back face tri fill
                                                                                                                                                                                                                  log a potential bug
 Change 50701 on 2002/09/11 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                                                                                      Change 50454 on 2002/09/10 by jhoule@jhoule r400 win marlboro
            Add sq dumps to regression house keeping
                                                                                                                                                                                                                   Added support for BORDER_SIZE specification.
                                                                                                                                                                                                                   Added some textures and test files
Change 50676 on 2002/09/11 by omesh@omesh r400 linux marlboro release
                                                                                                                                                                                                                  Updated formats.tst, and the shader programs
            Added code to program SurfaceFormat registers as well as detemine the number of bytes per pixel, based on the ColorFormat, instead of having each test case specify them. Most color formats still don't display
                                                                                                                                                                                                       Change 50428 on 2002/09/10 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                                                                                                  For SC sample control #2
            correctly with DumpView (bug filed) and the SurfaceFormat class doesn't seem to dump any color format correctly, as yet.

Also added code for random test cases.
                                                                                                                                                                                                       Change 50427 on 2002/09/10 by mkelly@fl_mkelly_r400_win_laptop
                                                                                                                                                                                                                  SC sample control centers, centroids and Screen XY
Change 50645 on 2002/09/10 by kevino@kevino r400 win marlboro
                                                                                                                                                                                                       Change 50408 on 2002/09/10 by mkelly@fl mkelly r400 win laptop
             Worked on reglod test (but use reg lod is a bool in tfetch instruction.cpp and an enum in
                                                                                                                                                                                                                  Check parameter 0 for SC center/centroid sampling control
                  Got offset tests working and added pos and neg cases to cover the whole range
                                                                                                                                                                                                       Change 50375 on 2002/09/09 by fhsien@fhsien r400 linux marlboro
 Change 50623 on 2002/09/10 by smoss@smoss_crayola_win
                                                                                                                                                                                                                  Update with smaller images
                                                                                                                                                                                                       Change 50347 on 2002/09/09 by csampayo@fl_csampayo_r400
 Change 50588 on 2002/09/10 by kevino@kevino_r400_win_marlboro
                                                             Page 407 of 510
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                                                                              Ex. 2052 --- R400 Testing FH ---foler_history
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```

There are several SQ and VGT tests that set major mode 1. These tests may have to be

Change 51128 on 2002/09/12 by frivas@FL_FRivas

1. Added SU multi-context test 2. Updated test_list and test tracker accordingly

Change 50335 on 2002/09/09 by omesh@omesh_r400_linux_marlboro_release

Added 28 more tests. Either the .dump() routines don't dump correctly

or DumpView does not display 16_16_16_16 and 8_8_8_8 formats correctly. Seems more likely that the dump routines don't work correctly. Change 50325 on 2002/09/09 by ygiang@ygiang_r400_test_marlboro

changed: temp vertex buffer to uint32 for hex format

Change 50272 on 2002/09/09 by smoss@smoss_crayola_linux_orl_regress

Change 50250 on 2002/09/09 by mkelly@fl_mkelly_r400_win_laptop

Add Scott's new dump to regression

Change 50212 on 2002/09/09 by mkelly@fl_mkelly_r400_win_laptop

Added two new sc dumps to regress compare lis

Change 50206 on 2002/09/09 by smoss@smoss crayola win

su tests

Change 50196 on 2002/09/09 by kevino@kevino_r400_win_marlboro

Added 1st cut at RegLod test.

Change 50187 on 2002/09/09 by ygiang@ygiang_r400_win_marlboro_p4

changed: test case

Change 50176 on 2002/09/09 by kevino@kevino r400 win marlboro

Added tedenorm non-power2 case.

Change 50172 on 2002/09/09 by kevino@kevino r400 win marlboro

Added TFetchInst dst and src sel operations as well as tx coord denorm testcase

Change 50168 on 2002/09/09 by omesh@omesh_r400_linux_marlboro_release

Changed the "Range" type of random number generator to "RangeF" so it

Page 409 of 510

Ex. 2052 --- R400 Testing FH --- foler history

returns the right kind (float) of data structure. Default behavior was changed by George a while ago, which was resulting in 0 valued returns.

Change 50143 on 2002/09/09 by omesh@omesh_r400_linux_marlboro_refease

Changed the "Range" type of random number generator to "RangeF" so it returns the right kind (float) of data structure. Default behavior was recently changed by George, which was resulting in 0 valued returns. I'll change this soon for all earlier random tests as well.

Change 50121 on 2002/09/09 by mkelly@fl_mkelly_r400_win_laptop

Fix tests to update all GB RAM registers between state change

Change 50050 on 2002/09/06 by llefebyr@llefebyre laptop r400 emu

Fixed SWAP error that caused missmatches with gold images. Added count reset capability in the SQ for multipass. Added better comments for the PARAM_SHADE register field. Fixed some HW accurate bugs Added new MOVA write back to GPRs feature.

Change 50033 on 2002/09/06 by kevino@kevino_r400_win_marlboro

tefune file for endian swan tests

Change 50031 on 2002/09/06 by kevino@kevino_r400_win_marlboro

Added trijuice

Change 50014 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop

Initial check of sc sample control for centers and centroids in the sc sp

Change 50001 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop

Change ScDmp level to 3

Change 49995 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop

Stipple tests where lines are small, and repeat count and pattern are changed between state

Change 49977 on 2002/09/06 by abeaudin@abeaudin_r400_win_marlboro

more golden images

Change 49975 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop

Page 410 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

BRESENHAM CONTROL verified to match R200 in following tests. For W9X, use 0x55, for W2K use 0x53

Change 49968 on 2002/09/06 by abeaudin@abeaudin_r400_win_marlboro

Change 49938 on 2002/09/06 by csampayo@fl csampayo r400

Updated Viz Query controls. Updated test status

Change 49937 on 2002/09/06 by frivas@FL FRivas

this test has a lot of bugs. It will be replaced soon

Change 49930 on 2002/09/06 by kevino@kevino r400 win marlboro

Added dstsel, miprange, and bordercolor tests and fmt565 files. RF (repeating fraction) tests are there, but not yet working.

Change 49901 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop

Missed checking in this one yesterday.. Change 49899 on 2002/09/06 by mkelly@fl_mkelly_r400_win_laptop

First pass of complex pinwheel

Change 49880 on 2002/09/05 by omesh@omesh r400 linux marlboro release

Added some more testcases, fixed MAKE_VISUAL testcases (testcases involving *only* the alpha channel, which are
color blended with Red in the end, to bring out their visual result).

I have visually verified some more testcases on the emulator, including the 3 newly added ones

Change 49844 on 2002/09/05 by omesh@omesh_r400_linux_marlboro_release

Explicitly set the COLOR* SWAP field for each of the Color Buffers in the

RB_COLOR_INFO register.

The emulator's default setting for all 4 Color Buffers was not the same, which was resulting in swapping of

the Red and Blue channels

Also added more testcases, including random testcases and added post render Destination

Alpha blend, to bring out the effects of the final Destination Alpha (using Red color) if needed out the effects of the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) if needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red color) is needed to the final Destination Alpha (using Red col

I haven't yet checked all the visual results of all the testcases, but I think they should be

Page 411 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 49837 on 2002/09/05 by smoss@smoss_crayola_win

housekeeping

Change 49822 on 2002/09/05 by csampayo@fl_csampayo_r400

Added 1 new VGT test for event handling

2. Updated test list and test tracker accordingly Change 49804 on 2002/09/05 by frivas@FL_FRivas

Added one HOS Tri-Patch test to the list.

Change 49796 on 2002/09/05 by frivas@FL FRivas

Initial checkin of HOS Tri-Patch test. Isolates just two patches (each with 10 control points) to see if there are any seams or inconsistancies on the boundry between patches. Implements lighting and texturing.

Change 49790 on 2002/09/05 by mkelly@fl mkelly r400 win laptop

1,2,4,6,8 MSAA rectangle list with zbuffering, all vertex ordering and verts falling on pixel center and non-pixel centers

Change 49781 on 2002/09/05 by mkelly@fl_mkelly_r400_win_laptop

1,2,3,4 MSAA rectangle list, all vertex orders

Change 49752 on 2002/09/05 by mkelly@fl mkelly r400 win laptop

Update comments, add 6 MSAA rectangle list tests

Change 49749 on 2002/09/05 by omesh@omesh_r400_linux_marlboro_release

Added NUM_MULTIWRITES programming (=3) to enable rendering to all 4 Color Buffers from 1 SX Color Export,
using the Color Channel Masks. Verified that the color masking does occur in the

emulator in all 4 buffers

visually, but this also uncovered a bug (Bugzilla Bug #334) with vertex color sequence reference to vertex positions, for Color Buffer 0.

Change 49730 on 2002/09/05 by mkelly@fl mkelly r400 win laptop

8 MSAA rectangle list, all vertex orders

Change 49723 on 2002/09/05 by frivas@FL FRivas

Added two new HOS tests to the list

Page 412 of 510

Change 49532 on 2002/09/04 by kevino@kevino_r400_win_marlboro Change 49715 on 2002/09/05 by frivas@FL FRivas Added border size case, but it isn't right yet. Added exp_adjust_all cases ranging from -32 to 32. Initial check in of HOS Line-Patch. This test will be updated soon. Change 49706 on 2002/09/05 by mkelly@fl mkelly r400 win lapton Change 49525 on 2002/09/04 by mkelly@fl mkelly r400 win laptop SC test, check pixel mask is either 0x00 or 0xFF when MSAA and JSS are disabled and MSAA_NUM_SAMPLES = 7 at the sc_quad_pair_proc_out.dmp level Change test name, update tracker.. Change 49517 on 2002/09/04 by mkelly@fl_mkelly_r400_win_laptop Change 49705 on 2002/09/05 by abeaudin@abeaudin_r400_win_marlboro Textured line, 8 MSAA, various orientations made gcc hardware accurate - swapped red and blue - made new golden images Change 49474 on 2002/09/04 by kevino@kevino_r400_win_marlboro Change 49704 on 2002/09/05 by mkelly@fl mkelly r400 win lapton Added force_bc_w_to_max testcases, and shader program that puts A in R channel so Log a local sc bug Change 49685 on 2002/09/05 by frivas@FL_FRivas Change 49452 on 2002/09/04 by mkelly@fl_mkelly_r400_win_laptop Initial checkin of HOS Tri-Patch test. There are 8 patches with 10 control points each. Update second setting of repeat count Change 49375 on 2002/09/03 by kevino@kevino_r400_win_marlboro Change 49659 on 2002/09/05 by vgiang@vgiang r400 win marlboro p4 Added testcases that turn off tiling for rectangular and non-rectangular textures fixed: triangles size for hardware Change 49364 on 2002/09/03 by kevino@kevino r400 win marlbord Change 49618 on 2002/09/05 by kmahler@kmahler_r400_win_devel_views Added testcases Fixed processing of VS PROGRAM CTRL's VS EXPORT MODE in render state more filter cases 2D Aniso Nearest_Clamp_Policy OGL mode test Also, fixed pixel file name in test. Change 49595 on 2002/09/04 by csampayo@fl_csampayo_r400 Change 49354 on 2002/09/03 by mkelly@fl_mkelly_r400_win_laptop Added bug test case
 Updated bug# 43 on Bug Tracker Initial check of MSAA centermost determination Change 49353 on 2002/09/03 by llefebyr@llefebyre laptop r400 emu Change 49580 on 2002/09/04 by omesh@ma omesh Added Idle0 and Idle1_7 functions for SQ idle status report. Added code to fill and dump all 4 color buffers instead of just the default (color buffer0). I still use the framebuffer class in Primlib as it supports the features I need. Besides the color Change 49352 on 2002/09/03 by omesh@omesh r400 linux marlboro release surface class isn't ready to be used for multiple color buffers yet.

The emulator visual outcome is as yet untested for these multiwrite testcases. Changed background color to black so visual result of color masking is evident. Alicia pointed out that masking is supposed to occur in the operation of: Destination Color = (Destination Color & ~COLOR_MASK) + (Source Color & COLOR_MASK), not as Destination Change 49574 on 2002/09/04 by smoss@smoss_crayola_win SU test Color = Source Color & COLOR MASK. So, the results of the emulator were correct, Page 413 of 510 Page 414 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Update test to pass HW, but waiting on PrimLib implementation for other tests. Change 49272 on 2002/09/03 by frivas@FL FRivas Change 49041 on 2002/08/30 by ygiang@ygiang_r400_test_marlboro Update. There was a typo in the spelling of the data file that the test reads package type changed Change 49259 on 2002/09/03 by kevino@kevino_r400_sun_marlboro Change 49034 on 2002/08/30 by csampayo@fl_csampayo_r400 Fix texture name, add 1024x1024 size Added 4 new VGT tests for suppress cop function
 Updated test_list accordingly Change 49255 on 2002/09/03 by jhoule@jhoule_r400_win_marlboro Change 49027 on 2002/08/30 by kevino@kevino_r400_win_marlboro Changed all .compare(..) to .substr(..) == string() to help Linux execution Added support for specified miplevel when loading image.
Corrected erroneous error message. 64x64 map Change 49250 on 2002/09/03 by kevino@kevino r400 sun marlboro Change 49021 on 2002/08/30 by kevino@kevino r400 win marlboro 1024x1024 texture Added smaller dilbert textures (created with dumpPPM function in uber_map.cpp) Change 49171 on 2002/08/31 by ashishs@fl ashishs r400 win Change 48991 on 2002/08/30 by kevino@kevino r400 win marlboro Made colors different than checker 32x32 Change 49170 on 2002/08/31 by ashishs@fl_ashishs_r400_win Change 48986 on 2002/08/30 by kevino@kevino_r400_win_marlboro Changed tex size field to 16x16 CL test:
The functionality is identical to r400cl_frustum_00 with the exception that it intentionally cycles a postion through all 27 possible clip zones, validating clip operation at each zone.
The clip zone possibilities are:
No Clipping, Right [R], Left[L], Far[F], Near[N], Top[T], Bottom[B],
RT, RB, RF, RF, RFB, RN, RNT, RNB, LT, LB, LF, LFT, LFB, LN, LNT,
LNB, NT, NB, FT, FB Change 48985 on 2002/08/30 by kevino@kevino_r400_win_marlboro 16x16 color checker pattern Change 48981 on 2002/08/30 by kevino@kevino_r400_win_marlboro Change 49164 on 2002/08/31 by ashishs@fl ashishs r400 win Tried to fix checkerboard Change 48979 on 2002/08/30 by kevino@kevino_r400_win_marlboro The functionality is identical to r400cl_frustum_00 with the exception that it intentionally cycles a postion through all 27 possible clip zones, validating clip operation at each zone.

Checkerboard texture

Change 48960 on 2002/08/30 by mkelly@fl_mkelly_r400_win_laptop

Change 48959 on 2002/08/30 by mkelly@fl mkelly r400 win laptop

Match SC spec (repeat count -1)

Change 48958 on 2002/08/30 by mkelly@fl_mkelly_r400_win_laptop

Page 416 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 415 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

The clip zone possibilities are:

The Chip Zonic pressionates at c:

No Clipping, Right [R], Left[L], Far[F], Near[N], Top[T], Bottom[B],

RT, RB, RF, RFT, RFB, RN, RNT, RNB, LT, LB, LF, LFT, LFB, LN, LNT,

LNB, NT, NB, FT, FB

Change 49069 on 2002/08/30 by mkelly@fl mkelly r400 win laptop

Change 49068 on 2002/08/30 by mkelly@fl_mkelly_r400_win_laptop

Enabling/Disabling control of tp_sq.dmp file for validation

AMD1044 0258337

Change stipple repeat count to (count - 1) to match SC spec Change 48802 on 2002/08/29 by frivas@FL FRivas Change 48922 on 2002/08/29 by kevino@kevino r400 win marlboro Deleting these two tests because there was a change in their names and descriptions inside the source code. Basically, they've just been renamed. cleaned up sp filenames, go to only sending 1 tex coord in sp file when needed Change 48919 on 2002/08/29 by kevino@kevino r400 win marlboro Change 48798 on 2002/08/29 by frivas@FL FRivas Initial check-in of two HOS RECT Patch tests. These tests render the Utah Teapot. One using Bezier interpolation for the patches, and the other using bi-linear interpolation. Both use Change 48905 on 2002/08/29 by kevino@kevino r400 win marlboro infinite lighting, texturing, and a tessellation level of 14.9. Tests for multibuffer assert and seg-fault problem Change 48790 on 2002/08/29 by vgoel@fl_vgoel2 Change 48889 on 2002/08/29 by omesh@ma omesh added PNT adaptive tessellation test using vertex export $Tweaked the TRIANGLE_COVERAGE \ (now=1.0) \ parameter in these tests to recreate the old large triangle parallel testcases (to be used to test swamping RB, I suppose).$ Change 48785 on 2002/08/29 by kevino@kevino r400 win marlboro Added file which is needed by tp_multitexture_01.cpp Change 48876 on 2002/08/29 by kevino@kevino_r400_win_marlboro Change 48781 on 2002/08/29 by kevino@kevino r400 win marlboro Fixed tex clause number for last 2 tex fetches Added 2D clamp mode tests and support textures Change 48865 on 2002/08/29 by mkelly@fl_mkelly_r400_win_laptop parameterize the number of framebuffers branch 4 color buffer shader pipe program from the original reset the standard test results to 1 texture, 1 color buffer * Basic multi-texture tests

* 16 parameter, 64 dword texture test

* Expand VFD to handle up to 16 textures, Change 48769 on 2002/08/29 by kevino@kevino_r400_sun_marlboro see r400sc_tri_16_par_64_dwords_01.cpp for example useage 2x2 went to 104x104 when I saved it after expanding the image, so fixed back to 2x2 Change 48847 on 2002/08/29 by mkelly@fl_mkelly_r400_win_laptop Change 48765 on 2002/08/29 by smoss@smoss_crayola_win Update to match SC range of 0 - 255, previously 1 - 256 Golds with tile enabled Change 48818 on 2002/08/29 by kevino@kevino_r400_win_marlboro Change 48755 on 2002/08/29 by kevino@kevino_r400_sun_marlboro fixe num of fb's to be -1 in multiwrite Cleaned up smalltex textures Change 48813 on 2002/08/29 by kevino@kevino r400 win marlboro Change 48750 on 2002/08/29 by kevino@kevino_r400_win_marlboro added rb assert test case Small textures for use with clamp mode tests Change 48804 on 2002/08/29 by kevino@kevino r400 win marlboro Change 48735 on 2002/08/29 by ygiang@ygiang_r400_test_marlboro changed:buffer size Change 48803 on 2002/08/29 by frivas@FL FRivas Change 48730 on 2002/08/29 by kevino@kevino_r400_win_marlboro Added two RECT patch tests to the test list. Page 417 of 510 Page 418 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history num multiwrites should be base 0, so for 4 multiwrites, this should be set to 3 Change 48501 on 2002/08/28 by frivas@FL FRivas Change 48693 on 2002/08/28 by omesh@ma omesh Initial check-in of a Rect Patch test. It generates a teapot. Added another 30 testcases for Color Channel based masking tests. The tests compile on the emulator, but don't produce the right results on the emulator (nothing renders). Will debug Change 48487 on 2002/08/28 by ashishs@fl_ashishs_r400_win test/emulator later. CL tests: adding more UCP combo tests and updating tracker Change 48673 on 2002/08/28 by csampayo@fl_csampayo_r400 Change 48480 on 2002/08/28 by kevino@kevino_r400_win_marlboro Updated number of cases Moved functions to header file Change 48658 on 2002/08/28 by smoss@smoss_crayola_win Change 48479 on 2002/08/28 by kevino@kevino r400 win marlboro Added functions to create pix shader programs on the fly so can parameterize TFetchInstr Change 48645 on 2002/08/28 by kevino@kevino r400 win marlboro Added 2 simple tesecases for this as well. Added basic foundations for perl-generation of testcase lists

Added basics for 4 color buffers, but if try to export in the shader program, it asserts. Change 48474 on 2002/08/28 by kevino@kevino r400 win marlboro Change 48639 on 2002/08/28 by vgoel@fl_vgoel2 New names for shader pipe programs for tp_multitexture_01 deleted r400vgt_hos_rpatch_02_pix and _vtx shaders Change 48448 on 2002/08/27 by smoss@smoss_crayola_win Change 48638 on 2002/08/28 by vgoel@fl_vgoel2 Add test for regress e added few more tests (hos and tone mapping, stereo vision) Change 48435 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop Change 48606 on 2002/08/28 by georgev@devel georgevhw r400 lin marlboro Comment out r400sc point list 06 until bug fixed Added more support for random stuff. Change 48434 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop Change 48572 on 2002/08/28 by mkelly@fl mkelly r400 win laptop Update for new MSAA samples Update comments Change 48430 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop Change 48541 on 2002/08/28 by omesh@ma omesh Update to new MSAA sample selects Split another 10 testcases. Compiled and ran them on the emulator, though haven't yet verified visual result (4_4_4 format). Change 48402 on 2002/08/27 by csampayo@fl_csampayo_r400 1. Updated test VFD for sourcing tex coord from vertex Change 48537 on 2002/08/28 by mkelly@fl mkelly r400 win laptop 2. Updated Bug Tracker accordingly JSS 4x4 simple triangle Change 48393 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop Change 48535 on 2002/08/28 by smoss@smoss crayola win Update for JSS sample 3 - 4 swap golds Change 48355 on 2002/08/27 by llefebvr@llefebvre_laptop_r400_emu

Page 419 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Ex. 2052 --- R400 Testing FH ---foler_history

Page 420 of 510

Page 302 of 325

AMD1044 0258338

 Added I new SU point sprite test
 Updated test_list and test tracker accordingly For some reason, the test was using the zw coordinates to fetch the texture. They should have used the xy coordinates as the vertex shader only exports those coordinates Change 48352 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop Change 48245 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop JSS Update for sample 3 and 4 swap Change 48344 on 2002/08/27 by mkelly@fl mkelly r400 win laptop Change 48229 on 2002/08/27 by fhsien@fhsien r400 linux marlbord Update to add test to regress_e r400sc_jss_4x4_fc_02 Update with small image test cases Change 48339 on 2002/08/27 by mkelly@fl_mkelly_r400_win_laptop Change 48186 on 2002/08/26 by ctaylor@fl_ctaylor_r400_win_marlboro Change Barycentric logic to correct 3-input adder carry-in problem. Another quick test needed for SC regress e Added rounding to BaryeBack multiplier for more accuracy on directed tests.

Updated golds for 2 SC, 2 VGT and 2 SU tests which were affected by above changes

Added dumps for quad covered and cleaned up some dump file headers.

Fixed zmin/zmax poly offset code for sign extend bug. Change 48329 on 2002/08/27 by ygiang@ygiang_r400_win_marlboro_p4 changed:buffer size Changed 6 and 8 Sample AA sample locations for new 6-sample grid. Added 2 and 3 sample AA sample locations.

Fixed .cpp of two regression SC tests affected by AA sample location changes Change 48328 on 2002/08/27 by ygiang@ygiang_r400_win_marlboro_p4 Change 48173 on 2002/08/26 by vgoel@fl_vgoel2 Change 48327 on 2002/08/27 by ygiang@ygiang_r400_win_marlboro_p4 added data file for tri-patches Change 48171 on 2002/08/26 by vgoel@fl_vgoel2 Change 48322 on 2002/08/27 by ashishs@fl_ashishs_r400_win added tri-patch displaying an object Change 48107 on 2002/08/26 by mkelly@fl_mkelly_r400_win_laptop Change 48320 on 2002/08/27 by ashishs@fl ashishs r400 win tile control registry files CL test: adding more UCP combo tests Change 48104 on 2002/08/26 by mkelly@fl_mkelly_r400_win_laptop Change 48304 on 2002/08/27 by fhsien@fhsien_r400_linux_marlboro Re-included SC stipple test Update tests with testcases for smaller framebuffer/images Change 48098 on 2002/08/26 by omesh@omesh_r400_linux_marlboro_release Change 48291 on 2002/08/27 by csampayo@fl_csampayo_r400 Changed COVERAGE settings to render smaller triangles in scalable tests, to reduce Moving bug case to proper place simulation time and storage space requirements for results. Made most of the triangles about 1/16th their Change 48264 on 2002/08/27 by csampayo@fl_csampayo_r400 Bug test case Change 48091 on 2002/08/26 by jhoule@jhoule r400 win marlboro Change 48259 on 2002/08/27 by csampayo@fl_csampayo_r400 New TRI_JUICE specification. Page 421 of 510 Page 422 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Changed MEM_BASE and BIOS_BASE setting in bif_init.cpp in chip library. Change 48080 on 2002/08/26 by llefebvr@llefebvre laptop r400 emu Take out one failing test (not sure how to fix the test) from regres Updated golden images - all the mem_framebuf_r are modified by a script, all the rd_r done manully. There was an indexing problem with the writting of the STs in the GPRs. Change 48071 on 2002/08/26 by kevino@kevino_r400_win_marlboro Hope this submit won't break in the middle. Cleaned up, added format 2101010. Change 47918 on 2002/08/23 by ashishs@fl ashishs r400 win Change 48054 on 2002/08/26 by jhoule@jhoule_r400_win_marlboro pointlist test, with 8 textures and 1 color. texture currently disabled through VFD, will be incorporated soon. Setting both MIN/MAG filters Change 47900 on 2002/08/23 by mkelly@fl_mkelly_r400_win_laptop Change 48046 on 2002/08/26 by ashishs@fl_ashishs_r400_win Update test so it will compile, bug still exists. update to testlist Change 47899 on 2002/08/23 by smoss@smoss crayola linux orl regress Change 48039 on 2002/08/26 by mkelly@fl_mkelly_r400_win_laptop Memory crash when shader file doesn't exist Change 47895 on 2002/08/23 by mkelly@fl mkelly r400 win laptop Change 48026 on 2002/08/26 by kevino@kevino_r400_win_marlboro * Line list, start vertex at -8190 in HW space, clipped at -4096 Screen Space added format_5_6_5 case Change 48022 on 2002/08/26 by mkefly@fl_mkefly_r400_win_laptop Change 47891 on 2002/08/23 by kevino@kevino r400 win marlboro Archiving potential bug in SQ ST determination generalize tp_multitexture_01 to parameterize all of the TFetchConst fields Change 47789 on 2002/08/23 by mkelly@fl mkelly r400 win laptop Change 48021 on 2002/08/26 by mkelly@fl mkelly r400 win laptop

Textured line where ST are exported directly to RGBA to visulize texture coordinates in color. Current there is a bug in the LLC quad pixel ST value when the primitive is not quad-aligned.

Change 47986 on 2002/08/26 by kevino@kevino_r400_win_marlboro

Added load vertex function to make it easier

Change 47980 on 2002/08/26 by kevino@kevino r400 win marlboro

cleaned up baee and mip offset code

Change 47967 on 2002/08/25 by csampayo@fl csampayo r400

Added 1 new SU point sprite tests
 Updated test_list and the test tracker accordingly

Change 47946 on 2002/08/24 by tho@tho_r400_win

Page 423 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 47788 on 2002/08/23 by mkelly@fl_mkelly_r400_win_laptop

Bug caused by primlib/render_state/render_register_state.cpp#42

Change 47756 on 2002/08/23 by mkelly@fl mkelly r400 win laptop

PrimLib bug

Change 47731 on 2002/08/23 by mdoggett@mdoggett_r400_linux_local

 $Updated \ dxtc test to work with changed texture constant. \ Also changed image from window to boards as boards shows the compression artifacts of dxtc1 .$

Change 47729 on 2002/08/23 by vgoel@fl vgoel2

added simple line patch test

Page 424 of 510

Change 47728 on 2002/08/23 by vgoel@fl vgoel2 Finalized second poly offset test Change 47491 on 2002/08/22 by mkelly@fl_mkelly_r400_win_laptop added complex teapot test for rect patches Change 47717 on 2002/08/23 by mkelly@fl mkelly r400 win lapton Add two test descriptions, update comments in test Simple single line list Change 47454 on 2002/08/21 by ashishs@fl_ashishs_r400_win CL test:r400cl_ucp_pointlist_01
64 point sprites with 6 textures and 6 ucp's enabled with point size set in PA_SU state
register and also in PA_CL_POINT registers for clipping. Point Sprite UCP mode set to '3' viz. Change 47623 on 2002/08/22 by llefebvr@llefebvre_laptop_r400_emu using resize instead of push back Change 47622 on 2002/08/22 by kevino@kevino_r400_win_marlboro Change 47443 on 2002/08/21 by mkelly@fl mkelly r400 win laptop Added a couple more testcases to tp_aniso
Added default aniso field to tp_unsigned32_01 and tp_multitexture_0 One more time. Change 47607 on 2002/08/22 by kevino@kevino_r400_win_marlboro Change 47438 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop 1st cut at aniso test. Not sure if it is working in emu yet Try again.. Change 47575 on 2002/08/22 by georgev@devel_georgevhw_r400_lin_marlboro Change 47437 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop Fixed frame buffer size Change 47534 on 2002/08/22 by georgev@devel_georgevhw_r400_lin_marlboro Change 47431 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop More changes. del Change 47531 on 2002/08/22 by kevino@kevino_r400_sun_marlboro Change 47429 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop Texture that shows text (nice for aniso) golds.. Change 47522 on 2002/08/22 by csampayo@fl_csampayo_r400 Change 47423 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop 1. Added 10 new VGT multi-context tests Add to SC regress_e 2. Updated test_list and the test tracker accordingly Change 47414 on 2002/08/21 by mkelly@fl mkelly r400 win laptop Change 47507 on 2002/08/22 by frivas@FL_FRivas Fix a typo, changed bool to uint32 on MAX_DISTANCE for aa Change to anonymous struct definition in "Matrix Class" to allow compiling under Linux. Change 47406 on 2002/08/21 by mkelly@fl mkelly r400 win laptop Change 47506 on 2002/08/22 by kevino@kevino_r400_win_marlboro added f to float values so don't get double to float warnings Change 47404 on 2002/08/21 by mkelly@fl mkelly r400 win laptop Change 47493 on 2002/08/22 by mkelly@fl_mkelly_r400_win_laptop Increasing SC regress_e with some very quick tests to give more coverage, Page 425 of 510 Page 426 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history fixed ptich problem. Change 47380 on 2002/08/21 by kevino@kevino r400 linux marlboro Change 47325 on 2002/08/21 by frivas@FL FRivas Added a random texture case where the vertices are left alone Change to annonymous struct definition in "Matrix_Class" to allow compiling on Linux. Change 47378 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop Change 47318 on 2002/08/21 by frivas@FL FRivas DEPTH 16 and DISP Y DIM = 64 Change to annonymous struct definition in "Matrix_Class" to allow compling under Change 47377 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop Change 47308 on 2002/08/21 by frivas@FL_FRivas Update to include R400HardwareAccurate = 0 Change 47376 on 2002/08/21 by mkelly@fl_mkelly_r400_win_laptop Change to annonymous struct in "Matrix_Class" to allow compiling under Linux. Update tests DISP Y DIM to 64 to work around Primlib issue. Does not Change 47302 on 2002/08/21 by frivas@FL FRivas affect functional part of test but permits HW simulation to continue Change to annonymous struct defined in "Matrix_Class" to allow compiling under Linux. Change 47369 on 2002/08/21 by kevino@kevino_r400_win_marlboro Change 47301 on 2002/08/21 by vgoel@fl vgoel2 Added several basic 1-4 text testcases and a shader program which doesn't blend in the color added first tri-patch test Change 47362 on 2002/08/21 by llefebvr@llefebvre_laptop_r400_emu Change 47281 on 2002/08/21 by frivas@FL_FRivas Dumplib now supports: FMT_8, FMT_8_8_8_8, FMT_5_6_5, FMT_4_4_4_4, 2 10 10 10 FMT_1_5_5_5, FMT_16_6, FMT_32_32_32_5 FLOAT. Changed annonymous struct definition in "Matrix_Class" to allow compling under Linux. FMT_16_16_16_16, DEPTH_16, DEPTH_24_8, DEPTH_24_8 FLOAT. Change 47269 on 2002/08/21 by frivas@FL_FRivas Change 47340 on 2002/08/21 by kevino@kevino r400 win marlboro Change to annonymous struct definition in "Matrix_Class" to allow compilation under Linux. 1st simple testcase files for tp_multitexture_01 Change 47177 on 2002/08/20 by csampayo@fl_csampayo2_r400 Change 47338 on 2002/08/21 by kevino@kevino r400 win marlboro Updates for surface height constraint Created XYZW_RGBA_STQ4 data structure w/ 4 STQ coords
Set up multitexture test to draw 1-4 textures. (Need more pix.sp files for more than Change 47167 on 2002/08/20 by mkelly@fl_mkelly_r400_win_laptop Update test to run several 12 seg concentric circles.. Change 47333 on 2002/08/21 by frivas@FL_FRivas Change 47163 on 2002/08/20 by mkelly@fl_mkelly_r400_win_laptop Count double hit pixels if more than one occurs in a quad Change 47330 on 2002/08/21 by frivas@FL FRivas Change 47146 on 2002/08/20 by kevino@kevino_r400_win_marlboro Change to annonymous struct definition in "Matrix_Class" to allow compiling in Linux. cast (*(tfc[texnum]) to TFETCH CONSTANT REGISTER before sending it to Change 47328 on 2002/08/21 by abeaudin@abeaudin_r400_win_marlboro

Page 427 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Ex. 2052 --- R400 Testing FH ---foler_history

Page 428 of 510

Change 47130 on 2002/08/20 by llefebvr@llefebvre_laptop_r400_emu Change 46866 on 2002/08/19 by kevino@kevino_r400_win_marlboro Now returning vectors of strings New testcases for tp_unsigned32_01.cpp Change 47128 on 2002/08/20 by mkelly@fl_mkelly_r400_win_laptop Change 46857 on 2002/08/19 by kevino@kevino_r400_win_marlboro Undate comments in test... Added non-rectangular testcase Added tint function to testcases expanded texture_manager tintarray to be 15x4 to cover up to 16K 1D textures Change 47127 on 2002/08/20 by mkelly@fl mkelly r400 win laptop Line list concentric circle, line width increased to see double hit pixels Change 46823 on 2002/08/19 by smoss@smoss crayola win Change 47117 on 2002/08/20 by kevino@kevino_r400_win_marlboro removed duplicate case Cleaned up, added more debug info. Works on Linux, but not windows. Change 46777 on 2002/08/19 by csampayo@fl_csampayo_r400 Change 47106 on 2002/08/20 by kevino@kevino_r400_win_marlboro Added 4 new SU polymode degenerate tests
 Updated test_list and test tracker accordingly Multitexture test. Rev1 compiles, but has a pointer error with gRenderState->Set(*tfc[texnum]); Change 46753 on 2002/08/19 by kevino@kevino r400 linux marlboro Change 47098 on 2002/08/20 by mkelly@fl_mkelly_r400_win_laptop Added EstesPark images (mostly non-square) Added object for keeping track of multi-processed pixels in the SC, modified test to display multi-hit pixels Change 46729 on 2002/08/19 by kevino@kevino r400 win marlboro Change 47024 on 2002/08/20 by kevino@kevino r400 win marlboro define prim size to make changing it easier Add basemap to randomize FILTER function. Also set parameters for miptint functions. Change 46695 on 2002/08/18 by csampayo@fl_csampayo_r400 Change 47022 on 2002/08/20 by kevino@kevino_r400_win_marlboro Added 8 new SU polymode tests
 Updated test_list and the test tracker accordingly Added Mip BaseMap to several testcases Change 46633 on 2002/08/16 by kevino@kevino r400 win marlboro Change 46991 on 2002/08/20 by kevino@kevino_r400_win_marlboro Fixed some maxmip values, put in commented out tintMipChain call Added point and linear mipmap modes Change 46598 on 2002/08/16 by kevino@kevino r400 win marlboro Change 46914 on 2002/08/19 by csampayo@fl_csampayo_r400 Added some non-power2 texture cases with various filtering 1. Added 2 new VGT test for multi context coverage 2. Updated test_list and the test tracker appropriately Change 46586 on 2002/08/16 by kevino@kevino r400 linux marlboro Change 46895 on 2002/08/19 by mkelly@fl_mkelly_r400_win_laptop Non-power2 sized textures Primlib utility to check for double hit pixels in sc_quad_pair_proc_out.dmp Change 46572 on 2002/08/16 by omesh@omesh_r400_linux_marlboro_only_devel Concentric circle test to do a preliminary check on the new utility Changed format of render and destination to 4444 instead of 8888, so that visual effects of the dither tests can be seen. Also switched to Page 429 of 510 Page 430 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history using the new Surface format class of primlib that supports fill and Change 46186 on 2002/08/14 by georgev@devel_georgevhw_r400_lin_marlboro dump of the 4444 format. Still haven't seen the visual effects of dithe (Dumpview comes up too slowly on a fully loaded lmcs* or lmct* machine Changed predicate tests. Began serialize test Change 46124 on 2002/08/14 by omesh@omesh r400 linux marlboro release Change 46518 on 2002/08/16 by georgev@devel_georgevhw_r400_lin_marlboro Fixed some bugs related to placement of geometry on screen and also add some more random testcases. I tried running the testcases on linux and they seem to execute, although the emulator doesn't produce the right result. Change to new format. Change 46515 on 2002/08/16 by georgev@devel_georgevhw_r400_lin_marlboro Put in missing semi-colon. Change 46120 on 2002/08/14 by kevino@kevino_r400_linux_marlboro Change 46505 on 2002/08/16 by jhoule@jhoule_r400_win_marlboro dilbert texture in ppm ascii format to make sure windows raw fix doesn't break ascii Added support for {MIN|MAX} MIP LEVEL and LOD BIAS {H|V}. Added generateMipmapChain() function Change 46109 on 2002/08/14 by mkelly@fl mkelly r400 win laptop Change 46391 on 2002/08/15 by mkelly@fl_mkelly_r400_win_laptop Possible interpolator bug., Change 46106 on 2002/08/14 by mkelly@fl mkelly r400 win laptop Change 46353 on 2002/08/15 by kevino@kevino_r400_linux_marlboro_release More bres control tests Changed maxmiplevel to 9 since the texture is 512x512 Change 46015 on 2002/08/14 by omesh@ma omesh Change 46349 on 2002/08/15 by vgoel@fl_vgoel2 Added special testcases for LUT based color dither, for more extensive testing. Compiled and run on Windows. Not yet checked on Linux. changed the tessellation level to one Change 45945 on 2002/08/14 by jhoule@jhoule r400 win marlboro Change 46347 on 2002/08/15 by kevino@kevino_r400_win_marlboro Converted dilbert_128x128.ppm into ascii PPM format

Set the maxmiplevel to 10

Change 46257 on 2002/08/15 by mkelly@fl_mkelly_r400_win_laptop

Modified SC regress_e tests to reduce emulate time by 66% (from 1:41 to 0:47 total for five tests). In general, less cases are tested but specific functional / operational check still occurs.

Change 46255 on 2002/08/15 by csampayo@fl_csampayo_r400

- 1. Added 3 new SU tests
- 2. Updated test list and the test tracker accordingly

Change 46245 on 2002/08/15 by abeaudin@abeaudin_r400_win_marlboro

fixed dither bug - rounding was not being done

Page 431 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 45899 on 2002/08/14 by mkelly@fl_mkelly_r400_win_laptop

Line Strip stipple packet switching in progress.

Change 45816 on 2002/08/13 by csampayo@fl csampayo r400

Update to properly set X and Y radius for per vertex point size

Change 45815 on 2002/08/13 by mkelly@fl_mkelly_r400_win_laptop

50% done

Change 45788 on 2002/08/13 by omesh@ma_omesh

Added Alpha Dither testcases (5). They compile and run on Windows. Haven't checked them on Linux yet

Page 432 of 510

Made a basic dither test that tests all 3 modes for Color/Alpha dither. The test compiles on Windows, but I haven't yet checked if it is running on Linux Change 45761 on 2002/08/13 by omesh@omesh r400 linux marlboro release Fixed a bug with calculating colors to be rendered to bring out dither effects. Ran the test on Linux and verified that the test is doing what Change 45496 on 2002/08/12 by smoss@smoss_crayola_win Added vgt dma dump files it should be, even though the emulator doesn't produce the right result. Change 45748 on 2002/08/13 by omesh@ma_omesh Change 45495 on 2002/08/12 by omesh@ma_omesh Added extensive testcases for TRUNC and ROUND cases of color dither. There are 5 Fixed a typo that was keeping the test from compiling. testcases (including 3 random). I have run them on Windows and have yet to run them on Linux Change 45486 on 2002/08/12 by ygiang@ygiang_r400_win_marlboro_p4 Change 45736 on 2002/08/13 by csampayo@fl_csampayo2_r400 added: more SP opcode tests Updates for latest primlib surface change Change 45485 on 2002/08/12 by jhoule@jhoule_r400_win_marlboro Change 45684 on 2002/08/13 by csampayo@fl_csampayo_r400 Resubmitted golden image, changing type to binary (Windows regression was broken otherwise). Add bug case Change 45673 on 2002/08/13 by mkelly@fl_mkelly_r400_win_laptop Change 45456 on 2002/08/12 by kryan@kryan r400 win marlboro Expand line width basic functionality... Updating all golden images in the R400 Emulator regression suite Change 45643 on 2002/08/13 by frivas@FL FRivas except those under the test lib/src/chip/quickemu/ directory. Update to output image size (32-bit alligned) and Z-Buffer set up (new R400 DepthFormat enums). Modifying chip/perf/ tests: Change 45633 on 2002/08/13 by ashishs@fl ashishs r400 win - Update golden images to include new R400 header information, commented out a test for further investigation and since ColorSurface0 is now tiled by default. Change 45631 on 2002/08/13 by ashishs@fl ashishs r400 win primlib template simple triangle.cpp Change 45591 on 2002/08/12 by ygiang@ygiang_r400_win_marlboro_p4 - Modified to force it to always use tiled Fill Solid(), tiled ColorSurface, modified for ken mahler to debug and tell the Dump() function that the ColorSurface is tiled. Change 45580 on 2002/08/12 by omesh@omesh_r400_linux_marlboro_release primlib tex tri.cpp Fixed a compiler error on linux. The test, however, still doesn't show dither to be working. - Modified to use new SurfaceFormat FMT_8_8_8_8 for ColorSurface instead Change 45577 on 2002/08/12 by omesh@ma omesh of old plgx::pixelType Page 433 of 510 Page 434 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history dumped so that the whole color surface will be dumped into the - Added new PIXEL_SURFACE object that represents the color surface. dumpfile. This is necessary so that the viewer can properly - Initialize this object with the Fill_Solid() command. detile the surface. - Call member function Dump() to dump the memory occupied by afx/pa/SU tests by this object. This simplifies the Fill/Dump calls. - Update golden images to include new R400 header information, - Modified call to Load_Texture_Buffer_And_Write_To_Memory() function and since ColorSurface0 is now tiled by default. to disable downsampled mipmap generation, and force fills to be gfx/pa/VTE tests tiled when the texture is written to memory. - Update golden images to include new R400 header information, - Modified the test to set the appropriate field in the Texture Fetch and since ColorSurface0 is now tiled by default. Constant register telling whether the texture is tiled in memory

- Update golden images to include new R400 header information, and since ColorSurface0 is now tiled by default.

r400cl_clip_space_dx_ogl_01.cpp

- modified code to calculate visible portion of framebuffer to use DISP_PITCH instead of DISP_X_DIM_since DISP_PITCH > DISP_X_DIM This will correctly calculate the actual dimensions of the color surface that will be rendered to
- Updated Dump() call to use DISP_PITCH as width of memory to be

Page 435 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

- Update golden images to include new R400 header information, and since ColorSurface0 is now tiled by default.

chip/gfx/VGT tests

- Update golden images to include new R400 header information, and since ColorSurface0 is now tiled by default

 $r400vgt_hos_PNT_cp_qn_disc_14_04_lit_tex_proj_01.cpp$

- Modified to force fills to be tiled.
- Set field in texture constant register to indicate the texture is tiled in memory.

Page 436 of 510

chip/sys/CP tests

- Update golden images to include new R400 header information

cp_simple_triangle.cpp

- Modified test to tell Dump() that ColorSurface0 is not tiled

Change 45432 on 2002/08/12 by mkelly@fl_mkelly_r400_win_laptop

Change 45408 on 2002/08/12 by mkelly@fl_mkelly_r400_win_laptop

Update...

Change 45399 on 2002/08/12 by mkelly@fl mkelly r400 win laptop

Change 45365 on 2002/08/11 by ygiang@ygiang_r400_win_marlboro_p4

added: new shader tests with some of new opcode

Change 45364 on 2002/08/11 by ygiang@ygiang_r400_win_marlboro_p4

added: dot3 and dot4 shader tests

Change 45362 on 2002/08/11 by omesh@ma omesh

Split some more testcases.

Change 45360 on 2002/08/11 by omesh@omesh_r400_linux_marlboro_release

Fixed some bugs related to constant color/alpha blending programming Also re-verified all results visually.

Change 45326 on 2002/08/09 by kryan@kryan r400 win marlboro

Orlando texture tests not in regression suite

r400vte xy fmt 01.cpp

Page 437 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

- Changed dimensions of dump file so that it will detile properly when color buffer is tiled.

Change 45316 on 2002/08/09 by csampayo@fl_csampayo_r400

1. Updated image size for tests: r400su_point_sprite_01 and _02

Added 4 more SU point sprite tests
 Updated test_list and test tracker accordingly

Change 45246 on 2002/08/09 by georgev@devel_georgevhw_r400_lin_marlboro

More tests.

Change 45245 on 2002/08/09 by mkelly@fl_mkelly_r400_win_laptop

Enhance comments in test, initialize all clip rects to zero

Change 45242 on 2002/08/09 by ygiang@ygiang_r400_win_marlboro_p4

more for debug

Change 45239 on 2002/08/09 by ygiang@ygiang_r400_win_marlboro_p4

Change 45236 on 2002/08/09 by ygiang@ygiang_r400_win_marlboro_p4

added: test for debug

Change 45233 on 2002/08/09 by smoss@smoss_crayola_win

Updated for new code

Change 45230 on 2002/08/09 by mkelly@fl_mkelly_r400_win_laptop

Poly offset 100 packets, varying offset from +0.5 to -0.5

Change 45220 on 2002/08/09 by mkelly@fl mkelly r400 win laptop

Nan retain/kill on 2 vector exports from shader bug..

Change 45169 on 2002/08/09 by frivas@FL FRivas

Initial check in of input data image for "r400vgt_hos_PNT_edge_detection_01" test.

Change 45168 on 2002/08/09 by frivas@FL FRivas

Deleted file from Perforce because there is a new input file with a different name

Page 438 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 45167 on 2002/08/09 by frivas@FL FRivas

Update. Changed name of input data file to "r400vgt_hos_PNT_edge_detection_001.bmp"

Change 45164 on 2002/08/09 by llefebvr@llefebvre laptop r400 emu

Corrected one SP test.

Change 45161 on 2002/08/09 by vgiang@ygiang r400 win marlboro p4

added: vertex pass through with alpha fetch.

Change 45160 on 2002/08/09 by ygiang@ygiang_r400_win_marlboro_p4

added: tests w/ bugs to fix

Change 45142 on 2002/08/09 by jhoule@jhoule_r400_win_marlboro

New test program where things are specified through a test file

Supports: - vertex array

- index array (tri and quad lists)

vertex and pixel shader file specification
 texture (ppm filename, most constants)

Added default files, plus format manipulation test file.

Change 45045 on 2002/08/08 by ashishs@fl ashishs r400 win

A test to determine if the clip guard band works properly and that trivial reject works. update to test tracker and test list

Change 45040 on 2002/08/08 by mkelly@fl_mkelly_r400_win_laptop

Undate..

Change 45038 on 2002/08/08 by frivas@FL_FRivas

Update. Added edge detector test to test list

Change 45010 on 2002/08/08 by frivas@FL_FRivas

Initial check in of Canny Edge detector using the pixel shader to implement the algorithm. Also fed through the HOS engine at level 0 discrete tessellation

Page 439 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 44986 on 2002/08/08 by frivas@FL_FRivas

Update. Took out 1 HOS test and added 4 others.

Change 44982 on 2002/08/08 by frivas@FL_FRivas

Initial check in of HOS precision tests. Change 44980 on 2002/08/08 by frivas@FL_FRivas

Deleted because there is another test that does the same thing with a slightly different

Change 44954 on 2002/08/08 by omesh@omesh_r400_linux_marlboro_release

Added a comment about the expected outcome of a working test (Green Triangle) or a possible not working test (Yellow triangle)

Change 44952 on 2002/08/08 by omesh@omesh_r400_linux_marlboro_release

Made a basic fog test that uses a constant fog factor (1.0: Max) in the SP (Pixel Shader)

and exports if for use to the RB.

The test doesn't work right now because the emulator doesn't support the bit backing associated with storing/exporting fog factor. Laurent will inform me when he implements the bit packing in the emulator, so that Alicia can test the RB Emulator functioning of fog blending.

Change 44939 on 2002/08/08 by kevino@kevino_r400_linux_marlboro_release

Just another texture map.

Change 44907 on 2002/08/08 by csampayo@fl_csampayo_r400

- 1. Initial check in of Bug Tracker
- 2. Added bug test case

Change 44906 on 2002/08/08 by kevino@kevino_r400_linux_marlboro_release

Construct: put dependency on ferret)ctrl.x SQ_TP_interface.v: emu send single request over 4 cycles (with different pix mask and fetch_addr, etc), not 1 cycle/command tp_simple_02: changed to 7x7 primitive instead of 100x100

Change 44896 on 2002/08/08 by frivas@FL FRivas

Update to tessellation level.

Change 44801 on 2002/08/07 by georgev@devel georgevhw r400 lin marlboro

Calls aren't working, so I signed it in for debug

Page 440 of 510

Change 44586 on 2002/08/06 by csampayo@fl_csampayo2_r400 Change 44797 on 2002/08/07 by frivas@FL FRivas Updated for SQ param gen new feature and associated VFD support Update to tessellation level (changed to 1.0). Change 44553 on 2002/08/06 by frivas@FL FRivas Change 44773 on 2002/08/07 by abeaudin@abeaudin r400 win marlboro Initial check-in of HOS PNT tests that use a complex model (human-like head) and tessellates 190 triangles to a level of 14.0 (in discrete case) and 14.99 (in continuous case). Implements perspective projeciton, lighting, and texturing. fog implementation complete Change 44761 on 2002/08/07 by omesh@omesh_r400_windowsXp_marlboro_1_ Change 44514 on 2002/08/06 by kevino@kevino r400 linux marlboro release Split some testcases and created new tests. For some reason they don't work on Windows Includes some more include directories (taken from the sq directory) also includes the -v options, which I believe dump some more info This will not work on Windows. (crash), but they seem to work on Linux, so I'll test these on Linux exclusively.

Fixed some typos in r400rb_alpha_source as well as some bugs. Change 44734 on 2002/08/07 by kevino@kevino r400 linux marlboro release Change 44512 on 2002/08/06 by mkelly@fl_mkelly_r400_win_laptop Combined tp_simple, tp_2d_clamp, tp_2d_lod_bias, tp_1d_ etc to 1 test with Textured pixel shader anti-aliased line example with VFD support. The trick is to break up the testcases (DEFINE_TEST_CASE) into include files with corresponding testcasename files (DEFINE_TEST_CASE_NAME) so they are Change 44501 on 2002/08/06 by ashishs@fl ashishs r400 win manageable changed to latest includes Change 44731 on 2002/08/07 by kevino@kevino r400 linux marlboro release Change 44495 on 2002/08/06 by ashishs@fl ashishs r400 win changed texture_filename to char* so it would work properly corrected error (reverted back to the previous version, accidently changed while testing) Change 44726 on 2002/08/07 by mkelly@fl_mkelly_r400_win_laptop Change 44479 on 2002/08/06 by ashishs@fl ashishs r400 win Update, this test currently hangs... changed for latest "includes" Change 44699 on 2002/08/07 by mdoggett@mdoggett_r400_linux_local Change 44475 on 2002/08/06 by ashishs@fl ashishs r400 win Updated for new texture fetch constant pitch which is now indicates the number of 32 changed to latest "includes' Also added a makefile for TC tests. Change 44458 on 2002/08/06 by ashishs@fl_ashishs_r400_win Change 44675 on 2002/08/07 by mkelly@fl_mkelly_r400_win_laptop undate Change 44450 on 2002/08/06 by ashishs@fl_ashishs_r400_win Change 44636 on 2002/08/07 by mkelly@fl mkelly r400 win laptop CL test: to test clip disable feature More JSS coverage. Change 44421 on 2002/08/06 by mkelly@fl_mkelly_r400_win_laptop Change 44616 on 2002/08/07 by kevino@kevino_r400_linux_marlboro_release 1 st cut at random Change 44377 on 2002/08/06 by kevino@kevino_r400_linux_marlboro_release Page 441 of 510 Page 442 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 44063 on 2002/08/02 by mkelly@fl_mkelly_r400_win_laptop 1st LOD test Simple Poly offset check, needs SC fix to work... Change 44350 on 2002/08/06 by llefebvr@llefebvre_laptop_r400_emu Change 44044 on 2002/08/02 by georgev@georgev_r400_linux_marlboro There was a bug in the SQ that made the last iteration of a loop read invalid loop indexes. Added loop tests and modifications to roll and deal to go faster and eliminate a bug Change 44318 on 2002/08/05 by mkelly@fl_mkelly_r400_win_laptop Change 43966 on 2002/08/02 by mkelly@fl_mkelly_r400_win_laptop Update to work correctly with MOD3 operation... Run line and point prims through JSS and MSAA. Change 44303 on 2002/08/05 by omesh@omesh_r400_linux_marlboro_release Change 43934 on 2002/08/02 by kevino@kevino_r400_linux_marlboro Removed comments from lines of code that maintain the destination alpha. Garbage file- never meant to be checked in I will file a Bugzilla bug for the emulator for this. Already spoken to Alicia about the bug. Change 43932 on 2002/08/02 by kevino@kevino_r400_linux_marlboro Change 44292 on 2002/08/05 by fhsien@fhsien_r400_linux_marlboro New textures (linear step in color in X,Y, but with DC offset so can see them) New 1D test (first cut) ADD Stencil ZFAIL test Change 43912 on 2002/08/02 by ashishs@fl_ashishs_r400_win Change 44273 on 2002/08/05 by georgev@ma_georgev updated the pointer to shader files Changed loop variables for windoze compatability Change 43845 on 2002/08/01 by frivas@FL FRivas Change 44265 on 2002/08/05 by kevino@kevino_r400_linux_marlboro_release Update to HOS precision tests to clamp the mipmap level of detail at 1 modified dilbert.ppm that uses forced colors in image to identify mip level (ie.e. Change 43776 on 2002/08/01 by mkelly@fl mkelly r400 win laptop image size level) Change 44246 on 2002/08/05 by mkelly@fl_mkelly_r400_win_laptop Bres Cntl test... Update to work in PrimLib .. Change 43775 on 2002/08/01 by mkelly@fl mkelly r400 win laptop

Change 44167 on 2002/08/05 by mkelly@fl_mkelly_r400_win_laptop

JSS 3x4 unique sample sel testing..

Change 44165 on 2002/08/05 by fhsien@fhsien_r400_linux_marlboro

ADD Stencil_ZPASS test

Change 44096 on 2002/08/02 by mkelly@fl_mkelly_r400_win_laptop

* Implement vertex kill in the VFD for vertex buffer and constant
* Create a new class called PRIMITIVE_AA for AA dump file analysis

* Update tracker / test list

Page 443 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Bresenham Control, converted R200 test..

Change 43766 on 2002/08/01 by kevino@kevino r400 linux marlboro

1st (untedted) cut at a 1D texture test

Change 43754 on 2002/08/01 by frivas@FL_FRivas

Update. Added two HOS tests for a complex model

Change 43716 on 2002/08/01 by frivas@FL_FRivas

Added HOS auto index quad list test

Page 444 of 510

Change 43712 on 2002/08/01 by frivas@FL_FRivas Branched off clamping cases in tp_simple_02 to tp_2D_clamp_01.

Every combination of S and T clamping is done in a test case. (Add random XY for Initial check-in of HOS auto indexed quad list. Uses continuous tessellation at level 14.99 on 16 different objects. Each object is composed of approximately 5 primitives. each of these later) Change 43493 on 2002/07/31 by mkelly@fl_mkelly_r400_win_laptop Change 43679 on 2002/08/01 by vgiang@vgiang r400 win marlboro p4 added: Simple vertex shader tests Testing lots of SC features with stipple enabled... Change 43650 on 2002/08/01 by mkelly@fl_mkelly_r400_win_laptop Change 43486 on 2002/07/31 by mkelly@fl_mkelly_r400_win_laptop For record keeping.. Undate Change 43646 on 2002/08/01 by mkelly@fl_mkelly_r400_win_laptop Change 43475 on 2002/07/31 by ygiang@ygiang_r400_win_marlboro_p4 New. added: last opcode for pixel shader tests Change 43645 on 2002/08/01 by mkelly@fl_mkelly_r400_win_laptop Change 43444 on 2002/07/31 by kevino@kevino r400 linux marlbord Update Go back to the older test reg include for now. (New one is commented out) Change 43638 on 2002/08/01 by mkelly@fl_mkelly_r400_win_laptop Change 43438 on 2002/07/31 by kevino@kevino_r400_win_marlboro JSS 3x4 simple triangle Added several additional clamp cases, and some cases with S and T clamps are different. Change 43613 on 2002/07/31 by abeaudin@abeaudin_r400_win_marlboro Loading of different texture sizes still is not fixed. added chroma keying feature Change 43433 on 2002/07/31 by ashishs@fl_ashishs_r400_win Change 43560 on 2002/07/31 by abeaudin@abeaudin r400 win marlboro update for latest register specs Change 43422 on 2002/07/31 by kevino@kevino_r400_win_marlboro $Temporary \ fix-force \ tex \ to \ be \ dilbert_128x128 \ since \ it \ is \ having \ trouble \ converting \ the \ string \ to \ char^* \ in \ linux.$ Change 43550 on 2002/07/31 by fhsien@fhsien r400 linux marlboro Cleaned up the exta filter and clamping emumerated typed, and use the ones directly from tconst.h Change 43546 on 2002/07/31 by csampayo@fl_csampayo2_r400 Change 43418 on 2002/07/31 by efong@efong_crayola_linux_cvd $1.\ Added\ VGT$ test for provoking vertex and edgeflgas validation $2.\ Updated\ test_list$ changed from chip/test_regs.h to ar_test/test_regs.h Change 43540 on 2002/07/31 by kevino@kevino_r400_sun_marlboro Change 43415 on 2002/07/31 by efong@efong crayola linux cvd Added texture maps of various sizes. Each point has a unique value The X coord of the texture is in G[3:0], B[7:0]. changed from chip/test_regs.h to ar_test/test_regs.h The Y coord is in R[7:0], G[7:4] Change 43414 on 2002/07/31 by efong@efong_crayola_linux_cvd Change 43498 on 2002/07/31 by kevino@kevino_r400_win_marlboro changed from chip/test_regs.h to ar_test/test_regs.h Page 445 of 510 Page 446 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Resized images of the dilbert.ppm (128x128) to have larger texture maps to work Change 43413 on 2002/07/31 by efong@efong crayola linux cvd with switched from chip/test_regs.h to ar_test/test_regs.h Change 43283 on 2002/07/30 by abeaudin@abeaudin_r400_win_marlboro Change 43412 on 2002/07/31 by efong@efong_crayola_linux_cvd multisample and jitter stuff changed from chip/test_regs.h to ar_test/test_regs.h Change 43263 on 2002/07/30 by abeaudin@abeaudin r400 win marlboro Change 43411 on 2002/07/31 by efong@efong_crayola_linux_cvd new test for jitter switched from chip/test regs.h to ar test/test regs.h Change 43239 on 2002/07/30 by georgev@georgev_r400_linux_marlboro Change 43410 on 2002/07/31 by efong@efong_crayola_linux_cvd Fixed depth pixel problem Change 43230 on 2002/07/30 by mkelly@fl_mkelly_r400_win_laptop changed from chip/test regs.h to ar test/test regs.h Change 43408 on 2002/07/31 by efong@efong_crayola_linux_cvd switched from chip/test regs.h to ar test/test regs.h Change 43229 on 2002/07/30 by mkelly@fl mkelly r400 win laptop Change 43407 on 2002/07/31 by efong@efong_crayola_linux_cvd Line stipple variations. Change 43200 on 2002/07/30 by ygiang@ygiang_r400_win_marlboro_p4 switched from chip/test_regs.h to ar_test/test_regs.h Change 43406 on 2002/07/31 by efong@efong_crayola_linux_cvd fixed: SP pixel shader tests name and test cases. changed from chip/test_regs.h to ar_test/test_regs.h Change 43183 on 2002/07/30 by llefebvr@llefebvre_laptop_r400_emu Change 43405 on 2002/07/31 by efong@efong crayola linux cvd Tests for ifs, loops and relative addressing changed from chip/test_regs.h to ar_test/test_regs.h Change 43095 on 2002/07/30 by smoss@smoss_crayola_win Change 43403 on 2002/07/31 by efong@efong_crayola_linux_cvd SU tests Change 42949 on 2002/07/29 by mkelly@fl_mkelly_r400_win_laptop changed from chip/test_regs.h to ar_test/test_regs.h 128 packets, one triangle per packet, each hitting a subsample Change 43401 on 2002/07/31 by kevino@kevino r400 win marlboro ion one ISS pixel. For each ISS SAMPLE_SEL, each of 16 JSS pixels are tested. JSS SAMPLE_SEL is cycled from from 0 to 8. This test ensures the tested JSS_SAMPLE_SEL is a unique value when compared to all non-tested JSS_SAMPLE_SEL. Added different texture sizes (128, 256, and 512) Added clamping mode, but doesn't appear to work yet Change 43398 on 2002/07/31 by efong@efong_crayola_linux_cvd Change 42888 on 2002/07/29 by fhsien@fhsien r400 linux marlboro changed from chip/test_regs.h to ar_test/test_regs.h

Page 447 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 43348 on 2002/07/31 by kevino@kevino r400 sun marlboro

Ex. 2052 --- R400 Testing FH ---foler_history

Page 448 of 510

Set Alpha to 1.0

Change 42887 on 2002/07/29 by frivas@FL FRivas

Change 42882 on 2002/07/29 by mkelly@fl_mkelly_r400_win_laptop Change 42499 on 2002/07/25 by mkelly@fl mkelly r400 win laptop Update tests now that zbuffer functionality is working in the RB... Basic MSAA functionality tests.. Change 42825 on 2002/07/28 by abeaudin@abeaudin r400 win marlboro Change 42340 on 2002/07/25 by frivas@FL FRivas start of changes for doing multisampling Added two HOS auto index tests (line list and triangle list). Change 42788 on 2002/07/26 by csampayo@fl_csampayo_r400 Change 42322 on 2002/07/25 by smoss@smoss crayola win Added 2 new SU tests
 Updated test_list and tracker, accordingly Modified for Unix - watch out for test output path! Change 42253 on 2002/07/24 by vgiang@vgiang r400 win marlboro p4 Change 42770 on 2002/07/26 by fhsien@fhsien2_r400_win_marlboro removed: Changing tests name. Change 42251 on 2002/07/24 by mkelly@fl_mkelly_r400_win_laptop Change 42657 on 2002/07/26 by georgev@georgev_r400_linux_marlboro Reversed the time stamp on the output directory name to help reading multiple directories by eye easier Added loop tests and support. Change 42631 on 2002/07/26 by ctaylor@fl ctaylor r400 dtwin marlboro Change 42248 on 2002/07/24 by frivas@FL FRivas Changed MSAA NUM SAMPLES to be a 3-bit field (instead of 4) Initial check-in of HOS auto index tests Fix bug in sc_sample_mask_in dump for jss_sample_sel field Fix bug in sc_samplemask test bench for jss_sample_sel field Change 42247 on 2002/07/24 by ygiang@ygiang_r400_win_marlboro_p4 Update sc tests which set num_samples to 8 fixed: const VAR Change 42562 on 2002/07/25 by omesh@ma_omesh Change 42234 on 2002/07/24 by mkelly@fl_mkelly_r400_win_laptop Seperated some test conditions for testing. * Undate to JSS tests Change 42530 on 2002/07/25 by ashishs@fl_ashishs_r400_win w MSAA test verifying all 8 subsamples in basic hit tests * Update tracker * Update SC test_list CL TESTS: testing guard band clipping of edgeflags. Change 42512 on 2002/07/25 by frivas@FL FRivas Change 42207 on 2002/07/24 by fhsien@fhsien2 r400 win marlboro Added two HOS tests for precision Change 42510 on 2002/07/25 by frivas@FL FRivas Change 42202 on 2002/07/24 by fhsien@fhsien2 r400 win marlboro Initial check in of HOS precision tests. Tessellation and reuse vary from 1-14 and 4-16, Change 42137 on 2002/07/24 by mkelly@fl mkelly r400 win laptop Change 42505 on 2002/07/25 by mkelly@fl_mkelly_r400_win_laptop Page 449 of 510 Page 450 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 42134 on 2002/07/24 by mkelly@fl mkelly r400 win laptop Change 41984 on 2002/07/23 by georgev@ma georgev Change 42121 on 2002/07/24 by mkelly@fl_mkelly_r400_win_laptop Change 41983 on 2002/07/23 by smoss@smoss_crayola_win delete SII tests Change 42081 on 2002/07/23 by ashishs@fl_ashishs_r400_win Change 41939 on 2002/07/23 by ashishs@fl_ashishs_r400_win update To test guard band clipping for edgeflags The test guant own cripping or togerags

The test divides the display area in four equal planes(top,bottom,right,left)

Each plane has a specified number packets and each packet has a different setting in
accordance to edgeflag and indexing. The number of test cases in a plane can be modified and Change 42052 on 2002/07/23 by frivas@FL_FRivas Update. Removed call to "Set VGT INDEX OFFSET index offset" from code also the display area for each case is equally divided because of an update to the register set. Test parameters that can be easily controlled are:

1. DISP_X_DIM and DISP_Y_DIM

2. NUMBER OF PLANES IN X AND Y DIRECTION Change 42030 on 2002/07/23 by csampayo@fl_csampayo2_r400 3. NUMBER OF TEST CASES IN EACH PLANE Removed function Set VGT INDEX OFFSET index offset, as per, latest Primlib change Change 41905 on 2002/07/23 by ashishs@fl_ashishs_r400_win Change 42021 on 2002/07/23 by csampayo@fl_csampayo2_r400 Reverted change made for setting INDX OFFSET Change 41898 on 2002/07/23 by smoss@smoss crayola win Change 42017 on 2002/07/23 by mkelly@fl_mkelly_r400_win_laptop shortened tests Change 41849 on 2002/07/22 by ashishs@fl_ashishs_r400_win AA MASK and MAX SAMPLE DISTANCE basic functionality To test frustum clipping for edgeflags
The test divides the display area in six equal planes(near,far,top,bottom,right,left)
Each plane has a specified number packets and each packet has a different setting in Change 42015 on 2002/07/23 by ashishs@fl_ashishs_r400_win original test r400cl_frustum_edgeflags_01 having all combination of frustum plane accordance to edgeflag and indexing. The number of test cases in a plane can be modified and also the display area for each case is equally divided.

Test parameters that can be easily controlled are:

1. DISP X_DIM and DISP Y_DIM

2. NUMBER OF PLANES IN X AND Y DIRECTION clipping for edgeflags removed.

Made individual tests for each frustum plane (total 6 tests) clipping edgeflag Change 42010 on 2002/07/23 by smoss@smoss_crayola_win 3. NUMBER OF TEST CASES IN EACH PLANE Change 41822 on 2002/07/22 by mkelly@fl_mkelly_r400_win_laptop Change 42005 on 2002/07/23 by abeaudin@abeaudin_r400_win_marlboro * Rasic JSS functional coverage new rb test for multisampling * Added Plan vs. Actual graph to tracker sheet "schedule" Change 41986 on 2002/07/23 by georgev@georgev r400 linux marlboro No Change Change 41820 on 2002/07/22 by georgev@georgev_r400_linux_marlboro Page 451 of 510 Page 452 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Update to screen offset position and spacing between polygons

Change 41550 on 2002/07/19 by smoss@smoss_crayola_win Partial changes new x.v dim Change 41730 on 2002/07/22 by mkelly@fl_mkelly_r400_win_laptop Change 41547 on 2002/07/19 by fhsien@fhsien2_r400_win_marlboro Improve test description and conveyance of test purpose in the image Undate Stencil test Change 41701 on 2002/07/21 by smoss@smoss_crayola_win Change 41545 on 2002/07/19 by frivas@FL FRivas update golds Decreased the size of the output image from 256x256 to 128x128 and adjusted the Change 41624 on 2002/07/19 by csampayo@fl_csampayo2_r400 spacing of the objects being drawn Change 41488 on 2002/07/19 by mkelly@fl_mkelly_r400_win Golds for updated image size Change 41622 on 2002/07/19 by mkelly@fl_mkelly_r400_win_laptop Enable Window Offset Enable functionality in VTE Change 41449 on 2002/07/19 by vgoel@fl_vgoel2 Change 41620 on 2002/07/19 by mkelly@fl_mkelly_r400_win_laptop test file names are changes and hence old files are deleted Re-wrote JSS test to match latest SC spec
 Update test_list Change 41446 on 2002/07/19 by fhsien@fhsien2_r400_win_marlboro Update test_lis
 Update tracker minor typo Change 41606 on 2002/07/19 by frivas@FL_FRivas Change 41405 on 2002/07/18 by fhsien@fhsien2_r400_win_marlboro update to framebuffer size Update to support the new format for dump $\ensuremath{\mathbb{Z}}$ buffer Change 41596 on 2002/07/19 by llefebvr@llefebvre laptop r400 emu Change 41401 on 2002/07/18 by csampayo@fl csampayo r400 Added 4 new SU edgeflag tests
 Updated framebuffer size for 2 tests Corrected the VGT->SQ event interface. Corrected the GFX_COPY_STATE problem. Change 41591 on 2002/07/19 by fhsien@fhsien2_r400_win_marlboro 3. Updated test_list and test tracker accordingly Change 41369 on 2002/07/18 by fhsien@fhsien2_r400_win_marlboro Change 41590 on 2002/07/19 by csampayo@fl_csampayo_r400 still trying to debug Updated the following 2 tests for: switch case selector and image size respectively Change 41367 on 2002/07/18 by kevino@kevino_r400_linux_marlboro Change 41570 on 2002/07/19 by frivas@FL_FRivas Changed to only draw 64 pixels from (0,0) to (7,7) since SSQ can't do more than that Update to size of output image Change 41278 on 2002/07/18 by mkelly@fl_mkelly_r400_win_laptop Change 41563 on 2002/07/19 by frivas@FL_FRivas Update to SU SC spec. Adjusted size of output image and spacing of objects inside the image Change 41265 on 2002/07/18 by fhsien@fhsien2_r400_win_marlboro Page 453 of 510 Page 454 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change Z buffer size to 32 Change 41067 on 2002/07/17 by ashishs@fl ashishs r400 win Change 41250 on 2002/07/18 by georgev@georgev_r400_linux_marlboro This test is intended to validate the clippper processing of the edge flags for the triangle list primitive type.

Clipping with 4 UCPs is enabled and actual clipping takes place Change 41205 on 2002/07/18 by mkelly@fl mkelly r400 win The edge flags for each primitive are permuted accross all packets PA dumps on/off control for full regression scripting... Change 41051 on 2002/07/17 by ashishs@fl_ashishs_r400_win Change 41201 on 2002/07/18 by mkelly@fl mkelly r400 win lanton CL tests updated for latest spec changes When .mem_framebuf_r image is enabled for compare, a bit for bit compare takes place. The headers are ignored Change 41036 on 2002/07/17 by fhsien@fhsien_r400_linux_marlboro For RBD tests Tolerance adjustment is an option. Defaults to zero tolerance. Change 41035 on 2002/07/17 by fhsien@fhsien_r400_linux_marlboro Useage: regress_r400 -d <0-255> ADD 1st try of Stencil test If the difference is greater than the tolerance, then compare fails, Change 41034 on 2002/07/17 by ashishs@fl ashishs r400 win If tolerance is exceeded, difference is reported to "compare.log" at the output destination root directory, "\$/r400_regress/<user_timestamp>". VTE test updated according to latest reg spec Change 41183 on 2002/07/17 by csampayo@fl_csampayo_r400 Change 41003 on 2002/07/17 by csampayo@fl csampayo r400 1. Added 2 new tests to SU Updated SU test_list
 Updated test tracker accordingly Change 40950 on 2002/07/16 by csampayo@fl_csampayo_r400 Added 2 new tests to SU
 Updated test_list and test tracker Change 41146 on 2002/07/17 by mkelly@fl_mkelly_r400_win_laptop Test in progress...

Test in progress...

Change 41139 on 2002/07/17 by georgev@georgev_r400_linux_marlboro

Added new features.

Change 41112 on 2002/07/17 by smoss@smoss_crayola_win SU Tests

Change 41092 on 2002/07/17 by ygiang@ygiang_r400_win_mariboro_p4 added: sp test for hardware testing(add opcode)

Change 41083 on 2002/07/17 by ashishs@fl_ashishs_r400_win

Page 455 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 40946 on 2002/07/16 by ashishs@fl_ashishs_r400_win

VTE tests updated according to latest register specs

Change 40939 on 2002/07/16 by ashishs@fl_ashishs_r400_win

CL tests changed according to latest register specs

Change 40916 on 2002/07/16 by frivas@FL_FRivas

Update to auto index hos tests. Still aren't done yet

Change 40911 on 2002/07/16 by smoss@smoss_crayola_win

more converted tests

Page 456 of 510

Change 40907 on 2002/07/16 by vgiang@ygiang r400 win marlboro p4 Change 40792 on 2002/07/15 by fhsien@fhsien r400 linux marlboro added: pixel mask tests and removed unrelated test cases from existing tests z24 bit version of the z function test. Change 40884 on 2002/07/16 by mkelly@fl mkelly r400 win laptop Change 40771 on 2002/07/15 by csampavo@fl csampavo r400 1. Added SU test to validate provoking vertex
2. Updated SU's test_list accordingly
3. Updated the VGT test #100yet_provoking_vtx_all_01
4. Updated test tracker with status for the test: r#100su_provoking_vtx_rectangle_01 Added control to reset stipple pattern at beginning of each primitive in LINE_LIST. Change 40882 on 2002/07/16 by smoss@smoss_crayola_win Changes to polymode register and removal of serial_proc_enable Change 40743 on 2002/07/15 by frivas@FL_FRivas Change 40870 on 2002/07/16 by mkelly@fl_mkelly_r400_win_laptop Initial check in of tests that do tessellation on auto-index primitives. Force useage of DK_ROOT/bin/sh.exe to guarantee sh.exe from depot is used for Change 40707 on 2002/07/15 by fhsien@fhsien r400 linux marlbord Report "REGRESS: ERROR, failed to execute make command" if "make" is not Change r400rb_z_functions to r400rb_z16_functions succesful, but continue to next test. Change 40705 on 2002/07/15 by fhsien@fhsien r400 linux marlboro Change 40869 on 2002/07/16 by csampayo@fl_csampayo_r400 1. Updated, as per, latest register spec 2. Adjusted image size Change 40704 on 2002/07/15 by fhsien@fhsien r400 linux marlboro Change 40852 on 2002/07/16 by fhsien@fhsien_r400_linux_marlboro 1st release version of the basic 16 bit Z function test Update tests Change 40703 on 2002/07/15 by mkelly@fl mkelly r400 win laptop Change 40848 on 2002/07/16 by ygiang@ygiang_r400_win_marlboro_p4 Update for new spec added: needs to be debug, sp test "maskne" Change 40701 on 2002/07/15 by mkelly@fl mkelly r400 win laptop Change 40845 on 2002/07/16 by Iseiler@Iseiler_r400_win_marlboro2 Update for new spec. Changed Z from 5.0 to 0.5 Change 40699 on 2002/07/15 by mkelly@fl_mkelly_r400_win_laptop Change 40844 on 2002/07/16 by mkelly@fl_mkelly_r400_win_laptop Update to new spec. Change 40677 on 2002/07/15 by abeaudin@abeaudin_r400_win_marlboro Change 40843 on 2002/07/16 by csampayo@fl_csampayo_r400 added rop3 and color format support to the RB Change 40663 on 2002/07/15 by mkelly@fl mkelly r400 win laptop Change 40841 on 2002/07/16 by mkelly@fl mkelly r400 win laptop Spec. Update ... Change 40649 on 2002/07/15 by mkelly@fl_mkelly_r400_win_laptop Update Page 457 of 510 Page 458 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 40073 on 2002/07/12 by frivas@FL FRivas Spec. Update.. Change 40625 on 2002/07/15 by frivas@FL_FRivas Updates to code to reflect changes made to the PA/SU/SC register sets. Change 40051 on 2002/07/12 by mkelly@fl_mkelly_r400_win_laptop updated shaders to version 2.0 Change 40579 on 2002/07/15 by mkelly@fl mkelly r400 win laptop Update due to spec. change... Update with new pa dump control Change 40031 on 2002/07/12 by csampayo@fl_csampayo2_r400 Change 40551 on 2002/07/15 by mkelly@fl_mkelly_r400_win_laptop Updated to correct swap modes Update to latest spec. Change 40030 on 2002/07/12 by kevino@kevino_r400_win_marlboro Change 40477 on 2002/07/14 by fhsien@fhsien r400 linux marlboro Only have w !=1.0 at one corner Change 40027 on 2002/07/12 by kevino@kevino_r400_win_marlboro Update for save keeping Change 40222 on 2002/07/12 by ctaylor@fl ctaylor r400 win marlbore Just another try at PC Fix bug in SC with RECTANGLE_LIST reference vertex assignment Change line_stipple auto_reset_enable field to 2-bit auto_reset_entl field. Regoldenize r400vgt_index_size_01 results as RECTANGLE_LIST fix affected this Change 40012 on 2002/07/12 by llefebvr@llefebvre_laptop_r400_emu corrected sq tests to enable z writes.. Change 40008 on 2002/07/12 by mkelly@fl mkelly r400 win laptop Change 40140 on 2002/07/12 by csampayo@fl_csampayo2_r400 Update for new spec. change Updated per latest register spec Change 40005 on 2002/07/12 by kevino@kevino r400 win marlboro Change 40123 on 2002/07/12 by frivas@FL FRivas make shader filenames strings throughout.
update shader program to (hopefully) mult ST by 1/W Changed display size of image to 256x256. Change 40107 on 2002/07/12 by csampayo@fl_csampayo2_r400 Change 39999 on 2002/07/12 by kevino@kevino_r400_win_marlboro Updated per latest register spec Updated the test to include a couple of basic mip tests and a 1st attempt at a persp correction test Change 40102 on 2002/07/12 by csampayo@fl_csampayo2_r400 Added shader progs for these Updated for swap correction Change 39986 on 2002/07/12 by llefebvr@llefebvre_laptop_r400_emu Change 40095 on 2002/07/12 by mkelly@fl mkelly r400 win laptop enable z write enable.. Change 39957 on 2002/07/12 by llefebvr@llefebvre_laptop_r400_emu Update due to spec. change. Change 40076 on 2002/07/12 by llefebvr@llefebvre laptop r400 emu new simple objects for SQ testing. again some Z related fixes in SQ tests Change 39944 on 2002/07/12 by llefebvr@llefebvre_laptop_r400_emu Page 459 of 510 Page 460 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

corrected tests to include Orlando's changes to the PA/SC registers.

Change 39867 on 2002/07/11 by kryan@kryan_r400_win_marlboro

- Fixed type in CHANNEL B SHIFT for little endian platforms
- causing compilation error on these platforms.
- Also moved all platform specific constants to top of file

- Undated PrimLib header include files to use new

Change 39864 on 2002/07/11 by kryan@kryan_r400_sun_marlboro

Made edits to test to try to resolve the differences between the golden images and the new dump files created.

Made changes to platform dependent values based on endianess of platform architecture. Namely this was the texture color unit32 definitions, the channel mask definitions, and the channel shift values which depend on the platform architecture.

*** Note this resolved most of the differences between the new Emulator images and the golden images. But there are still some small difference of +/- 2 in some of the channels for a few pixels. I will leave this to the original test author to further debug these small differences which might be easier if some of the features of the test can be disabled.

Change 39835 on 2002/07/11 by omesh@ma omesh

Added 11 testcases for the Color Combination testing. Visually verified the result of 5 testcases (non random case:

Also corrected a typo in a comment in the earlier Color Destination tests.

Change 39796 on 2002/07/11 by csampavo@fl csampavo lt r400

Updated per latest register definitions

Change 39792 on 2002/07/11 by omesh@ma_omesh

Page 461 of 510

Ex. 2052 --- R400 Testing FH --- foler history

Added the Color Destination path tests which are almost a mirror of the Color Source path tests. These are another 31 testcases, 16 of which are randomized versions. I have visually verified the results of the non-randomized testcases (15 testcases).

Also made a minor bug fix to the earlier Color Source path tests to include Alpha blending programming of the destination path (Destination Alpha is also used in some Color Source blending modes)

Also cleaned up code and added comments

Change 39781 on 2002/07/11 by mkelly@fl mkelly r400 win laptop

Update for new SC/SU blk changes

Change 39777 on 2002/07/11 by jhoule@jhoule_r400_win_marlboro

Moved functions into a TUtil class (tutils. {h|cpp}).

Updated Crayel to have utility functions for setting conversion functions (easier than specifying all the field stuff).

Updated Makefile (new files added, old files removed).

Added TPBlender class to isolate blending operations.

Modified TexturePipe class to use it (workaround for weird dynamic alloc of TPBlender, ended up using compiler-allocated instance instead of using new)

r400tp_test.cpp: easier texture load modif, activated bilin mag by default.

Change 39764 on 2002/07/11 by georgev@ma_georgev

Change 39741 on 2002/07/11 by abeaudin@abeaudin r400 win marlboro

new tests for color blending

Change 39738 on 2002/07/11 by abeaudin@abeaudin r400 win marlboro

blender format tests

Change 39730 on 2002/07/11 by llefebvr@llefebvre_laptop_r400_emu

Fixed the ende test to acheive the correct behaviour

Change 39724 on 2002/07/11 by georgev@georgev_r400_linux_marlboro

Added negated predicates.

Change 39723 on 2002/07/11 by abeaudin@abeaudin r400 win marlboro

blender format test for uint8

Change 39719 on 2002/07/11 by ygiang@ygiang_r400_win_marlboro_p4

Page 462 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

added: shadder test needs to be debug

Change 39699 on 2002/07/11 by llefebvr@llefebvre_laptop_r400_emu

simple obj is not rendering anything.

Change 39688 on 2002/07/11 by abeaudin@abeaudin r400 win marlboro

new pixel shader for unsigned 8 bit int

Change 39681 on 2002/07/11 by llefebvr@llefebvre laptop r400 emu

corrected some of the SQ tests to use Zbuffering

Change 39669 on 2002/07/11 by georgev@ma_georgev

Fixed changed registers

Change 39666 on 2002/07/11 by georgev@georgev r400 linux mariboro

Fixed bad changed RB registers

Change 39638 on 2002/07/11 by smoss@smoss_crayola_win

New tests

Change 39577 on 2002/07/10 by smoss@smoss_crayola_win

changed xv

Change 39559 on 2002/07/10 by ctaylor@fl_ctaylor_r400_win_marlboro

Changed PA/SU/SC register sets as follows:

A substantial number of changes has been made to the R400 PA/SU/SC register set in

1) Requested additions of functionality (2nd scissor rect, cliprect enable,

window offset enable, etc)

2) Rearrangement of register fields for better driver use 3) Architecture changes to the Antialiasing POR for R400

The register changes are as follows: The cases where there are new or deleted registers are highlighted in bold.

REMOVED PA_SC_MSAA_2X2_OFFSET as this functionality no longer supported under new R400 An plan.

REMOVED PA_SC_AA_OFFSET_TBL_0-3 as this functionality has changed under

new R400 AA plan.
ADDED PA_SC_AA_JSS_SAMPLE_SEL_0 & 1 as this functionality has changed under new R400 AA plan

Page 463 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Removed PATTERN_START field from PA_SC_LINE_STIPPLE as this is redundant with CURRENT_PTR in PA_SC_LINE_STIPPLE_STATE
Moved PA_SC_LINE_STIPPLE_STATE outside of GFXDEC space as this is now a non-context register (requires flush to read/write).

Removed DRAW_ZERO_LENGTH_LINE field from PA_SC_LINE_CNTL as this was added to support what has since been determined to be a bug in R100-R300.

REMOVED PA_SC_CNTL.OUTPUT_SCREEN_XY to SQ_CONTEXT_MISC register.

Moved PA_SC_CNTL.OUTPUT_SCREEN_XY to SQ_CONTEXT_MISC register.

Moved PA_SU_SC_NTL.OUTPUT_SCREEN_XY to SQ_CONTEXT_MISC register.

Moved PA_SU_SC_MODE_CNTL

REMOVED PA_SU_SC_MODE_CNTL

REMOVED PA_SU_POLY_OFFSET_ENABLE, PA_SU_POLY_MODE,

PA_SU_CILL_MODE, all fields moved to PA_SU_SC_MODE_CNTL

ADDED PA_SU_SC_MODE_CNTL as above.

Moved PERSP_CORR_DIS field from PA_SU_VTX_CNTL to

PA_SU_SC_MODE_CNTL

Moved MSAA_ENABLE from PA_SC_AA_CONFIG to PA_SU_SC_MODE_CNTL as it may be more frequently changing.

it may be more frequently changing.

Removed Line, AA, Enable and Point, AA, Enable fields from PA_SC_AA_CONFIG as this can be controlled via MSAA, ENABLE field.

BOUNDARY_EDGE_FLAG_ENA marked as unused, but preserved pending further

investigation.

Removed SERIAL_PROC_ENA bit from PA_CL_VTE_CNTL as this bit no longer

functional.

Added VTX_KILL_OR field to PA_CL_CLIP_CNTL register for Vertex Shader Export

Kill Flag Control.

Moved LINE_STIPPLE_ENABLE from PA_SC_CNTL to PA_SU_SC_MODE_CNTL
Removed SCISSOR_ENABLE as the scissors can be disabled by setting xmin, ymin to 0 and xmax, ymax to 8K.

Added VTX WINDOW OFFSET ENABLE, and CLIPRECT ENABLE to

Added VTX_WINDOW_OFFSET_ENABLE, and CLIPRECT_ENABLE to PA_SU_SC_MODE_CNIL.

ADDED PA_SC_SCREEN_SCISSOR_TL / BR registers. Moved PA_SC_CLIPRECT_e down in address space to accomodate in SubBlock B Renamed PA_SC_SCISSOR_* to PA_SC_WINDOW_SCISSOR as this scissor will have window offset conditionally added.

Added WINDOW_OFFSET_DISABLE to PA_SC_WINDOW_SCISSOR register to allow non-offset scissor.

Moved EXPAND_LINE_WIDTH field from PA_SC_AA_CONFIG to PA_SC_URLE_CNIL.

PA_SC_LINE_CNTL.

Change 39555 on 2002/07/10 by omesh@ma_omesh

Added the random test cases for each standard test case and also added an overall random case for the entire series in this file.

Change 39512 on 2002/07/10 by ygiang@ygiang_r400_win_marlboro_p4

fixed: sp test name

Page 464 of 510

Change 39508 on 2002/07/10 by ygiang@ygiang_r400_win_marlboro_p4 Change 39299 on 2002/07/10 by mkelly@fl mkelly r400 win laptop added: pixel shader tests Log for investigation. Change 39504 on 2002/07/10 by omesh@ma_omesh Change 39220 on 2002/07/09 by csampavo@fl csampavo r400 Added the limit testing version of the Color Source blending tests. Visually verified results of all 15 tests. One of the modes, GL_ONE_MINUS_DST_COLOR seems to render a suspiciously colored triangle, but I will later confirm if the result is wrong. Added 1 test to SU suite
 Updated test_list accordingly
 Updated relevant status on the test tracker In these tests, need to: Clean up and comment code.
 Add randomized test case versions of these tests, to yield another 15 test cases. Change 39160 on 2002/07/09 by fhsien@fhsien r400 linux marlboro Add the r400rb z functions Change 39467 on 2002/07/10 by mkelly@fl_mkelly_r400_win Change 39158 on 2002/07/09 by fhsien@fhsien_r400_linux_marlboro Update with dumps for clock sim Change 39440 on 2002/07/10 by georgev@georgev_r400_linux_marlboro Change 39124 on 2002/07/09 by ygiang@ygiang r400 win marlboro p4 Followed new syntax of predicate "P =" to register added: shader test for debug Change 39435 on 2002/07/10 by mkelly@fl_mkelly_r400_win_laptop Change 39084 on 2002/07/09 by csampayo@fl csampayo r400 Re-wrote test to include texture... Added 7 new VGT edge flags tests
 Updated test_list accordingly Change 39379 on 2002/07/10 by georgev@ma_georgev Change 39079 on 2002/07/09 by frivas@FL FRivas First revision in new directory. Change 39376 on 2002/07/10 by georgev@ma_georgev Update to starting tessellation level (changed from 0 to 1). Change 39062 on 2002/07/09 by mkelly@fl mkelly r400 win laptop No change. Change 39375 on 2002/07/10 by georgev@ma_georgev VFD Edge flag support for Constant to EX1 operation with example test. Change 39007 on 2002/07/09 by mkelly@fl_mkelly_r400_win Before changes. Change 39373 on 2002/07/10 by georgev@ma_georgev Update Moved to a new directory. Change 39006 on 2002/07/09 by mkelly@fl_mkelly_r400_win Change 39347 on 2002/07/10 by smoss@smoss_crayola_win Undate with latest tests Change 38991 on 2002/07/09 by smoss@smoss_crayola_win Change 39331 on 2002/07/10 by smoss@smoss crayola win Change 38987 on 2002/07/09 by smoss@smoss_crayola_win SU Tests Page 465 of 510 Page 466 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Add -z option for zipping output when compare is complete, this is really only useful for full regressions. updated gold Change 38786 on 2002/07/08 by csampayo@fl_csampayo_r400 Change 37886 on 2002/07/03 by kevino@kevino_r400_win_marlboro 1. Adding 3 SU provoking vertex tests. Basic texture test to hit different filtering cases. 2. Update test list accordingly Change 37877 on 2002/07/03 by kevino@kevino r400 linux marlboro Change 38762 on 2002/07/08 by frivas@FL_FRivas Just another ppm to play around with as a texture Update to starting tessellation level (changed from 0.99 to 1.99) Change 37866 on 2002/07/03 by omesh@ma omesh Change 38753 on 2002/07/08 by abeaudin@abeaudin_r400_win_marlboro Since destination (color/alpha) programming tests are a mirror of the source (color/alpha) programming tests, forgot to also mirror the input numbers to the muxes corresponding to the added 28 rop3 functions to blender mirrored blending modes. Fixed this in these tests and verified result visually with the emulator Change 38653 on 2002/07/08 by mkelly@fl_mkelly_r400_win_laptop Change 37852 on 2002/07/03 by mkelly@fl_mkelly_r400_win_laptop Update to sanity tests for including in full regression.. Good test for basic checks of sequence/scan conversion/shader operation... Change 38646 on 2002/07/08 by mkelly@fl_mkelly_r400_win_laptop Change 37824 on 2002/07/03 by smoss@smoss_crayola_win VFD Edge Flag implementation example.. Change 38415 on 2002/07/05 by omesh@ma omesh Change 37814 on 2002/07/03 by mdoggett@mdoggett_r400_linux_marlboro Added the same original vertex and pixel shader (that doesn't process alpha) that originally existed, so Frank can use this in his Z tests and ignore all alpha related programming Texture Cache simple texture and dxtc1 tests Change 37783 on 2002/07/03 by mkelly@fl_mkelly_r400_win_laptop Change 38347 on 2002/07/05 by mkelly@fl_mkelly_r400_win_laptop VFD edge flag support and example, note: waiting on bug fix in ccgen.cpp to be checked Change 37782 on 2002/07/03 by mkelly@fl_mkelly_r400_win_laptop Change 38260 on 2002/07/05 by dclifton@dclifton_r400 SC Baryc tests.. Added clippabc.dmp Change 37753 on 2002/07/02 by csampayo@fl csampayo2 r400 1. Changed vertex data so, that, each vertex has a different color 2. Changed display settings Change 38247 on 2002/07/05 by mkelly@fl_mkelly_r400_win Change 37742 on 2002/07/02 by csampayo@fl csampayo r400 Change 37893 on 2002/07/03 by mkelly@fl_mkelly_r400_win_laptop Updates:
1. Updated description/status for the following tests in the tracker Enable a third triangle.. r400vgt_provoking_vtx_all_01 2. Sorted test_list r400vgt_hos_cubic_pos_pnt_discrete_01 Change 37892 on 2002/07/03 by mkelly@fl_mkelly_r400_win_laptop Page 468 of 510 Page 467 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 37703 on 2002/07/02 by csampayo@fl_csampayo2_r400 Change 37477 on 2002/07/01 by csampayo@fl_csampayo_r400 Updated test as follows: Changed tessellation range to 1 thru 14 Changed number of cases to 14 1. Updated the display size, test description and other minor test format changes for the r400vgt dma swap indx16 01.cpp 3. Change packet scale and rotation r400vgt_dma_swap_indx32_01.cpp Change 37615 on 2002/07/02 by ashishs@fl_ashishs_r400_win 2. Updated the tests descriptions on the test tracker for above tests updated for pitch%32 3. Deleted the following test from the test tracker and adjusted Change 37611 on 2002/07/02 by frivas@FL FRivas r400vgt_hos_PNQ_lp_ln_cont_13_16_texture_lighting_projection.cpp Added two new HOS PNL tests Change 37466 on 2002/07/01 by csampayo@fl csampayo r400 Change 37604 on 2002/07/02 by frivas@FL FRivas Regoldenize test since, tessellation level had to be changed to be between 1 and 15 inclusive. Also, adjusted packet scaling (SCALE_X,SCALE_Y) Change 37575 on 2002/07/02 by mkelly@fl_mkelly_r400_win_laptop Change 37447 on 2002/07/01 by hartogs@fl hartogs2 Added option -s which will find your current sync and stamp it on the output directory. By default, it will not determine your latest client sync. Added required renderstate VGT_GRP_VECT_1_CNTL to these tests. Change 37444 on 2002/07/01 by hartogs@fl hartogs2 In the default mode, the output directory will be stamped by user name in the format Changed test to use discrete range from 1 to 14 instead of 0 to 14. <user>_<time_stamp If -s is used, the output directory will be in the format <sync#>_<time_stamp>. Change 37437 on 2002/07/01 by mkelly@fl_mkelly_r400_win_laptop Script will die in full regression mode if test list does not exist. Temporarily commment out zbuffer tests Format output files slightly different to work with Internal web scripts. Change 37435 on 2002/07/01 by mkelly@fl_mkelly_r400_win_laptop Change 37553 on 2002/07/02 by fhsien@fhsien r400 linux marlboro Comment out ucp combos temporarily. Change 37434 on 2002/07/01 by mkelly@fl_mkelly_r400_win_laptop Change 37502 on 2002/07/01 by jhoule@jhoule_r400_win_marlboro Update Simple interface to texture loading problem.

Created TEXTURE_MANAGER class for Primlib. Change 37429 on 2002/07/01 by ashishs@fl_ashishs_r400_win Update r400tp test.cpp to call the new routines. update Added deallocate to UberChain. Changed default format from INT to RF in TFetchConst.

NOTE: delayed change of tiling for now (broke regression). Change 37425 on 2002/07/01 by ashishs@fl_ashishs_r400_win VTE test to validate the VTX_W0_FMT control register Change 37479 on 2002/07/01 by csampayo@fl_csampayo_r400 Change 37397 on 2002/07/01 by mkelly@fl mkelly r400 win laptop Deleted test since, no longer valid Page 470 of 510 Page 469 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 37174 on 2002/06/28 by csampayo@fl csampayo r400 Change 37396 on 2002/07/01 by mkelly@fl_mkelly_r400_win_laptop Added the following new VGT tests and updated test tracker and test_list. Change 37136 on 2002/06/28 by omesh@ma_omesh Change 37387 on 2002/07/01 by hartogs@fl_hartogs Included a higher level priml ib headerfile instead of the lower level ones, to clean up Modification to cause the VGT to check for required renderstate before using it. If the required renderstate has never been written, then the VGT prints a message to Change 37100 on 2002/06/28 by omesh@ma omesh stderr and asserts. Added required renderstate to two tests: r400vgt hos PNT cp_qn_disc_14_04_lit_tex_proj_01.cpp and r400vgt hos cubic_pos_pnt_discrete_01.cpp. Added required renderstate These shaders are no longer used by RB tests, as the vertex shader does not pass through alpha.... So, all RB tests are assumed to use a shader that passes through alpha, and hence these shaders are no longer needed, so I'm deleting them (after verifying that none of the *cpp test VGT.VGT_VERTEX_REUSE_BLOCK_CNTL.VTX_REUSE_DEPTH to the init routine of files in this rb directory use them). The correct vertex/pixel shader pair to use is "rb_blender_emu_*.sp' Change 37377 on 2002/07/01 by mkelly@fl_mkelly_r400_win_laptop Change 37089 on 2002/06/28 by omesh@ma_omesh Update. Changed shader (vertex) to also pass through alpha for these tests. Also fixed some bugs At this point I have tested almost all of the 70 testcases with the RB emulator and the results look visually correct. Change 37373 on 2002/07/01 by csampayo@fl_csampayo2_r400 Change 36955 on 2002/06/27 by omesh@ma omesh update Change 37372 on 2002/07/01 by mkelly@fl_mkelly_r400_win_laptop Added alpha programming to vertex buffer. This is obviously needed for color/alpha blending tests, but I had overlooked it earlier. I also need to modify the vertex/pixel shaders to Update comments in test export (and pass through) alpha from triangle vertices. The current vertex/pixel shaders only pass through R.G.B. Change 37352 on 2002/07/01 by smoss@smoss_crayola_win Change 36943 on 2002/06/27 by abeaudin@abeaudin_r400_win_marlboro I changed the blender and there were accountable one bit differences in golden images. Change 37336 on 2002/07/01 by ashishs@fl_ashishs_r400_win Change 36941 on 2002/06/27 by abeaudin@abeaudin_r400_win_marlboro Update for pitch%32 added color and alpha blending functions to the rb Change 37333 on 2002/06/30 by ashishs@fl_ashishs_r400_win Change 36860 on 2002/06/27 by kryan@kryan_r400_win_marlboro Update for pitch%32 Change 37197 on 2002/06/28 by csampayo@fl csampayo r400 - Created new class SURFACE that is a generic surface to contain

Updates. Some had bad index counts, others bad pix/vtx shader names, others both.

Page 471 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 37181 on 2002/06/28 by csampayo@fl csampayo r400

Various updates

Ex. 2052 --- R400 Testing FH ---foler_history

all the properties associated with a surface such as pitch, height,

Page 472 of 510

SurfaceFormat, etc.

PIXEL SURFACE

- Created new class $\ensuremath{\mathsf{PIXEL_SURFACE}}$ to represent surfaces that store data on per-pixel basis. This has the necessary knowledge of how to calculate the element size and datasize for this surface needed to call Larry's address routines. Still in progress.

MEMORY_AREA

- Modified old Fill_Data() function to call new tiled Fill functions by default in LINEAR mode (only for ARGB8888 pixel Types). This is the first step in converting tests to use the new tiled functions and have the emulator and hardware both operate in tiled mode by default. For now the Emulator will default to LINEAR mode, and the Fill Data() routines will call the new tiled fill routines in LINEAR mode

- Added legacy mode argument to old Fill Data(..., bool legacy mode = false) to support cp_simple_triangle.cpp test that uses the Fill_Data() function to write the VertexBuffers to memory

chip/gfx/cp/cp simple test.cpp

- Modified to use legacy mode of old Fill_Data() routines since it was decided that in having the old Fill_Data() functions call the new tiling fill routines, this would only be supported for ARGB8888

Change 36838 on 2002/06/27 by csampayo@fl_csampayo_r400

Change 36837 on 2002/06/27 by csampayo@fl_csampayo_r400

Page 473 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Added new VGT tests

Change 36836 on 2002/06/27 by mkelly@fl_mkelly_r400_win_laptop

Perspective-Correct barvcentric coordinate interpolation simple tests verifying combos of ref v0 locati

Change 36611 on 2002/06/26 by csampayo@fl_csampayo2_r400

Update

Change 36609 on 2002/06/26 by csampayo@fl_csampayo_r400

New VGT test

Change 36580 on 2002/06/26 by csampayo@fl_csampayo_r400

Update for pitch%32

Change 36577 on 2002/06/26 by smoss@smoss crayola win

Change 36576 on 2002/06/26 by hartogs@fl hartogs2

Added two VGT DMA dump files

Change 36563 on 2002/06/26 by frivas@FL FRivas

deleted test because it is redundant now, there are other tests that are more complete

Change 36541 on 2002/06/26 by csampayo@fl_csampayo_r400

Updated for pitch%32

Change 36540 on 2002/06/26 by csampayo@fl_csampayo2_r400

Updated and sorted.

Change 36528 on 2002/06/26 by frivas@FL FRivas

Change 36491 on 2002/06/26 by ygiang@ygiang_r400_win_marlboro_p4

updated: Makefile for sp tests

Change 36489 on 2002/06/26 by abeaudin@abeaudin_r400_win_marlboro

Page 474 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

new shaders for blenders

Change 36369 on 2002/06/26 by smoss@smoss_crayola_win

SU Tests and gold updates

Change 36305 on 2002/06/25 by csampayo@fl csampayo r400

Change 36303 on 2002/06/25 by csampayo@fl_csampayo_r400

Added new VGT tests

Change 36274 on 2002/06/25 by ashishs@fl ashishs r400 win

update

Change 36267 on 2002/06/25 by ashishs@fl_ashishs_r400_win

CL tests: Converted from R200 Vertex position combinations tested against frustum clipping for lines

Change 36165 on 2002/06/25 by jhoule@jhoule r400 win marlboro

SurfaceFormat changed to ColorFormat.

Change 36116 on 2002/06/25 by frivas@FL_FRivas

Added more HOS tests to test list

Change 36081 on 2002/06/25 by mkelly@fl_mkelly_r400_win

Update

Change 36080 on 2002/06/25 by mkelly@fl_mkelly_r400_win

Buezilla #242

Change 35950 on 2002/06/24 by csampayo@fl_csampayo_r400

Update

Change 35945 on 2002/06/24 by csampayo@fl_csampayo_r400

Adding new VGT tests

Change 35828 on 2002/06/24 by frivas@FL FRivas

Page 475 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Initial check in of HOS PNQ test with a single PNQ using continuous tessellation varying between 1.0-14.0 with reuse 4-16. Lighting is implemented

Change 35827 on 2002/06/24 by frivas@FL_FRivas

Updated descriptions in the comments and model's offset from the origin.

Change 35819 on 2002/06/24 by frivas@FL_FRivas

Initial check in of HOS PNQ test. Has 4 PNQ's that are computed with lighting and texturing using orthographic projection. Tessellation level varies between 1.99-14.99 and reuse varies between 4-16.

Change 35808 on 2002/06/24 by frivas@FL_FRivas

Initial check in of HOS PNQ test. Has 4 PNQ's that have lighting and texturing with orthographic projection. Tessellation varies from 1.0-14.0 and reuse varies from 4-16.

Change 35741 on 2002/06/24 by mkelly@fl mkelly r400 win laptop

Change 35645 on 2002/06/21 by ashishs@fl_ashishs_r400_win

update to test list for CL

Change 35640 on 2002/06/21 by csampayo@fl_csampayo_r400

Change 35638 on 2002/06/21 by ashishs@fl_ashishs_r400_win

CL tests: Vertex position combinations tested against frustum clipping.

Change 35618 on 2002/06/21 by frivas@FL_FRivas

Initial check in of HOS PNQ that uses continuous tessellation that varies between 1.0-14.0 and reuse 4-16 with orthographic projection. Displays as wireframe model

Change 35617 on 2002/06/21 by frivas@FL_FRivas

update to HOS PNT tests

Change 35540 on 2002/06/21 by mkelly@fl_mkelly_r400_win_laptop

UCP combos on polymode line and line stipple

Change 35523 on 2002/06/21 by abeaudin@abeaudin_r400_win_marlboro

Page 476 of 510

rename test

Change 35521 on 2002/06/21 by abeaudin@abeaudin_r400_win_marlboro

blender test for emu

Change 35518 on 2002/06/21 by csampayo@fl_csampayo2_r400

Updates

Change 35508 on 2002/06/21 by mkelly@fl mkelly r400 win laptop

Change 35503 on 2002/06/21 by csampayo@fl_csampayo_r400

Change 35490 on 2002/06/21 by mkelly@fl mkelly r400 win laptop

Submit for investigation..

Change 35484 on 2002/06/21 by llefebyr@llefebyre laptop r400 emu

Predication optimization problem fixed in Sq

Change 35483 on 2002/06/21 by omesh@ma_omesh

Removed all the #include "mem_class.h" lines. Looks like that header file doesn't exist anymore and was absorbed into some other headerfile, as the test code compiles and runs even without this.

Change 35474 on 2002/06/21 by mkelly@fl_mkelly_r400_win_laptop

Change 35358 on 2002/06/20 by mkelly@fl_mkelly_r400_win

 $\label{thm:continuous} Up date, removed "debug" text from emulate time displayed at each test interval. \ Enabled extra options for web publishing.$

Change 35337 on 2002/06/20 by ashishs@fl_ashishs_r400_win

Change 35317 on 2002/06/20 by mkelly@fl_mkelly_r400_win_laptop

Basic stipple triangle and polygon tests

Page 477 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 35313 on 2002/06/20 by llefebvr@llefebvre laptop r400 emu

Environement map tests..

Change 35288 on 2002/06/20 by ashishs@fl ashishs r400 win

Change 35245 on 2002/06/20 by ashishs@fl_ashishs_r400_win

CL tests Converted from R200. :Vertex position combinations tested against frustum clipping

Change 35242 on 2002/06/20 by mkelly@fl mkelly r400 win laptop

adding potential bug for record

Change 35203 on 2002/06/20 by mkelly@fl_mkelly_r400_win_laptop

Update gold for clamped color export

Change 35193 on 2002/06/20 by csampayo@fl_csampayo2_r400

Undate per last VFD change

Change 35177 on 2002/06/20 by omesh@ma omesh

Added some more color/alpha combination tests that were lying around on my client. Will later clean up all the extraneous and generic comments and add my own, more focussed functional comments.

Still have to verify that all these basic tests:

1) Program only the parameters being tested which change the output 1) Fing an only one parameter sound season with change on output.
2) Don't leave any registers which affect the output (not being tested) to be uninitialized... This would produce a mismatch between the simulator and emulator even for outputs we don't care about and would waste time in debugging.
Also included these 2 test files in the Makefile.

Change 35162 on 2002/06/20 by ashishs@fl ashishs r400 win

Change 35154 on 2002/06/20 by ashishs@fl_ashishs_r400_win

Features Tested: clip planes Test Purpose:creates 10 vertices from 7 clip planes

Change 35150 on 2002/06/20 by jhoule@jhoule_r400_win_marlboro

Page 478 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Removed old texture loading functions

Change 35149 on 2002/06/20 by jhoule@jhoule_r400_win_marlboro

Skeleton for texture tests Currently does a textured quad Inspired from primlib_template_*, but split in functions.

Change 35105 on 2002/06/20 by llefebvr@llefebvre_laptop_r400_emu

corrected the sq tests to use the new primlib include

Change 35078 on 2002/06/19 by csampayo@fl_csampayo2_r400

Corrected number of indices to always be at least 2. Change 35076 on 2002/06/19 by csampayo@fl_csampayo_r400

Added new DMA specific VGT tests. Updated test_list correspondinly.

Change 35065 on 2002/06/19 by omesh@ma omesh

Adding my locally existing (for many days!) alpha source/destination blending basic tests

These tests are 15 tests each which are mirror tests, just like the color blending tests With source and destination alpha programming interchanged in the 2 sets. When Alicia finishes the alpha blending in the emulator, I have asked her to inform me, so I can run these tests.

Change 34998 on 2002/06/19 by mkelly@fl mkelly r400 win laptop

Change 34953 on 2002/06/19 by mkelly@fl_mkelly_r400_win_laptop

Update to include control of Z_WRITE_ENABLE and ZFUNC... awaiting support updates to RB emu_lib...

Change 34779 on 2002/06/18 by mkelly@fl mkelly r400 win laptop

Change 34719 on 2002/06/18 by mkelly@fl_mkelly_r400_win_laptop

More zbuffer tests, although still need to be revisted when there is higer confidence in zbuffer functionality

Change 34713 on 2002/06/18 by frivas@FL FRivas

Page 479 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Initial check in of HOS PNL tests for 4 PNL's using both cubic and linear position with orthographic projection

Change 34712 on 2002/06/18 by frivas@FL FRivas

Change 34711 on 2002/06/18 by frivas@FL FRivas

Change 34710 on 2002/06/18 by frivas@FL FRivas

updates

Change 34663 on 2002/06/18 by smoss@smoss crayola win

fixed build error

Change 34658 on 2002/06/18 by mkelly@fl mkelly r400 win laptop

SC zbuffer (RCC) interface tests

Change 34589 on 2002/06/17 by omesh@ma_omesh

Added a mirror (symmetrical test case) of r400rb_basic_color_source.cpp Simply interchanged source and destination color/alpha programming and expecting mirrored results.

Change 34574 on 2002/06/17 by frivas@FL FRivas

Minor update to scaling

Change 34544 on 2002/06/17 by omesh@ma omesh

Added a typical structure of a basic color blending test I have been playing around with for several days (and its corresponding inclusion in the Makefile). This uses 2 triangles rendered one on top of the other. The first triangle programs the destination buffer color and the second one is the real test, which programs the source triangle color (and is supposed to blend with the previous one in a specified way). I reuse most of the pointers and render state settings for the 2nd triangle from the 1st.

Change 34537 on 2002/06/17 by frivas@FL FRivas

Initial check in of HOS PNL test. Uses 4 PNL's and does continuous tessellation at levels varying between 1.0-14.0 with reuse 4-16.

Change 34529 on 2002/06/17 by frivas@FL FRivas

Page 480 of 510

Initial check in of HOS PNL test. Uses continuous tessellation of 4 PNL's. Uses cubic position and linear normal.

Change 34520 on 2002/06/17 by ashishs@fl_ashishs_r400_win updated the pixel centers in the test

Initial check in of HOS PNT that uses discrete tessellation and cubic postion and quadratic normal interpolation. Renders multi PNT's with lighting and texturing using orthographic projection.

Change 34510 on 2002/06/17 by frivas@FL FRivas

Change 34516 on 2002/06/17 by frivas@FL_FRivas

Initial check in of HOS PNT test with single PNT using discrete tessellation varying from 1-14 and reuse 4-16. Uses orthographic projection.

Change 34501 on 2002/06/17 by frivas@FL_FRivas

Initial check in of HOS PNT test with single PNT using cubic position and quadratic normal interpolation with tessellation level varying between 1.0-16.0 and reuse varying between 4-16. Uses orthographic projection and lighting.

Change 34498 on 2002/06/17 by mkelly@fl_mkelly_r400_win_laptop

Test SC rectangle list vertex order interpretation...

Change 34492 on 2002/06/17 by frivas@FL_FRivas

Initial check in of HOS PNT test that uses only a single PNT in wireframe mode. Impelements lighting. Tessellation 1.0-14.0 and reuse 4-16. Uses orthographic projection.

Change 34486 on 2002/06/17 by frivas@FL FRivas

Initial check in of a HOS multi PNT test with lighting, texturing and the ability to toggle between orthographic and perspective projection. Tessellation level varies between 1.1-14.1 and reuse varies between 4.16.

Change 34480 on 2002/06/17 by frivas@FL_FRivas

Initial check in for continuous tesselltaion PNT HOS test using lighting, and texturing with orthographic projection. Uses cubic position and quadratic normal interplation. You can toggle between orthographic and perspective projection. Tessilation ranges from 1.99-14.99 and reuse from 4-16.

Change 34455 on 2002/06/17 by frivas@FL FRivas

Initial check in of HOS PNT test that changes the orientation of normals

Page 481 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 34449 on 2002/06/17 by frivas@FL FRivas

HOS test with multi PNT's that does lighting and texturing while varying both tessellation level (1.0-14.0) and reuse level (4-16). Uses continuous tessellation, cubic position and quadratic normal with orthographic projection. Perspective projection may be togeled on.

Change 34368 on 2002/06/16 by ashishs@fl_ashishs_r400_win

VTE Test:

Update (XYZ)SCALE without updating (XYZ)OFFSET between packets and vice-versa.

Change 34342 on 2002/06/15 by ashishs@fl_ashishs_r400_win

Enable (XYZ)SCALE without enabling (XYZ)OFFSET and vice-versa. The test sends 2 packets, each packet with 2 vertex data for checking VPORT {MIYZ} SCALE ENA registers and VPORT {MIYZ} OFFSET_ENA registers.

Change 34267 on 2002/06/14 by mkelly@fl_mkelly_r400_win_laptop

Update

Change 34266 on 2002/06/14 by mkelly@fl_mkelly_r400_win_laptop

First line stipple tests...

Change 34201 on 2002/06/14 by mkelly@fl_mkelly_r400_win

Update

Change 34175 on 2002/06/14 by mkelly@fl_mkelly_r400_win_laptop

Update

Change 34164 on 2002/06/14 by csampayo@fl_csampayo_r400

Golds for updated test

Change 34162 on 2002/06/14 by csampayo@fl_csampayo_r400

Update

Change 34070 on 2002/06/14 by mkelly@fl_mkelly_r400_win_laptop

Undate.

Change 34064 on 2002/06/14 by mkelly@fl mkelly r400 win laptop

Update...

Page 482 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 33912 on 2002/06/13 by kmahler@kmahler r400 win devel views

New Mid-Level Shader Assembler Syntax - Phase I

TEST DEVELOPERS, PLEASE READ!

With the help of Steve Allen, this GNU g++ compiler error (inconsistency?) was verified using a simple "foo" program. After further investigation using "google" searches, it was determined that this error has also been seen by others. Unfortunately, the work-around is to rename (YUK) the directories to names other than "utility" and "memory".

Changing the "primlib/memory" directory to "primlib/memory_access" is a relatively easy task (PIA), but all test program Makefiles will need to be changed and/or test program source files (see methods below).

I changed all of the primlib header/source files to use relative file names in all primlib include statements. Thus, Primlib's Makefile will only specify "-1 (TESTCHIP)" primlib" to access primlib header files.

I changed all of the Makefiles that make up the regression tests: perf sys/cp gfx/sc gfx/vgt gfx/pa/su gfx/pa/cl gfx/pa/vte.

If you have tests in directories other than the ones specified above, then the simplest way to fix the tests is to change the Makefile line "-I\$(PRIMLIB_DIR)/inemory" to "-I\$(PRIMLIB_DIR)/inemory " to "-I\$(PRIMLIB_DIR

For the Tests/Makefile in the "perf" directory, I did the longer more preferred method which consists of deleting all of the ".1" options that use Primilib relative paths (keeping just "-I (SPRIMLIB_DIR)"), deleting all of the existing primilib include statements in the test program, and then including the new "primilib test includes.h" file (see "perf/primilib_template_simple_triangle.cpp" for details).

All NEW Makefiles and test programs should use this preferred method. You can cut-and-paste this include file from "primlib_template_simple_triangle.cpp".

As for the "test_lib/sro/testchip/utility" directory. This directory contains "drand4s [hicpp]" and a Makefile. I did a search in the TOT and could not find any reference to it. I changed the directory to "utility_lib". If any one is using this code, I apologize for any inconvenience this may cause you (send complaints to "geo.gnu.org").

All tests pass the regression on both Winblows and Linux with the exception of "r400vgt_hos_PNT_cp_qn_disc_14_04_lit_tex_proj_01" on Linux which is a known failure.

Good Luck :)

Change 33873 on 2002/06/13 by mkelly@fl_mkelly_r400_win_laptop

back out change

Page 483 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 33870 on 2002/06/13 by mkelly@fl_mkelly_r400_win_laptop

Update..

Change 33869 on 2002/06/13 by mkelly@fl_mkelly_r400_win_laptop

Update, remove extra line from cl/test_list (even though it is ok, but just to be consistent)

Change 33842 on 2002/06/13 by csampayo@fl_csampayo2_r400 $\,$

Update

Change 33782 on 2002/06/13 by mkelly@fl_mkelly_r400_win_laptop

Update..

Change 33779 on 2002/06/13 by mkelly@fl_mkelly_r400_win_laptop

VFD, clamp final color in pixel shader, support user programmability to texture fetch

Change 33729 on 2002/06/13 by ashishs@fl_ashishs_r400_win

test list for cl

Change 33725 on 2002/06/13 by ashishs@fl_ashishs_r400_win

test list for vte

Change 33720 on 2002/06/13 by mkelly@fl_mkelly_r400_win_laptop

Update..

Change 33718 on 2002/06/13 by mkelly@fl_mkelly_r400_win

Undate

Change 33575 on 2002/06/12 by mkelly@fl_mkelly_r400_win_laptop

checkpoint..

Change 33529 on 2002/06/12 by mkelly@fl_mkelly_r400_win_laptop

Undate

Change 33526 on 2002/06/12 by kryan@kryan_r400_win_marlboro

Page 484 of 510

Updated Makefile in chip/ferret and chip/gfx/sp so that memory_area.h can find Also fills gap in the VHDL coverage of the VTE by its unique combination of settings and vertex data crayola enum.h. Change 33485 on 2002/06/12 by llefebvr@llefebvre_laptop_r400_emu Change 33329 on 2002/06/11 by mkelly@fl_mkelly_r400_win_laptop Implemented most of the remaining vector opcodes. Including pixel kills. The pred set update, sc point tests.... are still not implemented since they are still changing Change 33217 on 2002/06/11 by llefebvr@llefebvre_laptop_r400_emu Change 33474 on 2002/06/12 by mkelly@fl_mkelly_r400_win_laptop Some more stress tests for the SQ... Update Change 33181 on 2002/06/11 by csampayo@fl csampayo r400 Change 33471 on 2002/06/12 by mkelly@fl_mkelly_r400_win_laptop Udated test description Change 33164 on 2002/06/11 by csampayo@fl csampayo r400 Change 33466 on 2002/06/12 by mkelly@fl_mkelly_r400_win Change 33159 on 2002/06/11 by ashishs@fl ashishs r400 win Change 33458 on 2002/06/12 by mkelly@fl mkelly r400 win laptop Change 33123 on 2002/06/10 by ashishs@fl_ashishs_r400_win Change 33436 on 2002/06/12 by kryan@kryan_r400_win_marlboro $\label{eq:VTE} VTE\ Test: \\ To\ check\ Z\ multiply\ 1/W\ using\ VTX_Z_FMT = 0 \\ the\ screen\ co-ordinates\ from\ the\ clip\ coordinates\ and\ verify: \\$ Update Makefiles to include r400/devel directory in -I include path To calculate -> see the R400 CLIP/VTE SPEC so that full paths can be used in include files. Memory area,h uses the cmn_lib/lib/address/address.h file and needs to specify the Change 33101 on 2002/06/10 by csampayo@fl_csampayo2_r400 full path Update Change 33418 on 2002/06/12 by mkelly@fl_mkelly_r400_win_laptop Change 33085 on 2002/06/10 by csampayo@fl_csampayo2_r400 Fix endian bug on unix clip regress_e Update to add the following VGT test for regress_o r400vgt_hos_PNT_cp_qn_disc_14_04_lit_tex_proj_01 Change 33350 on 2002/06/11 by ashishs@fl ashishs r400 win Change 33081 on 2002/06/10 by csampayo@fl_csampayo2_r400 Update Change 33345 on 2002/06/11 by ashishs@fl ashishs r400 win Change 33080 on 2002/06/10 by csampayo@fl_csampayo2_r400 Adding VGT Tesselator tests Change 33054 on 2002/06/10 by mkelly@fl mkelly r400 win laptop Page 485 of 510 Page 486 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Initial check-in. HOS tests of 4 PNL's. Tessellation level = 13 and reuse level = 4. Update, sc tests... Change 33016 on 2002/06/10 by ashishs@fl_ashishs_r400_win Change 32285 on 2002/06/06 by frivas@FL FRivas $\label{eq:VTE} VTE\ test: \\ To\ check\ XY\ multiply\ 1/W\ using\ VTX_XY_FMT = 0$ Deleted these two tests because they have been replaced by better ones To calculate the screen co-ordinates from the clip coordinates and verify Change 32267 on 2002/06/06 by frivas@FL FRivas -> see the R400 CLIP/VTE SPEC Initial check-in. Test for HOS using 2 PNTs with lighting, texturing, and projection Tessellation level = 14 and reuse level = 4. Change 32971 on 2002/06/10 by csampayo@fl_csampayo_r400 Change 32261 on 2002/06/06 by frivas@FL FRivas Undate Change 32884 on 2002/06/10 by mkelly@fl_mkelly_r400_win Test has been deleted because a newer and better test has been created. Change 32251 on 2002/06/06 by frivas@FL FRivas Update Change 32825 on 2002/06/07 by csampayo@fl_csampayo_r400 Updated VTE settings to use new constant definitions instead of raw numbers. Adding new VGT tests Change 32250 on 2002/06/06 by mkelly@fl mkelly r400 win laptop Change 32808 on 2002/06/07 by mkelly@fl_mkelly_r400_win_laptop Change 32235 on 2002/06/06 by smoss@smoss_crayola_win Change 32766 on 2002/06/07 by ashishs@fl ashishs r400 win update golds Change 32230 on 2002/06/06 by mkelly@fl_mkelly_r400_win To validate the vte control register by sending different number of vertices(packets) and for a set of cases change the vte control register settings and check the results. Add back in frustum clipping to regress e now that it passes:) Change 32736 on 2002/06/07 by llefebvr@llefebvre laptop r400 emu Change 32228 on 2002/06/06 by mkelly@fl_mkelly_r400_win Various SX->RB interface fixes. Also removed the MSB of the PS_EXPORT_MODE field since it is not needed anymore Update Change 32434 on 2002/06/06 by llefebvr@llefebvre_laptop_r400_emu Change 32165 on 2002/06/05 by csampayo@fl_csampayo_r400 corrected dolphin test Updates Change 32429 on 2002/06/06 by llefebvr@llefebvre_laptop_r400_emu Change 32157 on 2002/06/05 by mkelly@fl_mkelly_r400_win_laptop Change 32382 on 2002/06/06 by llefebvr@llefebvre laptop r400 emu Change 32126 on 2002/06/05 by csampayo@fl csampayo r400 the wedge model test for the SQ Change 32287 on 2002/06/06 by frivas@FL FRivas Change 32107 on 2002/06/05 by csampayo@fl csampayo r400 Page 487 of 510 Page 488 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Latest version of the 7 constant color tests. They compile and run, but I can't "test the tests" as the emulator doesn't implement color blending yet I am still cleaning up the code for the other tests and will check them into Perforce as Change 32070 on 2002/06/05 by llefebvr@llefebvre laptop r400 emu Dolphin test I have updated the Makefile to include this test too Change 32024 on 2002/06/05 by csampayo@fl_csampayo_r400 Change 31538 on 2002/06/03 by mkelly@fl_mkelly_r400_win_laptop Updated tess levl from 10 to 14 Basic x-major, y-major line verification for the So Change 32022 on 2002/06/05 by csampayo@fl_csampayo_r400 Change 31462 on 2002/06/03 by mkelly@fl_mkelly_r400_win_laptop Adding VGT tests Back out test until bug is fixed. Change 31974 on 2002/06/05 by vgiang@vgiang r400 win marlboro p4 Change 31390 on 2002/06/03 by mkelly@fl mkelly r400 win added: pixel shader programs (scalar mul,min,max) Add clip frustum to regress of Change 31899 on 2002/06/04 by csampayo@fl_csampayo_r400 Change 31299 on 2002/05/31 by csampayo@fl_csampayo_r400 Updated per change# 31760 Adding tesssellator test Change 31885 on 2002/06/04 by csampayo@fl_csampayo_r400 Change 31282 on 2002/05/31 by csampayo@fl_csampayo_r400 Updated per change# 31760 Change 31831 on 2002/06/04 by bhankins@fl_bhankins_r400_win Change 31276 on 2002/05/31 by csampayo@fl_csampayo_r400 added files Adding golds for regress e Change 31681 on 2002/06/04 by mkelly@fl_mkelly_r400_win Change 31274 on 2002/05/31 by csampayo@fl_csampayo_r400 Update Added the following tessellator test r400vgt_hos_cubic_pos_pnt_discrete_01 Change 31677 on 2002/06/04 by smoss@smoss_crayola_win Change 31273 on 2002/05/31 by mkelly@fl_mkelly_r400_win_laptop Basic diamond exit tests.... Change 31604 on 2002/06/03 by frivas@FL FRivas Change 31270 on 2002/05/31 by csampayo@fl_csampayo_r400 Update to test description in source code. Adding the following Tessellator test Change 31603 on 2002/06/03 by frivas@FL FRivas Change 31247 on 2002/05/31 by mkelly@fl_mkelly_r400_win_laptop Update to test description in the source code. Nothing changed in the shader Test two lines in one packet, confirming hit and no hit pixels are valid. Change 31548 on 2002/06/03 by omesh@ma omesh Change 31148 on 2002/05/31 by frivas@FL FRivas Page 489 of 510 Page 490 of 510 Ex. 2052 --- R400 Testing FH --- foler history Ex. 2052 --- R400 Testing FH --- foler history HOS test of PNL with tessellation leve 13 using continuous tessellation. There are problems with tessellation beyond level 13 (time out issues and shader artifacts). corrected errors Change 31136 on 2002/05/31 by llefebvr@llefebvre_laptop_r400_emu Change 30852 on 2002/05/30 by llefebvr@llefebvre_laptop_r400_emu parser for the obj format Change 31129 on 2002/05/31 by frivas@FL FRivas Change 30849 on 2002/05/30 by ashishs@fl ashishs r400 win HOS test of PNL continuous tessellation at level 13 using cubic position and linear This test is intended to validate the vertex reuse functionality with actual clipping. The normal interpolation. There seem to be problems at tessellation levels > 13 in that there are scan test processes 56 packets each with one 84 primitive triangle list containing 16 vertices with input vertex data: XYZW0, 1 color , no textures.For each packet the test has the 252 indices making up 84 primitives, unique indices are randomly selected between 0-12 and 0-15. For each packet six UCP planes are set up so that most of the original vertices get clipped. converter and time out issues. Change 31116 on 2002/05/31 by llefebvr@llefebvre_laptop_r400_emu Change 30726 on 2002/05/29 by mkelly@fl_mkelly_r400_win_laptop Added safety checks in the sq vertex processing Change 31069 on 2002/05/31 by frivas@FL_FRivas Move all files in compare list to output directory irregardless of #, print warning if P4 is HOS test of two PNT's at a discrete tessellation level of 8.0. Implements texturing, lighting, and projection Change 30707 on 2002/05/29 by csampayo@fl_csampayo_r400 Change 31058 on 2002/05/31 by frivas@FL_FRivas Adding r400_regress script dependency files: Change 30685 on 2002/05/29 by mkelly@fl_mkelly_r400_win_laptop VGT HOS tests added, modified test list Change 31054 on 2002/05/31 by mkelly@fl_mkelly_r400_win_laptop Widen coverage of regress_e Bugzilla Bug 238, RB color clamping problem Change 30665 on 2002/05/29 by mkelly@fl mkelly r400 win laptop Change 30966 on 2002/05/30 by omesh@ma omesh Cleaned up some junk code and used new scheme for number generation based on the Change 30663 on 2002/05/29 by mkelly@fl_mkelly_r400_win_laptop seperation of the TG class from the std:vector data structure Update Change 30942 on 2002/05/30 by llefebvr@llefebvre_laptop_r400_emu

Change 30661 on 2002/05/29 by mkelly@fl_mkelly_r400_win_laptop

Undate

updated the VGT->SQ interface (and corresponding blocks) to match HW in name and

Just a basic "my own template" which is not yet a complete test. Decided on using this

specific geometry for the basic tests. Will have to rethink the geometry for stress tests for maximum screen coverage of colors.

Was simply playing around with these tests and am only submitting it to Perforce to keep

Page 491 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

size and add the Event field.

Change 30904 on 2002/05/30 by omesh@ma_omesh

Change 30880 on 2002/05/30 by ashishs@fl_ashishs_r400_win

track of what I was playing around with.

Change 30576 on 2002/05/29 by mkelly@fl_mkelly_r400_win

Update to fix Random library link error..

Change 30547 on 2002/05/29 by mkelly@fl_mkelly_r400_win

Update to regress e, ADD 4 more SC tests

Change 30538 on 2002/05/29 by mkelly@fl_mkelly_r400_win

Page 492 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

AMD1044 0258356

SC golds for regress e Added random libs Change 30535 on 2002/05/29 by mkelly@fl_mkelly_r400_win Change 29855 on 2002/05/24 by ygiang@ygiang_r400_win_marlboro_p4 Update to fix random library build error fixed: random lib link Change 30533 on 2002/05/29 by mkelly@fl_mkelly_r400_win_laptop Change 29846 on 2002/05/24 by smoss@smoss_crayola_win Added support for HOS Cubic Position PNT with example useage in file incorrect test name r400vfd_vs_hos_cubic_pos_pnt_01 Change 29765 on 2002/05/23 by ygiang@ygiang_r400_win_marlboro Change 30531 on 2002/05/29 by mkelly@fl_mkelly_r400_win_laptop cut and paste changes Update to remove const of INDEX_BUFFER class... Change 29764 on 2002/05/23 by smoss@smoss crayola win Change 30460 on 2002/05/28 by smoss@smoss_crayola_win SU tests for regress_e Change 29757 on 2002/05/23 by vgiang@ygiang r400 win marlboro Change 30264 on 2002/05/28 by ashishs@fl ashishs r400 win added: more tests and fail list Tests Culling Only when UCPs are enabled, The UCPS do not clip, only cull. Change 29729 on 2002/05/23 by ygiang@ygiang_r400_win_marlboro Change 30248 on 2002/05/28 by ashishs@fl ashishs r400 win add: color clamp test...Clamping doesn't work yet Features Tested : user clip planes
Test Purpose:verify the 64 combinations of ucp control bits Change 29700 on 2002/05/23 by ygiang@ygiang_r400_win_marlboro_p4 Method: test has 64 polygons arrangeu in a grower over.

different combination of ucp enable bits set from 0 to 63, with the upper left being 0, counting down the columns first, then across

Expected Results: 8 rows of 8 primitives (64 total primitives), each clipped using test has 64 polygons arranged in a grid of 8x8. Each polygon has a sp test files Change 29686 on 2002/05/23 by georgev@ma_georgev Back integrate from devel primlib Change 30054 on 2002/05/24 by mkelly@fl_mkelly_r400_win_laptop Change 29613 on 2002/05/23 by smoss@smoss crayola win Update to find tests on the client much faster .. su test Change 29980 on 2002/05/24 by ygiang@ygiang_r400_win_marlboro_p4 Change 29592 on 2002/05/22 by mkelly@fl_mkelly_r400_win added: sp alu scalar opcode "add, min, max, mul" Update Change 29976 on 2002/05/24 by mkelly@fl_mkelly_r400_win_laptop Change 29538 on 2002/05/22 by mkelly@fl_mkelly_r400_win_laptop SC tests to validate triangle coarse walk, quad evaluation, and detail pixel Test complete. determination.. Change 29396 on 2002/05/21 by mkelly@fl mkelly r400 win laptop Change 29927 on 2002/05/24 by smoss@smoss_crayola_win Page 493 of 510 Page 494 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Update checkpoint.. Change 28801 on 2002/05/17 by smoss@smoss cravola win Change 29390 on 2002/05/21 by mkelly@fl mkelly r400 win laptop SU tests with golds Example of perspective projection using the shader Change 28782 on 2002/05/17 by mkelly@fl_mkelly_r400_win_laptop Change 29359 on 2002/05/21 by omesh@ma omesh VFD, support for linear postion interpolation Added the Makefile and shader pipe programming files needed to compile and run RB tests. The shader pipe programming files (*.SP) are taken from the simple triangle examples. Change 28756 on 2002/05/17 by mkelly@fl_mkelly_r400_win_laptop Change 29290 on 2002/05/21 by smoss@smoss crayola win update to gold due to 1 bit color difference Change 28755 on 2002/05/17 by mketly@fl_mketly_r400_win_laptop Change 29273 on 2002/05/21 by ashishs@fl ashishs r400 win update corrected vertex buffer data Change 28569 on 2002/05/16 by csampayo@fl_csampayo_r400 Change 29134 on 2002/05/20 by mkelly@fl mkelly r400 win laptop Adding the following VGT tests Change 28556 on 2002/05/16 by mkelly@fl_mkelly_r400_win_laptop Change 29082 on 2002/05/20 by mkelly@fl_mkelly_r400_win Update script to report build errors. Change 28551 on 2002/05/16 by mkelly@fl mkelly r400 win laptop Change 29069 on 2002/05/20 by csampayo@fl_csampayo_r400 Update gold Addint VGT Tessellator test Change 28537 on 2002/05/16 by omesh@ma omesh Oops! Added the file with the wrong extension, So simply deleted the old file and added a new one with the right extension. Change 29053 on 2002/05/20 by mkelly@fl_mkelly_r400_win Updates... Here is the older comment (incase it didn't catch it from the revision history of the old Change 28908 on 2002/05/17 by mkelly@fl_mkelly_r400_win

file):

Added in a placeholder so that Frank and me know where to put RB tests. This is just the simple triangle test copied and pasted here.

Change 28530 on 2002/05/16 by omesh@ma omesh

Added in a placeholder so that Frank and me know where to put RB tests. This is just the simple triangle test copied and pasted here.

Change 28397 on 2002/05/16 by ashishs@fl_ashishs_r400_win

Converted from R200, 225 gourand shaded, clipped triangles. Vertex position combinations tested against frustum clipping

Page 496 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 495 of 510 Ex. 2052 --- R400 Testing FH ---foler_history

Change 28905 on 2002/05/17 by mkelly@fl_mkelly_r400_win_laptop

Change 28885 on 2002/05/17 by mkelly@fl_mkelly_r400_win_laptop

Update

regression for comparison to gold.

* Sync stamp on output directory is now exclusive of test_lib/src/chip/gfx

* Modified to only work with files in uncommented in compare_list.
* Any file name and extension can be added to compare_list and will be used in

CP Updates:

1) Updated CP block files

2) Updated Emulator to match block file changes

3) Commented out guts of DEVICE::linit_CPQ function
because it was reading the CP_STATE_IM_CNTL
register which is now uninitialized at power up
and the data being read was not being used anyway

4) Updated bmInit() function in file
devel/test_libyscrestchip/usmaster/busmaster con Adding VGT test Change 27333 on 2002/05/10 by mkelly@fl_mkelly_r400_win_laptop * Renamed vfd_sanity.cpp to r400vfd_sanity_01.cpp
* Checkpoint on vfd for hos in r400vfd_hos_01.cpp Change 27215 on 2002/05/09 by ashishs@fl_ashishs_r400_win devel/test_lib/src/testchip/busmaster/busmaster.cpp deveutes... In orac rescanpous master crows master cpp because the CP interrupt is no longer on a shared register (there should not be any shared register in R400 now). 5) Updated gold files because the CP_STATE_IM_CNTL register read is no longer in the "rd r and "log files for the tests that use the primitib DEVICE class. 2 tests done, still texture and shading functions to be added. test #1: r400cl_gband_04.cpp Guard Band Clipping Test.(right now just all triangles gouraud shaded and not texture (d)
VERTEX_DATA - TRIANGLE_STRIP, Top Left Quadrant, gouraud shading
INDEXES - TRIANGLE_STRIP, Top Right Quadrant, flat shading 0
VERTEX_LIST - TRIANGLE_STRIP, Lower Right Quadrant, flat shading 1
VERTEX_DATA - TRIANGLE_STRIP, Lower Left Quadrant, six textures, flat shading Change 28018 on 2002/05/14 by csampayo@fl_csampayo_r400 Adding VGT test Method: 6 Vert Strip Expected Results: 4 triangles, four quadrants Change 27976 on 2002/05/14 by llefebvr@llefebvre_laptop_r400_emu New SQ register map. Added EXEC_END,CEXEC_END, CPEXEC_END. Removed the END instruction. test # 2: r400cl_clip_space_dx_ogl_01.cpp
This test is to check the OGL vs DX clip space definition.
The D3D space is checked with the Z positions. As soon as the primitive enters the -ve z positions in the D3D space the Change 27962 on 2002/05/14 by mkelly@fl_mkelly_r400_win_laptop primitive enters are -ve 2 positions in the D3D space the primitive gets clipped but doesn get clipped in the OpenGL space. This is shown using 4 triangles. Left top and bottom correspond to D3D space whereas the right top and bottom traingles which are not clipped correspond to OpenGL space. Undate Change 27857 on 2002/05/14 by smoss@smoss_crayola_win Change 27161 on 2002/05/09 by csampavo@fl csampavo r400 added dump files Updates Change 27853 on 2002/05/14 by mkelly@fl_mkelly_r400_win_laptop Change 27017 on 2002/05/08 by mkelly@fl_mkelly_r400_win_laptop Checkpoint for adding HOS support to VFD. This version supports: Update test description, will need to update again for subpixel mask and new state control a. VFD_VS_HOS_CUB_POS_QUAD_NORM_PNT b. VFD_VS_XFORM_0 c. VFD_VS_HOS_LINEAR_PNL Change 26999 on 2002/05/08 by mkelly@fl mkelly r400 win laptop In this specific VFD described order. See r400vfd_hos_example_01.cpp for useage Enhance VFD to support vertex point size in the shader import and export. See test r400vte_simple_point_01.cpp Change 27680 on 2002/05/13 by abeaudin@abeaudin_r400_win_marlboro Change 26932 on 2002/05/08 by csampayo@fl_csampayo2_r400 added include path for tiling address calculations Page 497 of 510 Page 498 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Change 26845 on 2002/05/07 by csampayo@fl csampayo2 r400 Change 26365 on 2002/05/03 by llefebyr@llefebyre lapton r400 emu This is the new control flow sequencer. Expect things to be a bit unstable while this major change settles in. I know I broke I regression test (r400vgt_index_size_01) but the integration took so long that I decided to check the change in anyways and fix the problem from Change 26838 on 2002/05/07 by mkelly@fl_mkelly_r400_win_laptop Checkpoint on MSAA test which validates URC, LLC, and LRC offsets from LLC subsample points. 90% complete. the TOTT. Sorry for the inconvenience. Change 26223 on 2002/05/03 by ashishs@fl_ashishs_r400_win Change 26727 on 2002/05/07 by smoss@smoss_crayola_win Description:Legacy UCP clip test converted to R400 PrimLib,Former test name: LC up, combos, 00 (R100, R200, R30)

Total of 720 triangles. Each triangle is stepped on the Y axis from -359.5 to +359.5

X values remain constant for all 720 triangles.

W = 360 Change 26707 on 2002/05/07 by ashishs@fl_ashishs_r400_win $144~{\rm sets}$ of gourand-shaded clipped lines are drawn, all combinations of frustum clip codes w/ vertices $27^{\circ}3$ have been tested. All UCPS are vertically defined. UCP definitions intersect each triangle at varying X locations.

UCP locations are cycled through 720 combinations of order on the X axis which is 6! Change 26700 on 2002/05/07 by mkelly@fl mkelly r400 win laptop Each of the 64 uco combos tests has an incrementally different triangle X location from -217 to +224, in 7 integer unit steps with UCPs adjusted accordingly.
Clipping enabled, all UCPs enabled
VTE performs 1/W reciprocal, X * 1/W, Y * 1/W, Z * 1/W
VTE performs offset and scale of 360 Change 26568 on 2002/05/06 by mkelly@fl_mkelly_r400_win_laptop Update Guard Band Clipping is at 1.0f for vertical and horizontal adjust/discard. Change 26567 on 2002/05/06 by smoss@smoss_crayola_win Expected Results:720 small, clipped triangles from y = -360 to y = +360 (they appear towards middle of viewport along an imaginary edge and jut out to right); colors range from green-blue on the left hand side of the triangle "bar" to bright orange Update of Golds Change 26550 on 2002/05/06 by smoss@smoss_crayola_win Change 26138 on 2002/05/02 by smoss@smoss_crayola_win Missing some files for these tests SU tests and golds Change 26461 on 2002/05/06 by ashishs@fl_ashishs_r400_win Change 26103 on 2002/05/02 by smoss@smoss_crayola_win changed : unpacking of colors added SU tests, golds Change 26391 on 2002/05/03 by mkelly@fl_mkelly_r400_win_laptop Change 26044 on 2002/05/02 by ashishs@fl_ashishs_r400_win Multi Sample Anti-Aliasing, 8 subsample, single subsample test on ULC. nothing has been changed Change 26369 on 2002/05/03 by smoss@smoss crayola win Change 25986 on 2002/05/02 by mkelly@fl mkelly r400 win laptop Change 26368 on 2002/05/03 by smoss@smoss_crayola_win Change 25979 on 2002/05/02 by mkelly@fl_mkelly_r400_win_laptop Page 499 of 510 Page 500 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Change 27500 on 2002/05/10 by csampayo@fl_csampayo2_r400

Change 28241 on 2002/05/15 by hwise@fl_hwise_r400_win

Change 25417 on 2002/04/29 by mkelly@fl_mkelly_r400_win_laptop Change 25916 on 2002/05/01 by csampayo@fl_csampayo_r400 $2\,\mathrm{pixel}$ jss, short test which works and 1 test which produces the below output: Updated Makefiles for added VGT test ERROR: base class tel fifo write when full condition Change 25910 on 2002/05/01 by csampayo@fl_csampayo_r400 Assertion failed, ../../../emu_lib/model/gfx/pa/pasu/tcl_fifo.cpp@53: 0 Change 25196 on 2002/04/26 by csampayo@fl_csampayo_r400 Adding VGT index offset tests Change 25894 on 2002/05/01 by mkelly@fl_mkelly_r400_win_laptop Jittered Super Sampling 2x1 2 pixel Change 25186 on 2002/04/26 by mkelly@fl_mkelly_r400_win_laptop Change 25818 on 2002/05/01 by ashishs@fl ashishs r400 win Jitter Super Sample Test, currently times out and waiting on debug from Clay. nothing has been changed Change 25140 on 2002/04/26 by ashishs@fl_ashishs_r400_win Change 25775 on 2002/05/01 by mkelly@fl_mkelly_r400_win_laptop r400cl_frustrum_03 test, Converted from R200. 180 gourand shaded, clipped triangles. Update... Change 25029 on 2002/04/25 by ashishs@fl ashishs r400 win Change 25576 on 2002/04/30 by ashishs@fl_ashishs_r400_win test file to see the working of perforce 180 gourand shaded, clipped triangles. Vertex position combinations tested against Change 25027 on 2002/04/25 by ashishs@fl ashishs r400 win test file to see the working of perforce Change 25569 on 2002/04/30 by ashishs@fl_ashishs_r400_win Change 25026 on 2002/04/25 by csampayo@fl_csampayo_r400 180 gouraud shaded, clipped triangles. Vertex position combinations tested against Updated for proper TRIANGLE_WITH_WFLAGS handling Change 25557 on 2002/04/30 by ashishs@fl ashishs r400 win Change 25000 on 2002/04/25 by ashishs@fl ashishs r400 win 144 gouraud shaded, clipped triangles. Vertex position combinations tested against Test r400 frustrum clip test, converted from r200 frustum clipping. Change 24934 on 2002/04/25 by csampayo@fl_csampayo_r400 Change 25539 on 2002/04/30 by ashishs@fl_ashishs_r400_win Adding VGT index min/max clamping tests 255 gourand shaded, clipped triangles. Vertex position combinations tested against frustum clipping. Change 24896 on 2002/04/25 by mkelly@fl_mkelly_r400_win_laptop Change 25514 on 2002/04/30 by ashishs@fl ashishs r400 win Update gold image, color changed by 1 bit in the blue channel for some reason.. change made due to upgrade in emulat Change 24894 on 2002/04/25 by mkelly@fl mkelly r400 win laptop Change 25454 on 2002/04/29 by csampayo@fl_csampayo_r400 Remove const from INDEX BUFFER instance.. Adding VGT index size test Change 24806 on 2002/04/24 by mkelly@fl_mkelly_r400_win_laptop Page 501 of 510 Page 502 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history Jitter testing in progress... Change 23474 on 2002/04/16 by mkelly@fl mkelly r400 win laptop Change 24712 on 2002/04/24 by smoss@smoss_crayola_win Change 23333 on 2002/04/15 by mkelly@fl_mkelly_r400_win_laptop Change 24645 on 2002/04/23 by csampayo@fl csampayo r400 Converted legacy frustum clip test to demonstrate conversion methodology of an R200 clip test to R400. Adding VGT reuse depth tests Change 23165 on 2002/04/12 by csampayo@fl csampayo r400 Change 24556 on 2002/04/23 by mkelly@fl_mkelly_r400_win_laptop Added VGT tests.. Check point, test authoring in progress.... Change 23122 on 2002/04/12 by mkelly@fl_mkelly_r400_win_laptop Change 24092 on 2002/04/19 by csampayo@fl_csampayo_r400 Update Various VGT tests. Note: most of these test have problems running due to emulator Change 23091 on 2002/04/12 by csampayo@fl_csampayo_r400 Change 23955 on 2002/04/19 by smoss@smoss_crayola_win VGT test stressing primitive type vs index source Change 23069 on 2002/04/12 by mkelly@fl_mkelly_r400_win_laptop Update to handle when compare list is empty, so only output is generated. Change 23919 on 2002/04/19 by mkelly@fl mkelly r400 win laptop Special triangle clip test where W=0 $\,$ Change 23036 on 2002/04/12 by mkelly@fl_mkelly_r400_win_laptop Vtx 0 = -0.50, -0.25, 0.00, 1.00 Vtx 1 = 0.25, -0.50, 0.00, 1.00 Update Vtx 2 = 0.50, 0.50, 0.00, 0.00 Change 23033 on 2002/04/12 by mkelly@fl_mkelly_r400_win_laptop $VTE \ out = ((1/W)*X) + X_OFFSET, ((1/W)*Y) + Y_OFFSET, ((1/W)*Z) + Z_OFFSET$ Simple VTE check for scale and offset Change 23831 on 2002/04/18 by mkelly@fl mkelly r400 win laptop Change 22997 on 2002/04/12 by mkelly@fl mkelly r400 win laptop Update total PA validation test list... Change 23828 on 2002/04/18 by mkelly@fl_mkelly_r400_win_laptop Change 22996 on 2002/04/12 by mkelly@fl mkelly r400 win laptop Legacy Clipping UCP combos test converted to R400. Update W2K registry settings for dump enables. Change 23711 on 2002/04/17 by johnchen@johnchen_r400_win_marlboro Change 22995 on 2002/04/12 by mkelly@fl mkelly r400 win laptop fix precision probelm for color and depth Simple window offset test... Change 23521 on 2002/04/16 by smoss@smoss crayola win Change 22916 on 2002/04/11 by csampayo@fl csampayo r400 setup unit tests Added Makefile and SU parallelogram orientation tests Page 503 of 510 Page 504 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH ---foler_history

Change 22892 on 2002/04/11 by mkelly@fl_mkelly_r400_win_laptop Change 22024 on 2002/04/05 by mkelly@fl mkelly r400 win laptop Update tests to allocate additional memory during run. Simple clip test.. Change 22872 on 2002/04/11 by mkelly@fl_mkelly_r400_win_laptop Change 21761 on 2002/04/03 by mkelly@fl mkelly r400 win laptop Basic clip rectangle checks.. Multi-packets testing raster filling.. Change 22861 on 2002/04/11 by mkelly@fl_mkelly_r400_win_laptop Change 21758 on 2002/04/03 by mkelly@fl_mkelly_r400_win_laptop Clip rectangle 0 control, 64 permutations... Test case to demonstrate potential bug... Change 22813 on 2002/04/11 by mkelly@fl_mkelly_r400_win_laptop Change 21658 on 2002/04/03 by mkelly@fl_mkelly_r400_win_laptop 72 triangle mesh, 1 packet, scissor test. Stamp the output log file with the sync that the test was run against Change 22609 on 2002/04/10 by mkelly@fl_mkelly_r400_win_laptop Change 21655 on 2002/04/03 by mkelly@fl_mkelly_r400_win_laptop Update test to use the PrimLib DRAW_COMMAND_LOAD class, but still waiting on SC tests.. RBIU back pressure valve for this test to complete. Change 21632 on 2002/04/03 by mkelly@fl_mkelly_r400_win_laptop Change 22510 on 2002/04/09 by mkelly@fl_mkelly_r400_win_laptop Generate 625 packets, 1250 triangles - checking basic SC functionality... Change 21608 on 2002/04/03 by mkelly@fl_mkelly_r400_win_laptop Change 22317 on 2002/04/08 by mkelly@fl_mkelly_r400_win_laptop "regress_r400" Simple scissor rectangle test.. - include sync # on output regression directory automatically find the root directory on the client and send output to a directory called "Sroot/regress_r400" Change 22293 on 2002/04/08 by mkelly@fl_mkelly_r400_win_laptop SC scissor rectangle test This script "regress r400" is intended for use by the validation team only Change 22156 on 2002/04/05 by mkelly@fl_mkelly_r400_win_laptop All emu and PrimLib code writers are to continue using "make regress_e" at the test_lib/src/chip level for SANITY before checking in code. Clip enabled, no clipping, test currently fails... Change 22155 on 2002/04/05 by mkelly@fl_mkelly_r400_win_laptop Change 21535 on 2002/04/03 by mkelly@fl_mkelly_r400_win_laptop Renaming to assure unique test names in test_lib.. W2K registry settings for debug dump control.. Change 22145 on 2002/04/05 by mkelly@fl_mkelly_r400_win_laptop Change 21417 on 2002/04/02 by mkelly@fl_mkelly_r400_win_laptop Change 22045 on 2002/04/05 by csampayo@fl_csampayo_r400 Change 21379 on 2002/04/02 by mkelly@fl_mkelly_r400_win_laptop New VGT tests Reference Bugzilla Bug 225.. Page 505 of 510 Page 506 of 510 Ex. 2052 --- R400 Testing FH ---foler_history Ex. 2052 --- R400 Testing FH --- foler history Change 21376 on 2002/04/02 by mkelly@fl mkelly r400 win laptop Change 20475 on 2002/03/26 by abeaudin@abeaudin r400 win marlboro move test_lib/src/sys to test_lib/src/chip/sys move test_lib/src/gfx to test_lib/src/chip/gfx Update support in regress_r400 for several more dumps including VGT, and reciprocal... Change 21357 on 2002/04/02 by mkelly@fl_mkelly_r400_win_laptop Change 20473 on 2002/03/26 by abeaudin@abeaudin r400 win marlboro $Update PA regress_r400 script to include comparison support for pm4RBDump.txt file whis is generated when W2K registery keyword pm4RBDump is true. This damp is helpful to check if PrimLib data is valid before CP processing.$ moving test directories round Change 12489 on 2002/01/07 by rbeaudin@rbeaudin r400 win marlboro Change 21250 on 2002/04/01 by mkelly@fl_mkelly_r400_win_laptop removed unused tests in sanity Reference Bugzilla, bug 223.. Change 11682 on 2001/12/13 by rbeaudin@rbeaudin_r400_win_marlboro Change 21065 on 2002/03/29 by mkelly@fl mkelly r400 win laptop removed ray test Sync to this and UNIX will work... Change 9709 on 2001/11/12 by sallen@sallen_r400_unix_marlboro Change 20960 on 2002/03/28 by mkelly@fl mkelly r400 win laptop new ferret emu.h Enabling 2 PrimLib tests in regress_e, removed user_chip_interface includes which are pipeline points to new place (not final place, though) Change 9315 on 2001/11/06 by kmahler@kmahler Change 20858 on 2002/03/28 by mkelly@fl_mkelly_r400_win_laptop Changes to support Shader program testcase, "onetri_vshader.cpp". Add SC fill test for regress_e.. Change 9080 on 2001/11/02 by sallen@devel_sallen Change 20820 on 2002/03/28 by mkelly@fl mkelly r400 win laptop make sure "NO FERRET" switch removes all ferret Change pitch in test. (so I can track down namespace problems....) Change 20816 on 2002/03/28 by mkelly@fl_mkelly_r400_win_laptop Change 9039 on 2001/11/01 by rbeaudin@ma_rayb1 Update tests due to change in Primlib setting... fixed unix segment error Change 20507 on 2002/03/26 by mkelly@fl_mkelly_r400_win_laptop Change 8839 on 2001/10/30 by sallen@devel_sallen Fixed the PA regression script to work with the newly relocated validation tree structure. ferret updates Renamed the script add test lib/ferret/ex1 example unit test

Change 20506 on 2002/03/26 by mkelly@fl_mkelly_r400_win_laptop

Change 20479 on 2002/03/26 by abeaudin@abeaudin r400 win marlboro

directory depth from test_lib.

more moving of test files

Fixed all of the validation make files. The Depth value must be modified to match the

Page 507 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Page 508 of 510 Ex. 20

Adding Ray's modified onetri_index_plgx test (under new name)

- update building for unit and block testing - add memory pipe data structure to ferret (& comparitor) - though not hooked up yet

Change 8547 on 2001/10/26 by hwise@fl hwise

Change 8541 on 2001/10/26 by hwise@fl hwise

Updated R400 with latest R300 emulator baseline.

Affected block files: BIF, CP, VIP

- 1) Updated BIF, CP, MC, and VIP functionality with R300 mods
- 2) Added pm4capture library (used for dumping pm4 streams for debug)
 3) Renamed the sanity test onetri_indexes_plgx.cpp to onetri_indexes_plgx_ray.cpp since it contains block level testing
- Number of the state of the

Change 8280 on 2001/10/23 by rbeaudin@MA_RAYB

added new block interfaces

Change 7744 on 2001/10/15 by rbeaudin@MA_RAYB

Change 7700 on 2001/10/12 by sallen@devel_sallen

make compile on NT & Unix

Change 7686 on 2001/10/12 by sallen@ma_sallen

add ferret targets for windows

Change 7561 on 2001/10/10 by sallen@devel_sallen

merge all the ferret code in

Change 7528 on 2001/10/10 by sallen@devel_sallen

merge in first round of ferret changes

Change 6719 on 2001/09/20 by rbeaudin@MA_RAYB

changing location of interfaces

Change 6714 on 2001/09/19 by rbeaudin@MA_RAYB

emu compiles but test program does not

Change 6638 on 2001/09/18 by rbeaudin@MA RAYB

more crayola name changes

Page 509 of 510

Ex. 2052 --- R400 Testing FH ---foler_history

Change 6308 on 2001/09/11 by rbeaudin@MA_RAYB

change to khan

Change 5829 on 2001/08/28 by tyroneh@devel_tyroneh

<corrected a makefile syntax error that would result in an error on the UNIX side, but</p> pass on the windows side.

-lmodel, instead of "- lmodel">

Change 5827 on 2001/08/28 by tyroneh@devel_tyroneh

<added a search path for the model directory>

Change 5560 on 2001/08/21 by rbeandin@MA_RAYB

old working program

Change 5331 on 2001/08/14 by rbeaudin@MA_RAYB

test no gfx

Change 5164 on 2001/08/09 by rbeaudin@MA RAYB

Change 5067 on 2001/08/07 by rbeaudin@MA_RAYB

interface stuff

Change 4670 on 2001/07/24 by hwise@fl_hwise2

Write to new register

Change 4664 on 2001/07/24 by hwise@fl_hwise2

Add basic test

Page 510 of 510