## The Main Display Screens

There are three main sets of screens that you will use for searching and selecting from your library, seeing what is currently playing and what is in the PlayList, and finally, adjusting the System Settings of Nomad JukeBox.

**LibraryScreen** – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show Albums and other Catagories of music, depending upon what you want to view or search.
TO DO THIS use ScrollKeys to select a line then press the OPEN or CLOSE SoftKey to change the view.

**NowPlayingScreen** – this is the default screen when music is playing, it shows you information about the currently playing track, or what is coming up next on your list depending again on the view you choose. It can be expanded or compacted just like the LibraryScreen

As long as tracks are queued up or playing, and there is no other buttons are pressed, the PlayScreen will be the default display.

**MenuScreen** – this contains a list of all the cool, advanced set-up preferences, recording choices, data management functions and system tools of Nomad JukeBox. Selecting an item, then pressing the "Do It!" SoftKey at the bottom left of the display will take you to a screen where that particular feature can be edited or controlled. As you become more used to Nomad JukeBox, you will be adjusting these settings more and more in order to tune it to your personal preferences, but for the time being, its enough to know that these controls are there!

## Music PlayBack from Nomad JukeBox

There are two ways to listen to music on Nomad JukeBox. You either PLAY selected items (for example and Album or a track) directly from the Library or you Queue them into a longer list. It depends how you feel – do you want to actively choose each track or album as you go, or would you prefer to line up a list of Albums and tracks to play through automatically while you concentrate on something else. Nomad JukeBox handles either method easily. It just depends on how items are selected from the Library – either "Played" or "Queued". A track (or Album) "Played" from the Library goes straight to the head of the list – a track (or Album) "Queued" is placed at the end of the list and has to wait its turn.

To **PLAY** a Track or Album, simply find the Track or Album you want to listen to in your Library by using the OPEN/CLOSE SoftKeys to get to the right view, then scoll up and down with the ScrollKeys until the right item is highlighted. Now, **press the PlayKey** and the music will start; at the same time the NowPlayingScreen will automatically be displayed. If you tire of the track or Album you selected, go back to the LibraryScreen (use the Library Button) and select another item. When you press PLAY, the currently playing track will stop and the new selection will start, just as if you'd removed one disk from the player and inserted another. This is a great way to quickly bounce around your music collection.

**QUEUE-ING** means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, **press the QUEUE labelled SoftKey.**

You can continue to add as many items as you want to the QUEUE LIST - as soon as you stop searching for more tracks, the display screen will automatically revert to the PlayScreen and show you details of the music you are currently hearing. Pressing the PlayKey when the PlayScreen is displayed, will simply pause the current track where it is; pressing the PlayKey again will re-start the list, operating just like the Play/Pause

button on a CD player or VCR. During playback of a QUEUED list, you can still pop into your library and instantly PLAY a selected track (by using the Play method and hitting the PlayKey directly). The current list will stop playing and play the selected track immediately. When it is finished, the cued List will pick up again. You can mix Playing and Cue-ing as you like.

Once a list is playing, the PlayMode can be set to Repeat, Shuffle or PlayOnce – this is selected using the righthand SoftKey from the main track view of the NowPlayingScreens.

Pressing the StopKey during any of the above operations will always stop the currently playing music and reset for play at the head of the List. Play will re-start from the top of the list. At anytime, you can save the active CUE-LIST by pressing the MenuKey, selecting SAVELIST from the options displayed then the "Do It!" SoftKey - one of the neatest functions of OASIS is the ability to save PlayLists for another day!

## How Content is organized in Nomad JukeBox

The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using Categories and sub-Categories, PlayLists and Tracks. Icons in the display help to keep the levels clear.

Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories.

| Audio Content | CONTENT DESCRIPTION FIELDS | | | | | | |
|---|---|---|---|---|---|---|---|
| Data File | Album | Artist | Style | Title | Release Date | User 1... | Etc... |

When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox.

From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the selected Album as the entry in its Album Field – in other words a list of all the tracks on the Album.

This quick tutorial focuses on Albums and Tracks because they are familiar to us and it is the way most music is grouped, and is therefore a useful paradigm for getting started. However, the principles apply just as well to other forms of audio data such as books, news clippings, personally recorded items and so on.

# NOMAD JUKEBOX: FAQs

**1. Why are there different encoder rates?**

It is generally agreed that MP3 encoded at 128kbs provides compressed audio which is virtually indistinguishable from the uncompressed version in most listening environments. Encoding at a lower bit rate gives the advantage of a smaller file size and although there is some loss of quality, the results may still suit listeners under certain conditions.

**2. Does NJ play CD's?**

No. It looks like a portable CD player, but all files are played off an internal HD

**3. Can I use NJ to store other files from my computer?**

Not in the current version. However, the JukeBox is oriented toward multi-media entertainment storage – future releases will allow additional non-audio data to be stored alongside the audio. OS upgrades will be available over the internet.

**4. Can I play NJ in the car?**

Yes. A neat kit accessory kit is available from (Creative) with a platform, DC power source from the cigarette lighter and a built in transmitter to your cars FM radio. It's easy to install and costs about $30..

**5. I don't have USB on my PC. Can I use a serial to USB adaptor?**

To download content onto the JukeBox from a PC, USB is a requirement but after that it operates standalone. (By the way, you'll probably find that you can upgrade your PC with USB quite cheaply)

**6. How long will it take to rip, say, 10 CDs?**

If the CD drive is NOT equipped with a digital out, the audio can only be removed at a 1x rate. If there is a digital out, depending upon the system configuration, you will probably get between 3x and 10x extraction rate assuming that your PC has a least a 12x drive. After the audio is extracted, it needs to be encoded and this rate will vary according to your processor speed and memory available. For a ballpark figure, a 450MHz Gateway Laptop is able to rip and encode 10 albums in about one hour and a half. For a less highly specified PC, 3 or 4 albums an hour is a reasonable expectation.

**7. Does the NJ have a built in FM tuner?**

No, but NOMAD II does.

**8. How do I back up my NJ contents, playlists and settings?**

The Host application deals with archiving.

**9. What sort of Drive is in NJ?**

A 2.5" 6 GB hard drive similar to those found in laptops.

### 10. What does encryption mean?

This has to do with digital rights management and copyright protection. When you download an encrypted music file for example, there are a set of usage/playback rules which apply. Such as..."This file can be used on your JukeBox and Nomad II, but cannot be used on anyother devices, or, if you lend it to a friend, it is available on his/her player, but not yours". Nomad JukeBox will be able to implement these rules which means that as the recording industry sets its standards for digital distribution, you will be able to participate in this market, as you see fit.

### 11. What does MP3 stand for?

MP3 is short for MPEG 1, layer 3. MPEG stands for Motion Picture Engineering Group

### 12. What is the advantage of NJ over a cheap laptop installed with say MusicMatch?

The JukeBox is more portable, with a cool functional design, has higher quality audio outputs, better battery life, large capacity and it is cheaper. It also has a proprietary file system which allows the playback of large files not found on a PC. (Note: You'd be hard pushed to find a LapTop with all the necessary requirements for $500...)

### 13. If NJ can hold 100 hours of music, why is the battery life only 6 hours?

There are two different aspects of the units performance when we talk about total content time and battery life. The NJ was designed as a portable desktop music library. with very large content capacity allowing you to choose your listening selection anywhere at anytime. The battery life of NJ was chosen to avoid expensive and exotic battery technology. With the smaller portable players such as Nomad II, you are selecting and loading your listening content for a specific listening situation, in which case it is a reasonable expectation that the battery life is longer than the content length.

### 14. Can I jog with NJ?

Yes you can – it is robust, compact and light. There is a 5 minute anti-shock memory buffer.

### 15. Is it possible for me to replace NJ's HD with an even larger one?

No. There is a proprietary file system in the NJ which allows it to provide its high performance playback of large file sizes.

### 16. Can I use my iMac to run the Host Software?

Not at FCS – but support for Mac Platform is planned within a few months. All of Creatives' PDE family of products will be cross-platform. At Macworld (January 2000) Creative is showing the Nomad II and WebCamGo integrated with the Mac OS.

### 17. What's the Infra Red window for?

*This is for receiving commands from a remote control accessory available a few months after Nomad JukeBox is in the stores.*

### 18. Will other colors be available?

Not yet decided. What colors would you like to see?

---

**19. Can I use Nomad JukeBox like a portable Mini-Disk or DAT player, for recording?**

Yes, absolutely! Quality will be better than Mini-Disk and as good as DAT. If microphones are used, rather than line level source, an external preamp is required. (Some mics are available with this built in). Recording sample rates can be 48Khz, 44.1KHz or 32KHz at 16 bit. The Nomad JukeBox will be able to store up to 10 hours of uncompressed recorded music. The host PC can later be used to compress and organize this data.

# EXHIBIT
# Z

CVS LOG of all activity between November 10, 1999 and January 10, 2000

cvs log -N -d "11/10/1999 < 01/10/2000"

***** CVS exited normally with code 0 *****

? Doxyfile
? doutput
? LibMgr/safettLibraryTree.cpp
cvs server: Logging .

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/EngRunRel1.zip,v
Working file: EngRunRel1.zip
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Pboot.mk,v
Working file: Pboot.mk
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/WinOasis.bpr,v
Working file: WinOasis.bpr
head: 1.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15;   selected revisions: 0
description:
================================================================
==============

1

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/WinOasis.cpp,v
Working file: WinOasis.cpp
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;   selected revisions: 0
description:
============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/WinOasis.dfm,v
Working file: WinOasis.dfm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 0
description:
============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/WinOasis.res,v
Working file: WinOasis.res
head: 1.4
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 4;   selected revisions: 0
description:
============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/bootmake,v
Working file: bootmake
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 1
description:

2

---------------------------

revision 1.1
date: 1999/12/23 00:47:32; author: howarde; state: Exp;
Created bootloader files within this project ... continued
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/bootscat.txt,v
Working file: bootscat.txt
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 5
description:

---------------------------

revision 1.5
date: 2000/01/04 22:10:48; author: howarde; state: Exp; lines: +2 -2
CES Final

---------------------------

revision 1.4
date: 1999/12/30 15:59:56; author: howarde; state: Exp; lines: +2 -2
Better fonts, cosmetics

---------------------------

revision 1.3
date: 1999/12/23 21:35:55; author: howarde; state: Exp; lines: +2 -2
Latest boot loader modifications and inclusion of some new hard coded
music.

---------------------------

revision 1.2
date: 1999/12/23 01:33:54; author: howarde; state: Exp; lines: +2 -2
Created bootloader files within this project ... continued

---------------------------

revision 1.1
date: 1999/12/23 00:55:06; author: howarde; state: Exp;
Created bootloader files within this project ... continued
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/makebin.bat,v
Working file: makebin.bat
head: 1.2
branch:
locks: strict
access list:

3

keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/makefile,v
Working file: makefile
head: 1.36
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 37;   selected revisions: 7
description:
-----------------------------
revision 1.16
date: 1999/12/23 00:09:08;  author: howarde;  state: Exp;  lines: +2 -2
Created bootloader files within this project

-----------------------------
revision 1.15
date: 1999/12/17 00:40:46;  author: howarde;  state: Exp;  lines: +3 -2
First cut with playback manager hooked to transfer agent
Plays audio from disk

-----------------------------
revision 1.14
date: 1999/12/14 15:36:37;  author: howarde;  state: Exp;  lines: +2 -2
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

-----------------------------
revision 1.13
date: 1999/12/14 00:11:59;  author: andreiv;  state: Exp;  lines: +2 -2
usb subdirectory added to project

-----------------------------
revision 1.12
date: 1999/11/12 00:04:08;  author: howarde;  state: Exp;  lines: +2 -2
Merges w/ andre                     :

-----------------------------
revision 1.11
date: 1999/11/11 23:18:10;  author: andreiv;  state: Exp;  lines: +2 -2
"Include" subdir is now used

-----------------------------
revision 1.10
date: 1999/11/11 22:03:31;  author: howarde;  state: Exp;  lines: +2 -2
added more modules
=================================================================

4

==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasis.h,v
Working file: oasis.h
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;    selected revisions: 6
description:
----------------------------
revision 1.6
date: 2000/01/04 22:10:49;  author: howarde;  state: Exp;  lines: +1 -6
CES Final
----------------------------
revision 1.5
date: 2000/01/01 22:46:08;  author: howarde;  state: Exp;  lines: +3 -1
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.
----------------------------
revision 1.4
date: 1999/12/31 01:13:55;  author: howarde;  state: Exp;  lines: +4 -1
Added INode debug output statements.
----------------------------
revision 1.3
date: 1999/12/30 15:59:56;  author: howarde;  state: Exp;  lines: +3 -2
Better fonts, cosmetics
----------------------------
revision 1.2
date: 1999/12/29 17:33:00;  author: howarde;  state: Exp;  lines: +4 -6
no message
----------------------------
revision 1.1
date: 1999/12/23 00:51:09;  author: howarde;  state: Exp;
Created bootloader files within this project ... continued
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasisImg.h,v
Working file: oasisImg.h
head: 1.6
branch:

5

locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 6
description:
----------------------------
revision 1.6
date: 2000/01/04 22:10:49;  author: howarde;  state: Exp;  lines: +11161 -11078
CES Final
----------------------------
revision 1.5
date: 2000/01/01 22:46:08;  author: howarde;  state: Exp;  lines: +11717 -11402
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing'
problem between threads.  Playback manager eats way too
much time for it's own good.
----------------------------
revision 1.4
date: 1999/12/31 01:13:56;  author: howarde;  state: Exp;  lines: +11718 -11689
Added INode debug output statements.
----------------------------
revision 1.3
date: 1999/12/30 15:59:57;  author: howarde;  state: Exp;  lines: +11917 -11782
Better fonts, cosmetics
----------------------------
revision 1.2
date: 1999/12/29 17:33:00;  author: howarde;  state: Exp;  lines: +11277 -12529
no message
----------------------------
revision 1.1
date: 1999/12/23 00:51:10;  author: howarde;  state: Exp;
Created bootloader files within this project ... continued
=======================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/pbscat.txt,v
Working file: pbscat.txt
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
=======================================================================

6

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/scat.txt,v
Working file: scat.txt
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
```
====================================================================
===============
```
cvs server: Logging BufferPools

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/BufferPools/BufferPools.cpp,v
Working file: BufferPools/BufferPools.cpp
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1
description:
```
----------------------------
```
revision 1.3
date: 1999/12/18 20:34:41;  author: howarde;  state: Exp;  lines: +1 -1
no message
```
====================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/BufferPools/BufferPools.h,v
Working file: BufferPools/BufferPools.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
```
====================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/BufferPools/makefile,v
Working file: BufferPools/makefile
head: 1.1

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
===================================================================

===============
cvs server: Logging DSPManager

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/CDspIO.cpp,v
Working file: DSPManager/CDspIO.cpp
head: 1.32
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 33;   selected revisions: 6
description:
----------------------------
revision 1.6
date: 2000/01/03 20:07:38;  author: geraldi;  state: Exp;  lines: +8 -0
Initialized equalizer settings and volume on startup.

----------------------------
revision 1.5
date: 1999/12/30 00:05:16;  author: geraldi;  state: Exp;  lines: +129 -0
New DSP code and support for dsp Algorithms

----------------------------
revision 1.4
date: 1999/12/17 00:40:47;  author: howarde;  state: Exp;  lines: +24 -1
First cut with playback manager hooked to transfer agent
Plays audio from disk

----------------------------
revision 1.3
date: 1999/12/14 15:36:38;  author: howarde;  state: Exp;  lines: +12 -4
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------
revision 1.2
date: 1999/12/13 21:14:49;  author: geraldi;  state: Exp;  lines: +210 -20
updated code

----------------------------
revision 1.1
date: 1999/12/01 21:52:17;  author: geraldi;  state: Exp;
initial check-in

===================================================================

8

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/CDspIO.h,v
Working file: DSPManager/CDspIO.h
head: 1.19
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 20;   selected revisions: 4
description:

```
----------------------------
```

revision 1.4
date: 1999/12/30 00:05:16;  author: geraldi;  state: Exp;  lines: +17 -0
New DSP code and support for dsp Algorithms

```
----------------------------
```

revision 1.3
date: 1999/12/14 15:36:39;  author: howarde;  state: Exp;  lines: +3 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

```
----------------------------
```

revision 1.2
date: 1999/12/13 21:16:13;  author: geraldi;  state: Exp;  lines: +20 -15
updated

```
----------------------------
```

revision 1.1        r
date: 1999/12/01 21:51:31;  author: geraldi;  state: Exp;
initial check-in

```
=================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/Attic/CDspManager.cc,v
Working file: DSPManager/CDspManager.cc
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:

```
=================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/CDspManager.cpp,v
Working file: DSPManager/CDspManager.cpp
head: 1.92

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 95;    selected revisions: 20
description:

-----------------------------
revision 1.22
date: 2000/01/04 22:01:09;  author: howarde;  state: Exp;  lines: +4 -4
CES Final

-----------------------------
revision 1.21
date: 2000/01/03 20:07:39;  author: geraldi;  state: Exp;  lines: +3 -0
Initialized equalizer settings and volume on startup.

-----------------------------
revision 1.20
date: 2000/01/01 22:46:13;  author: howarde;  state: Exp;  lines: +61 -7
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.

-----------------------------
revision 1.19
date: 1999/12/31 02:03:24;  author: geraldi;  state: Exp;  lines: +2 -2
Fixed volume control step size and rear channel control

-----------------------------
revision 1.18
date: 1999/12/30 00:05:16;  author: geraldi;  state: Exp;  lines: +167 -5
New DSP code and support for dsp Algorithms

-----------------------------
revision 1.17
date: 1999/12/29 17:33:04;  author: howarde;  state: Exp;  lines: +140 -103
no message

-----------------------------
revision 1.16
date: 1999/12/27 00:36:12;  author: howarde;  state: Exp;  lines: +20 -4
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.

-----------------------------
revision 1.15
date: 1999/12/26 21:44:16;  author: howarde;  state: Exp;  lines: +1 -1
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)

instead of 8. Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.
-----------------------------
revision 1.14
date: 1999/12/24 19:34:56; author: geraldi; state: Exp; lines: +16 -8
Fixed some transport issues.
-----------------------------
revision 1.13
date: 1999/12/20 17:48:56; author: howarde; state: Exp; lines: +6 -5
Miscellania
-----------------------------
revision 1.12
date: 1999/12/18 22:24:13; author: andreiv; state: Exp; lines: +35 -0
volume control capability added
-----------------------------
revision 1.11
date: 1999/12/18 20:34:42; author: howarde; state: Exp; lines: +124 -125
no message
-----------------------------
revision 1.10
date: 1999/12/17 00:40:47; author: howarde; state: Exp; lines: +42 -50
First cut with playback manager hooked to transfer agent
Plays audio from disk
-----------------------------
revision 1.9
date: 1999/12/14 15:36:39; author: howarde; state: Exp; lines: +13 -12
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
-----------------------------
revision 1.8
date: 1999/12/13 21:17:01; author: geraldi; state: Exp; lines: +103 -34
updated
-----------------------------
revision 1.7
date: 1999/12/01 22:07:11; author: geraldi; state: Exp; lines: +88 -14
multiple changes to enable audio playback
-----------------------------
revision 1.6
date: 1999/11/27 18:17:37; author: howarde; state: Exp; lines: +2 -2
Forced function to return a value.
-----------------------------
revision 1.5
date: 1999/11/24 23:34:18; author: howarde; state: Exp; lines: +2 -2
Fixed up some CObject references to be CKernelObject

11

references

----------------------------

revision 1.4
date: 1999/11/24 22:32:44; author: andreiv; state: Exp; lines: +27 -23
multiple enhancements, still no Jerry's code here...

----------------------------

revision 1.3
date: 1999/11/11 22:58:55; author: andreiv; state: Exp; lines: +266 -54
improved but still unable to do anything intelligent
=============================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/CDspManager.h,v
Working file: DSPManager/CDspManager.h
head: 1.47
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 50;   selected revisions: 10
description:

----------------------------

revision 1.13
date: 1999/12/30 00:05:17;  author: geraldi;  state: Exp;  lines: +15 -0
New DSP code and support for dsp Algorithms

----------------------------

revision 1.12
date: 1999/12/29 17:33:04;  author: howarde;  state: Exp;  lines: +7 -1
no message

----------------------------

revision 1.11
date: 1999/12/27 00:36:13;  author: howarde;  state: Exp;  lines: +4 -0
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.

----------------------------

revision 1.10
date: 1999/12/18 22:24:14;  author: andreiv;  state: Exp;  lines: +7 -1
volume control capability added

----------------------------

revision 1.9
date: 1999/12/17 00:40:47;  author: howarde;  state: Exp;  lines: +2 -11
First cut with playback manager hooked to transfer agent
Plays audio from disk

----------------------------

12

revision 1.8
date: 1999/12/14 15:36:39; author: howarde; state: Exp; lines: +38 -29
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

---------------------------

revision 1.7
date: 1999/12/13 21:17:52; author: geraldi; state: Exp; lines: +15 -0
updated

---------------------------

revision 1.6
date: 1999/12/01 22:06:46; author: geraldi; state: Exp; lines: +16 -2
audio playback support added

---------------------------

revision 1.5
date: 1999/11/24 22:31:33; author: andreiv; state: Exp; lines: +2 -1
minor change

---------------------------

revision 1.4
date: 1999/11/11 22:57:54; author: andreiv; state: Exp; lines: +30 -2
some functionality provided, cannot do anything intelligent though...
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/Attic/CDspManager.hh,v
Working file: DSPManager/CDspManager.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/dspboot.h,v
Working file: DSPManager/dspboot.h
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 3
description:

---------------------------

revision 1.3

13

date: 1999/12/30 00:05:17; author: geraldi; state: Exp; lines: +585 -596
New DSP code and support for dsp Algorithms

---------------------------

·revision 1.2
date: 1999/12/26 21:44:17; author: howarde; state: Exp; lines: +711 -236
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8. Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

---------------------------

revision 1.1
date: 1999/12/13 21:19:57; author: geraldi; state: Exp;
initial check-in

========================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/dspcode.h,v
Working file: DSPManager/dspcode.h
head: 1.32
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 32;   selected revisions: 2
description:

---------------------------

revision 1.2
date: 1999/12/13 21:18:54; author: geraldi; state: Exp; lines: +293 -286
new TI5402 code

---------------------------

revision 1.1
date: 1999/12/01 21:53:19; author: geraldi; state: Exp;
initial check-in

========================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/DSPManager/makefile,v
Working file: DSPManager/makefile
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1

14

description:

\----------------------------

revision 1.3
date: 1999/12/01 21:54:28;  author: geraldi;  state: Exp;  lines: +1 -1
CDspIO.cpp is added
=================================================================================

================

cvs server: Logging FileSystem

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CAttributes.cpp,v
Working file: FileSystem/CAttributes.cpp
head: 1.17
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 18;   selected revisions: 3
description:

\----------------------------

revision 1.3
date: 2000/01/03 21:19:13;  author: howarde;  state: Exp;  lines: +25 -0
CES Release

\----------------------------

revision 1.2
date: 1999/12/26 21:44:18;  author: howarde;  state: Exp;  lines: +23 -3
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

\----------------------------

revision 1.1
date: 1999/12/14 15:39:49;  author: howarde;  state: Exp;
Add CAttributes
=================================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CAttributes.h,v
Working file: FileSystem/CAttributes.h
head: 1.15
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 16;   selected revisions: 3

15

description:

------------------------------

revision 1.3
date: 2000/01/03 21:19:13;  author: howarde;  state: Exp;  lines: +2 -1
CES Release

------------------------------

revision 1.2
date: 1999/12/26 21:44:19;  author: howarde;  state: Exp;  lines: +3 -3
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

------------------------------

revision 1.1
date: 1999/12/14 15:39:49;  author: howarde;  state: Exp;
Add CAttributes
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CDirInode.cpp,v
Working file: FileSystem/CDirInode.cpp
head: 1.15
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 18;   selected revisions: 5
description:

------------------------------

revision 1.5
date: 2000/01/03 19:06:47;  author: howarde;  state: Exp;  lines: +49 -0
Added boot loader hack to USB manager
Added some directory manipulation features to DirINode
Set LCD Width properly
Set Eq Numbers in UI to be offset by -18.

------------------------------

revision 1.4
date: 2000/01/01 22:46:14;  author: howarde;  state: Exp;  lines: +1 -1
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.

------------------------------

revision 1.3
date: 2000/01/01 15:19:26; author: howarde; state: Exp; lines: +1 -0
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed. I.e. fails to close after create
means file DNE.

----------------------------

revision 1.2
date: 1999/11/14 15:29:46; author: howarde; state: Exp; lines: +2 -1
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

----------------------------

revision 1.1
date: 1999/11/11 21:50:52; author: howarde; state: Exp;
First checkin
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CDirInode.h,v
Working file: FileSystem/CDirInode.h
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/11 21:50:52; author: howarde; state: Exp;
First checkin
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/Attic/CDspManager.cc,v
Working file: FileSystem/CDspManager.cc
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
================

17

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/Attic/CDspManager.hh,v
Working file: FileSystem/CDspManager.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CINode.cpp,v
Working file: FileSystem/CINode.cpp
head: 1.29
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 30;   selected revisions: 7
description:
----------------------------
revision 1.7
date: 1999/12/31 01:14:00;  author: howarde;  state: Exp;  lines: +12 -0
Added INode debug output statements.
----------------------------
revision 1.6
date: 1999/12/30 23:55:01;  author: howarde;  state: Exp;  lines: +0 -12
Fixed file system bug
----------------------------
revision 1.5
date: 1999/12/30 23:42:50;  author: howarde;  state: Exp;  lines: +12 -0
Fixed file system bug
----------------------------
revision 1.4
date: 1999/12/30 20:12:37;  author: howarde;  state: Exp;  lines: +2 -0
Fixed file system bug
----------------------------
revision 1.3
date: 1999/12/29 20:14:01;  author: howarde;  state: Exp;  lines: +1 -0
Added fix to filesystem to
take an initial file size on creation.
"Cause double indirect is broken currently"
----------------------------
revision 1.2
date: 1999/12/14 15:36:39;  author: howarde;  state: Exp;  lines: +41 -11

18

Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.1
date: 1999/11/11 21:50:52; author: howarde; state: Exp;
First checkin
========================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CINode.h,v
Working file: FileSystem/CINode.h
head: 1.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 3
description:

----------------------------

revision 1.3
date: 1999/12/29 20:14:01; author: howarde; state: Exp; lines: +1 -1
Added fix to filesystem to
take an initial file size on creation.
"Cause double indirect is broken currently"

----------------------------

revision 1.2
date: 1999/12/14 15:36:40; author: howarde; state: Exp; lines: +69 -2
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.1
date: 1999/11/11 21:50:52; author: howarde; state: Exp;
First checkin
========================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CPartitionIo.cpp,v
Working file: FileSystem/CPartitionIo.cpp
head: 1.18
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 18;   selected revisions: 6
description:

----------------------------

19

revision 1.6
date: 1999/12/23 00:09:09; author: howarde; state: Exp; lines: +61 -12
Created bootloader files within this project

---------------------------

revision 1.5
date: 1999/12/18 20:34:44; author: howarde; state: Exp; lines: +2 -1
no message

---------------------------

revision 1.4
date: 1999/12/14 15:36:40; author: howarde; state: Exp; lines: +205 -18
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

---------------------------

revision 1.3
date: 1999/12/02 20:35:02; author: andreiv; state: Exp; lines: +1 -1
declared the array used by the test() function as static, 'cause otherwise
it was allocated on the stack and stack overflow could occur

---------------------------

revision 1.2
date: 1999/11/14 15:29:46; author: howarde; state: Exp; lines: +3 -2
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

---------------------------

revision 1.1
date: 1999/11/11 21:50:52; author: howarde; state: Exp;
First checkin

=================================================================
===============


RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CPartitionIo.h,v
Working file: FileSystem/CPartitionIo.h
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 3
description:

---------------------------

revision 1.3
date: 1999/12/23 00:09:09; author: howarde; state: Exp; lines: +11 -2
Created bootloader files within this project

---------------------------

revision 1.2
date: 1999/12/14 15:36:40; author: howarde; state: Exp; lines: +13 -0

20

Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
----------------------------
revision 1.1
date: 1999/11/11 21:50:53;  author: howarde;  state: Exp;
First checkin
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CStorageMap.cpp,v
Working file: FileSystem/CStorageMap.cpp
head: 1.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15;   selected revisions: 5
description:
----------------------------
revision 1.5
date: 2000/01/04 22:02:11;  author: howarde;  state: Exp;  lines: +24 -1
CES Final
----------------------------
revision 1.4
date: 1999/12/30 20:12:38;  author: howarde;  state: Exp;  lines: +25 -3
Fixed file system bug
----------------------------
revision 1.3
date: 1999/12/23 00:09:09;  author: howarde;  state: Exp;  lines: +2 -0
Created bootloader files within this project
----------------------------
revision 1.2
date: 1999/12/18 20:34:45;  author: howarde;  state: Exp;  lines: +2 -1
no message
----------------------------
revision 1.1
date: 1999/11/11 21:50:53;  author: howarde;  state: Exp;
First checkin
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CStorageMap.h,v
Working file: FileSystem/CStorageMap.h
head: 1.6
branch:
locks: strict

21

access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 4
description:

------------------------------
revision 1.4
date: 1999/12/30 20:12:38;  author: howarde;  state: Exp;  lines: +2 -0
Fixed file system bug
------------------------------
revision 1.3
date: 1999/12/18 20:34:46;  author: howarde;  state: Exp;  lines: +1 -1
no message
------------------------------
revision 1.2
date: 1999/12/14 15:36:40;  author: howarde;  state: Exp;  lines: +1 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
------------------------------
revision 1.1
date: 1999/11/11 21:50:53;  author: howarde;  state: Exp;
First checkin

=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CSuperBlock.cpp,v
Working file: FileSystem/CSuperBlock.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 4
description:

------------------------------
revision 1.4
date: 1999/12/23 00:09:10;  author: howarde;  state: Exp;  lines: +15 -1
Created bootloader files within this project
------------------------------
revision 1.3
date: 1999/12/14 15:36:40;  author: howarde;  state: Exp;  lines: +16 -4
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
------------------------------
revision 1.2
date: 1999/11/14 15:29:47;  author: howarde;  state: Exp;  lines: +4 -2
Checkin running code which should get tagged as the last set

22

of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

```
----------------------------
revision 1.1
date: 1999/11/11 21:50:53;  author: howarde;  state: Exp;
First checkin
========================================================================
=================
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/CSuperBlock.h,v
Working file: FileSystem/CSuperBlock.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 2
description:

```
----------------------------
revision 1.2
date: 1999/12/23 00:09:10;  author: howarde;  state: Exp;  lines: +4 -3
Created bootloader files within this project
----------------------------
revision 1.1
date: 1999/11/11 21:50:53;  author: howarde;  state: Exp;
First checkin
========================================================================
=================
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/FileSystem.cpp,v
Working file: FileSystem/FileSystem.cpp
head: 1.43
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 45;   selected revisions: 6
description:

```
----------------------------
revision 1.6
date: 2000/01/01 15:19:26;  author: howarde;  state: Exp;  lines: +44 -2
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed. I.e. fails to close after create
means file DNE.
----------------------------
revision 1.5
```

23

date: 1999/12/29 20:14:01; author: howarde; state: Exp; lines: +8 -1
Added fix to filesystem to
take an initial file size on creation.
"Cause double indirect is broken currently"
----------------------------
revision 1.4
date: 1999/12/23 00:09:10; author: howarde; state: Exp; lines: +26 -10
Created bootloader files within this project
----------------------------
revision 1.3
date: 1999/12/14 15:36:41; author: howarde; state: Exp; lines: +19 -4
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
----------------------------
revision 1.2
date: 1999/11/14 15:29:47; author: howarde; state: Exp; lines: +2 -2
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.
----------------------------
revision 1.1
date: 1999/11/11 21:51:07; author: howarde; state: Exp;
First checkin
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/FileSystem.h,v
Working file: FileSystem/FileSystem.h
head: 1.30
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 31;   selected revisions: 4
description:
----------------------------
revision 1.4
date: 2000/01/01 15:19:27; author: howarde; state: Exp; lines: +12 -1
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed. I.e. fails to close after create
means file DNE.
----------------------------
revision 1.3
date: 1999/12/29 20:14:01; author: howarde; state: Exp; lines: +1 -1
Added fix to filesystem to
take an initial file size on creation.

24

"Cause double indirect is broken currently"

----------------------------

revision 1.2
date: 1999/12/14 15:36:41; author: howarde; state: Exp; lines: +13 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.1
date: 1999/11/11 21:51:08; author: howarde; state: Exp;
First checkin
=================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/FsInternals.h,v
Working file: FileSystem/FsInternals.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/11 21:51:24; author: howarde; state: Exp;
First checkin
=================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/FsTypes.h,v
Working file: FileSystem/FsTypes.h
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/11 21:51:24; author: howarde; state: Exp;
First checkin
=================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/HardFileData.cpp,v

Working file: FileSystem/HardFileData.cpp
head: 1.14
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14;   selected revisions: 12
description:

----------------------------

revision 1.12
date: 2000/01/03 19:06:48; author: howarde; state: Exp; lines: +4 -3
Added boot loader hack to USB manager
Added some directory manipulation features to DirINode
Set LCD Width properly
Set Eq Numbers in UI to be offset by -18.

----------------------------

revision 1.11
date: 2000/01/01 15:19:27; author: howarde; state: Exp; lines: +3 -3
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed. I.e. fails to close after create
means file DNE.        ·

----------------------------

revision 1.10
date: 1999/12/30 23:42:50; author: howarde; state: Exp; lines: +2 -2
Fixed file system bug

----------------------------

revision 1.9
date: 1999/12/30 20:12:38; author: howarde; state: Exp; lines: +13 -5
Fixed file system bug

----------------------------

revision 1.8
date: 1999/12/29 17:33:04; author: howarde; state: Exp; lines: +13 -2
no message

----------------------------

revision 1.7
date: 1999/12/26 21:44:19; author: howarde; state: Exp; lines: +4 -8
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8. Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

----------------------------

revision 1.6
date: 1999/12/23 21:35:56; author: howarde; state: Exp; lines: +15 -10
Latest boot loader modifications and inclusion of some new hard coded

music.

----------------------------

revision 1.5
date: 1999/12/17 00:40:47;  author: howarde;  state: Exp;  lines: +1 -1
First cut with playback manager hooked to transfer agent
Plays audio from disk

----------------------------

revision 1.4
date: 1999/12/14 15:36:41;  author: howarde;  state: Exp;  lines: +146 -19
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.3
date: 1999/11/15 21:15:04;  author: howarde;  state: Exp;  lines: +1 -1
Howard's source code up to date for week of 11/15.

----------------------------

revision 1.2
date: 1999/11/14 15:29:47;  author: howarde;  state: Exp;  lines: +1 -1
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.

----------------------------

revision 1.1
date: 1999/11/11 21:51:30;  author: howarde;  state: Exp;
First checkin
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/HardFileData.h,v
Working file: FileSystem/HardFileData.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 1
description:
----------------------------

revision 1.1
date: 1999/11/11 21:51:30;  author: howarde;  state: Exp;
First checkin
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/TFsTestForm.cpp,v
Working file: FileSystem/TFsTestForm.cpp

head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 2000/01/01 15:19:27;  author: howarde;  state: Exp;  lines: +2 -2
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed. I.e. fails to close after create
means file DNE.
----------------------------
revision 1.1
date: 1999/11/11 21:51:30;  author: howarde;  state: Exp;
First checkin
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/TFsTestForm.dfm,v
Working file: FileSystem/TFsTestForm.dfm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/TFsTestForm.h,v
Working file: FileSystem/TFsTestForm.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/TransferAgent.cpp,v
Working file: FileSystem/TransferAgent.cpp

head: 1.43
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 45;   selected revisions: 5
description:

---------------------------

revision 1.5
date: 2000/01/01 15:19:27;  author: howarde;  state: Exp;  lines: +5 -1
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed. I.e. fails to close after create
means file DNE.

---------------------------

revision 1.4
date: 1999/12/26 21:44:19;  author: howarde;  state: Exp;  lines: +2 -2
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

---------------------------

revision 1.3
date: 1999/12/18 20:34:47;  author: howarde;  state: Exp;  lines: +1 -1
no message

---------------------------

revision 1.2
date: 1999/12/17 00:40:48;  author: howarde;  state: Exp;  lines: +34 -12
First cut with playback manager hooked to transfer agent
Plays audio from disk

---------------------------

revision 1.1
date: 1999/12/14 15:40:52;  author: howarde;  state: Exp;
Add TransferAgent
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/TransferAgent.h,v
Working file: FileSystem/TransferAgent.h
head: 1.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 1

29

description:

------------------------------
revision 1.1
date: 1999/12/14 15:40:52; author: howarde; state: Exp;
Add TransferAgent            .
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/funky.h,v
Working file: FileSystem/funky.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------
revision 1.1
date: 1999/11/11 21:51:24; author: howarde; state: Exp;
First checkin
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FileSystem/makefile,v
Working file: FileSystem/makefile
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 2
description:

----------------------------
revision 1.2
date: 1999/12/14 15:36:41; author: howarde; state: Exp; lines: +2 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
----------------------------
revision 1.1
date: 1999/11/11 21:51:30; author: howarde; state: Exp;
First checkin
==================================================================

===============
cvs server: Logging FrontPanelUI

30

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/CJKV_12.WFT,v
Working file: FrontPanelUI/CJKV_12.WFT
head: 1.4
branch: .
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/CStr.cpp,v
Working file: FrontPanelUI/CStr.cpp
head: 1.3
branch:
locks: strict        .·
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/CStr.h,v
Working file: FrontPanelUI/CStr.h
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 1
description:
----------------------------
revision 1.3
date: 1999/12/14 15:36:42;  author: howarde;  state: Exp;  lines: +6 -6
branches:  1.3.6;
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/CStrTable.cpp,v
Working file: FrontPanelUI/CStrTable.cpp
head: 1.4
branch:

31

locks: strict
access list:
keyword substitution: kv
total revisions: 21;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/CStrTable.h,v
Working file: FrontPanelUI/CStrTable.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/GeneralTypes.h,v
Working file: FrontPanelUI/GeneralTypes.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.2
date: 1999/11/15 20:50:19;  author: howarde;  state: Exp;  lines: +1 -0
Merged in Ron's Latest LCD Page Code
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/GrCustom.c,v
Working file: FrontPanelUI/GrCustom.c
head: 1.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;   selected revisions: 8
description:
----------------------------

32

revision 1.9
date: 1999/12/30 16:00:01; author: howarde; state: Exp; lines: +3 -6
Better fonts, cosmetics

----------------------------

revision 1.8
date: 1999/12/29 17:33:05; author: howarde; state: Exp; lines: +11 -2
no message

----------------------------

revision 1.7
date: 1999/12/26 21:44:20; author: howarde; state: Exp; lines: +2 -2
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8. Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

----------------------------

revision 1.6
date: 1999/12/23 21:35:56; author: howarde; state: Exp; lines: +4 -3
Latest boot loader modifications and inclusion of some new hard coded
music.

----------------------------

revision 1.5
date: 1999/12/23 00:09:10; author: howarde; state: Exp; lines: +1 -1
Created bootloader files within this project

----------------------------

revision 1.4
date: 1999/11/15 20:50:19; author: howarde; state: Exp; lines: +4 -1
Merged in Ron's Latest LCD Page Code

----------------------------

revision 1.3
date: 1999/11/14 15:29:48; author: howarde; state: Exp; lines: +2 -2
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

----------------------------

revision 1.2
date: 1999/11/11 21:52:16; author: howarde; state: Exp; lines: +1 -1
no message
=============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/GrCustom.h,v
Working file: FrontPanelUI/GrCustom.h
head: 1.18
branch:

33

locks: strict
access list:
keyword substitution: kv
total revisions: 19;   selected revisions: 4
description:

----------------------------

revision 1.7
date: 1999/12/30 16:00:01;  author: howarde;  state: Exp;  lines: +3 -3
Better fonts, cosmetics

----------------------------

revision 1.6
date: 1999/12/29 17:33:05;  author: howarde;  state: Exp;  lines: +4 -0
no message

----------------------------

revision 1.5
date: 1999/12/26 21:44:20;  author: howarde;  state: Exp;  lines: +3 -3
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

----------------------------

revision 1.4
date: 1999/11/15 20:50:19;  author: howarde;  state: Exp;  lines: +4 -0
Merged in Ron's Latest LCD Page Code
=======================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/Attic/GrLcdDriver.c,v
Working file: FrontPanelUI/GrLcdDriver.c
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=======================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/GrResources.c,v
Working file: FrontPanelUI/GrResources.c
head: 1.26
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 28;   selected revisions: 16
description:

---------------------------

revision 1.18
date: 2000/01/01 22:46:15;  author: howarde;  state: Exp;  lines: +84 -0
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.

---------------------------

revision 1.17
date: 1999/12/30 16:00:01;  author: howarde;  state: Exp;  lines: +300 -557
Better fonts, cosmetics

---------------------------

revision 1.16
date: 1999/12/29 20:14:02;  author: howarde;  state: Exp;  lines: +1 -1
Added fix to filesystem to
take an initial file size on creation.
"Cause double indirect is broken currently"

---------------------------

revision 1.15
date: 1999/12/29 17:33:05;  author: howarde;  state: Exp;  lines: +776 -6
no message

---------------------------

revision 1.14
date: 1999/12/28 18:32:42;  author: howarde;  state: Exp;  lines: +192 -0
Miscellaneous bug fixes.

---------------------------

revision 1.13
date: 1999/12/26 21:44:20;  author: howarde;  state: Exp;  lines: +8 -1
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

---------------------------

revision 1.12
date: 1999/12/23 21:35:56;  author: howarde;  state: Exp;  lines: +3 -2
Latest boot loader modifications and inclusion of some new hard coded
music.

---------------------------

revision 1.11

35

date: 1999/12/23 00:44:38; author: howarde; state: Exp; lines: +1 -1
Created bootloader files within this project ... continued

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revision 1.10
date: 1999/12/23 00:09:11; author: howarde; state: Exp; lines: +9 -9
Created bootloader files within this project

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revision 1.9
date: 1999/12/18 20:34:47; author: howarde; state: Exp; lines: +1 -1
no message

----------------------------

revision 1.8
date: 1999/12/14 16:01:02; author: howarde; state: Exp; lines: +0 -1
#if def'd out fancy splash screen bitmaps

----------------------------

revision 1.7
date: 1999/12/14 15:47:45; author: howarde; state: Exp; lines: +4 -1
#if def'd out fancy splash screen bitmaps

----------------------------

revision 1.6
date: 1999/12/14 15:36:42; author: howarde; state: Exp; lines: +115 -0
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.5
date: 1999/11/15 20:50:19; author: howarde; state: Exp; lines: +354 -0
Merged in Ron's Latest LCD Page Code

----------------------------

revision 1.4
date: 1999/11/14 15:29:48; author: howarde; state: Exp; lines: +297 -1
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

----------------------------

revision 1.3
date: 1999/11/11 21:52:44; author: howarde; state: Exp; lines: +9 -4
no message
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/GrResources.h,v
Working file: FrontPanelUI/GrResources.h
head: 1.16
branch:
locks: strict
access list:

keyword substitution: kv
total revisions: 17;    selected revisions: 9
description:

----------------------------

revision 1.10
date: 1999/12/30 16:00:02;  author: howarde;  state: Exp;  lines: +1 -1
Better fonts, cosmetics

----------------------------

revision 1.9
date: 1999/12/29 20:14:03;  author: howarde;  state: Exp;  lines: +1 -1
Added fix to filesystem to
take an initial file size on creation.
"Cause double indirect is broken currently"

----------------------------

revision 1.8
date: 1999/12/29 17:33:06;  author: howarde;  state: Exp;  lines: +7 -3
no message

----------------------------

revision 1.7
date: 1999/12/28 18:32:42;  author: howarde;  state: Exp;  lines: +5 -3
Miscellaneous bug fixes.

----------------------------

revision 1.6
date: 1999/12/26 21:44:21;  author: howarde;  state: Exp;  lines: +3 -3
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

----------------------------

revision 1.5
date: 1999/12/23 21:35:57;  author: howarde;  state: Exp;  lines: +3 -1
Latest boot loader modifications and inclusion of some new hard coded
music.

----------------------------

revision 1.4
date: 1999/12/23 00:44:39;  author: howarde;  state: Exp;  lines: +1 -1
Created bootloader files within this project ... continued

----------------------------

revision 1.3
date: 1999/12/14 16:01:02;  author: howarde;  state: Exp;  lines: +1 -1
#if def'd out fancy splash screen bitmaps

----------------------------

revision 1.2
date: 1999/11/15 20:50:20;  author: howarde;  state: Exp;  lines: +17 -0

Merged in Ron's Latest LCD Page Code

================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDFunctionsPage.cpp,v
Working file: FrontPanelUI/LCDFunctionsPage.cpp
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 2
description:
----------------------------
revision 1.3
date: 1999/11/15 20:50:20;  author: howarde;  state: Exp;  lines: +2 -0
Merged in Ron's Latest LCD Page Code
----------------------------
revision 1.2
date: 1999/11/14 15:29:48;  author: howarde;  state: Exp;  lines: +0 -7
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDFunctionsPage.h,v
Working file: FrontPanelUI/LCDFunctionsPage.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDGamesPage.cpp,v
Working file: FrontPanelUI/LCDGamesPage.cpp
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 2

description:

----------------------------

revision 1.2
date: 1999/11/27 18:18:17; author: howarde; state: Exp; lines: +0 -5
Removed some MFC specific stuff

----------------------------

revision 1.1
date: 1999/11/15 20:50:20; author: howarde; state: Exp;
Merged in Ron's Latest LCD Page Code
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDGamesPage.h,v
Working file: FrontPanelUI/LCDGamesPage.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/15 20:50:20; author: howarde; state: Exp;
Merged in Ron's Latest LCD Page Code
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDLibPage.cpp,v
Working file: FrontPanelUI/LCDLibPage.cpp
head: 1.55
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 58;   selected revisions: 5
description:

----------------------------

revision 1.6
date: 2000/01/01 22:46:15; author: howarde; state: Exp; lines: +1 -1
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads. Playback manager eats way too
much time for it's own good.

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39

revision 1.5
date: 1999/12/28 18:32:43; author: howarde; state: Exp; lines: +5 -6
Miscellaneous bug fixes.

----------------------------

revision 1.4
date: 1999/12/14 15:36:42; author: howarde; state: Exp; lines: +53 -36
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.3
date: 1999/11/15 20:50:21; author: howarde; state: Exp; lines: +134 -31
Merged in Ron's Latest LCD Page Code

----------------------------

revision 1.2
date: 1999/11/14 15:29:48; author: howarde; state: Exp; lines: +0 -5
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDLibPage.h,v
Working file: FrontPanelUI/LCDLibPage.h
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;    selected revisions: 2
description:

----------------------------

revision 1.3
date: 1999/12/14 15:36:43; author: howarde; state: Exp; lines: +2 -0
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.2
date: 1999/11/15 20:50:21; author: howarde; state: Exp; lines: +9 -5
Merged in Ron's Latest LCD Page Code
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDListBox.cpp,v
Working file: FrontPanelUI/LCDListBox.cpp
head: 1.47
branch:

locks: strict
access list:
keyword substitution: kv
total revisions: 48;   selected revisions: 7
description:
---------------------------
revision 1.8
date: 1999/12/30 16:00:02;  author: howarde;  state: Exp;  lines: +34 -8
Better fonts, cosmetics
---------------------------
revision 1.7
date: 1999/12/28 18:32:43;  author: howarde;  state: Exp;  lines: +17 -3
Miscellaneous bug fixes.
---------------------------
revision 1.6
date: 1999/12/26 21:44:21;  author: howarde;  state: Exp;  lines: +27 -11
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.
---------------------------
revision 1.5
date: 1999/12/20 17:48:57;  author: howarde;  state: Exp;  lines: +1 -1
Miscellania
---------------------------
revision 1.4
date: 1999/12/14 15:36:43;  author: howarde;  state: Exp;  lines: +23 -20
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
---------------------------
revision 1.3
date: 1999/11/15 20:50:21;  author: howarde;  state: Exp;  lines: +127 -78
Merged in Ron's Latest LCD Page Code
---------------------------
revision 1.2
date: 1999/11/14 15:29:49;  author: howarde;  state: Exp;  lines: +0 -6
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.
============================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDListBox.h,v
Working file: FrontPanelUI/LCDListBox.h

41

head: 1.18
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 19;   selected revisions: 4
description:

----------------------------

revision 1.5
date: 2000/01/01 22:46:15;  author: howarde;  state: Exp;  lines: +2 -0
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.

----------------------------

revision 1.4
date: 1999/12/28 18:32:44;  author: howarde;  state: Exp;  lines: +3 -1
Miscellaneous bug fixes.

----------------------------

revision 1.3
date: 1999/12/14 15:36:43;  author: howarde;  state: Exp;  lines: +3 -3
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.2
date: 1999/11/15 20:50:21;  author: howarde;  state: Exp;  lines: +19 -13
Merged in Ron's Latest LCD Page Code
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDListeningPage.cpp,v
Working file: FrontPanelUI/LCDListeningPage.cpp
head: 1.27
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 30;   selected revisions: 5
description:

----------------------------

revision 1.6
date: 2000/01/01 22:46:16;  author: howarde;  state: Exp;  lines: +1 -1
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing

problem between threads. Playback manager eats way too
much time for it's own good.

----------------------------

revision 1.5
date: 1999/12/28 18:32:44; author: howarde; state: Exp; lines: +12 -16
Miscellaneous bug fixes.

----------------------------

revision 1.4
date: 1999/12/27 00:36:13; author: howarde; state: Exp; lines: +8 -13
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.

----------------------------

revision 1.3
date: 1999/12/14 15:36:43; author: howarde; state: Exp; lines: +59 -47
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.2
date: 1999/11/15 20:50:21; author: howarde; state: Exp; lines: +240 -59
Merged in Ron's Latest LCD Page Code
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDListeningPage.h,v
Working file: FrontPanelUI/LCDListeningPage.h
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9;    selected revisions: 1
description:
----------------------------

revision 1.2
date: 1999/11/15 20:50:21; author: howarde; state: Exp; lines: +7 -1
Merged in Ron's Latest LCD Page Code
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDMenu.cpp,v
Working file: FrontPanelUI/LCDMenu.cpp
head: 1.2
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDMenu.h,v
Working file: FrontPanelUI/LCDMenu.h
head: 1.1
branch:
locks: strict
access list:            .
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDMenuPage.cpp,v
Working file: FrontPanelUI/LCDMenuPage.cpp
head: 1.89
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 99;    selected revisions: 6
description:
----------------------------
revision 1.7
date: 2000/01/03 21:19:14;  author: howarde;  state: Exp;  lines: +1 -1
CES Release
----------------------------
revision 1.6
date: 2000/01/03 19:06:48;  author: howarde;  state: Exp;  lines: +3 -0
Added boot loader hack to USB manager
Added some directory manipulation features to DirINode
Set LCD Width properly
Set Eq Numbers in UI to be offset by -18.
----------------------------
revision 1.5
date: 2000/01/01 22:46:16;  author: howarde;  state: Exp;  lines: +348 -43
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too

much time for it's own good.

---------------------------

revision 1.4
date: 1999/12/26 21:44:21;  author: howarde;  state: Exp;  lines: +9 -7
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

---------------------------

revision 1.3
date: 1999/11/15 20:50:22;  author: howarde;  state: Exp;  lines: +55 -13
Merged in Ron's Latest LCD Page Code

---------------------------

revision 1.2
date: 1999/11/14 15:29:49;  author: howarde;  state: Exp;  lines: +0 -7
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.
================================================================

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RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDMenuPage.h,v
Working file: FrontPanelUI/LCDMenuPage.h
head: 1.30
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 33;   selected revisions: 2
description:
---------------------------

revision 1.3
date: 2000/01/01 22:46:16;  author: howarde;  state: Exp;  lines: +51 -0
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.

---------------------------

revision 1.2
date: 1999/11/15 20:50:22;  author: howarde;  state: Exp;  lines: +2 -0
Merged in Ron's Latest LCD Page Code
================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDMgr.cpp,v
Working file: FrontPanelUI/LCDMgr.cpp
head: 1.90
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 95;   selected revisions: 18
description:
---------------------------

revision 1.19
date: 2000/01/04 22:03:32;  author: howarde;  state: Exp;  lines: +2 -1
Fixed curPage getting set to NULL erroneously
---------------------------

revision 1.18
date: 2000/01/01 22:46:16;  author: howarde;  state: Exp;  lines: +17 -1
Added system menu, including dsp effects control


2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.
---------------------------

revision 1.17
date: 1999/12/28 18:37:13;  author: howarde;  state: Exp;  lines: +6 -3
Miscellaneous bug fixes.
---------------------------

revision 1.16
date: 1999/12/28 18:32:44;  author: howarde;  state: Exp;  lines: +14 -5
Miscellaneous bug fixes.
---------------------------

revision 1.15
date: 1999/12/27 00:36:13;  author: howarde;  state: Exp;  lines: +15 -35
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.
---------------------------

revision 1.14
date: 1999/12/26 21:44:21;  author: howarde;  state: Exp;  lines: +14 -1
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

```
--------------------------
revision 1.13
date: 1999/12/24 19:35:18;  author: geraldi;  state: Exp;  lines: +2 -2
Fixed some transport issues.
--------------------------
revision 1.12
date: 1999/12/23 21:35:57;  author: howarde;  state: Exp;  lines: +6 -1
Latest boot loader modifications and inclusion of some new hard coded
music.
--------------------------
revision 1.11
date: 1999/12/23 00:09:11;  author: howarde;  state: Exp;  lines: +1 -1
Created bootloader files within this project
--------------------------
revision 1.10
date: 1999/12/20 17:48:57;  author: howarde;  state: Exp;  lines: +1 -1
Miscellania
--------------------------
revision 1.9
date: 1999/12/18 22:15:26;  author: andreiv;  state: Exp;  lines: +23 -1
added encoder event handling to the LCD manager
--------------------------
revision 1.8
date: 1999/12/18 20:34:48;  author: howarde;  state: Exp;  lines: +11 -3
no message
--------------------------
revision 1.7
date: 1999/12/17 00:40:48;  author: howarde;  state: Exp;  lines: +9 -3
First cut with playback manager hooked to transfer agent
Plays audio from disk
--------------------------
revision 1.6
date: 1999/12/14 16:01:11;  author: howarde;  state: Exp;  lines: +7 -0
#if def'd out fancy splash screen bitmaps
--------------------------
revision 1.5
date: 1999/12/14 15:36:43;  author: howarde;  state: Exp;  lines: +196 -11
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
--------------------------
revision 1.4
date: 1999/11/15 20:50:22;  author: howarde;  state: Exp;  lines: +57 -33
Merged in Ron's Latest LCD Page Code
--------------------------
revision 1.3
date: 1999/11/14 15:29:49;  author: howarde;  state: Exp;  lines: +2 -7
```

47

Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

----------------------------

revision 1.2
date: 1999/11/11 21:53:11; author: howarde; state: Exp; lines: +2 -2
no message

==================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDMgr.h,v
Working file: FrontPanelUI/LCDMgr.h
head: 1.35
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 37;   selected revisions: 5
description:

----------------------------

revision 1.6
date: 2000/01/01 22:46:16; author: howarde; state: Exp; lines: +5 -1
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads. Playback manager eats way too
much time for it's own good.

----------------------------

revision 1.5
date: 1999/12/18 22:15:26; author: andreiv; state: Exp; lines: +8 -0
added encoder event handling to the LCD manager

----------------------------

revision 1.4
date: 1999/12/18 20:34:49; author: howarde; state: Exp; lines: +1 -1
no message

----------------------------

revision 1.3
date: 1999/12/14 15:36:44; author: howarde; state: Exp; lines: +50 -25
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.2
date: 1999/11/15 20:50:22; author: howarde; state: Exp; lines: +40 -30
Merged in Ron's Latest LCD Page Code

==================================================================
==============

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RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDPage.cpp,v
Working file: FrontPanelUI/LCDPage.cpp
head: 1.42
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 46;    selected revisions: 7
description:
----------------------------
revision 1.8
date: 1999/12/30 16:00:02;  author: howarde;  state: Exp;  lines: +24 -1
Better fonts, cosmetics
----------------------------
revision 1.7
date: 1999/12/29 17:33:06;  author: howarde;  state: Exp;  lines: +8 -8
no message
----------------------------
revision 1.6
date: 1999/12/28 18:32:45;  author: howarde;  state: Exp;  lines: +12 -8
Miscellaneous bug fixes.
----------------------------
revision 1.5
date: 1999/12/27 00:36:14;  author: howarde;  state: Exp;  lines: +117 -1
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.
----------------------------
revision 1.4
date: 1999/12/26 21:44:22;  author: howarde;  state: Exp;  lines: +4 -4
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.
----------------------------
revision 1.3
date: 1999/12/14 15:36:44;  author: howarde;  state: Exp;  lines: +85 -0
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
----------------------------
revision 1.2
date: 1999/11/15 20:50:22;  author: howarde;  state: Exp;  lines: +65 -15

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Merged in Ron's Latest LCD Page Code
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDPage.h,v
Working file: FrontPanelUI/LCDPage.h
head: 1.27
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 29;    selected revisions: 7
description:
----------------------------
revision 1.8
date: 2000/01/03 19:06:49;  author: howarde;  state: Exp;  lines: +1 -1
Added boot loader hack to USB manager
Added some directory manipulation features to DirINode
Set LCD Width properly
Set Eq Numbers in UI to be offset by -18.
----------------------------
revision 1.7
date: 2000/01/01 22:46:17;  author: howarde;  state: Exp;  lines: +9 -4
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.
----------------------------
revision 1.6
date: 1999/12/30 16:00:02;  author: howarde;  state: Exp;  lines: +3 -3
Better fonts, cosmetics
----------------------------
revision 1.5
date: 1999/12/27 00:36:14;  author: howarde;  state: Exp;  lines: +30 -7
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.
----------------------------
revision 1.4
date: 1999/12/26 21:44:22;  author: howarde;  state: Exp;  lines: +11 -3
Fixed several transport key issues, and          ʼ
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

50

Stop and play/pause now works.

```
----------------------------
```

revision 1.3
date: 1999/12/14 15:36:44;  author: howarde;  state: Exp;  lines: +38 -13
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

```
----------------------------
```

revision 1.2
date: 1999/11/15 20:50:23;  author: howarde;  state: Exp;  lines: +36 -13
Merged in Ron's Latest LCD Page Code

```
=================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDQListPage.cpp,v
Working file: FrontPanelUI/LCDQListPage.cpp
head: 1.33
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 38;   selected revisions: 5
description:

```
----------------------------
```

revision 1.5
date: 1999/12/29 17:33:06;  author: howarde;  state: Exp;  lines: +1 -0
no message

```
----------------------------
```

revision 1.4
date: 1999/12/28 18:37:14;  author: howarde;  state: Exp;  lines: +3 -3
Miscellaneous bug fixes.

```
----------------------------
```

revision 1.3
date: 1999/12/28 18:32:45;  author: howarde;  state: Exp;  lines: +96 -62
Miscellaneous bug fixes.

```
----------------------------
```

revision 1.2
date: 1999/12/14 15:36:44;  author: howarde;  state: Exp;  lines: +25 -20
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

```
----------------------------
```

revision 1.1
date: 1999/11/15 20:50:23;  author: howarde;  state: Exp;
Merged in Ron's Latest LCD Page Code

```
=================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDQListPage.h,v
Working file: FrontPanelUI/LCDQListPage.h
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/15 20:50:23;  author: howarde;  state: Exp;
Merged in Ron's Latest LCD Page Code
=============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDSplashPage.cpp,v
Working file: FrontPanelUI/LCDSplashPage.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/23 00:44:39;  author: howarde;  state: Exp;  lines: +1 -1
Created bootloader files within this project ... continued
----------------------------
revision 1.1
date: 1999/11/15 20:50:23;  author: howarde;  state: Exp;
Merged in Ron's Latest LCD Page Code
=============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDSplashPage.h,v
Working file: FrontPanelUI/LCDSplashPage.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

```
----------------------------
revision 1.1
date: 1999/11/15 20:50:23;  author: howarde;  state: Exp;
Merged in Ron's Latest LCD Page Code
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDTestPages.cpp,v
Working file: FrontPanelUI/LCDTestPages.cpp
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDTestPages.h,v
Working file: FrontPanelUI/LCDTestPages.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDTrackInfoPage.cpp,v
Working file: FrontPanelUI/LCDTrackInfoPage.cpp
head: 1.23
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;   selected revisions: 2
description:
----------------------------
revision 1.3
date: 1999/11/15 20:50:24;  author: howarde;  state: Exp;  lines: +23 -17
Merged in Ron's Latest LCD Page Code
----------------------------
revision 1.2
```

53

date: 1999/11/14 15:29:49; author: howarde; state: Exp; lines: +0 -6
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDTrackInfoPage.h,v
Working file: FrontPanelUI/LCDTrackInfoPage.h
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 1
description:
---------------------------
revision 1.2
date: 1999/11/15 20:50:24; author: howarde; state: Exp; lines: +5 -2
Merged in Ron's Latest LCD Page Code
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDTracksPage.cpp,v
Working file: FrontPanelUI/LCDTracksPage.cpp
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 1
description:
---------------------------
revision 1.2
date: 1999/11/14 15:29:49; author: howarde; state: Exp; lines: +0 -5
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/LCDTracksPage.h,v
Working file: FrontPanelUI/LCDTracksPage.h
head: 1.1
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/SJIS_12.WFT,v
Working file: FrontPanelUI/SJIS_12.WFT
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/StdInclude.h,v
Working file: FrontPanelUI/StdInclude.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/15 20:50:24;  author: howarde;  state: Exp;
Merged in Ron's Latest LCD Page Code
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/FrontPanelUI/makefile,v
Working file: FrontPanelUI/makefile
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 1
description:
----------------------------
revision 1.4

date: 1999/11/15 20:50:24; author: howarde; state: Exp; lines: +2 -1
Merged in Ron's Latest LCD Page Code
=================================================================
===============
cvs server: Logging IDE

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/Attic/CDspManager.cc,v
Working file: IDE/CDspManager.cc
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/Attic/CDspManager.hh,v
Working file: IDE/CDspManager.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/COasisSmartIDE.cpp,v
Working file: IDE/COasisSmartIDE.cpp
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/COasisSmartIDE.h,v
Working file: IDE/COasisSmartIDE.h
head: 1.4
branch:

56

locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/12/02 20:29:09;  author: andreiv;  state: Exp;
initial check-in, this class is derived from CIDEDevice and adds interrupt
driven I/O functionality

================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/blockdrv.h,v
Working file: IDE/blockdrv.h
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 4
description:

----------------------------

revision 1.4
date: 1999/12/14 15:36:45;  author: howarde;  state: Exp;  lines: +1 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.3 (
date: 1999/12/02 20:16:37;  author: andreiv;  state: Exp;  lines: +29 -3
error codes added to the class, also added ProcessInterrupt(), IRQEnable(),
and IRQDisable() member functions that default to "do nothing"

----------------------------

revision 1.2
date: 1999/11/14 15:29:50;  author: howarde;  state: Exp;  lines: +2 -2
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.

----------------------------

revision 1.1
date: 1999/11/11 21:59:36;  author: howarde;  state: Exp;
First checkin

================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/idedrv.cc,v

57

Working file: IDE/idedrv.cc
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 3
description:

----------------------------

revision 1.3
date: 1999/12/17 00:40:49;  author: howarde;  state: Exp;  lines: +3 -1
First cut with playback manager hooked to transfer agent
Plays audio from disk

----------------------------

revision 1.2
date: 1999/12/02 20:27:07;  author: andreiv;  state: Exp;  lines: +171 -63
multiple enhancements and minor fixes

----------------------------

revision 1.1
date: 1999/11/11 21:59:36;  author: howarde;  state: Exp;
First checkin

=================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/idedrv.h,v
Working file: IDE/idedrv.h
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 3
description:

----------------------------

revision 1.3
date: 1999/12/02 20:22:48;  author: andreiv;  state: Exp;  lines: +77 -74
cleaned up a little, improved several things, fixed the alignment problem
with the tIDEInfo structure - two fields defined as UInt32 are now UInt16[2]

----------------------------

revision 1.2
date: 1999/11/24 23:13:32;  author: andreiv;  state: Exp;  lines: +1 -0
increased the timeout, just a temp fix

----------------------------

revision 1.1
date: 1999/11/11 21:59:37;  author: howarde;  state: Exp;
First checkin

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```
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/IDE/makefile,v
Working file: IDE/makefile
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/11 21:59:37;  author: howarde;  state: Exp;
First checkin
================================================================
===============
cvs server: Logging Include

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/AAC.h,v
Working file: Include/AAC.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/Attic/GrLcdDriver.c,v
Working file: Include/GrLcdDriver.c
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/OsVersionInfo.h,v
Working file: Include/OsVersionInfo.h
```

head: 1.52
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 76;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/ProjectTypes.h,v
Working file: Include/ProjectTypes.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/WIDEString.h,v
Working file: Include/WIDEString.h
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/WIDEstdio.h,v
Working file: Include/WIDEstdio.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/cl7211Config.h,v
Working file: Include/cl7211Config.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/hwconfig.h,v
Working file: Include/hwconfig.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/memory.h,v
Working file: Include/memory.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/mpgaudio.h,v
Working file: Include/mpgaudio.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;  selected revisions: 1
description:
----------------------------

revision 1.1
date: 1999/11/11 23:15:16; author: andreiv; state: Exp;
interface to the mp3 library
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/mpgdata.h,v
Working file: Include/mpgdata.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/11 23:16:06; author: andreiv; state: Exp;
needs to be included by the users of the MP3 library
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Include/wmaudio.h,v
Working file: Include/wmaudio.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============
cvs server: Logging LibMgr

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/AllTracksCache.cpp,v
Working file: LibMgr/AllTracksCache.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/AllTracksCache.h,v
Working file: LibMgr/AllTracksCache.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/CPlayList.cpp,v
Working file: LibMgr/CPlayList.cpp
head: 1.27
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 28;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/CPlayList.h,v
Working file: LibMgr/CPlayList.h
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/CTrackInfo.cpp,v
Working file: LibMgr/CTrackInfo.cpp
head: 1.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 0
description:

63

```
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/CTrackInfo.h,v
Working file: LibMgr/CTrackInfo.h
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/Attic/GrLcdDriver.c,v
Working file: LibMgr/GrLcdDriver.c
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/ID3v1Info.cpp,v
Working file: LibMgr/ID3v1Info.cpp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/30 02:56:44;  author: andreiv;  state: Exp;
initial check-in, genre descriptions
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/ID3v1Tag.h,v
Working file: LibMgr/ID3v1Tag.h
head: 1.3
```

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 3
description:
----------------------------
revision 1.3
date: 1999/12/30 02:54:54;  author: andreiv;  state: Exp;  lines: +88 -1
genre enumeration added
----------------------------
revision 1.2
date: 1999/12/29 20:14:03;  author: howarde;  state: Exp;  lines: +4 -1
Added fix to filesystem to
take an initial file size on creation.
"Cause double indirect is broken currently"
----------------------------
revision 1.1
date: 1999/12/29 03:09:59;  author: andreiv;  state: Exp;
first check-in
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/LibElement.cpp,v
Working file: LibMgr/LibElement.cpp
head: 1.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 27;    selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 16:03:18;  author: howarde;  state: Exp;
Created LibMgr
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/LibElement.h,v
Working file: LibMgr/LibElement.h
head: 1.21
branch:
locks: strict
access list:
keyword substitution: kv

65

total revisions: 22;   selected revisions: 3
description:
----------------------------
revision 1.3
date: 1999/12/28 18:32:46;  author: howarde;  state: Exp;  lines: +3 -1
Miscellaneous bug fixes.

----------------------------
revision 1.2
date: 1999/12/17 00:40:49;  author: howarde;  state: Exp;  lines: +2 -0
First cut with playback manager hooked to transfer agent
Plays audio from disk

----------------------------
revision 1.1
date: 1999/12/14 16:03:18;  author: howarde;  state: Exp;
Created LibMgr

=====================================================================
===============


RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/LibraryTree.cpp,v
Working file: LibMgr/LibraryTree.cpp
head: 1.94
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 103;   selected revisions: 7
description:
----------------------------
revision 1.7
date: 2000/01/03 21:19:14;  author: howarde;  state: Exp;  lines: +7 -1
CES Release

----------------------------
revision 1.6
date: 2000/01/01 15:19:28;  author: howarde;  state: Exp;  lines: +34 -7
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed.  I.e. fails to close after create
means file DNE.

----------------------------
revision 1.5
date: 1999/12/30 18:54:53;  author: andreiv;  state: Exp;  lines: +82 -45
conversion from space-padded to zero-terminated strings added for ID3v1 tags,
also added some debug messages

----------------------------
revision 1.4
date: 1999/12/30 02:55:54;  author: andreiv;  state: Exp;  lines: +16 -5
genres are handled now

----------------------------

revision 1.3
date: 1999/12/29 03:11:35; author: andreiv; state: Exp; lines: +79 -49
attribute generation from an ID3v1 tag is added and stubbed out - what a drag!

----------------------------

revision 1.2
date: 1999/12/27 17:38:48; author: howarde; state: Exp; lines: +60 -0
Added create attribute from mp3 file funciton

----------------------------

revision 1.1
date: 1999/12/14 16:03:36; author: howarde; state: Exp;
Created LibMgr
=============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/LibraryTree.h,v
Working file: LibMgr/LibraryTree.h
head: 1.42
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 44;   selected revisions: 2
description:

----------------------------

revision 1.2
date: 2000/01/01 15:19:28; author: howarde; state: Exp; lines: +1 -1
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed. I.e. fails to close after create
means file DNE.

----------------------------

revision 1.1
date: 1999/12/14 16:03:37; author: howarde; state: Exp;
Created LibMgr
=============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/NowPlayingQ.cpp,v
Working file: LibMgr/NowPlayingQ.cpp
head: 1.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 32;   selected revisions: 4
description:

----------------------------

revision 1.4
date: 1999/12/29 17:33:07; author: howarde; state: Exp; lines: +8 -0
no message

----------------------------

revision 1.3
date: 1999/12/28 18:37:14; author: howarde; state: Exp; lines: +12 -2
Miscellaneous bug fixes.

----------------------------

revision 1.2
date: 1999/12/28 18:32:47; author: howarde; state: Exp; lines: +229 -10
Miscellaneous bug fixes.

----------------------------

revision 1.1
date: 1999/12/14 16:04:09; author: howarde; state: Exp;
Created LibMgr

===================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/NowPlayingQ.h,v
Working file: LibMgr/NowPlayingQ.h
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;    selected revisions: 3
description:
----------------------------

revision 1.3
date: 1999/12/28 18:32:47; author: howarde; state: Exp; lines: +21 -5
Miscellaneous bug fixes.

----------------------------

revision 1.2
date: 1999/12/18 20:34:49; author: howarde; state: Exp; lines: +2 -2
no message

----------------------------

revision 1.1
date: 1999/12/14 16:04:09; author: howarde; state: Exp;
Created LibMgr

===================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/TestTrkAttrText.h,v
Working file: LibMgr/TestTrkAttrText.h
head: 1.5

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;    selected revisions: 3
description:
-----------------------------
revision 1.3
date: 1999/12/29 17:33:07;  author: howarde;  state: Exp;  lines: +3 -3
no message
-----------------------------
revision 1.2
date: 1999/12/23 21:35:58;  author: howarde;  state: Exp;  lines: +2 -2
Latest boot loader modifications and inclusion of some new hard coded
music.
-----------------------------
revision 1.1
date: 1999/12/14 16:04:36;  author: howarde;  state: Exp;
Created LibMgr
=================================================================
================
RCS file: /cvs/emusrc/projects/oasis/oasis1/code/LibMgr/makefile,v
Working file: LibMgr/makefile
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;    selected revisions: 2
description:
-----------------------------
revision 1.2
date: 1999/12/30 02:54:15;  author: andreiv;  state: Exp;  lines: +1 -1
ID3v1Info.cpp added, this file contains genre descriptions
-----------------------------
revision 1.1
date: 1999/12/14 16:03:50;  author: howarde;  state: Exp;
Created LibMgr
=================================================================
================
cvs server: Logging Object

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Object/CObject.h,v
Working file: Object/CObject.h
head: 1.1

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
```
================================================================
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Object/Object.cc,v
Working file: Object/Object.cc
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
```
================================================================
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Object/Object.hh,v
Working file: Object/Object.hh
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
```
================================================================
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Object/Attic/SystemStartup.cpp,v
Working file: Object/SystemStartup.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 4
description:
```
----------------------------
```
revision 1.4
date: 1999/12/22 23:52:51;  author: howarde;  state: dead;  lines: +0 -0
Moved from sysmgr

----------------------------

revision 1.3
date: 1999/12/14 15:36:47;  author: howarde;  state: Exp;  lines: +5 -5
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.2
date: 1999/12/02 20:32:33;  author: andreiv;  state: Exp;  lines: +12 -2
interrupt-driven IDE I/O capability added, bypassed by default - define
USE_IRQ_IO to enable this feature

----------------------------

revision 1.1
date: 1999/11/12 00:56:33;  author: howarde;  state: Exp;
first addition
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Object/Attic/SystemStartup.h,v
Working file: Object/SystemStartup.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 2
description:

----------------------------

revision 1.2
date: 1999/12/22 23:52:51;  author: howarde;  state: dead;  lines: +0 -0
Moved from sysmgr

----------------------------

revision 1.1
date: 1999/11/12 00:56:33;  author: howarde;  state: Exp;
first addition
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/Object/makefile,v
Working file: Object/makefile
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:

===================================================================
===============

cvs server: Logging PlaybackManager

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CAACInStream.cpp,v
Working file: PlaybackManager/CAACInStream.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CAACInStream.h,v
Working file: PlaybackManager/CAACInStream.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CAudioStream.cpp,v
Working file: PlaybackManager/CAudioStream.cpp
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CAudioStream.h,v
Working file: PlaybackManager/CAudioStream.h
head: 1.10
branch:
locks: strict

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access list:
keyword substitution: kv
total revisions: 10;    selected revisions: 3
description:
----------------------------
revision 1.3
date: 1999/11/24 20:02:48;  author: andreiv;  state: Exp;  lines: +6 -4
new error codes added
----------------------------
revision 1.2
date: 1999/11/14 15:29:50;  author: howarde;  state: Exp;  lines: +3 -3
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.
----------------------------
revision 1.1
date: 1999/11/11 22:52:24;  author: andreiv;  state: Exp;
initial check-in, declaration of the abstract CAudioStream class
=====================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CMP3InStream.cpp,v
Working file: PlaybackManager/CMP3InStream.cpp
head: 1.14
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14;    selected revisions: 3
description:
----------------------------
revision 1.3
date: 1999/12/18 01:20:19;  author: andreiv;  state: Exp;  lines: +9 -1
frame size calculation fixed, more tests are needed
----------------------------
revision 1.2
date: 1999/11/24 20:16:17;  author: andreiv;  state: Exp;  lines: +178 -97
extensive changes, multiple problems fixed
----------------------------
revision 1.1
date: 1999/11/11 22:54:28;  author: andreiv;  state: Exp;
initial check-in, implementation of the CMP3InStream class
=====================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CMP3InStream.h,v

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Working file: PlaybackManager/CMP3InStream.h
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 2
description:

----------------------------

revision 1.2
date: 1999/11/24 20:14:05;  author: andreiv;  state: Exp;  lines: +19 -8
minor changes to the interface

----------------------------

revision 1.1
date: 1999/11/11 22:53:31;  author: andreiv;  state: Exp;
initial check-in, wrapper for the MP3 decoder library
====================================================================
===============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CPlaybackManager.cpp,v
Working file: PlaybackManager/CPlaybackManager.cpp
head: 1.94
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 100;   selected revisions: 19   .
description:

----------------------------

revision 1.19
date: 2000/01/01 22:46:17;  author: howarde;  state: Exp;  lines: +14 -4
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.

----------------------------

revision 1.18
date: 1999/12/30 02:52:24;  author: andreiv;  state: Exp;  lines: +1 -1
put back assert() on MP3 decoding error, if we ever get an error we need to
know it

----------------------------

revision 1.17
date: 1999/12/29 20:14:04;  author: howarde;  state: Exp;  lines: +1 -1
Added fix to filesystem to

take an initial file size on creation.
"Cause double indirect is broken currently"

----------------------------

revision 1.16
date: 1999/12/29 17:33:08;  author: howarde;  state: Exp;  lines: +168 -134
no message

----------------------------

revision 1.15
date: 1999/12/28 18:32:47;  author: howarde;  state: Exp;  lines: +79 -11
Miscellaneous bug fixes.

----------------------------

revision 1.14
date: 1999/12/27 00:36:14;  author: howarde;  state: Exp;  lines: +5 -0
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.

----------------------------

revision 1.13
date: 1999/12/26 21:44:22;  author: howarde;  state: Exp;  lines: +23 -2
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.

----------------------------

revision 1.12
date: 1999/12/24 19:35:33;  author: geraldi;  state: Exp;  lines: +27 -14
Fixed some transport issues.

----------------------------

revision 1.11
date: 1999/12/23 21:35:59;  author: howarde;  state: Exp;  lines: +25 -4
Latest boot loader modifications and inclusion of some new hard coded
music.

----------------------------

revision 1.10
date: 1999/12/23 00:09:12;  author: howarde;  state: Exp;  lines: +6 -1
Created bootloader files within this project

----------------------------

revision 1.9
date: 1999/12/20 17:48:58;  author: howarde;  state: Exp;  lines: +9 -3
Miscellania

----------------------------

revision 1.8
date: 1999/12/18 20:34:50;  author: howarde;  state: Exp;  lines: +1 -1

75

no message

---------------------------

revision 1.7
date: 1999/12/17 00:40:50; author: howarde; state: Exp; lines: +494 -304
First cut with playback manager hooked to transfer agent
Plays audio from disk

---------------------------

revision 1.6
date: 1999/12/14 15:36:45; author: howarde; state: Exp; lines: +5 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

---------------------------

revision 1.5
date: 1999/12/13 23:18:11; author: andreiv; state: Exp; lines: +26 -2
thing that had "fixme" tag finally fixed

---------------------------

revision 1.4
date: 1999/11/24 23:34:19; author: howarde; state: Exp; lines: +5 -5
Fixed up some CObject references to be CKernelObject
references

---------------------------

revision 1.3
date: 1999/11/24 22:24:59; author: andreiv; state: Exp; lines: +72 -16
extensive changes, current implementation needs further work

---------------------------

revision 1.2
date: 1999/11/14 15:29:50; author: howarde; state: Exp; lines: +3 -1
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

---------------------------

revision 1.1
date: 1999/11/11 22:56:31; author: andreiv; state: Exp;
first actual implementation of the PB manager
=================================================================
===============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CPlaybackManager.h,v
Working file: PlaybackManager/CPlaybackManager.h
head: 1.22
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;  selected revisions: 7

description:

------------------------------

revision 1.8
date: 1999/12/28 18:32:48;  author: howarde;  state: Exp;  lines: +10 -6
Miscellaneous bug fixes.

------------------------------

revision 1.7
date: 1999/12/27 00:36:15;  author: howarde;  state: Exp;  lines: +2 -0
Added status line class to LCDPage for use by both now playing screen
and qlist screen.
Added elapsed playing time calculations and functions to dsp manager
for use by status line.

------------------------------

revision 1.6
date: 1999/12/23 21:35:59;  author: howarde;  state: Exp;  lines: +1 -0
Latest boot loader modifications and inclusion of some new hard coded
music.

------------------------------

revision 1.5
date: 1999/12/17 00:40:51;  author: howarde;  state: Exp;  lines: +40 -33
First cut with playback manager hooked to transfer agent
Plays audio from disk

------------------------------

revision 1.4
date: 1999/11/24 22:19:56;  author: andreiv;  state: Exp;  lines: +6 -3
minor adjustments

------------------------------

revision 1.3
date: 1999/11/14 15:29:51;  author: howarde;  state: Exp;  lines: +29 -26
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.

------------------------------

revision 1.2
date: 1999/11/11 22:55:41;  author: andreiv;  state: Exp;  lines: +49 -13
first approach to implementing playback functionality
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CWAVInStream.h,v
Working file: PlaybackManager/CWAVInStream.h
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv

total revisions: 4;    selected revisions: 0
description:
============================================================================
==============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CWAVInstream.cpp,v
Working file: PlaybackManager/CWAVInstream.cpp
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;    selected revisions: 0
description:
============================================================================
==============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CWMAInStream.cpp,v
Working file: PlaybackManager/CWMAInStream.cpp
head: 1.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9;    selected revisions: 0
description:
============================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/CWMAInStream.h,v
Working file: PlaybackManager/CWMAInStream.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
============================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/DXHead.c,v
Working file: PlaybackManager/DXHead.c
head: 1.1

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branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/DXHead.cpp,v
Working file: PlaybackManager/DXHead.cpp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/DXHead.h,v
Working file: PlaybackManager/DXHead.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/PbManHeap.cpp,v
Working file: PlaybackManager/PbManHeap.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/PbManHeap.h,v

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Working file: PlaybackManager/PbManHeap.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/SalvageBuffer.h,v
Working file: PlaybackManager/SalvageBuffer.h
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 3
description:
----------------------------
revision 1.3
date: 1999/11/24 19:59:09;  author: andreiv;  state: Exp;  lines: +25 -2
bug with memcpy fixed
----------------------------
revision 1.2
date: 1999/11/14 15:29:51;  author: howarde;  state: Exp;  lines: +1 -1
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.
----------------------------
revision 1.1
date: 1999/11/11 23:00:36;  author: andreiv;  state: Exp;
utility class, currently only used by CMP3InStream
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/VBRI.c,v
Working file: PlaybackManager/VBRI.c
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:

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```
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/VBRI.cpp,v
Working file: PlaybackManager/VBRI.cpp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/VBRI.h,v
Working file: PlaybackManager/VBRI.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/makefile,v
Working file: PlaybackManager/makefile
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/11/12 00:04:38;  author: howarde;  state: Exp;  lines: +1 -1
Merges w/ andre
----------------------------
revision 1.1
date: 1999/11/11 23:05:34;  author: andreiv;  state: Exp;
thingy that makes other thingies compile
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/PlaybackManager/wave.h,v
Working file: PlaybackManager/wave.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
==================================================================
===============
cvs server: Logging QServices

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/QServices/Attic/CObjectLock.cpp,v
Working file: QServices/CObjectLock.cpp
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1
description:
----------------------------
revision 1.3
date: 1999/12/22 23:50:14;  author: howarde;  state: dead;  lines: +0 -0
Moved
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/QServices/Attic/CObjectLock.h,v
Working file: QServices/CObjectLock.h
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 2
description:
----------------------------
revision 1.4
date: 1999/12/22 23:50:21;  author: howarde;  state: dead;  lines: +0 -0
Moved
----------------------------
revision 1.3
date: 1999/12/18 20:34:51;  author: howarde;  state: Exp;  lines: +2 -1

no message
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/QServices/QServices.cpp,v
Working file: QServices/QServices.cpp
head: 1.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 12;   selected revisions: 6
description:
----------------------------
revision 1.10
date: 1999/12/20 17:48:58;  author: howarde;  state: Exp;  lines: +21 -1
Miscellania

----------------------------
revision 1.9
date: 1999/12/18 20:34:52;  author: howarde;  state: Exp;  lines: +1 -1
no message

----------------------------
revision 1.8
date: 1999/12/17 00:40:52;  author: howarde;  state: Exp;  lines: +2 -2
First cut with playback manager hooked to transfer agent
Plays audio from disk

----------------------------
revision 1.7
date: 1999/12/14 15:36:46;  author: howarde;  state: Exp;  lines: +13 -4
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------
revision 1.6
date: 1999/11/14 15:29:51;  author: howarde;  state: Exp;  lines: +1 -0
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.

----------------------------
revision 1.5
date: 1999/11/11 23:35:17;  author: andreiv;  state: Exp;  lines: +41 -27
bugs fixed
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/QServices/QServices.h,v
Working file: QServices/QServices.h

83

head: 1.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9;   selected revisions: 4
description:

------------------------------

revision 1.7
date: 1999/12/20 17:48:59;  author: howarde;  state: Exp;  lines: +7 -1
Miscellania

------------------------------

revision 1.6
date: 1999/12/17 00:40:52;  author: howarde;  state: Exp;  lines: +5 -4
First cut with playback manager hooked to transfer agent
Plays audio from disk

------------------------------

revision 1.5
date: 1999/12/14 15:36:46;  author: howarde;  state: Exp;  lines: +11 -10
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

------------------------------

revision 1.4
date: 1999/11/11 23:34:51;  author: andreiv;  state: Exp;  lines: +5 -2
void* data added to the message class
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/QServices/makefile,v
Working file: QServices/makefile
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

------------------------------

revision 1.2
date: 1999/12/23 00:09:12;  author: howarde;  state: Exp;  lines: +1 -1
Created bootloader files within this project
================================================================
===============
cvs server: Logging SysMgr

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/CButtonScanner.cpp,v

Working file: SysMgr/CButtonScanner.cpp
head: 1.39
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 40;   selected revisions: 7
description:

----------------------------
revision 1.7
date: 2000/01/04 22:04:42;  author: howarde;  state: Exp;  lines: +2 -3
Slowed down button scan rate, was eating up too many cpu cycles.

----------------------------
revision 1.6
date: 2000/01/03 23:39:45;  author: andreiv;  state: Exp;  lines: +20 -0
powering down implemeted        .

----------------------------
revision 1.5
date: 1999/12/20 17:48:59;  author: howarde;  state: Exp;  lines: +1 -1
Miscellania

----------------------------
revision 1.4
date: 1999/12/18 22:13:04;  author: andreiv;  state: Exp;  lines: +51 -58
got rid of some warnings, added encoder handling, changed old (and confusing)
button names

----------------------------
revision 1.3
date: 1999/12/18 20:34:52;  author: howarde;  state: Exp;  lines: +9 -9
no message

----------------------------
revision 1.2
date: 1999/12/14 15:36:46;  author: howarde;  state: Exp;  lines: +22 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------
revision 1.1
date: 1999/11/14 19:09:23;  author: howarde;  state: Exp;
Initial checkin
======================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/CButtonScanner.h,v
Working file: SysMgr/CButtonScanner.h
head: 1.12
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 3
description:
-----------------------------
revision 1.3
date: 1999/12/18 22:10:12;  author: andreiv;  state: Exp;  lines: +10 -4
encoder direction info added, variables to save state added to the class
instead of being global
-----------------------------
revision 1.2
date: 1999/12/14 15:36:47;  author: howarde;  state: Exp;  lines: +3 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
-----------------------------
revision 1.1
date: 1999/11/14 19:09:24;  author: howarde;  state: Exp;
Initial checkin
=====================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/CSysManager.cpp,v
Working file: SysMgr/CSysManager.cpp
head: 1.127
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 138;   selected revisions: 16
description:
-----------------------------
revision 1.17
date: 2000/01/04 22:05:09;  author: howarde;  state: Exp;  lines: +28 -2
CES Final
-----------------------------
revision 1.16
date: 1999/12/30 23:42:51;  author: howarde;  state: Exp;  lines: +0 -51
Fixed file system bug
-----------------------------
revision 1.15
date: 1999/12/30 16:00:03;  author: howarde;  state: Exp;  lines: +56 -4
Better fonts, cosmetics
-----------------------------
revision 1.14
date: 1999/12/29 17:33:08;  author: howarde;  state: Exp;  lines: +49 -2
no message

```
--------------------------
revision 1.13
date: 1999/12/26 21:44:23;  author: howarde;  state: Exp;  lines: +23 -12
Fixed several transport key issues, and
changed fonts and LCD Display size to 6 lines (total)
instead of 8.  Scroll box is 4 lines now.
Also made it easy to change fonts.

Stop and play/pause now works.
--------------------------
revision 1.12
date: 1999/12/23 21:36:00;  author: howarde;  state: Exp;  lines: +2 -5
Latest boot loader modifications and inclusion of some new hard coded
music.
--------------------------
revision 1.11
date: 1999/12/23 00:09:13;  author: howarde;  state: Exp;  lines: +0 -127
Created bootloader files within this project
--------------------------
revision 1.10
date: 1999/12/20 17:48:59;  author: howarde;  state: Exp;  lines: +1 -1
Miscellania
--------------------------
revision 1.9
date: 1999/12/18 20:34:53;  author: howarde;  state: Exp;  lines: +298 -19
no message
--------------------------
revision 1.8
date: 1999/12/17 00:40:53;  author: howarde;  state: Exp;  lines: +1 -1
First cut with playback manager hooked to transfer agent
Plays audio from disk
--------------------------
revision 1.7
date: 1999/12/14 15:36:47;  author: howarde;  state: Exp;  lines: +20 -68
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
--------------------------
revision 1.6
date: 1999/11/27 18:18:49;  author: howarde;  state: Exp;  lines: +17 -3
Added shutdown capability
--------------------------
revision 1.5
date: 1999/11/24 23:12:23;  author: andreiv;  state: Exp;  lines: +1 -1
bumped up the priority of the system manager, otherwise crashes when it tries
to start the playback manager with higher priority
--------------------------
```

revision 1.4
date: 1999/11/15 21:15:04; author: howarde; state: Exp; lines: +15 -0
Howard's source code up to date for week of 11/15.

-----------------------------

revision 1.3
date: 1999/11/14 15:29:52; author: howarde; state: Exp; lines: +58 -89
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code. Next step is to
integrate the new demo code into the system.

-----------------------------

revision 1.2
date: 1999/11/12 00:04:21; author: howarde; state: Exp; lines: +175 -3
Merges w/ andre
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/CSysManager.h,v
Working file: SysMgr/CSysManager.h
head: 1.28
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 30;   selected revisions: 1
description:
-----------------------------

revision 1.2
date: 1999/11/27 18:18:49; author: howarde; state: Exp; lines: +2 -0
Added shutdown capability
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/DiskMaintenanceMode.cpp,v
Working file: SysMgr/DiskMaintenanceMode.cpp
head: 1.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/DiskMaintenanceMode.h,v
Working file: SysMgr/DiskMaintenanceMode.h

head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/Irda.cpp,v
Working file: SysMgr/Irda.cpp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/Irda.h,v
Working file: SysMgr/Irda.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/PictureTable.cpp,v
Working file: SysMgr/PictureTable.cpp
head: 1.2
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 3;   selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/PictureTable.h,v
Working file: SysMgr/PictureTable.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/Attic/SystemStartup.cpp,v
Working file: SysMgr/SystemStartup.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 4
description:
----------------------------
revision 1.4
date: 1999/12/22 23:52:51;  author: howarde;  state: dead;  lines: +0 -0
Moved from sysmgr
----------------------------
revision 1.3
date: 1999/12/14 15:36:47;  author: howarde;  state: Exp;  lines: +5 -5
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
----------------------------
revision 1.2
date: 1999/12/02 20:32:33;  author: andreiv;  state: Exp;  lines: +12 -2
interrupt-driven IDE I/O capability added, bypassed by default - define
USE_IRQ_IO to enable this feature
----------------------------
revision 1.1
date: 1999/11/12 00:56:33;  author: howarde;  state: Exp;
first addition
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/Attic/SystemStartup.h,v
Working file: SysMgr/SystemStartup.h
head: 1.2
branch:

locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/22 23:52:51;  author: howarde;  state: dead;  lines: +0 -0
Moved from sysmgr
----------------------------
revision 1.1
date: 1999/11/12 00:56:33;  author: howarde;  state: Exp;
first addition
======================================================================

=================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/fmtScreens.h,v
Working file: SysMgr/fmtScreens.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
======================================================================

=================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/makefile,v
Working file: SysMgr/makefile
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 3
description:
----------------------------
revision 1.4
date: 1999/12/23 00:09:13;  author: howarde;  state: Exp;  lines: +1 -1
Created bootloader files within this project
----------------------------
revision 1.3
date: 1999/11/14 15:29:52;  author: howarde;  state: Exp;  lines: +1 -1
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to

integrate the new demo code into the system.

----------------------------

revision 1.2
date: 1999/11/11 22:06:06;  author: howarde;  state: Exp;  lines: +1 -1
added more modules

=================================================================
===============

                  /

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/SysMgr/splash.c,v
Working file: SysMgr/splash.c
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;   selected revisions: 0
description:

=================================================================
==============
cvs server: Logging TI5402   ·
cvs server: Logging TI5402/Bootloader

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/DSPMaind.c,v
Working file: TI5402/Bootloader/DSPMaind.c
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 2
description:

----------------------------

revision 1.2
date: 1999/12/13 21:03:25;  author: geraldi;  state: Exp;  lines: +9 -1
Second release - loads main program

----------------------------

revision 1.1
date: 1999/12/02 22:53:05;  author: geraldi;  state: Exp;
initial check-in

=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/RegSetd.C,v
Working file: TI5402/Bootloader/RegSetd.C
head: 1.1
branch:

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locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 22:56:12;  author: geraldi;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/Tms320.h,v
Working file: TI5402/Bootloader/Tms320.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 22:57:31;  author: geraldi;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/buffermgt.asm,v
Working file: TI5402/Bootloader/buffermgt.asm
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/13 21:04:04;  author: geraldi;  state: Exp;  lines: +15 -5
Second release
----------------------------
revision 1.1
date: 1999/12/02 22:59:37;  author: geraldi;  state: Exp;
initial check-in
================================================================

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```
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/buffers.h,v
Working file: TI5402/Bootloader/buffers.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

```
----------------------------
```
revision 1.1
date: 1999/12/02 23:00:23;  author: geraldi;  state: Exp;
initial check-in

```
================================================================
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/oasis4d.cmd,v
Working file: TI5402/Bootloader/oasis4d.cmd
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 2
description:

```
----------------------------
```
revision 1.2
date: 1999/12/13 21:04:23;  author: geraldi;  state: Exp;  lines: +1 -1
new command file

```
----------------------------
```
revision 1.1
date: 1999/12/02 22:54:33;  author: geraldi;  state: Exp;
initial check-in

```
================================================================
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/oasisdsp4d.mak,v
Working file: TI5402/Bootloader/oasisdsp4d.mak
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 2

description:

-----------------------------

revision 1.2
date: 1999/12/13 21:04:44;  author: geraldi;  state: Exp;  lines: +7 -7
updated make file

-----------------------------

revision 1.1
date: 1999/12/02 22:56:48;  author: geraldi;  state: Exp;
initial check-in

================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/regset.h,v
Working file: TI5402/Bootloader/regset.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

-----------------------------

revision 1.1
date: 1999/12/02 22:55:36;  author: geraldi;  state: Exp;
initial check-in

================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/stddefs.h,v
Working file: TI5402/Bootloader/stddefs.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

-----------------------------

revision 1.1
date: 1999/12/02 23:00:51;  author: geraldi;  state: Exp;
initial check-in

================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/sysproto.h,v
Working file: TI5402/Bootloader/sysproto.h

head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 22:58:08;  author: geraldi;  state: Exp;
initial check-in
=================================================================
================
RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Bootloader/vectorsd.asm,v
Working file: TI5402/Bootloader/vectorsd.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 22:58:57;  author: geraldi;  state: Exp;
initial check-in
=================================================================
================
cvs server: Logging TI5402/Maincode

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/ARCT2.ASM,v
Working file: TI5402/Maincode/ARCT2.ASM
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
================

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/CCheapTimeScale.c,v
Working file: TI5402/Maincode/CCheapTimeScale.c

head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
==============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/CCheapTimeScale.h,v
Working file: TI5402/Maincode/CCheapTimeScale.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
==============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/CFourBandTimeScale.h,v
Working file: TI5402/Maincode/CFourBandTimeScale.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Cifft1024.asm,v
Working file: TI5402/Maincode/Cifft1024.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/DSPLIB.H,v
Working file: TI5402/Maincode/DSPLIB.H
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:

```
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/DSPMain.C,v
Working file: TI5402/Maincode/DSPMain.C
head: 1.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 2
description:

```
----------------------------
```

revision 1.2
date: 1999/12/13 21:06:12;  author: geraldi;  state: Exp;  lines: +5 -2
second release

```
----------------------------
```

revision 1.1
date: 1999/12/02 23:02:09;  author: geraldi;  state: Exp;
initial check-in

```
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/EQ32Glob.h,v
Working file: TI5402/Maincode/EQ32Glob.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:

```
================================================================
===============
```

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RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/EQ32Main.c,v
Working file: TI5402/Maincode/EQ32Main.c
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HPSpat32.c,v
Working file: TI5402/Maincode/HPSpat32.c
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;    selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HPSpat32.h,v
Working file: TI5402/Maincode/HPSpat32.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HPSpatGlob.h,v
Working file: TI5402/Maincode/HPSpatGlob.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
================================================================

99

====================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HPSpatMain.h,v
Working file: TI5402/Maincode/HPSpatMain.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================

====================

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HadamardMatrix.asm,v
Working file: TI5402/Maincode/HadamardMatrix.asm
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
================================================================

====================

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HannSqrtWin1024.h,v
Working file: TI5402/Maincode/HannSqrtWin1024.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================

====================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HannSqrtWin128.h,v
Working file: TI5402/Maincode/HannSqrtWin128.h
head: 1.1
branch:
locks: strict
access list:

100

keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HannSqrtWin256.h,v
Working file: TI5402/Maincode/HannSqrtWin256.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/HannSqrtWin512.h,v
Working file: TI5402/Maincode/HannSqrtWin512.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/INTRINDEFS.H,v
Working file: TI5402/Maincode/INTRINDEFS.H
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/LattLaddNorm.asm,v
Working file: TI5402/Maincode/LattLaddNorm.asm
head: 1.4
branch:

locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
===============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/MACROS.ASM,v
Working file: TI5402/Maincode/MACROS.ASM
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
·total revisions: 1;    selected revisions: 0
description:
===============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/MACROSI.ASM,v
Working file: TI5402/Maincode/MACROSI.ASM
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
===============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/My_Reverb.h,v
Working file: TI5402/Maincode/My_Reverb.h
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;    selected revisions: 0
description:
===============================================================
===============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/OASISDSP10.MAK,v

Working file: TI5402/Maincode/OASISDSP10.MAK
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/OASISDSP4.MAK,v
Working file: TI5402/Maincode/OASISDSP4.MAK
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/13 21:07:13;  author: geraldi;  state: Exp;  lines: +7 -7
updated makefile
----------------------------
revision 1.1
date: 1999/12/02 23:04:33;  author: geraldi;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/OASISDSP9.MAK,v
Working file: TI5402/Maincode/OASISDSP9.MAK
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/ORDER1REVLATT32.ASM,v
Working file: TI5402/Maincode/ORDER1REVLATT32.ASM

103

head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
```
================================================================
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Oasis10.cmd,v
Working file: TI5402/Maincode/Oasis10.cmd
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
```
================================================================
==============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Oasis9.cmd,v
Working file: TI5402/Maincode/Oasis9.cmd
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
```
================================================================
==============
```

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Order1RevLattice.asm,v
Working file: TI5402/Maincode/Order1RevLattice.asm
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 0
description:
```
================================================================
==============
```

104

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/PEQ32.c,v
Working file: TI5402/Maincode/PEQ32.c
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/PVTimeScale.h,v
Working file: TI5402/Maincode/PVTimeScale.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Play.C,v
Working file: TI5402/Maincode/Play.C
head: 1.25
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 25;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/13 21:06:14;  author: geraldi;  state: Exp;  lines: +6 -6
second release
----------------------------
revision 1.1
date: 1999/12/02 23:02:09;  author: geraldi;  state: Exp;
initial check-in
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/RFFT1024.ASM,v

Working file: TI5402/Maincode/RFFT1024.ASM
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Record.c,v
Working file: TI5402/Maincode/Record.c
head: 1.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9;   selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/RegSet.C,v
Working file: TI5402/Maincode/RegSet.C
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/13 21:06:15;  author: geraldi;  state: Exp;  lines: +12 -7
second release
----------------------------
revision 1.1
date: 1999/12/02 23:02:10;  author: geraldi;  state: Exp;
initial check-in
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/RegSet.h,v
Working file: TI5402/Maincode/RegSet.h
head: 1.8

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/13 21:05:26;  author: geraldi;  state: Exp;  lines: +5 -2
second release
----------------------------
revision 1.1
date: 1999/12/02 23:01:37;  author: geraldi;  state: Exp;
initial check-in
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/RevLattice.asm,v
Working file: TI5402/Maincode/RevLattice.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/ReverbInit.C,v
Working file: TI5402/Maincode/ReverbInit.C
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Reverb_c54x.c,v
Working file: TI5402/Maincode/Reverb_c54x.c
head: 1.8
branch:
locks: strict

107

access list: .
keyword substitution: kv
total revisions: 8;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/SINTAB.Q15,v
Working file: TI5402/Maincode/SINTAB.Q15
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/SINTABR.Q15,v
Working file: TI5402/Maincode/SINTABR.Q15
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/SYSPROTO.H,v
Working file: TI5402/Maincode/SYSPROTO.H
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 1
description:
--------------------------
revision 1.1
date: 1999/12/02 23:01:37;  author: geraldi;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/SoundGlobals.h,v
Working file: TI5402/Maincode/SoundGlobals.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Tms320.h,v
Working file: TI5402/Maincode/Tms320.h
head: 1.1
branch:
locks: strict.
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 23:01:37;  author: geraldi;  state: Exp;
initial check-in
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/UNPACK.ASM,v
Working file: TI5402/Maincode/UNPACK.ASM
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/VECTORS.ASM,v
Working file: TI5402/Maincode/VECTORS.ASM
head: 1.11
branch:
locks: strict

109

access list:
keyword substitution: kv
total revisions: 11;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/13 21:06:49;  author: geraldi;  state: Exp;  lines: +5 -0
second release
----------------------------
revision 1.1
date: 1999/12/02 23:02:38;  author: geraldi;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/VectorInc.asm,v
Working file: TI5402/Maincode/VectorInc.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/VectorIncMask.asm,v
Working file: TI5402/Maincode/VectorIncMask.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/VectorScale.asm,v
Working file: TI5402/Maincode/VectorScale.asm
head: 1.2
branch:
locks: strict
access list:

110

keyword substitution: kv
total revisions: 2; selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/buffermgt.asm,v
Working file: TI5402/Maincode/buffermgt.asm
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8; selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 23:02:37; author: geraldi; state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/buffers.h,v
Working file: TI5402/Maincode/buffers.h
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6; selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 23:01:37; author: geraldi; state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/dcgsonepole.asm,v
Working file: TI5402/Maincode/dcgsonepole.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1; selected revisions: 0

111

description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/fbts.c,v
Working file: TI5402/Maincode/fbts.c
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/hp_spat_taps.h,v
Working file: TI5402/Maincode/hp_spat_taps.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Attic/hpspat32.asm,v
Working file: TI5402/Maincode/hpspat32.asm
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/loadcircbuff.asm,v
Working file: TI5402/Maincode/loadcircbuff.asm
head: 1.1
branch:
locks: strict
access list:

112

keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/loadresults.asm,v
Working file: TI5402/Maincode/loadresults.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/loadtemps.asm,v
Working file: TI5402/Maincode/loadtemps.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/long_gain_taps.h,v
Working file: TI5402/Maincode/long_gain_taps.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================

================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/long_hi_taps.h,v
Working file: TI5402/Maincode/long_hi_taps.h
head: 1.1
branch:

113

locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/long_lo_taps.h,v
Working file: TI5402/Maincode/long_lo_taps.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
===============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/long_param_eq_taps.h,v
Working file: TI5402/Maincode/long_param_eq_taps.h
head: 1.1
branch:
locks: strict
.access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/longallpass.asm,v
Working file: TI5402/Maincode/longallpass.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/myiirlat.asm,v

114

Working file: TI5402/Maincode/myiirlat.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/oasis1.gel,v
Working file: TI5402/Maincode/oasis1.gel
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 23:05:11;  author: geraldi;  state: Exp;
initial check-in
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/oasis2.gel,v
Working file: TI5402/Maincode/oasis2.gel
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/oasis3.gel,v
Working file: TI5402/Maincode/oasis3.gel
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv

total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Attic/oasis4.cmd,v
Working file: TI5402/Maincode/oasis4.cmd
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/02 23:04:04;  author: geraldi;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/oasis5.gel,v
Working file: TI5402/Maincode/oasis5.gel
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/oasis6.gel,v
Working file: TI5402/Maincode/oasis6.gel
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/oasis9.map,v

Working file: TI5402/Maincode/oasis9.map
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/order2revlatt1632.asm,v
Working file: TI5402/Maincode/order2revlatt1632.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/order2revlatt32.asm,v
Working file: TI5402/Maincode/order2revlatt32.asm
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/pvts.c,v
Working file: TI5402/Maincode/pvts.c
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 0
description:
=================================================================

```
===============
```

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/Attic/reverb_c54x.asm,v
Working file: TI5402/Maincode/reverb_c54x.asm
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
```
================================================================
===============
```

RCS file:
/cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/scotts_function_protos.h,v
Working file: TI5402/Maincode/scotts_function_protos.h
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;    selected revisions: 0
description:
```
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/stddefs.h,v
Working file: TI5402/Maincode/stddefs.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 1
description:
```
----------------------------
```
revision 1.1
date: 1999/12/02 23:01:37;  author: geraldi;  state: Exp;
initial check-in
```
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/unloadcircbuff.asm,v
Working file: TI5402/Maincode/unloadcircbuff.asm

head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecadd16232.asm,v
Working file: TI5402/Maincode/vecadd16232.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecadd32.asm,v
Working file: TI5402/Maincode/vecadd32.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecaddsub32.asm,v
Working file: TI5402/Maincode/vecaddsub32.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

119

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecmacshift.asm,v
Working file: TI5402/Maincode/vecmacshift.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecmulacccirc.asm,v
Working file: TI5402/Maincode/vecmulacccirc.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecscale32.asm,v
Working file: TI5402/Maincode/vecscale32.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecscale32int.asm,v
Working file: TI5402/Maincode/vecscale32int.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
===================================================================

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecsub16232.asm,v
Working file: TI5402/Maincode/vecsub16232.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
```
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vecsub32.asm,v
Working file: TI5402/Maincode/vecsub32.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
```
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectorMAC.asm,v
Working file: TI5402/Maincode/vectorMAC.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
```
================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectormacm.asm,v
Working file: TI5402/Maincode/vectormacm.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0

121

description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectormerge.asm,v
Working file: TI5402/Maincode/vectormerge.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectormul.asm,v
Working file: TI5402/Maincode/vectormul.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectormulacc.asm,v
Working file: TI5402/Maincode/vectormulacc.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectormulaccm.asm,v
Working file: TI5402/Maincode/vectormulaccm.asm
head: 1.1
branch:
locks: strict
access list:

122

keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
========================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectormulcirc.asm,v
Working file: TI5402/Maincode/vectormulcirc.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
========================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectormulint.asm,v
Working file: TI5402/Maincode/vectormulint.asm
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
========================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/TI5402/Maincode/vectorsplit.asm,v
Working file: TI5402/Maincode/vectorsplit.asm
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
========================================================================
===============
cvs server: Logging VccEmulator

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/GraphLib.cpp,v
Working file: VccEmulator/GraphLib.cpp
head: 1.2

123

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:

---------------------------

revision 1.1
date: 1999/11/27 17:17:18; author: howarde; state: Exp;
created VccEmulator directory

================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/GraphLib.h,v
Working file: VccEmulator/GraphLib.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1; selected revisions: 1
description:

---------------------------

revision 1.1
date: 1999/11/27 17:17:18; author: howarde; state: Exp;
created VccEmulator directory

================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/Oasim.clw,v
Working file: VccEmulator/Oasim.clw
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 2
description:

---------------------------

revision 1.2
date: 1999/12/14 15:36:47; author: howarde; state: Exp; lines: +2 -2
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

---------------------------

revision 1.1
date: 1999/11/27 17:36:47; author: howarde; state: Exp;

124

created VccEmulator directory

```
==================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/Oasim.cpp,v
Working file: VccEmulator/Oasim.cpp
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 1
description:

----------------------------
revision 1.1
date: 1999/11/27 17:17:18;  author: howarde;  state: Exp;
created VccEmulator directory

```
==================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/Oasim.dsp,v
Working file: VccEmulator/Oasim.dsp
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 2
description:

----------------------------
revision 1.2
date: 1999/12/14 15:36:48;  author: howarde;  state: Exp;  lines: +31 -2
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------
revision 1.1
date: 1999/11/27 17:17:18;  author: howarde;  state: Exp;
created VccEmulator directory

```
==================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/Oasim.dsw,v
Working file: VccEmulator/Oasim.dsw
head: 1.1
branch:
locks: strict

125

access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:18:32;  author: howarde;  state: Exp;
created VccEmulator directory
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/Oasim.h,v
Working file: VccEmulator/Oasim.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:17:18;  author: howarde;  state: Exp;
created VccEmulator directory
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/Oasim.opt,v
Working file: VccEmulator/Oasim.opt
head: 1.2
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 2;   selected revisions: 2
description:

----------------------------

revision 1.2
date: 1999/12/14 15:36:48;  author: howarde;  state: Exp;  lines: +517 -35
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------

revision 1.1
date: 1999/11/27 17:35:54;  author: howarde;  state: Exp;
created VccEmulator directory
==================================================================

==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/Oasim.rc,v
Working file: VccEmulator/Oasim.rc
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------
revision 1.1
date: 1999/11/27 17:18:24;  author: howarde;  state: Exp;
created VccEmulator directory
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/OasimDlg.cpp,v
Working file: VccEmulator/OasimDlg.cpp
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 2
description:

----------------------------
revision 1.2
date: 1999/12/14 15:36:48;  author: howarde;  state: Exp;  lines: +21 -1
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

----------------------------
revision 1.1
date: 1999/11/27 17:17:19;  author: howarde;  state: Exp;
created VccEmulator directory
=================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/OasimDlg.h,v
Working file: VccEmulator/OasimDlg.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv

127

total revisions: 1;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:17:19;  author: howarde;  state: Exp;
created VccEmulator directory
============================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/StdAfx.cpp,v
Working file: VccEmulator/StdAfx.cpp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:17:19;  author: howarde;  state: Exp;
created VccEmulator directory
============================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/StdAfx.h,v
Working file: VccEmulator/StdAfx.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:17:19;  author: howarde;  state: Exp;
created VccEmulator directory
============================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/resource.h,v
Working file: VccEmulator/resource.h
head: 1.1
branch:
locks: strict

128

access list:
keyword substitution: kv
total revisions: 1; selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:17:19; author: howarde; state: Exp;
created VccEmulator directory
========================================================================
================
cvs server: Logging VccEmulator/res

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/NodeIcon.bmp,v
Working file: VccEmulator/res/NodeIcon.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1; selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:20:18; author: howarde; state: Exp;
created VccEmulator directory
========================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/Oasim.ico,v
Working file: VccEmulator/res/Oasim.ico
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1; selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/11/27 17:20:18; author: howarde; state: Exp;
created VccEmulator directory
========================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/Oasim.rc2,v
Working file: VccEmulator/res/Oasim.rc2

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head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:18;  author: howarde;  state: Exp;
created VccEmulator directory
===============================================================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/TrakIcon.bmp,v
Working file: VccEmulator/res/TrakIcon.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:20;  author: howarde;  state: Exp;
created VccEmulator directory
===============================================================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/backgrou.bmp,v
Working file: VccEmulator/res/backgrou.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:17;  author: howarde;  state: Exp;
created VccEmulator directory
===============================================================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/bitmap1.bmp,v
Working file: VccEmulator/res/bitmap1.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:17;  author: howarde;  state: Exp;
created VccEmulator directory
===============================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/bitmap2.bmp,v
Working file: VccEmulator/res/bitmap2.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:17;  author: howarde;  state: Exp;
created VccEmulator directory
===============================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/bmp00001.bmp,v
Working file: VccEmulator/res/bmp00001.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:17;  author: howarde;  state: Exp;
created VccEmulator directory
===============================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/bmp00002.bmp,v
Working file: VccEmulator/res/bmp00002.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:17;  author: howarde;  state: Exp;
created VccEmulator directory
=================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/font8.bmp,v
Working file: VccEmulator/res/font8.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:18;  author: howarde;  state: Exp;
created VccEmulator directory
=================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/player.bmp,v
Working file: VccEmulator/res/player.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/11/27 17:20:18;  author: howarde;  state: Exp;

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created VccEmulator directory
```
==================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/splash.bmp,v
Working file: VccEmulator/res/splash.bmp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
```
---------------------------
```
revision 1.1
date: 1999/11/27 17:20:19;  author: howarde;  state: Exp;
created VccEmulator directory
```
==================================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/VccEmulator/res/splash.pct,v
Working file: VccEmulator/res/splash.pct
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;   selected revisions: 1
description:
```
---------------------------
```
revision 1.1
date: 1999/11/27 17:20:20;  author: howarde;  state: Exp;
created VccEmulator directory
```
==================================================================
===============
```
cvs server: Logging buildsys

RCS file: /cvs/emusrc/buildsys/README,v
Working file: buildsys/README
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:

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```
================================================================
===============

RCS file: /cvs/emusrc/buildsys/buildsys.dsp,v
Working file: buildsys/buildsys.dsp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/buildsys/errmsg_cvt.awk,v
Working file: buildsys/errmsg_cvt.awk
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/buildsys/gbs.html,v
Working file: buildsys/gbs.html
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/buildsys/makefile.EXAMPLE,v
Working file: buildsys/makefile.EXAMPLE
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
```

total revisions: 2;   selected revisions: 0
description:
========================================================================
================

RCS file: /cvs/emusrc/buildsys/makefile.sublevel.EXAMPLE,v
Working file: buildsys/makefile.sublevel.EXAMPLE
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
========================================================================
================

RCS file: /cvs/emusrc/buildsys/makefile.toplevel.EXAMPLE,v
Working file: buildsys/makefile.toplevel.EXAMPLE
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
========================================================================
================

RCS file: /cvs/emusrc/buildsys/multiproject.mk,v
Working file: buildsys/multiproject.mk
head: 1.19
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 23;   selected revisions: 0
description:
========================================================================
================

RCS file: /cvs/emusrc/buildsys/project.mk,v
Working file: buildsys/project.mk
head: 1.60
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 69;   selected revisions: 1
description:
----------------------------
revision 1.38
date: 2000/01/04 18:36:20;  author: terrif;  state: Exp;  lines: +2 -2
branches:  1.38.2;
Changed 'winnt' target definitions -- added a gnu include dir that's needed to
get correct includes for non-windows standard IO.  A change to environment
variables might have accomplished the same thing, but everything changes anyhow when
we upgrade to the newer gcc tools, so this is a temporary fix.
==============================================================================
================
cvs server: Logging cl7211

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/KernelAsm.s,v
Working file: cl7211/KernelAsm.s
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 1
description:

----------------------------
revision 1.5
date: 1999/11/24 22:48:47;  author: andreiv;  state: Exp;  lines: +47 -0
enable/disable preemption functions added, but they haven't been tested yet
==============================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/Uart7211.cc,v
Working file: cl7211/Uart7211.cc
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
==============================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/Uart7211.hh,v
Working file: cl7211/Uart7211.hh

136

head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
========================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/cl7211.h,v
Working file: cl7211/cl7211.h
head: 1.5
branch:
locks: strict
access list:                                                               o
keyword substitution: kv
total revisions: 6;   selected revisions: 0
description:
========================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/cl7211.s,v
Working file: cl7211/cl7211.s
head: 1.22
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 23;   selected revisions: 3
description:
----------------------------
revision 1.10
date: 1999/12/23 00:09:14;  author: howarde;  state: Exp;  lines: +7 -2
Created bootloader files within this project
----------------------------
revision 1.9
date: 1999/12/20 17:49:00;  author: howarde;  state: Exp;  lines: +3 -3
Miscellania
----------------------------
revision 1.8
date: 1999/12/13 23:38:24;  author: andreiv;  state: Exp;  lines: +3 -2
configure port D pins as inputs initially to avoid shorts
========================================================================
================

137

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/cl7211Timer.cc,v
Working file: cl7211/cl7211Timer.cc
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
===============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/cl7211Timer.hh,v
Working file: cl7211/cl7211Timer.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
===============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/interrupt.c,v
Working file: cl7211/interrupt.c
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;    selected revisions: 4
description:
----------------------------
revision 1.7
date: 2000/01/04 22:07:28;  author: howarde;  state: Exp;  lines: +15 -0
CES Final
----------------------------
revision 1.6
date: 1999/12/23 00:09:14;  author: howarde;  state: Exp;  lines: +11 -0
Created bootloader files within this project
----------------------------
revision 1.5
date: 1999/12/13 23:40:35;  author: andreiv;  state: Exp;  lines: +7 -2
USB interrupt added
----------------------------

138

revision 1.4
date: 1999/12/02 20:36:41; author: andreiv; state: Exp; lines: +18 -2
IDE interrupt added
====================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/machine.h,v
Working file: cl7211/machine.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
====================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/makefile,v
Working file: cl7211/makefile
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1
description:
--------------------------
revision 1.2
date: 1999/12/23 00:09:14; author: howarde; state: Exp; lines: +2 -2
Created bootloader files within this project
====================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/cl7211/Attic/mmu.s,v
Working file: cl7211/mmu.s
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 2
description:
--------------------------
revision 1.4
date: 1999/12/23 00:03:09; author: howarde; state: dead; lines: +0 -0

139

Moved to main

----------------------------

revision 1.3
date: 1999/11/24 22:55:32; author: andreiv; state: Exp; lines: +41 -1
physical segmentation of DRAM is taken into consideration, virtual address
space for the DRAM is contigious now
=======================================================================

================
cvs server: Logging flash

RCS file: /cvs/emusrc/flash/.cvsignore,v
Working file: flash/.cvsignore
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
=======================================================================

================

RCS file: /cvs/emusrc/flash/amdflash.c,v
Working file: flash/amdflash.c
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 0
description:
=======================================================================

================

RCS file: /cvs/emusrc/flash/amdflash.h,v
Working file: flash/amdflash.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
=======================================================================

================

140

RCS file: /cvs/emusrc/flash/atmelflash.c,v
Working file: flash/atmelflash.c
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/flash/atmelflash.h,v
Working file: flash/atmelflash.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/flash/flash.c,v
Working file: flash/flash.c
head: 1.22
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 30;   selected revisions: 2
description:
----------------------------
revision 1.18
date: 2000/01/06 19:54:16;  author: terrif;  state: Exp;  lines: +2 -2
branches:  1.18.2;
merged from 1.06a1 sound authoring branch.
Fixed bug in partition-finding code -- it failed if you gave it the entire
size of the part because it tried to look at one byte past it
----------------------------
revision 1.17.6.1
date: 2000/01/06 00:58:11;  author: terrif;  state: Exp;  lines: +2 -2
fixed bug in parition-finding code -- it failed if you gave it the entire
size of the part because it tried to look at one byte past it
=================================================================

```
===============
```

RCS file: /cvs/emusrc/flash/flash.h,v
Working file: flash/flash.h
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 0
description:
```
================================================================
===============
```

RCS file: /cvs/emusrc/flash/flash_ivy.dsp,v
Working file: flash/flash_ivy.dsp
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
```
================================================================
===============
```

RCS file: /cvs/emusrc/flash/flashconfig.h.TEMPLATE,v
Working file: flash/flashconfig.h.TEMPLATE
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 0
description:
```
================================================================
===============
```

RCS file: /cvs/emusrc/flash/flashlibconfig.h.TEMPLATE,v
Working file: flash/flashlibconfig.h.TEMPLATE
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0

142

description:
===================================================================
===============

RCS file: /cvs/emusrc/flash/intelflash.c,v
Working file: flash/intelflash.c
head: 1.19
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 23;   selected revisions: 2
description:
----------------------------
revision 1.17
date: 1999/12/31 01:38:46;  author: duanes;  state: Exp;  lines: +4 -3
branches:  1.17.4;
commented out buffered write fro interl 28f160 due to problems in manufacturing
----------------------------
revision 1.16.4.1
date: 1999/11/23 23:54:48;  author: duanes;  state: Exp;  lines: +3 -2
commented out enable of buffered write on 160 flash due to problems in manufacturing
===================================================================
===============

RCS file: /cvs/emusrc/flash/intelflash.h,v
Working file: flash/intelflash.h
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 0
description:
===================================================================
===============

RCS file: /cvs/emusrc/flash/intelgchipflash.c,v
Working file: flash/intelgchipflash.c
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 0
description:

143

```
==============================================================
===============
```

RCS file: /cvs/emusrc/flash/intelgchipflash.h,v
Working file: flash/intelgchipflash.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
```
==============================================================
===============
```

RCS file: /cvs/emusrc/flash/makefile,v
Working file: flash/makefile
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;    selected revisions: 0
description:
```
==============================================================
===============
```
cvs server: Logging graphics

RCS file: /cvs/emusrc/graphics/.cvsignore,v
Working file: graphics/.cvsignore
head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;    selected revisions: 0
description:
```
==============================================================
===============
```

RCS file: /cvs/emusrc/graphics/Attic/GrCustom.c,v
Working file: graphics/GrCustom.c
head: 1.2
branch:
locks: strict
access list:

keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
========================================================
==============

RCS file: /cvs/emusrc/graphics/GrCustom.c.TEMPLATE,v
Working file: graphics/GrCustom.c.TEMPLATE
head: 1.1
branch: 1.1.1
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
========================================================
==============

RCS file: /cvs/emusrc/graphics/Attic/GrCustom.h,v
Working file: graphics/GrCustom.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
========================================================
==============

RCS file: /cvs/emusrc/graphics/GrCustom.h.TEMPLATE,v
Working file: graphics/GrCustom.h.TEMPLATE
head: 1.1
branch: 1.1.1
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
========================================================
==============

RCS file: /cvs/emusrc/graphics/GrDriver.h,v
Working file: graphics/GrDriver.h
head: 1.2
branch:

145

locks: strict
access list:
keyword substitution: kv
total revisions: 3; · selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/graphics/GrEngine.c,v
Working file: graphics/GrEngine.c
head: 1.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 37;    selected revisions: 4
description:
----------------------------
revision 1.24
date: 2000/01/07 20:18:47; author: johnm; state: Exp; lines: +7 -7
branches: 1.24.12;
Change // style comments to /* */, since this is a c file, and the //
style make the gnu compiler choke.
----------------------------
revision 1.23
date: 1999/12/26 16:33:44; author: howarde; state: Exp; lines: +12 -3
One more arm specific mod for address calculation in the font
offset width table. No effect if not compiling for arm.
----------------------------
revision 1.22
date: 1999/11/15 21:13:30; author: howarde; state: Exp; lines: +22 -12
Fixed alignment issue in Mac font offset width calculation.
Arm specific.
----------------------------
revision 1.21
date: 1999/11/11 21:57:33; author: howarde; state: Exp; lines: +47 -37
Removed code that had no effect in the draw mac char function
and added conditional compile to draw mac string function to help
with arm alignment problems.
==================================================================
===============

RCS file: /cvs/emusrc/graphics/GrEngine.h,v
Working file: graphics/GrEngine.h
head: 1.7
branch:

146

locks: strict
access list:
keyword substitution: kv
total revisions: 9;   selected revisions: 0
description:
============================================================
==============

RCS file: /cvs/emusrc/graphics/GrLcdConfig.h,v
Working file: graphics/GrLcdConfig.h
head: 1.12
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 12;   selected revisions: 0
description:
============================================================
==============

RCS file: /cvs/emusrc/graphics/GrLcdDriver.c,v
Working file: graphics/GrLcdDriver.c
head: 1.21
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 22;   selected revisions: 0
description:
============================================================
==============

RCS file: /cvs/emusrc/graphics/Attic/GrResources.c,v
Working file: graphics/GrResources.c
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
============================================================
==============

RCS file: /cvs/emusrc/graphics/GrResources.c.TEMPLATE,v
Working file: graphics/GrResources.c.TEMPLATE

147

head: 1.1
branch: 1.1.1
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/graphics/Attic/GrResources.h,v
Working file: graphics/GrResources.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/graphics/GrResources.h.TEMPLATE,v
Working file: graphics/GrResources.h.TEMPLATE
head: 1.1
branch: 1.1.1
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/graphics/Graphics.c,v
Working file: graphics/Graphics.c
head: 1.20
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 25;   selected revisions: 0
description:
=================================================================
================

148

RCS file: /cvs/emusrc/graphics/Graphics.h,v
Working file: graphics/Graphics.h
head: 1.14
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 22;   selected revisions: 0
description:
===================================================================
================

RCS file: /cvs/emusrc/graphics/makefile,v
Working file: graphics/Makefile
head: 1.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 24;   selected revisions: 0
description:
makefile and README for graphics project
===================================================================
================

RCS file: /cvs/emusrc/graphics/README,v
Working file: graphics/README
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
makefile and README for graphics project
===================================================================
================

RCS file: /cvs/emusrc/graphics/legacy.makefile,v
Working file: graphics/legacy.makefile
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0

149

description:
makefile that enables legacy project development while making room for new buildsys
makefile.
=================================================================
================

RCS file: /cvs/emusrc/graphics/makefile,v
Working file: graphics/makefile
head: 1.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 24;   selected revisions: 0
description:
makefile and README for graphics project
=================================================================
================

RCS file: /cvs/emusrc/graphics/xtc.makefile,v
Working file: graphics/xtc.makefile
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
================
cvs server: Logging hw

RCS file: /cvs/emusrc/cfsynth/moby/hw/.cvsignore,v
Working file: hw/.cvsignore
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/Display.cc,v
Working file: hw/Display.cc

150

head: 1.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9;    selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/Display.hh,v
Working file: hw/Display.hh
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;    selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/DisplayLCD.cc,v
Working file: hw/DisplayLCD.cc
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;    selected revisions: 0
description:
=================================================================
==============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/DisplayLCD.hh,v
Working file: hw/DisplayLCD.hh
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;    selected revisions: 0
description:
=================================================================
==============

151

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/DisplayLCDConfig.h.template,v
Working file: hw/DisplayLCDConfig.h.template
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/DisplayLCDEV.cc,v
Working file: hw/DisplayLCDEV.cc
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/DisplayLCDEV.hh,v
Working file: hw/DisplayLCDEV.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/FastQueue.cc,v
Working file: hw/FastQueue.cc
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 0
description:
=================================================================

152

==============

RCS file: /cvs/emusrc/cfsynth/moby/hw/FastQueue.hh,v
Working file: hw/FastQueue.hh
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/cfsynth/moby/hw/I2C.hh,v
Working file: hw/I2C.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/cfsynth/moby/hw/MemTest.c,v
Working file: hw/MemTest.c
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;    selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/cfsynth/moby/hw/MemTest.h,v
Working file: hw/MemTest.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0

153

description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/Panel.cc,v
Working file: hw/Panel.cc
head: 1.37
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 38;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/Panel.hh,v
Working file: hw/Panel.hh
head: 1.25
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/PanelConfig.h.template,v
Working file: hw/PanelConfig.h.template
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/PanelEV.cc,v
Working file: hw/PanelEV.cc
head: 1.2
branch:
locks: strict
access list:

keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/PanelEV.hh,v
Working file: hw/PanelEV.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/PanelG05.cc,v
Working file: hw/PanelG05.cc
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/PanelG05.hh,v
Working file: hw/PanelG05.hh
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/PanelG05Config.h.template,v
Working file: hw/PanelG05Config.h.template
head: 1.2
branch:

155

locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/README,v
Working file: hw/README
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Timer.cc,v
Working file: hw/Timer.cc
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Timer.hh,v
Working file: hw/Timer.hh
head: 1.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Uart.cc,v
Working file: hw/Uart.cc

head: 1.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 16;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/Uart.hh,v
Working file: hw/Uart.hh
head: 1.23
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 27;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/crc.c,v
Working file: hw/crc.c
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/crc.h,v
Working file: hw/crc.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/hw/hw.dsp,v
Working file: hw/hw.dsp
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/hw.html,v
Working file: hw/hw.html
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/hwconfig.h.template,v
Working file: hw/hwconfig.h.template
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
================

RCS file: /cvs/emusrc/cfsynth/moby/hw/makefile,v
Working file: hw/makefile
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14;   selected revisions: 0
description:
=================================================================

```
===============
```

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/project__.Package.gif,v
Working file: hw/project__.Package.gif
head: 1.3
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 3;   selected revisions: 0
description:
```
===================================================================
===============
```

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/project__.Package.gif.html,v
Working file: hw/project__.Package.gif.html
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
```
===================================================================
===============
```

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/uartQueue.cc,v
Working file: hw/uartQueue.cc
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
```
===================================================================
===============
```

RCS file: /cvs/emusrc/cfsynth/moby/hw/Attic/uartQueue.hh,v
Working file: hw/uartQueue.hh
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0

description:
=======================================================================
================
cvs server: Logging kernel

RCS file: /cvs/emusrc/kernel/.cvsignore,v
Working file: kernel/.cvsignore
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
=======================================================================
================

RCS file: /cvs/emusrc/kernel/CKernel.cc,v
Working file: kernel/CKernel.cc
head: 1.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 0
description:
=======================================================================
================

RCS file: /cvs/emusrc/kernel/CKernel.hh,v
Working file: kernel/CKernel.hh
head: 1.16
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 16;   selected revisions: 0
description:
=======================================================================
================

RCS file: /cvs/emusrc/kernel/Attic/CTask.h,v
Working file: kernel/CTask.h
head: 1.4
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/kernel/Attic/CTask.hh,v
Working file: kernel/CTask.hh
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9;   selected revisions: 1
description:
----------------------------

revision 1.3
date: 1999/11/27 18:51:47;  author: howarde;  state: Exp;  lines: +3 -2
branches:  1.3.18;  1.3.24;
CTask now inherits virtually from CObject.
the define VIRTUAL_INHERITANCE resolves to nothing
unless we are in emulation mode.

See object.hh for definition
================================================================
===============

RCS file: /cvs/emusrc/kernel/Exception.c,v
Working file: kernel/Exception.c
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/kernel/Exception.h,v
Working file: kernel/Exception.h
head: 1.6
branch:
locks: strict
access list:

keyword substitution: kv
total revisions: 6;    selected revisions: 0
description:
================================================================

==============

RCS file: /cvs/emusrc/kernel/Kernel.c,v
Working file: kernel/Kernel.c
head: 1.39
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 40;    selected revisions: 0
description:
================================================================

==============

RCS file: /cvs/emusrc/kernel/Kernel.h,v
Working file: kernel/Kernel.h
head: 1.23
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 24;    selected revisions: 0
description:
================================================================

==============

RCS file: /cvs/emusrc/kernel/Attic/Kernel.html,v
Working file: kernel/Kernel.html
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;    selected revisions: 0
description:
================================================================

==============

RCS file: /cvs/emusrc/kernel/Attic/KernelAsm.s,v
Working file: kernel/KernelAsm.s
head: 1.17
branch:

locks: strict
access list:
keyword substitution: kv
total revisions: 18;    selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/kernel/Attic/KernelConfig.h,v
Working file: kernel/KernelConfig.h
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 12;    selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/kernel/KernelConfig.h.template,v
Working file: kernel/KernelConfig.h.template
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;    selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/kernel/KernelP.h,v
Working file: kernel/KernelP.h
head: 1.17
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 18;    selected revisions: 0
description:
==================================================================

================

RCS file: /cvs/emusrc/kernel/KernelTypes.h,v
Working file: kernel/KernelTypes.h

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head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/kernel/Attic/KernelTypes.hh,v
Working file: kernel/KernelTypes.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.2
date: 1999/11/14 15:29:53;  author: howarde;  state: dead;  lines: +0 -0
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.
=================================================================
===============

RCS file: /cvs/emusrc/kernel/README,v
Working file: kernel/README
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/kernel/akernel.html,v
Working file: kernel/akernel.html
head: 1.3
branch:
locks: strict
access list:

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keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/kernel/akernel.pdf,v
Working file: kernel/akernel.pdf
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/kernel/ckernel.html,v
Working file: kernel/ckernel.html
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/kernel/dr_10-16-97.html,v
Working file: kernel/dr_10-16-97.html
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/kernel/Attic/kernel.dsp,v
Working file: kernel/kernel.dsp
head: 1.4
branch:

locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/kernel/makefile,v
Working file: kernel/makefile
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 12;    selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/kernel/Attic/project__.Package.gif,v
Working file: kernel/project__.Package.gif
head: 1.3
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 3;    selected revisions: 0
description:
================================================================
==============

RCS file: /cvs/emusrc/kernel/Attic/project__.Package.gif.html,v
Working file: kernel/project__.Package.gif.html
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
================================================================
==============
cvs server: Logging main

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/BufferTypes.h,v

Working file: main/BufferTypes.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/CMainMemoryManager.h,v
Working file: main/CMainMemoryManager.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/KernelConfig.h,v
Working file: main/KernelConfig.h
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 3
description:
----------------------------
revision 1.4
date: 1999/12/22 23:54:13;  author: howarde;  state: dead;  lines: +0 -0
Moved from main
----------------------------
revision 1.3
date: 1999/12/18 20:34:54;  author: howarde;  state: Exp;  lines: +1 -1
no message .
----------------------------
revision 1.2
date: 1999/12/14 15:36:49;  author: howarde;  state: Exp;  lines: +3 -3
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
==================================================================

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```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/MessageTypes.h,v
Working file: main/MessageTypes.h
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;   selected revisions: 3
description:

```
----------------------------
```
revision 1.4
date: 1999/12/29 17:33:10;  author: howarde;  state: Exp;  lines: +1 -0
no message

```
----------------------------
```
revision 1.3
date: 1999/12/14 15:36:49;  author: howarde;  state: Exp;  lines: +1 -0
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.

```
----------------------------
```
revision 1.2
date: 1999/11/11 23:34:03;  author: andreiv;  state: Exp;  lines: +1 -0
new types added

```
=============================================================
```

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/OasisHW.h,v
Working file: main/OasisHW.h
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 3
description:

```
----------------------------
```
revision 1.7
date: 1999/12/22 23:54:13;  author: howarde;  state: dead;  lines: +0 -0
Moved from main

```
----------------------------
```
revision 1.6
date: 1999/12/13 19:54:03;  author: andreiv;  state: Exp;  lines: +30 -0
added defines for the rev B boards, no conflicts with rev A boards here

```
----------------------------
```
revision 1.5

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date: 1999/11/24 22:36:38;  author: andreiv;  state: Exp;  lines: +10 -0
SetCPUSpeed() declared along with an enum for the possible speeds
=================================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/OasisHWInit.c,v
Working file: main/OasisHWInit.c
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;    selected revisions: 3
description:
----------------------------
revision 1.7
date: 1999/12/22 23:54:14;  author: howarde;  state: dead;  lines: +0 -0
Moved from main
----------------------------
revision 1.6
date: 1999/12/13 23:31:08;  author: andreiv;  state: Exp;  lines: +12 -2
new stuff added for rev B boards
----------------------------
revision 1.5
date: 1999/11/24 22:34:50;  author: andreiv;  state: Exp;  lines: +17 -0
function to switch CPU speeds added
=================================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/PortIdents.h,v
Working file: main/PortIdents.h
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;    selected revisions: 1
description:
----------------------------
revision 1.2
date: 1999/12/14 15:36:49;  author: howarde;  state: Exp;  lines: +3 -2
Resynchronize after adding button scanner, transfer agent,
now playing manager, LibTreeManager etc.
=================================================================================
===============

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RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/SystemObjects.hh,v
Working file: main/SystemObjects.hh
head: 1.1
branch: 1.1.1
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
==============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/cl7211Config.h,v
Working file: main/cl7211Config.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 1
description:
----------------------------
revision 1.2
date: 1999/12/13 23:33:12;  author: andreiv;  state: Exp;  lines: +12 -1
virtual address map added
==============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/flashconfig.h,v
Working file: main/flashconfig.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.2
date: 1999/12/22 23:54:12;  author: howarde;  state: dead;  lines: +0 -0
Moved from main
==============================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/hwconfig.h,v
Working file: main/hwconfig.h

head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 1
description:
----------------------------
revision 1.3
date: 1999/12/22 23:54:13;  author: howarde;  state: dead;  lines: +0 -0
Moved from main

=================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/main.cc,v
Working file: main/main.cc
head: 1.40
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 41;   selected revisions: 14
description:
----------------------------
revision 1.23
date: 2000/01/04 22:08:50;  author: howarde;  state: Exp;  lines: +10 -4
Conditional compilation of serial output system.
----------------------------
revision 1.22
date: 1999/12/30 02:49:28;  author: andreiv;  state: Exp;  lines: +7 -4
__HEAP_END changed to what I hope is its final value
----------------------------
revision 1.21
date: 1999/12/30 00:05:18;  author: geraldi;  state: Exp;  lines: +2 -2
New DSP code and support for dsp Algorithms
----------------------------
revision 1.20
date: 1999/12/29 17:33:10;  author: howarde;  state: Exp;  lines: +3 -2
no message
----------------------------
revision 1.19
date: 1999/12/28 17:41:58;  author: howarde;  state: Exp;  lines: +12 -4
Added Varargs to CKernelObject::DebugMessage()
----------------------------
revision 1.18
date: 1999/12/23 23:30:42;  author: andreiv;  state: Exp;  lines: +1 -3

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USB manager creation uncommented

----------------------------

revision 1.17
date: 1999/12/23 21:36:03;  author: howarde;  state: Exp;  lines: +2 -2
Latest boot loader modifications and inclusion of some new hard coded
music.

----------------------------

revision 1.16
date: 1999/12/23 00:09:15;  author: howarde;  state: Exp;  lines: +78 -15
Created bootloader files within this project

----------------------------

revision 1.15
date: 1999/12/18 20:34:54;  author: howarde;  state: Exp;  lines: +2 -2
no message

----------------------------

revision 1.14
date: 1999/12/18 01:20:58;  author: andreiv;  state: Exp;  lines: +3 -4
both DACs are configured at the same time now

----------------------------

revision 1.13
date: 1999/12/17 00:40:54;  author: howarde;  state: Exp;  lines: +3 -1
First cut with playback manager hooked to transfer agent
Plays audio from disk

----------------------------

revision 1.12
date: 1999/12/13 23:35:22;  author: andreiv;  state: Exp;  lines: +16 -6
usb manager added, heap extended

----------------------------

revision 1.11
date: 1999/12/01 22:11:25;  author: geraldi;  state: Exp;  lines: +2 -2
dac is put in 32x bit clock mode now instead of 64x

----------------------------

revision 1.10
date: 1999/11/24 22:40:42;  author: andreiv;  state: Exp;  lines: +3 -1
CPU is switched to 74MHz mode
================================================================
==============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/makefile,v
Working file: main/makefile
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 1

description:

----------------------------

revision 1.3
date: 1999/12/23 00:09:15; author: howarde; state: Exp; lines: +1 -1
Created bootloader files within this project
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/mmu.s,v
Working file: main/mmu.s
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/12/23 00:21:18; author: howarde; state: Exp;
Created bootloader files within this project
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/mpgaudio.h,v
Working file: main/mpgaudio.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

----------------------------

revision 1.2
date: 1999/11/12 00:58:42; author: howarde; state: dead; lines: +0 -0
first addition
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/Attic/scat.txt,v
Working file: main/scat.txt
head: 1.2
branch:
locks: strict
access list:

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keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/main/scatter.txt,v
Working file: main/scatter.txt
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
=================================================================
===============
cvs server: Logging memorymgr

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/.cvsignore,v
Working file: memorymgr/.cvsignore
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/MemoryMgr.cc,v
Working file: memorymgr/MemoryMgr.cc
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/Attic/MemoryMgr.h,v
Working file: memorymgr/MemoryMgr.h
head: 1.3

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branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/MemoryMgr.hh,v
Working file: memorymgr/MemoryMgr.hh
head: 1.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/README,v
Working file: memorymgr/README
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/makefile,v
Working file: memorymgr/makefile
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;    selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/Attic/memorymgr.html,v

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Working file: memorymgr/memorymgr.html
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/Attic/project__.Package.gif,v
Working file: memorymgr/project__.Package.gif
head: 1.3
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 3;   selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/cfsynth/moby/memorymgr/Attic/project__.Package.gif.html,v
Working file: memorymgr/project__.Package.gif.html
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
==================================================================
===============
cvs server: Logging mp3

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/Song.c,v
Working file: mp3/Song.c
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------

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revision 1.1
date: 1999/12/23 21:39:15; author: howarde; state: Exp;
Latest boot loader modifications and inclusion of some new hard coded
music.
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/Stair.c,v
Working file: mp3/Stair.c
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/23 21:39:17; author: howarde; state: Exp;
Latest boot loader modifications and inclusion of some new hard coded
music.
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/StepRight.c,v
Working file: mp3/StepRight.c
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/23 21:39:19; author: howarde; state: Exp;
Latest boot loader modifications and inclusion of some new hard coded
music.
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/aaclib.alf,v
Working file: mp3/aaclib.alf
head: 1.4
branch:
locks: strict

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access list:
keyword substitution: b
total revisions: 4;  selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/cruntime.alf,v
Working file: mp3/cruntime.alf
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;  selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/decrypt.alf,v
Working file: mp3/decrypt.alf
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;  selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/drmpd.alf,v
Working file: mp3/drmpd.alf
head: 1.1
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 1;  selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/meat.c,v
Working file: mp3/meat.c
head: 1.1

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1; selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/12/23 21:39:12; author: howarde; state: Exp;
Latest boot loader modifications and inclusion of some new hard coded
music.
========================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/mpeg3lib.alf,v
Working file: mp3/mpeg3lib.alf
head: 1.4
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 4; selected revisions: 1
description:

----------------------------

revision 1.4
date: 1999/11/12 01:05:00; author: andreiv; state: Exp; lines: +225 -253
updated library
========================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/mp3/wmadlib.alf,v
Working file: mp3/wmadlib.alf
head: 1.2
branch:
locks: strict
access list:
keyword substitution: b
total revisions: 2; selected revisions: 0
description:
========================================================================
================
cvs server: Logging oasishw

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/ButtonScan.cc,v
Working file: oasishw/ButtonScan.cc
head: 1.15

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branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 15;   selected revisions: 4
description:

----------------------------
revision 1.5
date: 1999/12/29 17:54:38;  author: andreiv;  state: Exp;  lines: +22 -6
software fix for a hardware bug - sometimes we would detect Lib and Forward
buttons as being pressed when only Play is pressed

----------------------------
revision 1.4
date: 1999/12/18 22:01:40;  author: andreiv;  state: Exp;  lines: +39 -30
adjustments made for rev B board

----------------------------
revision 1.3
date: 1999/12/13 23:47:10;  author: andreiv;  state: Exp;  lines: +90 -0
button scanning functionality changed to support rev B boards

----------------------------
revision 1.2
date: 1999/11/12 00:02:29;  author: howarde;  state: Exp;  lines: +1 -1
Fixes for Oass emulator
================================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/ButtonScan.h,v
Working file: oasishw/ButtonScan.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 2
description:

----------------------------
revision 1.2
date: 1999/12/18 22:01:40;  author: andreiv;  state: Exp;  lines: +18 -17
adjustments made for rev B board

----------------------------
revision 1.1
date: 1999/11/12 00:47:12;  author: howarde;  state: Exp;
added buttonscan.h
================================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/ButtonScan.hh,v
Working file: oasishw/ButtonScan.hh
head: 1.2
branch:
locks: strict
access list: ·
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

----------------------------
revision 1.2
date: 1999/11/14 15:29:55;  author: howarde;  state: dead;  lines: +0 -0
Checkin running code which should get tagged as the last set
of code that uses Ron's old demo code.  Next step is to
integrate the new demo code into the system.
=================================================================
================
 
 
RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/CEncoder.h,v
Working file: oasishw/CEncoder.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

--------------------------
revision 1.1
date: 1999/12/18 22:03:05;  author: andreiv;  state: Exp;
volume encoder, basic functionality implemented, may need improvements
=================================================================
================
 
 
RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/CObjectLock.cpp,v
Working file: oasishw/CObjectLock.cpp
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1
description:

--------------------------
revision 1.1
date: 1999/12/22 23:52:06;  author: howarde;  state: Exp;

Moved from qservices

=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/CObjectLock.h,v
Working file: oasishw/CObjectLock.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/22 23:52:06;  author: howarde;  state: Exp;
Moved from qservices

=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/KS0713LCD.c,v
Working file: oasishw/KS0713LCD.c
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 9;   selected revisions: 1
description:
----------------------------
revision 1.3
date: 1999/12/13 23:44:32;  author: andreiv;  state: Exp;  lines: +6 -1
added support for rev B boards

=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/KS0713LCD.h,v
Working file: oasishw/KS0713LCD.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
=================================================================

182

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/KernelConfig.h,v
Working file: oasishw/KernelConfig.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1
description:

```
---------------------------
```

revision 1.1
date: 1999/12/22 23:55:05;  author: howarde;  state: Exp;
Moved from main

```
================================================================
```

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/OasisHW.h,v
Working file: oasishw/OasisHW.h
head: 1.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;   selected revisions: 1
description:

```
---------------------------
```

revision 1.1
date: 1999/12/22 23:55:25;  author: howarde;_state: Exp;
Moved from main

```
================================================================
```

```
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/OasisHWInit.c,v
Working file: oasishw/OasisHWInit.c
head: 1.17
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 17;   selected revisions: 4
description:

```
---------------------------
```

revision 1.4
date: 2000/01/04 22:10:22;  author: howarde;  state: Exp;  lines: +3 -1

183

Disable dsp on soft power down.

----------------------------

revision 1.3
date: 2000/01/03 23:39:01; author: andreiv; state: Exp; lines: +13 -0
holding stop down for 3-4 secs powers down the ARM

----------------------------

revision 1.2
date: 1999/12/30 19:37:38; author: andreiv; state: Exp; lines: +2 -6
ARMFLAG is driven high now after Dan's request

----------------------------

revision 1.1
date: 1999/12/22 23:55:26; author: howarde; state: Exp;
Moved from main
================================================================
================                                        /


RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/OasisSPI.cc,v
Working file: oasishw/OasisSPI.cc
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
================================================================
================


RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/OasisSPI.hh,v
Working file: oasishw/OasisSPI.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
================================================================
================


RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/PERFMON.CPP,v
Working file: oasishw/PERFMON.CPP
head: 1.1
branch:
locks: strict
access list:

184

keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/PERFMON.H,v
Working file: oasishw/PERFMON.H
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/PICInterface.cpp,v
Working file: oasishw/PICInterface.cpp
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/PICInterface.h,v
Working file: oasishw/PICInterface.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 0
description:
==================================================================

===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/SPI7211.cc,v
Working file: oasishw/SPI7211.cc
head: 1.4
branch:

185

locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 2
description:
----------------------------
revision 1.4
date: 1999/12/18 01:18:36;  author: andreiv;  state: Exp;  lines: +34 -5
added functionality to address commands to both devices simultaneously
----------------------------
revision 1.3
date: 1999/12/13 23:46:06;  author: andreiv;  state: Exp;  lines: +2 -2
select faster SPI xfer speed
=================================================================
=================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/SPI7211.hh,v
Working file: oasishw/SPI7211.hh
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 2
description:
----------------------------
revision 1.4
date: 1999/12/20 17:49:00;  author: howarde;  state: Exp;  lines: +1 -1
Miscellania
----------------------------
revision 1.3
date: 1999/12/18 01:18:37;  author: andreiv;  state: Exp;  lines: +6 -3
added functionality to address commands to both devices simultaneously
=================================================================
=================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/SystemStartup.cpp,v
Working file: oasishw/SystemStartup.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;    selected revisions: 1
description:
----------------------------

revision 1.1
date: 1999/12/22 23:53:19; author: howarde; state: Exp;
Moved from sysmgr
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/SystemStartup.h,v
Working file: oasishw/SystemStartup.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/22 23:53:19; author: howarde; state: Exp;
Moved from sysmgr
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/ds1302.cpp,v
Working file: oasishw/ds1302.cpp
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/ds1302.h,v
Working file: oasishw/ds1302.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

187

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/flashconfig.h,v
Working file: oasishw/flashconfig.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/22 23:55:04;  author: howarde;  state: Exp;
Moved from main
==================================================================
================
RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/hwconfig.h,v
Working file: oasishw/hwconfig.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/22 23:55:04;  author: howarde;  state: Exp;
Moved from main
==================================================================
================
RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/makefile,v
Working file: oasishw/makefile
head: 1.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;   selected revisions: 3
description:
----------------------------
revision 1.6
date: 1999/12/23 00:09:15;  author: howarde;  state: Exp;  lines: +1 -1
Created bootloader files within this project
----------------------------

188

revision 1.5
date: 1999/11/12 00:02:38; author: howarde; state: Exp; lines: +1 -1
Fixes for Oass emulator
----------------------------
revision 1.4
date: 1999/11/11 22:04:19; author: howarde; state: Exp; lines: +1 -1
added more modules
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/spi.cc,v
Working file: oasishw/spi.cc
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/spi.cpp,v
Working file: oasishw/spi.cpp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
==================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/spi.h,v
Working file: oasishw/spi.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;    selected revisions: 0
description:
==================================================================
===============

189

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/oasishw/Attic/spi.hh,v
Working file: oasishw/spi.hh
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

cvs server: Logging usb

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/CFIFO.h,v
Working file: usb/CFIFO.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/29 03:28:34;  author: andreiv;  state: Exp;
initial check-in, simple fifo implementation
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/CRCHelper.cpp,v
Working file: usb/CRCHelper.cpp
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/CRCHelper.h,v
Working file: usb/CRCHelper.h
head: 1.1
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/CUsbManager.cpp,v
Working file: usb/CUsbManager.cpp
head: 1.102
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 108;   selected revisions: 13
description:
----------------------------
revision 1.13
date: 2000/01/03 21:05:10;  author: andreiv;  state: Exp;  lines: +7 -6
fixed firmware download over usb
----------------------------
revision 1.12
date: 2000/01/03 19:06:49;  author: howarde;  state: Exp;  lines: +105 -3
Added boot loader hack to USB manager
Added some directory manipulation features to DirINode
Set LCD Width properly
Set Eq Numbers in UI to be offset by -18.
----------------------------
revision 1.11
date: 2000/01/01 22:46:18;  author: howarde;  state: Exp;  lines: +1 -1
Added system menu, including dsp effects control

2) Diagnosed and resolved a very sticky load balancing
problem between threads.  Playback manager eats way too
much time for it's own good.
----------------------------
revision 1.10
date: 2000/01/01 15:19:28;  author: howarde;  state: Exp;  lines: +8 -2
Added automatic deletion of files without attributes and prevented
directory commital until a file is closed.  I.e. fails to close after create
means file DNE.
----------------------------
revision 1.9
date: 1999/12/31 17:47:21;  author: andreiv;  state: Exp;  lines: +11 -134
cleaned up the code, fixed 64 byte leftover in the buffer bug
----------------------------

191

revision 1.8
date: 1999/12/30 18:55:44; author: andreiv; state: Exp; lines: +1 -1
lowered priority of the USB manager
----------------------------
revision 1.7
date: 1999/12/30 02:45:42; author: andreiv; state: Exp; lines: +159 -23
extensive changes, USB file transfers to the device implemented but not fully tested
----------------------------
revision 1.6
date: 1999/12/29 20:14:04; author: howarde; state: Exp; lines: +1 -1
Added fix to filesystem to
take an initial file size on creation.
"Cause double indirect is broken currently"
----------------------------
revision 1.5
date: 1999/12/29 03:08:39; author: andreiv; state: Exp; lines: +296 -14
extensive changes, most functionality is in place, certain limitations extist:
1) only 1 file xfer in one session
2) one-way file xfers (to device only)
3) no ID3v1 info is extracted
4) ... too much to mention
----------------------------
revision 1.4
date: 1999/12/24 02:28:54; author: andreiv; state: Exp; lines: +60 -9
multiple changes
----------------------------
revision 1.3
date: 1999/12/23 21:46:22; author: andreiv; state: Exp; lines: +72 -2
updated stuff
----------------------------
revision 1.2
date: 1999/12/23 01:37:25; author: andreiv; state: Exp; lines: +269 -163
updated USB files - still messy, control in/out and bulk out work, bulk in untested
----------------------------
revision 1.1
date: 1999/12/13 23:58:22; author: andreiv; state: Exp;
first implementation of the USB manager
=============================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/CUsbManager.h,v
Working file: usb/CUsbManager.h
head: 1.43
branch:
locks: strict
access list:

192

keyword substitution: kv
total revisions: 43;    selected revisions: 7
description:

```
---------------------------
```

revision 1.7
date: 2000/01/03 19:06:49;  author: howarde;  state: Exp;  lines: +3 -0
Added boot loader hack to USB manager
Added some directory manipulation features to DirINode
Set LCD Width properly
Set Eq Numbers in UI to be offset by -18.

```
---------------------------
```

revision 1.6
date: 1999/12/30 02:45:42;  author: andreiv;  state: Exp;  lines: +21 -0
extensive changes, USB file transfers to the device implemented but not fully tested

```
---------------------------
```

revision 1.5
date: 1999/12/29 03:08:39;  author: andreiv;  state: Exp;  lines: +16 -3
extensive changes, most functionality is in place, certain limitations extist:
1) only 1 file xfer in one session
2) one-way file xfers (to device only)
3) no ID3v1 info is extracted
4) ... too much to mention

```
---------------------------
```

revision 1.4
date: 1999/12/24 02:28:54;  author: andreiv;  state: Exp;  lines: +5 -0
multiple changes

```
---------------------------
```

revision 1.3
date: 1999/12/23 21:46:22;  author: andreiv;  state: Exp;  lines: +1 -0
updated stuff

```
---------------------------
```

revision 1.2
date: 1999/12/23 01:37:25;  author: andreiv;  state: Exp;  lines: +42 -1
updated USB files - still messy, control in/out and bulk out work, bulk in untested

```
---------------------------
```

revision 1.1
date: 1999/12/13 23:58:22;  author: andreiv;  state: Exp;
first implementation of the USB manager

```
==============================================================
===============
```

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/D12CI.C,v
Working file: usb/D12CI.C
head: 1.4
branch:
locks: strict

193

access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/13 23:59:08;  author: andreiv;  state: Exp;
low-level USB functions
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/D12CI.H,v
Working file: usb/D12CI.H
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/13 23:59:08;  author: andreiv;  state: Exp;
low-level USB functions
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/D12ISR.C,v
Working file: usb/D12ISR.C
head: 1.14
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14;   selected revisions: 7
description:
----------------------------
revision 1.7
date: 1999/12/31 17:47:22;  author: andreiv;  state: Exp;  lines: +1 -1
cleaned up the code, fixed 64 byte leftover in the buffer bug
----------------------------
revision 1.6
date: 1999/12/30 02:45:43;  author: andreiv;  state: Exp;  lines: +25 -0
extensive changes, USB file transfers to the device implemented but not fully tested
----------------------------
revision 1.5

194

date: 1999/12/29 03:08:39; author: andreiv; state: Exp; lines: +24 -3
extensive changes, most functionality is in place, certain limitations extist:
1) only 1 file xfer in one session
2) one-way file xfers (to device only)
3) no ID3v1 info is extracted
4) ... too much to mention
----------------------------
revision 1.4
date: 1999/12/24 02:28:54; author: andreiv; state: Exp; lines: +3 -1
multiple changes
----------------------------
revision 1.3
date: 1999/12/23 21:46:23; author: andreiv; state: Exp; lines: +94 -4
updated stuff
----------------------------
revision 1.2
date: 1999/12/23 01:37:26; author: andreiv; state: Exp; lines: +113 -14
updated USB files - still messy, control in/out and bulk out work, bulk in untested
----------------------------
revision 1.1
date: 1999/12/13 23:59:08; author: andreiv; state: Exp;
low-level USB functions
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/D12ISR.h,v
Working file: usb/D12ISR.h
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;    selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/13 23:59:09; author: andreiv; state: Exp;
low-level USB functions
=================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/EPPHAL.C,v
Working file: usb/EPPHAL.C
head: 1.4
branch:
locks: strict

195

access list:
keyword substitution: kv
total revisions: 4;   selected revisions: 3
description:

----------------------------

revision 1.3
date: 1999/12/29 03:08:39;  author: andreiv;  state: Exp;  lines: +6 -4
extensive changes, most functionality is in place, certain limitations extist:
1) only 1 file xfer in one session
2) one-way file xfers (to device only)
3) no ID3v1 info is extracted
4) ... too much to mention

----------------------------

revision 1.2
date: 1999/12/16 23:38:48;  author: andreiv;  state: Exp;  lines: +12 -0
delay inserted to accomodate the D12's timing requirements

----------------------------

revision 1.1
date: 1999/12/13 23:59:59;  author: andreiv;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/EPPHAL.H,v
Working file: usb/EPPHAL.H
head: 1.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:

----------------------------

revision 1.1
date: 1999/12/13 23:59:59;  author: andreiv;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/HID.cpp,v
Working file: usb/HID.cpp
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv

196

total revisions: 1;   selected revisions: 0
description:
=======================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/HID.h,v
Working file: usb/HID.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=======================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/NomadUSB.c,v
Working file: usb/NomadUSB.c
head: 1.2
branch:
locks: strict
\access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 0
description:
=======================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/NomadUSB.h,v
Working file: usb/NomadUSB.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
=======================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/OasisCRC.h,v
Working file: usb/OasisCRC.h
head: 1.1
branch:
locks: strict

access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 0
description:
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/chap_9.c,v
Working file: usb/chap_9.c
head: 1.7
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 7;   selected revisions: 2
description:
----------------------------
revision 1.2
date: 1999/12/23 01:37:26;  author: andreiv;  state: Exp;  lines: +3 -1
updated USB files - still messy, control in/out and bulk out work, bulk in untested
----------------------------
revision 1.1
date: 1999/12/13 23:54:22;  author: andreiv;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/chap_9.h,v
Working file: usb/chap_9.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/13 23:54:44;  author: andreiv;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/mainloop.h,v
Working file: usb/mainloop.h
head: 1.2

198

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 00:00:44;  author: andreiv;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/makefile,v
Working file: usb/makefile
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 00:02:33;  author: andreiv;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/protodma.h,v
Working file: usb/protodma.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 00:02:34;  author: andreiv;  state: Exp;
initial check-in
================================================================
===============

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/usb.c,v

Working file: usb/usb.c
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 00:01:21;  author: andreiv;  state: Exp;
initial check-in
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/usb.h,v
Working file: usb/usb.h
head: 1.5
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 5;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 00:01:21;  author: andreiv;  state: Exp;
initial check-in
================================================================
================

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/usb100.h,v
Working file: usb/usb100.h
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 00:02:34;  author: andreiv;  state: Exp;
initial check-in
================================================================
================

200

RCS file: /cvs/emusrc/projects/oasis/oasis1/code/usb/usbconfig.h,v
Working file: usb/usbconfig.h
head: 1.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;   selected revisions: 1
description:
----------------------------
revision 1.1
date: 1999/12/14 00:02:34;  author: andreiv;  state: Exp;
initial check-in
=================================================================
===============

201

# EXHIBIT
# AA

All Files in Oasis project at Jan 4,2000

Volume in drive C has no label.
Volume Serial Number is 9291-D72E

Directory of C:\Projects\OASIS_Review\CESRelease\oasis

```
01/04/2000  03:10 PM              355 oasis.h
01/04/2000  03:10 PM          860,471 oasisImg.h
               2 File(s)        860,826 bytes
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\bootmain

```
05/24/2010  04:31 PM            7,667 CBootManager.cpp
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\bootmain

```
05/24/2010  04:31 PM          388,560 splash.c
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\bootmain

```
05/24/2010  04:31 PM            1,232 CBootManager.h
               3 File(s)        397,459 bytes
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\BufferPools

```
12/18/1999  01:34 PM            6,642 BufferPools.cpp
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\BufferPools

```
10/20/1999  06:29 AM            3,992 BufferPools.h
               2 File(s)         10,634 bytes
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\cl7211

```
05/24/2010  04:31 PM            3,603 interrupt.c
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\cl7211

```
05/24/2010  04:31 PM           21,813 cl7211.h
09/09/1999  06:13 PM            7,591 machine.h
               3 File(s)         33,007 bytes
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\DSPManager

```
05/24/2010  04:30 PM           15,185 CDspIO.cpp
05/24/2010  04:30 PM           17,913 CDspManager.cpp
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\DSPManager

```
05/24/2010  04:30 PM            3,753 CDspIO.h
05/24/2010  04:30 PM            5,788 CDspManager.h
05/24/2010  04:30 PM           55,579 dspboot.h
05/24/2010  04:30 PM           29,380 dspcode.h
               6 File(s)        127,598 bytes
```

Directory of C:\Projects\OASIS_Review\CESRelease\oasis\FileSystem

```
05/24/2010  04:30 PM            7,042 CAttributes.cpp
05/24/2010  04:30 PM            9,066 CDirInode.cpp
05/24/2010  04:30 PM           27,480 CINode.cpp
05/24/2010  04:30 PM           13,237 CPartitionIo.cpp
05/24/2010  04:30 PM           16,283 CStorageMap.cpp
```

Page 1

```
                              Jan04_2000_OasisFileList.txt
12/22/1999   05:09 PM              8,805 CSuperBlock.cpp
05/24/2010   04:30 PM              7,952 FileSystem.cpp
05/24/2010   04:30 PM              3,727 HardFileData.cpp
05/24/2010   04:30 PM              7,838 TFsTestForm.cpp
05/24/2010   04:30 PM              4,688 TransferAgent.cpp

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\FileSystem

05/24/2010   04:30 PM              2,161 CAttributes.h
05/24/2010   04:30 PM              1,340 CDirInode.h
05/24/2010   04:30 PM              5,942 CINode.h
05/24/2010   04:30 PM              3,765 CPartitionIo.h
05/24/2010   04:30 PM              2,400 CStorageMap.h
12/22/1999   05:09 PM              2,296 CSuperBlock.h
05/24/2010   04:30 PM              2,478 FileSystem.h
11/11/1999   02:51 PM                230 FsInternals.h
05/24/2010   04:30 PM              1,454 FsTypes.h
11/11/1999   02:51 PM          3,034,058 funky.h
11/11/1999   02:51 PM                246 HardFileData.h
05/24/2010   04:30 PM              1,455 TransferAgent.h
                22 File(s)      3,163,943 bytes

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\flash

12/29/1998   05:57 PM             29,552 amdflash.c
05/24/2010   04:31 PM             37,612 flash.c
05/24/2010   04:31 PM             35,546 intelflash.c
05/24/2010   04:31 PM             15,897 intelgchipflash.c

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\flash

09/21/1998   06:42 AM              1,410 amdflash.h
05/24/2010   04:31 PM              7,982 flash.h
11/01/1998   06:27 PM              2,532 intelflash.h
12/08/1998   10:58 AM              1,353 intelgchipflash.h
                 8 File(s)        131,884 bytes

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\FrontPanelUI

05/24/2010   04:30 PM             33,694 CStr.cpp
05/24/2010   04:31 PM                438 LCDFunctionsPage.cpp
05/24/2010   04:31 PM              1,245 LCDGamesPage.cpp
05/24/2010   04:31 PM              4,316 LCDLibPage.cpp
05/24/2010   04:31 PM              8,885 LCDListBox.cpp
05/24/2010   04:31 PM              6,608 LCDListeningPage.cpp
05/24/2010   04:31 PM              1,025 LCDMenu.cpp
05/24/2010   04:31 PM              7,527 LCDMenuPage.cpp
05/24/2010   04:31 PM              8,788 LCDMgr.cpp
05/24/2010   04:31 PM              6,576 LCDPage.cpp
05/24/2010   04:31 PM              4,796 LCDQListPage.cpp
05/24/2010   04:31 PM                995 LCDSplashPage.cpp
05/24/2010   04:31 PM              1,228 LCDTrackInfoPage.cpp
05/24/2010   04:31 PM                928 LCDTracksPage.cpp

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\FrontPanelUI

05/24/2010   04:30 PM              8,367 GrCustom.c
05/24/2010   04:30 PM            162,782 GrResources.c

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\FrontPanelUI

05/24/2010   04:30 PM             13,551 CStr.h
11/15/1999   01:50 PM              2,051 GeneralTypes.h
                              Page 2
```

```
                                 Jan04_2000_OasisFileList.txt
05/24/2010   04:30 PM              2,213 GrCustom.h
05/24/2010   04:31 PM              1,137 GrResources.h
10/06/1999   06:23 AM                242 LCDFunctionsPage.h
11/15/1999   01:50 PM                702 LCDGamesPage.h
05/24/2010   04:31 PM                719 LCDLibPage.h
05/24/2010   04:31 PM              2,393 LCDListBox.h
05/24/2010   04:31 PM                355 LCDListeningPage.h
10/06/1999   06:24 AM              1,052 LCDMenu.h
05/24/2010   04:31 PM              1,095 LCDMenuPage.h
05/24/2010   04:31 PM              2,971 LCDMgr.h
05/24/2010   04:31 PM              3,368 LCDPage.h
05/24/2010   04:31 PM                409 LCDQListPage.h
11/15/1999   01:50 PM·                351 LCDSplashPage.h
05/24/2010   04:31 PM                497 LCDTrackInfoPage.h
10/06/1999   06:26 AM                475 LCDTracksPage.h
11/15/1999   01:50 PM                152 StdInclude.h
                34 File(s)        291,931 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\graphics

05/24/2010   04:31 PM             38,999 Graphics.c
01/14/1994   02:59 PM              7,645 GrCustom.c
05/24/2010   04:31 PM             51,031 GrEngine.c
10/06/1999   02:42·PM             26,068 GrLcdDriver.c
01/14/1994   02:59 PM             45,936 GrResources.c

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\graphics

05/24/2010   04:31 PM             14,111 Graphics.h
01/14/1994   02:59 PM                938 GrCustom.h
10/06/1999   06:49 AM·               510 GrDriver.h
10/06/1999   06:57 AM              3,019 GrEngine.h
08/05/1998   12:01 PM              7,940 GrLcdConfig.h
01/14/1994   02:59 PM                366 GrResources.h
                11 File(s)        196,563 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\hw

08/05/1999   02:27 PM              9,779 crc.c
05/24/2010   04:31 PM              3,523 MemTest.c

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\hw

08/05/1999   02:27 PM              1,657 crc.h
05/24/2010   04:31 PM              1,364 MemTest.h
                4 File(s)         16,323 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\IDE

05/24/2010   04:31 PM              3,298 blockdrv.h
05/24/2010   04:31 PM              2,518 COasisSmartIDE.h
05/24/2010   04:31 PM             10,551 idedrv.h
                3 File(s)         16,367 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\Include

11/11/1999   04:15 PM              4,934 mpgaudio.h
11/11/1999   04:16 PM                627 mpgdata.h
                2 File(s)          5,561 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\kernel

09/03/1998   07:52·PM              1,366 Exception.c
                                 Page 3
```

```
                        Jan04_2000_OasisFileList.txt
05/24/2010  04:31 PM            51,921 Kernel.c

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\kernel

10/01/1999  01:17 PM               752 CTask.h
08/05/1999  11:45 AM             4,781 Exception.h
05/24/2010  04:31 PM             3,866 Kernel.h
05/24/2010  04:31 PM             7,545 KernelP.h
05/24/2010  04:31 PM             2,524 KernelTypes.h
               7 File(s)         72,755 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\LibMgr

12/29/1999  07:56 PM             1,907 ID3v1Info.cpp
05/24/2010  04:31 PM             3,346 LibElement.cpp
05/24/2010  04:31 PM            16,806 LibraryTree.cpp
05/24/2010  04:31 PM            11,999 NowPlayingQ.cpp

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\LibMgr

12/29/1999  07:54 PM             2,506 ID3v1Tag.h
05/24/2010  04:31 PM             2,626 LibElement.h
05/24/2010  04:31 PM             2,012 LibraryTree.h
05/24/2010  04:31 PM             2,704 NowPlayingQ.h
05/24/2010  04:31 PM             2,053 TestTrkAttrText.h
               9 File(s)         45,959 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\main

09/28/1999  07:31 AM               790 BufferTypes.h
12/13/1999  04:33 PM             7,724 cl7211Config.h
05/24/2010  04:31 PM               456 MessageTypes.h
05/24/2010  04:31 PM               547 PortIdents.h
               4 File(s)          9,517 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\mp3

12/23/1999  02:39 PM         1,479,179 meat.c
12/23/1999  02:39 PM         1,504,946 Song.c
12/23/1999  02:39 PM         1,497,599 Stair.c
12/23/1999  02:39 PM         1,954,672 StepRight.c
               4 File(s)      6,436,396 bytes

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\oasishw

05/24/2010  04:31 PM             1,135 CObjectLock.cpp
05/24/2010  04:31 PM             1,944 SystemStartup.cpp

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\oasishw

05/24/2010  04:31 PM            18,130 KS0713LCD.c
05/24/2010  04:31 PM             7,179 OasisHWInit.c

    Directory of C:\Projects\OASIS_Review\CESRelease\oasis\oasishw

05/24/2010  04:31 PM             2,221 ButtonScan.h
05/24/2010  04:31 PM             2,592 CEncoder.h
05/24/2010  04:31 PM             1,159 CObjectLock.h
05/24/2010  04:31 PM             2,790 flashconfig.h
12/22/1999  04:55 PM             1,019 hwconfig.h
05/24/2010  04:31 PM             2,748 KernelConfig.h
05/24/2010  04:31 PM             4,184 KS0713LCD.h
05/24/2010  04:31 PM             3,021 OasisHW.h
                                  Page 4
```

```
12/22/1999  04:53 PM                   342 SystemStartup.h
              13 File(s)          48,464 bytes

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\PlaybackManager

05/24/2010  04:31 PM                20,747 CMP3InStream.cpp
05/24/2010  04:31 PM                23,465 CPlaybackManager.cpp

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\PlaybackManager

05/24/2010  04:31 PM                 7,468 CAudioStream.h
05/24/2010  04:31 PM                 3,528 CMP3InStream.h
05/24/2010  04:31 PM                 4,911 CPlaybackManager.h
05/24/2010  04:31 PM                 2,463 SalvageBuffer.h
               6 File(s)          62,582 bytes

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\QServices

05/24/2010  04:31 PM                 9,105 QServices.cpp

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\QServices

05/24/2010  04:31 PM                 5,081 QServices.h
               2 File(s)          14,186 bytes

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\SysMgr

05/24/2010  04:31 PM                 4,068 CButtonScanner.cpp
05/24/2010  04:31 PM                 7,109 CSysManager.cpp

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\SysMgr

05/24/2010  04:31 PM                 1,411 CButtonScanner.h
05/24/2010  04:31 PM                 1,659 CSysManager.h
               4 File(s)          14,247 bytes

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\TI5402\Bootloader

12/13/1999  02:03 PM                 6,417 DSPMaind.c
12/02/1999  03:56 PM                16,796 RegSetd.C

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\TI5402\Bootloader

05/24/2010  04:31 PM                 4,262 buffers.h
05/24/2010  04:31 PM                 8,615 regset.h
05/24/2010  04:31 PM                   468 stddefs.h
05/24/2010  04:31 PM                 1,899 sysproto.h
05/24/2010  04:31 PM                   322 Tms320.h
               7 File(s)          38,779 bytes

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\TI5402\Maincode

05/24/2010  04:31 PM                 6,247 DSPMain.C
05/24/2010  04:31 PM                 8,868 Play.C
05/24/2010  04:31 PM                16,921 RegSet.C

     Directory of C:\Projects\OASIS_Review\CESRelease\oasis\TI5402\Maincode

05/24/2010  04:31 PM                 4,073 buffers.h
05/24/2010  04:31 PM                 8,731 RegSet.h
05/24/2010  04:31 PM                   468 stddefs.h
05/24/2010  04:31 PM                 1,899 SYSPROTO.H
12/02/1999  04:01 PM                   289 Tms320.h
                                    Page 5
```

          8 File(s)          47,496 bytes

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\usb

05/24/2010  04:31 PM          27,686 CUsbManager.cpp

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\usb

05/24/2010  04:31 PM          10,980 chap_9.c
05/24/2010  04:31 PM           5,634 D12CI.C
05/24/2010  04:31 PM          16,131 D12ISR.C
05/24/2010  04:31 PM           1,157 EPPHAL.C
05/24/2010  04:31 PM          35,989 usb.c

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\usb

12/28/1999  08:28 PM           1,349 CFIFO.h
12/13/1999  04:54 PM           1,212 chap_9.h
05/24/2010  04:31 PM           7,106 CUsbManager.h
05/24/2010  04:31 PM           3,734 D12CI.H
05/24/2010  04:31 PM              75 D12ISR.h
05/24/2010  04:31 PM             656 EPPHAL.H
05/24/2010  04:31 PM           6,566 mainloop.h
12/13/1999  05:02 PM             842 protodma.h
05/24/2010  04:31 PM           2,359 usb.h
05/24/2010  04:31 PM           8,512 usb100.h
12/13/1999  05:02 PM           1,035 usbconfig.h
             17 File(s)        131,023 bytes

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\VccEmulator

05/24/2010  04:31 PM           3,234 GraphLib.cpp
05/24/2010  04:31 PM           2,060 Oasim.cpp
05/24/2010  04:31 PM           9,458 OasimDlg.cpp
11/27/1999  10:17 AM             207 StdAfx.cpp

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\VccEmulator

11/27/1999  10:17 AM           2,245 GraphLib.h
11/27/1999  10:17 AM           1,313 Oasim.h
11/27/1999  10:17 AM           2,035 OasimDlg.h
11/27/1999  10:17 AM           1,735 resource.h
11/27/1999  10:17 AM           1,128 StdAfx.h
              9 File(s)         23,415 bytes

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\winsim

05/24/2010  04:31 PM           2,866 CButtonSim.cpp
05/24/2010  04:31 PM           5,767 CIdeSim.cpp
12/28/1999  11:32 AM             997 CObject.cpp
05/24/2010  04:31 PM           8,371 CTask.cpp
11/14/1999  12:00 PM           1,364 Dllassert.cpp
05/24/2010  04:31 PM           5,577 FrontPanelOne.cpp
11/14/1999  12:00 PM             439 GrWinDriver.cpp
05/24/2010  04:31 PM           3,841 MPegSim.cpp

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\winsim

11/14/1999  12:00 PM           9,514 GrDriver.c

   Directory of C:\Projects\OASIS_Review\CESRelease\oasis\winsim

11/14/1999  12:00 PM             208 CButtonSim.h

```
                          Jan04_2000_OasisFileList.txt
05/24/2010  04:31 PM                2,854 CIdeSim.h
05/24/2010  04:31 PM                1,997 FrontPanelOne.h
11/14/1999  12:00 PM                  300 GrWinDriver.h
11/14/1999  12:00 PM                  202 MPegSim.h
              14 File(s)           44,297 bytes

      Total Files Listed:
             204 File(s)       12,241,212 bytes
               0 Dir(s)    63,379,288,064 bytes free
```

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# EXHIBIT
# BB

```cpp
//-----------------------------------------------------------------------------
//
// File:
//              LibraryTree.cpp
//
// Author:
//              Howard Egan
//
// Creation Date:
//              4-Dec-1999
//
// Copyright (c) 1999 E-mu Systems Inc.
// All rights reserved.
//
// Revision History:
//              4-Dec-1999 Original
//
// Module Description:
//              Class CLibTreeMgr creates and makes modifications as necessary
//              to a tree structure whose purpose is to make the track data on disk
//              logically and quickly navigable.  It is currently rebuilt every time
//              the system boots.
//
//              Actual traversal of the tree is via the tree itself.  The root
//              and nodes are implemented as CLibElementNode objects and the leafs
//              are implemented as CLibTrack elements.
//
//
//
//-----------------------------------------------------------------------------

#include "LibraryTree.h"
#include "CAttributes.h"
#include "FileSystem.h"
#include "LibElement.h"
#include <assert.h>
#include "CInode.h"
#include <string.h>
#include "ID3v1Tag.h"

//#define Testing
#ifndef Testing
#define TFsFile CFsFile
#else
#include <stdio.h>
#include <dir.h>

class TFsFile{
public:
    TFsFile(FILE *infile);
    void ReadAttributes(CAttributeList *attrList);


    char Album[MAXPATH];
    char Title[MAXPATH];
    char Artist[MAXPATH];
    char Genre[MAXPATH];
    char Playlists[MAXPATH];

};


#endif
```

```cpp
// Eenumerations and strings for categories
// this is a starting point, however before final implementation
// we will probably want a category list on disk that follows the current
// data base.  This along with a overall data base of
// attributes may be useful to prevent versionitis between databases and
// code versions.  The correct approach is not apparent as of
// yet, but this works for the time being.


// more commentary on these strings and enums,,,
// It seems there should be some way to unify them with the actual attribute
// names.  What we are presenting here is just the  displayed categories.

typedef enum _tCatEnum{
    eAlbum,
    eArtist,
    eGenre,
    ePlaylists,
    LengthOfCatEnum
}tCatEnum;

static tBool catItemsAsPlaylists[LengthOfCatEnum] = {
    TRUE, // eAlbum
    FALSE, // eArtist
    FALSE, // eGenre
    TRUE   // ePlayists
};




static const char *catStrings[LengthOfCatEnum] = {
    "ALBUMS",
    "ARTISTS",
    "STYLES",
    "PLAY LISTS"
};

static const char *catDisplayStrings[LengthOfCatEnum] = {
    "ALBUMS",
    "ARTISTS",
    "STYLES",
    "PLAY LISTS"
};

const CLibElementNode *CLibTreeMgr::GetLibRoot(){
    return root;
}

TFsFile *FirstTrack(void);

void KillTrack(void);
void ScheduleKill(void);
TFsFile *NextTrack(TFsFile *track);


// Creates the tree from the tracks direcotory
CLibTreeMgr *gpLibTreeMgr = NULL;
//
CLibTreeMgr::CLibTreeMgr(){
```

```
        CStr r("root");
        root = new CLibElementNode(r);

        gpLibTreeMgr = this;
        // add all the categories
        AddCategories();


        // now iterate through each track
        TFsFile *track = FirstTrack();

        tBool killIt  = FALSE;
        while(track){
            // iterates through each category and adds track
            // if applicable
            tBool result = AddNewTrack(track);
            if(!result){
                ScheduleKill();
                killIt = TRUE;
            }
            // we go through next track cause we don't want to screw up first next
            track = NextTrack(track);
            if(killIt){
                KillTrack();
            }
            killIt = FALSE;
        }

}

void CLibTreeMgr::AddCategories(void){


    for(int i = 0;i<LengthOfCatEnum;i++){
        const char *catStr = catDisplayStrings[i];
        CStr str(catStr);
        CLibElementNode *nextCatNode = new CLibElementNode(str);

        root->AddChild(nextCatNode);

    }
}



tBool CLibTreeMgr::AddNewTrack(TFsFile *aTrack){


    // read the Attribute block
    CAttributeList attrList;

    aTrack->ReadAttributes(&attrList);
//  attrList.Dump();
    // get the track name
    CAttribute *foundTrack = attrList.FindAttribute("TITLE");
    char *foundTrackName;
    if(foundTrack){
        foundTrackName = (char *)foundTrack->GetValue();
/*
        int bad = strcmp(foundTrackName,"We'll Meet Again Sweetheart");
        if(bad == 0){
            return FALSE;
        }
*/
    }
    else{
```

```cpp
            // we can't support tracks with no name attribute.
            return FALSE;  .
    }


        // get the album attr if it exists.
        CAttribute *foundAlbum = attrList.FindAttribute(catStrings[eAlbum]);
        char *foundAlbumName;
        if(foundAlbum){
            foundAlbumName = (char *)foundAlbum->GetValue();
        }
        else{
            // we can support tracks with no ablum name
            foundAlbumName = NULL;
        }


        // iterate through each category
        CLibElementNode *curCatNode = (CLibElementNode *) root->Get1stChild();
        for(int i = 0;i<LengthOfCatEnum;i++){
            // test from GetSibling at end of loop
            assert(curCatNode);
            // get the attribute value that for this category
            // from the track file
            const char *catStr = catStrings[i];


            // does this track have an attribute of this
            // name
            CAttribute *foundAttr = attrList.FindAttribute(catStr);


            if(foundAttr){
                // then add this track to the category
                AddNewTrackToCategory(curCatNode,
                                      aTrack,
                                      foundAttr,
                                      foundTrackName,
                                      foundAlbumName,
                                      catItemsAsPlaylists[i]
                                      );
            }
            curCatNode = (CLibElementNode *) curCatNode->GetSibling();    ,
        }
        return TRUE;
}


void CLibTreeMgr::AddNewTrackToCategory(CLibElementNode *aCatNode,
                                        TFsFile *aTrack,
                                        CAttribute *anAttribute,
                                        const char *aTrackName,
                                        const char *anAlbum,
                                        tBool categoryItemsArePlaylists){

        // Add the category item if it does not exist
        char *attributeValue = (char *)anAttribute->GetValue();
        CStr str(attributeValue);  .

        // merely returns the found item if it already exists.
        CLibElementNode *targetNode = aCatNode->AddSubNode(str);
        assert(targetNode);

        // if album non-null add the album
        if(anAlbum){
            if(!categoryItemsArePlaylists){
                //
```

```cpp
            targetNode = AddAlbumToCategoryItem(targetNode,anAlbum);
            assert(targetNode);
        }
    }

    CStr trkName(aTrackName);
#ifndef Testing
    tINodeAddr *addr = aTrack->inode->GetAddr();
#else
    tINodeAddr laddr;
    tINodeAddr *addr = &laddr;
#endif
    targetNode->AddTrack(trkName,addr);
}




CLibElementNode *CLibTreeMgr::AddAlbumToCategoryItem(
                    CLibElementNode *aCatItemNode,
                    const char *anAlbum){

    //
    CLibElementNode *retval;

    CStr str(anAlbum);
    retval = aCatItemNode->AddSubNode(str);
    return retval;
}




static FILE *infile;
static CFsDirectory *fsRoot;
static tFsFileInfo fsInfo;
static char lastName[kiFsMaxPath];
TFsFile *FirstTrack(void){

#ifdef Testing
    infile = fopen("TestTracks","rt");
    TFsFile *retval = new TFsFile(infile);
    return retval;


#else
    TFsFile *retval = NULL;

    fsRoot = FsGetRoot();

    int status = fsRoot->FirstDirEntry(&fsInfo);

    if(status != -1){
        retval = fsRoot->OpenFile(fsInfo.name);
    }
    return retval;
#endif
}

void ScheduleKill(void){
    memcpy(lastName,fsInfo.name,kiFsMaxPath);
}

void KillTrack(void){
    fsRoot->DeleteFile(lastName);
```

```cpp
}

TFsFile *NextTrack(TFsFile *track){

#ifdef Testing
    if(!feof(infile)){
        TFsFile *retval = new TFsFile(infile);
        return retval;
    }
    return NULL;

#else

    if(track){
        fsRoot->CloseFile(track);
    }

    TFsFile *retval = NULL;

    int status = fsRoot->NextDirEntry(&fsInfo);

    if(status != -1){
        retval = fsRoot->OpenFile(fsInfo.name);
    }
    return retval;
#endif

}


#ifdef Testing

TFsFile::TFsFile(FILE *infile){

    // find the first line
    while(!feof(infile)){
        int c = fgetc(infile);
        if(c == '%')
            break;
    }

    int i = 0;
    while(!feof(infile)){
        int c = fgetc(infile);
        if(c == '*')
            break;
        if((c == 0x0d) || (c == 0x0a)){
            c = 0;
        }
        Album[i] = c;
        i++;
    }
    Album[i] = 0;


    i = 0;
    while(!feof(infile)){
        int c = fgetc(infile);
        if(c == '*')
            break;
        if((c == 0x0d) || (c == 0x0a)){
            c = 0;
        }
        Title[i] = c;
        i++;
    }
```

```
        Title[i] = 0;


        i = 0;
        while(!feof(infile)){
            int c = fgetc(infile);
            if(c == '*')
                break;
            if((c == 0x0d) || (c == 0x0a)){
                c = 0;
            }
            Artist[i] = c;
            i++;
        }
        Artist[i] = 0;


        i = 0;
        while(!feof(infile)){
            int c = fgetc(infile);
            if(c == '*')
                break;
            if((c == 0x0d) || (c == 0x0a)){
                c = 0;
            }
            Genre[i] = c;
            i++;
        }
        Genre[i] = 0;

        i = 0;
        while(!feof(infile)){
            int c = fgetc(infile);
            if(c == '*')
                break;
            if((c == 0x0d) || (c == 0x0a)){
                c = 0;
            }
            Playlists[i] = c;
            i++;
        }
        Playlists[i] = 0;

}

void TFsFile::ReadAttributes(CAttributeList *attrList){

    CAttributeList &l = *attrList;

    int len = strlen(Album)+1;
    int ndx = eAlbum;
    CAttribute *album = new CAttribute(catStrings[ndx],
                                       Album,
                                       len,
                                       0,
                                       FALSE);

    len = strlen(Artist)+1;
    ndx ++;
    CAttribute *artist = new CAttribute(catStrings[ndx],
                                        Artist,
                                        len,
                                        0,
                                        FALSE);

    len = strlen(Genre)+1;
```

```
    ndx ++;
    CAttribute *genre = new CAttribute(catStrings[ndx],
                                       Genre,
                                       len,
                                       0,
                                       FALSE);


    len = strlen(Playlists)+1;
    ndx ++;
    CAttribute *playlists = new CAttribute(catStrings[ndx],
                                           Playlists,
                                           len,
                                           0,
                                           FALSE);

    len = strlen(Title)+1;
    CAttribute *title = new CAttribute("TITLE",
                                       Title,
                                       len,
                                       0,
                                       FALSE);

    l.AddAttribute(album);
    l.AddAttribute(artist);
    l.AddAttribute(genre);
    l.AddAttribute(playlists);
    l.AddAttribute(title);

}
#endif

//% Titile * Album * Artist * Genre * Playlists * Codec M = mp3, W = Wav

void CreateAttributes(CAttributeList *aList,const char *txt){

    static char buf[kiFsMaxPath];

    // starting scan
    while(txt[0] != '%')txt++;
    txt++;
    int i = 0;

    int j = 0;
    while(txt[i] != '*'){
        buf[j] = txt[i];
        i++; j++;
    }
    buf[j] = 0; i++;j = 0;

    int len = strlen(buf) +1;
    CAttribute *title = new CAttribute("TITLE",buf,len,0,TRUE);

    while(txt[i] != '*'){
        buf[j] = txt[i];
        i++; j++;
    }
    buf[j] = 0; i++; j = 0;


    int ndx = eAlbum;
    len = strlen(buf) +1;
    CAttribute *album = new CAttribute(catStrings[ndx],
                                       buf,
                                       len,
```

```
                                        0,
                                        TRUE);


    while(txt[i] != '*'){
        buf[j] = txt[i];
        i++; j++;
    }
    buf[j] = 0; i++; j = 0;

    ndx = eArtist;
    len = strlen(buf) +1;
    CAttribute *artist;
    artist = new CAttribute(catStrings[ndx],
                                        buf,
                                        len,
                                        0,
                                        TRUE);

    while(txt[i] != '*'){
        buf[j] = txt[i];
        i++; j++;
    }
    buf[j] = 0; i++; j = 0;

    ndx = eGenre;
    len = strlen(buf) +1;
    CAttribute *genre = new CAttribute(catStrings[ndx],
                                        buf,
                                        len,
                                        0,
                                        TRUE);


    while(txt[i] != '*'){
        buf[j] = txt[i];
        i++; j++;
    }
    buf[j] = 0; i++; j = 0;
    // skip the play list

    while(txt[i] != 0x00){
        buf[j] = txt[i];
        i++; j++;
    }
    buf[j] = 0; i++; j = 0;

    len = strlen(buf) +1;
    CAttribute *codec = new CAttribute("CODEC",
                                        buf,
                                        len,
                                        0,
                                        TRUE);


    CAttributeList &l = *aList;

    l.AddAttribute(album);
    l.AddAttribute(artist);
    l.AddAttribute(genre);
    l.AddAttribute(codec);
    l.AddAttribute(title);


}
```

```
// remove trailing spaces from a string, allocate space for the new string and
// return a pointer to it
char *SpacePaddedToASCIIZ(const char *src, unsigned int length)
{
  // precautions
  if (src == NULL || length == 0) return NULL;

  // skip trailing spaces (also ignore '\0' if any)
  int NumLeft = length;
  while (NumLeft != 0 && (src[NumLeft - 1] == 0x20 || src[NumLeft - 1] == 0x00)) NumLeft-↙
    -;

  // allocate space for the new string
  char *dst = new char[NumLeft + 1];

  // copy data
  memcpy(dst, (char *) src, NumLeft);

  // put ASCIIZ string terminator
  dst[NumLeft] = 0;

  return dst;
}


// create file attributes based on the info from the ID3v1 tag
void CreateAttributesFromMP3Tags(CAttributeList *aList,const tID3v1Tag *ID3v1TagPtr)
{
  // do nothing if not ID3v1 tag
  if ((ID3v1TagPtr->TagID[0] != 'T') ||
      (ID3v1TagPtr->TagID[1] != 'A') ||
      (ID3v1TagPtr->TagID[2] != 'G'))
  {
    CKernelObject::DebugMessage("No ID3v1 Tag present\n\r");
    return;
  }

#ifdef DEBUG
  char str[64];
#endif

  // ------------- set the title -------------
  char *TitleStr = SpacePaddedToASCIIZ((char *) ID3v1TagPtr->Title, sizeof(ID3v1TagPtr-> ↙
    Title));

#ifdef DEBUG
  sprintf(str, "Title : %s\n\r", TitleStr);
  CKernelObject::DebugMessage(str);
#endif

  CAttribute *title = new CAttribute("TITLE",
                                     TitleStr,
                                     strlen(TitleStr),
                                     0,
                                     TRUE);
  delete TitleStr;
  // -----------------------------------------


  // ------------- set the album -------------
  char *AlbumStr = SpacePaddedToASCIIZ((char *) ID3v1TagPtr->Album, sizeof(ID3v1TagPtr-> ↙
    Album));

#ifdef DEBUG
  sprintf(str, "Album : %s\n\r", AlbumStr);
```

```
      CKernelObject::DebugMessage(str);
#endif

   CAttribute *album = new CAttribute(catStrings[eAlbum],
                                      AlbumStr,
                                      strlen(AlbumStr),
                                      0,
                                      TRUE);
   delete AlbumStr;
   // -----------------------------------------



   // ------------ set the artist -------------
   char *ArtistStr = SpacePaddedToASCIIZ((char *) ID3v1TagPtr->Artist, sizeof(ID3v1TagPtr ↙
     ->Artist));

#ifdef DEBUG
   sprintf(str, "Artist: %s\n\r", ArtistStr);
   CKernelObject::DebugMessage(str);
#endif

   CAttribute *artist = new CAttribute(catStrings[eArtist],
                                       ArtistStr,
                                       strlen(ArtistStr),
                                       0,
                                       TRUE);
   delete ArtistStr;
   // -----------------------------------------



   // ------------- set the genre -------------

   // if some unknown genre, report it as "other"
   char *GenreStr;
   if (ID3v1TagPtr->Genre > SizeOftID3v1Genre)
     GenreStr = (char *) ID3v1GenreName[eOther];
   else
     GenreStr = (char *) ID3v1GenreName[ID3v1TagPtr->Genre];

#ifdef DEBUG
   sprintf(str, "Genre : %s\n\r", GenreStr);
   CKernelObject::DebugMessage(str);
#endif

   CAttribute *genre = new CAttribute(catStrings[eGenre],
                                      GenreStr,
                                      strlen(GenreStr),
                                      0,
                                      TRUE);
   // -----------------------------------------



   // ------------ set the codec --------------

   // hard-coded for now
   char *CodecStr = "MP3";
   CAttribute *codec = new CAttribute("CODEC",
                                      CodecStr,
                                      strlen(CodecStr),
                                      0,
                                      TRUE);
   // -----------------------------------------
```

```
    CAttributeList &l = *aList;

    l.AddAttribute(album);
    l.AddAttribute(artist);
    l.AddAttribute(genre);
    l.AddAttribute(codec);
    l.AddAttribute(title);
}
```

# EXHIBIT CC

```
//-------------------------------------------------------------------------
//
// File:
//              CLibraryTree.h
//
// Author:
//              Howard Egan
//
// Creation Date:
//              4-Dec-1999
//
// Copyright (c) 1999 E-mu Systems Inc.
// All rights reserved.
//
// Revision History:
//              4-Dec-1999 Original
//
// Module Description:
//              Class CLibTreeMgr creates and makes modifications as necessary
//              to a tree structure whose purpose is to make the track data on disk
//              logically and quickly navigable.  It is currently rebuilt every time
//              the system boots.
//
//              Actual traversal of the tree is via the tree itself.  The root
//              and nodes are implemented as CLibElementNode objects and the leafs
//              are implemented as CLibTrack elements.
//
//
//
//-------------------------------------------------------------------------
//-------------------------------------------------------------------------
#ifndef CLibraryTreeH
#define CLibraryTreeH
//-------------------------------------------------------------------------
#include "ProjectTypes.H"
class CLibElement;
class CLibElementTrack;
class CLibElementNode;
class CFsFile;
class CAttribute;

//#define Testing
#ifndef Testing
#define TFsFile CFsFile
#else
class TFsFile;
#endif

class CLibTreeMgr{

public:

    CLibTreeMgr();

    const CLibElementNode *GetLibRoot();

    tBool AddNewTrack(TFsFile *aTrack);

protected:

    void AddCategories(void);

    void AddNewTrackToCategory(CLibElementNode *aCatNode,
                               TFsFile *aTrack,
                               CAttribute *anAttribute,
                               const char *aTrackName,
```

```
                        const char *anAlbum,
                        tBool categoryItemsArePlaylists);


    CLibElementNode *AddAlbumToCategoryItem(CLibElementNode *aCatItemNode,
                        const char *anAlbum);

    CLibElementNode *root;

};

extern CLibTreeMgr *gpLibTreeMgr;

#endif
```

# EXHIBIT
# DD

```cpp
// LCDLibPage.cpp: implementation of the CLCDLibPage class.
//
//////////////////////////////////////////////////////////////////////

#include "StdInclude.h"

#include "LCDLibPage.h"
#include "LibraryTree.h"
#include "LibElement.h"
#include "LCDMgr.h"

CLCDLibPage::CLCDLibPage()
{
    GDRect rect(0,0,LCDWIDTH-1,LCDHEIGHT-LCDLINEHEIGHT);
    CLCDListBox *lb = new CLCDListBox(rect);
    SetListBox(lb);
    SetSKLabels("Open","Close","Queue");
    cStrListNode=NULL;
    cFirstDisplayedLine=cHighlightedLine=0;

}

void CLCDLibPage::Activate()
{
    setMasterNode(NULL);

    CLCDPage::Activate();
}

void CLCDLibPage::setMasterNode(CLibElementNode *pNode)
{
    cStrListNode=pNode;

    if(!cStrListNode){
        cStrListNode = (CLibElementNode *)gpLibTreeMgr->GetLibRoot();
    }

    if (cStrListNode->GetParent())
    {
        CStr aStr;
        cStrListNode->GetStrWithIcon(&aStr);
        GetListBox()->SetTitle(aStr.CharPtr());
    }
    else{
        GetListBox()->SetTitle("MUSIC LIBRARY CATEGORIES");

    }

    BuildStrList(cStrListNode);

    Update();

}

CLibElementNode *CLCDLibPage::GetCurrentPlayableNode(void){

    void *aVal= cListBox->GetHighlightedStrData();
    CLibElementNode *aElem=(CLibElementNode *)aVal;

    if(!aElem){
        return NULL;
    }

    if(aElem->IsPlayableList()){
        return aElem;
    }
```

```
     return NULL;
}

void CLCDLibPage::Update()
{

     static CLibElement *sLastElem=NULL;

     // aCurElem==NULL if there are no children for node
     CLibElement *aCurElem=(CLibElement *)cListBox->GetHighlightedStrData();

     if (IsPageDirty() || (sLastElem!=aCurElem))
     {
          sLastElem=aCurElem;

          // fix menu
          if (!cStrListNode) // at head of library
          {
               // set pos in list
               cFirstDisplayedLine=GetListBox()->GetFirstDisplayedLine();
               cHighlightedLine=GetListBox()->GetHighlightedLine();

               // set open softkey button
               setSK1Enabled(TRUE);
               SetSKLabel1("Open");
          }
          else
          {
               // set pos in list
               cStrListNode->SaveFirstAndHighlightedLine(cListBox->GetFirstDisplayedLine(),
cListBox->GetHighlightedLine());

               // if not at main level, you can open if this node has children and those
     children are nodes
               CLibElement *aChildren=cStrListNode->Get1stChild();

               if (!aChildren)
               {
                    setSK1Enabled(FALSE);
               }
               else
               {
                    setSK1Enabled(TRUE);
                    if (aChildren->GetLibElementType()==kLETNode)
                    {
                    .    SetSKLabel1("Open");
                    }
                    else
                    {
                         SetSKLabel1("---");
                    }
               }
          }

          tBool aQueueable=TRUE;

          if (aCurElem) // there is at least 1 child
          {
               switch (aCurElem->GetLibElementType())
               {
               case kLETNode:
                    aQueueable=((CLibElementNode *)aCurElem)->IsPlayableList();
                    break;
               case kLETTrack:
                    aQueueable=TRUE;
                    break;
```

```
                default:
                    aQueueable=FALSE;
                    ASSERT(FALSE);
                    break;
            }
        }
        else
        {
            // no children, thus, nothing to queue
            aQueueable=FALSE;
        }

        setSK2Enabled(cStrListNode!=NULL);
        setSK3Enabled(aQueueable);
        // redraw menu & listbox
        CLCDPage::Draw();
    }

    CLCDPage::Update();

}


void CLCDLibPage::Softkey1Handler(tBool pDown)
{
    // open

    void *aVal=cListBox->GetHighlightedStrData();
    CLibElement *aElem=(CLibElement *)aVal;

    ASSERT(aElem);

    if (aElem->GetLibElementType()==kLETNode)
    {
        GDEnableUpdate(FALSE);
        setMasterNode((CLibElementNode *)aElem);
        GDEnableUpdate(TRUE);
    }
    else
    {
//      ASSERT(aElem->GetLibElementType()==kLETTrack);
//      SYS.GetLCDMgr()->GetTrackInfoPage()->SetTrack((CLibElementTrack *)aElem);
//      SYS.GetLCDMgr()->SetLCDMode(kLMTrackInfo);
    }

}


void CLCDLibPage::Softkey2Handler(tBool pDown)
{
    // close


    if (!cStrListNode) // already at top
        return;

    CLibElement *aElem=cStrListNode->GetParent();

    if ((!aElem/*head of library*/) || (aElem->GetLibElementType()==kLETNode))
    {
        GDEnableUpdate(FALSE);
        setMasterNode((CLibElementNode *)aElem);
        GDEnableUpdate(TRUE);
    }
    else
    {
        ASSERT(FALSE); // can't go up to a track
    }
```

```
}

void CLCDLibPage::Softkey3Handler(tBool pDown)
{
    if(cSK3Enabled){
        void *aVal=cListBox->GetHighlightedStrData();
        CLibElementNode *aElem=(CLibElementNode *)aVal;
        if(aElem){
            gpLcdMgr->HandleQ(aElem);
        }
    }
}
```

# EXHIBIT
# EE

```cpp
#ifndef LCDLibPage
#define LCDLibPage

#include "LCDPage.h"

class CLibElementNode; // forward decl

class CLCDLibPage : public CLCDPage
{
public:
    CLCDLibPage();

    virtual void Update();

    virtual void Activate();

    CLibElementNode *GetCurrentPlayableNode(void);

    virtual void Softkey1Handler(tBool pDown);
    virtual void Softkey2Handler(tBool pDown);
    virtual void Softkey3Handler(tBool pDown);
private:
    void setMasterNode(CLibElementNode *pNode);

    // where we are in root list (since there's no CLibElementNode for it)
    int cFirstDisplayedLine;
    int cHighlightedLine;

    CLibElementNode *cStrListNode; // node that is being displayed on this page
};

#endif // #ifndef LCDLibPage
```

# EXHIBIT
# FF

```cpp
// LCDMgr.cpp: implementation of the CLCDMgr class.
//
//////////////////////////////////////////////////////////////////////

#include "StdInclude.h"


#include "LCDMgr.h"

#include "GrCustom.h"
#include "CStr.h"

#include "LCDListBox.h"
#include "CButtonScanner.h"
#include "GrResources.h"
#include "QServices.h"
#include "CPlaybackManager.h"
#include "CDspManager.h"
#include "NowPlayingQ.h"
//////////////////////////////////////////////////////////////////////
// Construction/Destruction
//////////////////////////////////////////////////////////////////////

CLCDMgr::CLCDMgr():CObjectLock("LcdManagerLock")
{
    cLCDMode=kLMMax;
    cIsModal=FALSE;
    cSplashAge = 0;

    // eIdRawButtonEvents
    rawButtonInput = new CInputPort(CPort::eIdRawButtonEvents);

    // set the max/min watermarks for the port
    rawButtonInput->SetThrottle(100,0);

    // we also need a wakeup event for signaling, so we simply get the next
    // available event flag, but this is not pretty...

    // get the currently used flags
    int CurrentlyUsed = CEventFlag::GetUsedFlags();

    // look for the next available flag, sizeof(tEventFlag) << 3 will give us the
    // number of flags
    for (int i = 0; i < (sizeof(tEventFlag) << 3); i++){
        if (!(CurrentlyUsed & (1 << i))){
            // found an unused flag
            wakeupEvent = new CEventFlag(i);
            break;
        }
    }

    // return immediately if error
    if (wakeupEvent == NULL){
        valid = false;
        return;
    }

    rawButtonInput->SetWakeupEvent(wakeupEvent);

}

CLCDMgr::~CLCDMgr()
{

}
```

```cpp
// kickoff the task
void CLCDMgr::StartTask(void){

    Schedule("LCD Manager",  5, 1000, 0);
}

static int sleepCounter = 0;
void CLCDMgr::Start(){
    // initialization stuff goes here
    Initialize();



    // ongoing thread execution here in this loop
    CMessage *btnMsg;
    do{
        btnMsg = rawButtonInput->Get();
        while(btnMsg){
            unsigned long btn = btnMsg->GetLParam();
            ButtonLogic(btn);
            delete btnMsg;
            TimerTicked();
            btnMsg = rawButtonInput->Get();
        }

        Sleep(1);
        if(cLCDNextPage != cLCDMode){
            SetLCDMode(cLCDNextPage);
        }
        sleepCounter += 1;
        if(sleepCounter >= 100){
            sleepCounter = 0;
            TimerTicked();
        }
    }while(1);

}




void CLCDMgr::PublicSleep(int ticks){
    Sleep(ticks);
}

void CLCDMgr::Initialize()
{
    SetLCDMode(kLMSplash);
}

void mDrawSplash(tCoord pY)
{
    GDEnableUpdate(FALSE);
//  GDClearCanvas();
    GDCopyPixmap(&splash_PICT,0,-pY,FALSE);
    GDEnableUpdate(TRUE);
}


void CLCDMgr::SetNextPage(tLCDMode pLCDMode){
    cLCDNextPage = pLCDMode;
}

void CLCDMgr::SetLCDMode(tLCDMode pLCDMode)
```

```
{
    cLCDNextPage = cLCDMode=pLCDMode;

//  cCurPage=NULL;

    switch (cLCDMode)
    {
    case kLMSplash:
        mDrawSplash(0);
//      cCurPage=&cLCDSplashPage;
        SetLCDMode(kLMLibrary);
        break;
    case kLMMenu:
        cCurPage=&cLCDMenuPage;
        break;
    case kLMLibrary:
        cCurPage=&cLCDLibPage;
        break;
    case kLMTrackInfo:
        cCurPage=&cLCDTrackInfoPage;
        break;
    case kLMListening:
        cCurPage=&cLCDListeningPage;
        break;
    case eMiRecording:
        cCurPage = &cRecordingPage;
        break;
    case kLMQList:
        cCurPage=&cLCDQListPage;
        break;
    case eMiParametricEQ:
        cCurPage = &cLCDEqPage;
        break;
    case eMiOutputSettings:
        cCurPage = &cLCDOutputPage;
        break;
    case eMiSystemStatus:
    case eMiUnimplemented:
        break;

    default:
        ASSERT(FALSE);
        return;
    }

    if (cCurPage)
        cCurPage->Activate();
}
//#define FancySplash
#ifdef FancySplash
extern "C" int OasisAnimationCount;
extern "C" void *OasisAnimation[];
#else
int OasisAnimationCount = 1;
void *OasisAnimation[1] = {
&splash_PICT
};
#endif
void CLCDMgr::TimerTicked()
{


    switch (cLCDMode)
    {
    case kLMListening:
    case kLMQList:
```

```
            cCurPage->statusLine->Update();
            if(pbManStateChanged || cCurPage->IsPageDirty()){
                pbManStateChanged = FALSE;
//              cCurPage->SetPageDirty();
                cCurPage->Update();
            }
            break;



    }

}



void CLCDMgr::ShowTimedMessage(CStr &pMsg, tDeciseconds pDecisecs)
{
#define BORDER (10)
    cTimedMessageCountdown=pDecisecs;
    GDEnableUpdate(FALSE);

    GDSetFont(defaultBoldFont);

    tCoord aWidth=GDGetStringWidth(pMsg.CharPtr());
    tCoord aHeight=GDGetStringHeight(pMsg.CharPtr());

    if (aWidth>LCDWIDTH)
    {
        GDSetFont(OasisDefaultFont);
        aWidth=GDGetStringWidth(pMsg.CharPtr());
        aHeight=GDGetStringHeight(pMsg.CharPtr());
    }

    GDSetFillPattern(&grWhite);
    GDSetPenPattern(&grBlack);
    GrRect aMsgRegion={
        (LCDWIDTH-aWidth)/2-BORDER,
        (LCDHEIGHT-aHeight)/2-BORDER,
        (LCDWIDTH+aWidth)/2+BORDER,
        (LCDHEIGHT+aHeight)/2+BORDER};
    GDFillRect(&aMsgRegion);
    GDDrawRect(&aMsgRegion);

    GDDrawString(
        (LCDWIDTH-aWidth)/2,
        (LCDHEIGHT-aHeight)/2,
        pMsg.CharPtr());

    GDEnableUpdate(TRUE);
}




void CLCDMgr::ButtonLogic(unsigned long aBtn){

    CButtonScanner::tOasisButton btn = (CButtonScanner::tOasisButton) aBtn;


    if(btn == CButtonScanner::eNone){
        return;
    }

    // dispatch for handling by the current screen
    if(btn == CButtonScanner::eF1Btn){
        cCurPage->SoftkeyHandler(1,TRUE);
```

```
        return;
    }
    if(btn == CButtonScanner::eF2Btn){
        cCurPage->SoftkeyHandler(2,TRUE);
        return;
    }

    if(btn == CButtonScanner::eF3Btn){
        cCurPage->SoftkeyHandler(3,TRUE);
        return;
    }

    if(btn == CButtonScanner::eUpBtn){
        cCurPage->ScrollUp();
        return;
    }
    if(btn == CButtonScanner::eDnBtn){
        cCurPage->ScrollDown();
        return;
    }
    // the remainder of the buttons are handled directly by the
    // lcdMgr and beyond

    if(btn == CButtonScanner::ePlayBtn){
        handlePlayButton();
        return;
    }
    if(btn == CButtonScanner::eStopBtn){
        gpPlaybackManager->Stop();
        return;
    }

    if(btn == CButtonScanner::eForwardBtn){
        gpPlaybackManager->SkipForward();
        return;
    }

    if(btn == CButtonScanner::eBackBtn){
        gpPlaybackManager->SkipBackward();
        return;
    }

    if (btn == CButtonScanner::eEncClockwise)
    {
      handleEncoder(eClockwise);
      return;
    }

    if (btn == CButtonScanner::eEncCounterClockwise)
    {
      handleEncoder(eCounterClockwise);
      return;
    }

    if(btn == CButtonScanner::eLibBtn){
        cCurPage->DeActivate();
        if(cLCDMode != kLMLibrary){
            SetNextPage(kLMLibrary);
        }
        else{
            SetNextPage(kLMListening);
        }
    }

    if(btn == CButtonScanner::eMenuBtn){
        cCurPage->DeActivate();
```

```cpp
        if(cLCDMode != kLMMenu ){
            SetNextPage(kLMMenu);
        }
        else{
            SetNextPage(kLMLibrary);
        }
    }

}


static CDspManager::tPlaybackState currentPlayState = CDspManager::eStateStop;


void CLCDMgr::handlePlayButton(void){
    // on play you will want to get the currently
    // selected filename from libList and then to a
    //

    CLibElementNode *aNode;
    if(!cLCDLibPage.IsActive()){
        // if the library screen is not the current screen
        // then set the selected node to NULL;
        Lock();
        pCurrentLibElementNode = NULL;
        UnLock();
    }
    else{
        Lock();
        cLCDLibPage.DeActivate();
        pCurrentLibElementNode = cLCDLibPage.GetCurrentPlayableNode();
        UnLock();
    }

    // we should be posting the button press to the system manager at
    // this point, but we are just defering the logic to here for now.

    //.if there is something to add to the q list then do that
    // don't need to protect on read in this thread cause this is the only
    // modifying code.

    // if we pass in a null then we just reset to the beginning of whatever
    // was in the list ... or do nothing if something is currently selected
    // in the list.
    //
    gpNowPlayingManager->PlayElement((CLibElement *)pCurrentLibElementNode);

    // this should be done on a scheduled basis but for now we just set it
    // directly
    SetNextPage(kLMListening);

    if(gpPlaybackManager->GetState() != CPlaybackManager::eStatePlay){
        gpPlaybackManager->Play();
    }
    else{
        gpPlaybackManager->Pause();
    }


}

void CLCDMgr::handleEncoder(tEncDirection dir)
{
    if (dir == eClockwise)
        gpDspManager->AdjustAttenuation(-1);  // decrease volume by 1dB
    else if (dir == eCounterClockwise)
```

```
    gpDspManager->AdjustAttenuation(1);    // increase volume by 1dB
}


void CLCDMgr::HandleQ(CLibElementNode *anElem){

    if(anElem){
        gpNowPlayingManager->QElement((CLibElement *)anElem);
    }
}
```

# EXHIBIT
# GG

```
// LCDMgr.h: interface for the CLCDMgr class.
//
//////////////////////////////////////////////////////////////////////

#if !defined(AFX_LCDMGR_H__D180AFA3_46AB_11D3_ACB2_0000E83FB110__INCLUDED_)
#define AFX_LCDMGR_H__D180AFA3_46AB_11D3_ACB2_0000E83FB110__INCLUDED_

#if _MSC_VER > 1000
#pragma once
#endif // _MSC_VER > 1000

#include "CTask.h"
#include "CObjectLock.h"
#include "LCDTrackInfoPage.h"
#include "LCDMenuPage.h"
#include "LCDLibPage.h"
#include "LCDListeningPage.h"
#include "LCDQListPage.h"
//#include "LCDFunctionsPage.h"
//#include "LCDGamesPage.h"
#include "LCDSplashPage.h"

class CLCDListBox; // forward decl
class CLibElementNode; // forward decl
class CLibElementTrack; // forward decl
class CInputPort;


class CLCDMgr: public CObjectLock, public CTask {

public:
    CLCDMgr();
    virtual ~CLCDMgr();


    void Initialize();


    void StartTask(void);

    void SetNextPage(tLCDMode pLCDMode);

    // Feedback from lib manager screen.
    // Q's are qualified by lib mangager
    // screen, than passed on with an element
    void HandleQ(CLibElementNode *anElem);

    void PublicSleep(int ticks);

protected:
    // encoder direction
    typedef enum tagEncDirection
    {
      eClockwise,
      eCounterClockwise
    } tEncDirection;

    void handlePlayButton(void);
    void handleEncoder(tEncDirection dir);

    void ButtonLogic(unsigned long aBtn);
    void TimerTicked();

    void SetLCDMode(tLCDMode pLCDMode);
    tLCDMode GetLCDMode() {return cLCDMode;};
```

```
// show a temporary message to user over rest of LCD
void ShowTimedMessage(CStr &pMsg,tDeciseconds pDecisecs);

CLCDPage *GetCurPage() {return cCurPage;};
CLCDTrackInfoPage *GetTrackInfoPage() {return &cLCDTrackInfoPage;};
CLCDMenuPage *GetMenuPage() {return &cLCDMenuPage;};
CLCDLibPage *GetLibPage() {return &cLCDLibPage;};
CLCDListeningPage *GetListeningPage() {return &cLCDListeningPage;};
CLCDQListPage *GetQListPage() {return &cLCDQListPage;};

CLCDPage *cCurPage;

CLCDSplashPage cLCDSplashPage;
CLCDListeningPage cLCDListeningPage;
CLCDQListPage cLCDQListPage;
CLCDMenuPage cLCDMenuPage;
CLCDLibPage cLCDLibPage;
CLCDEqPage cLCDEqPage;
CLCDOutputPage cLCDOutputPage;
CLCDRecordingPage cRecordingPage;
CLCDTrackInfoPage cLCDTrackInfoPage;
// CLCDGamesPage cLCDGamesPage;

tLCDMode cLCDMode,cLCDNextPage;
tBool cIsModal;
int cSplashAge;
tDeciseconds cTimedMessageCountdown;


// actual thread function
virtual void Start();

// port to communicate with the LCDMgr
// eIdRawButtonEvents
CInputPort *rawButtonInput;

// maintained for use by Play transport key
// when we were in the lib screen and play
// was pressed.  Otherwise it must remain NULL;
CLibElementNode *pCurrentLibElementNode;

CEventFlag *wakeupEvent;
tBool valid;


};

extern CLCDMgr *gpLcdMgr;

#endif // !defined(AFX_LCDMGR_H__D180AFA3_46AB_11D3_ACB2_0000E83FB110__INCLUDED_)
```

# EXHIBIT
# HH

```cpp
////////////////////////////////////////////////////////////////////////////
//
// TransportMgr.cpp: implementation of the CTransportMgr class.
//
////////////////////////////////////////////////////////////////////////////

#include "StdInclude.h"
#include "LibElement.h"
#include <assert.h>
#include "NowPlayingQ.h"

CNowPlayingMgr::~CNowPlayingMgr()
{
    CNowPlayingList *aDel;

    while (cHead)
    {
        aDel=cHead;
        cHead=cHead->cNext;
        delete aDel;
    }
}

CNowPlayingList *CNowPlayingMgr::GetFirstElement(){
    fnCurNode = cHead;
    return GetNextElement();
}

CNowPlayingList *CNowPlayingMgr::GetNextElement(){
    if(!fnCurNode){
        return NULL;
    }

    CNowPlayingList *retval = fnCurNode;

    fnCurNode = fnCurNode->cNext;

    return retval;
}



CLibElementTrack *CNowPlayingMgr::GetFirstTrack(){
    fnCurNode = cHead;
    fnCurTrack = NULL;
    return GetNextTrack();
}

CLibElementTrack *CNowPlayingMgr::GetNextTrack(){

    if(!fnCurNode){
        return NULL;
    }

    CLibElementTrack *retval;

    if(fnCurNode->cElement->GetLibElementType() == kLETTrack){
        retval = fnCurNode->cElementAsTrack;
        fnCurNode = fnCurNode->cNext;
        return retval;
    }

    if(!fnCurTrack){
        fnCurTrack = fnCurNode->cElementAsNode->GetFirstChild();
        if(fnCurTrack){
            retval = (CLibElementTrack *)fnCurTrack;
```

```
            fnCurTrack = fnCurTrack->GetSibling();
            if(!fnCurTrack){
                fnCurNode = fnCurNode->cNext;
            }
            return retval;
        }

        // there isn't one so step to the next node.
        fnCurNode = fnCurNode->cNext;
        if(!fnCurNode){
            return NULL;
        }

        fnCurTrack = fnCurNode->cElementAsNode->GetFirstChild();
        if(fnCurTrack){
            retval = (CLibElementTrack *)fnCurTrack;
            fnCurTrack = fnCurTrack->GetSibling();
            if(!fnCurTrack){
                fnCurNode = fnCurNode->cNext;
            }
            return retval;
        }
        else{
            fnCurNode = NULL;
            return NULL;
        }
    }

    retval = (CLibElementTrack *)fnCurTrack;
    fnCurTrack = fnCurTrack->GetSibling();
    if(!fnCurTrack){
        fnCurNode = fnCurNode->cNext;
    }
    return retval;


}



// remove an element from QList
void CNowPlayingMgr::RemoveElement(CNowPlayingList *pRemQueueEntry)
{
    CNowPlayingList *aRem=cHead,*aPrev=NULL;
    while (aRem)
    {
        if (aRem==pRemQueueEntry)
        {
            if (aPrev)
            {
                // are we removing head?
                if(aRem == cTail){
                    cTail = aPrev;
                    cTail->cNext = NULL;
                }
                else{
                    aPrev->cNext=aRem->cNext;
                }
                delete aRem;
                return;
            }
            else
            {//
                if(aRem == cHead){
                    // also the tail
                    if(aRem == cTail){
```

```
                                cHead = cTail = NULL;
                                delete aRem;
                                return;
                        }
                        // just the head
                        cHead = aRem->cNext;
                        delete aRem;
                        return;
                    }
                }
            }
            aPrev=aRem;
            aRem=aRem->cNext;
        }
}

void CNowPlayingMgr::PlayElement(CLibElement *pElement){
        // if we pass in a null then we just reset to the beginning of whatever
        // was in the list ... or do nothing if something is currently selected
        // in the list.
        if(pElement){
            PrependElement(pElement);
            GotoFirstElement();
            return;
        }
        if(cCurTrack){
            return;
        }
        GotoFirstElement();

}

void CNowPlayingMgr::QElement(CLibElement *pElement){
        AppendElement(pElement);
        // anything there now?
        if(!cCurElement){
            GotoFirstElement();
        }

}

void CNowPlayingMgr::ClearQList()
{
        CNowPlayingList *aTmp;
        while (cHead!=NULL)
        {
            aTmp=cHead;
            cHead=cHead->cNext;
            delete aTmp;
        }
        cCurElement=NULL;
        cCurTrack=NULL;
}

// also serves as GotoFirstTrack() (same function)
void CNowPlayingMgr::GotoFirstElement()
{
        cCurElement=cHead;
        if (cCurElement)
        {
            switch (cCurElement->cElement->GetLibElementType())
            {
            case kLETTrack:
                cCurTrack=cCurElement->cElementAsTrack;
                break;
            case kLETNode:
```

```
                cCurTrack=(CLibElementTrack *)cCurElement->cElementAsNode->Get1stChild();
                assert(cCurTrack->GetLibElementType()==kLETTrack);
                break;
            default:
                assert(FALSE);
                break;
        }
    }
    else
        cCurTrack=NULL;
}

void CNowPlayingMgr::GotoNextElement()
{
    if (!cCurElement)
        cCurElement=cHead;
    if (!cCurElement)
    {
        cCurTrack=NULL;
        return;
    }

    // get next element
    cCurElement=cCurElement->cNext;
    if (!cCurElement)
    {
        // no more elements
        cCurTrack=NULL;
        return;
    }

    switch (cCurElement->cElement->GetLibElementType())
    {
    case kLETNode:
        cCurTrack=(CLibElementTrack *)cCurElement->cElementAsNode->Get1stChild();
        assert(cCurTrack->GetLibElementType()==kLETTrack);
        return;
    case kLETTrack:
        cCurTrack=cCurElement->cElementAsTrack;
        return;
    default:
        assert(FALSE);
        return;
    }
}

// if prev element is a node, last track in node (not first) becomes current
void CNowPlayingMgr::GotoPrevElement()
{
    if(!cCurElement){
        cCurElement = cTail;
    }

    if (!cCurElement)
    {
        cCurTrack=NULL;
        return;
    }

    // get prev element
    cCurElement=cCurElement->cPrev;
    if (!cCurElement)
    {
        // no more elements
        cCurTrack=NULL;
        return;
```

```
    }

    switch (cCurElement->cElement->GetLibElementType())
    {
    case kLETNode:
        cCurTrack=(CLibElementTrack *)cCurElement->cElementAsNode->GetLastChild();
        assert(cCurTrack->GetLibElementType()==kLETTrack);
        return;
    case kLETTrack:
        cCurTrack=cCurElement->cElementAsTrack;
        return;
    default:
        assert(FALSE);
        return;
    }
}

void CNowPlayingMgr::GotoNextTrack()
{
    if (!cCurElement)
        cCurElement=cHead;
    if (!cCurElement)
    {
        cCurTrack=NULL;
        return;
    }

    switch (cCurElement->cElement->GetLibElementType())
    {
    case kLETNode:
        cCurTrack=(CLibElementTrack *)cCurTrack->GetSibling();
        if (cCurTrack)
            return; // got next track... done

        // go to next element
        GotoNextElement();
        return;
    case kLETTrack:
        GotoNextElement();
        return;
    default:
        assert(FALSE);
        return;
    }
}

void CNowPlayingMgr::GotoPrevTrack()
{
    if(!cCurElement){
        cCurElement = cTail;
    }

    if (!cCurElement)
    {
        cCurTrack=NULL;
        return;
    }

    switch (cCurElement->cElement->GetLibElementType())
    {
    case kLETNode:
        cCurTrack=(CLibElementTrack *)cCurTrack->GetPrevSibling();
        if (cCurTrack)
            return; // got next track... done

        // go to next element
```

```
            GotoPrevElement();
            break;
        case kLETTrack:
            GotoPrevElement();
            break;
        default:
            assert(FALSE);
            break;
        }
        if (!cCurElement)
        {
            GotoFirstElement();
        }
}


// how many elements in QList
int CNowPlayingMgr::GetElemCount()
{
    int aCount=0;
    CNowPlayingList *aIdx=cHead;
    while (aIdx)
    {
        aCount++;
        aIdx=aIdx->cNext;
    }
    return aCount;
}


// returns # of tracks in QList
int CNowPlayingMgr::GetTrackCount()
{
    return getTrackIndex(NULL);
}


// returns 1-based index, or 0 if not found
int CNowPlayingMgr::GetPlayingTracksIndex()
{
    return getTrackIndex(GetCurTrack());
}


// returns index in queue of pTrack (1-based), or # of tracks if pTrack==NULL, or 0 if
    pTrack!=NULL but isn't in list
int CNowPlayingMgr::getTrackIndex(CLibElementTrack *pTrack)
{
    CNowPlayingList *aElem=cHead;
    CLibElementTrack *aIdx;

    int aCount=0;

    while (aElem)
    {
        switch (aElem->cElement->GetLibElementType())
        {
        case kLETNode:
            aIdx=(CLibElementTrack *)aElem->cElementAsNode->Get1stChild();
            while (aIdx)
            {
                assert(aIdx->GetLibElementType()==kLETTrack);
                aCount++;
                if (pTrack==aIdx)
                    return aCount; // match found, return
                aIdx=(CLibElementTrack *)aIdx->GetSibling();
            }
            break;
        case kLETTrack:
            aCount++;
```

```
                if (aElem->cElementAsTrack==pTrack)
                    return aCount;
                break;
            }
            aElem=aElem->cNext;
        }

    if (pTrack)
        return 0; // return NOT-FOUND
    else
        return aCount; // return # of tracks total in list
}

void CNowPlayingMgr::PrependElement(CLibElement *pElement)
{
    cSublistHead=cSublistTail=NULL;
    createTrackSublist(pElement);
    if (cSublistTail) // if we got anything back from this node to prepend
    {
        // if anything exists yet, glue it in
        if (cHead)
        {
            cSublistTail->cNext=cHead;
            cHead->cPrev=cSublistTail;
            cHead=cSublistHead;
        }
        else
        {
            // else, just make track list be sublist
            cHead=cSublistHead;
            cTail=cSublistTail;
        }
    }
}

void CNowPlayingMgr::AppendElement(CLibElement *pElement)
{
    cSublistHead=cSublistTail=NULL;
    createTrackSublist(pElement);
    if (cSublistTail) // if we got anything back from this node to prepend
    {
        // if anything exists yet, glue it in
        if (cHead)
        {
            cSublistHead->cPrev=cTail;
            cTail->cNext=cSublistHead;
            cTail=cSublistTail;
        }
        else
        {
            // else, just make track list be sublist
            cHead=cSublistHead;
            cTail=cSublistTail;
        }
    }
}


void CNowPlayingMgr::createTrackSublist(CLibElement *pElement)
{
    cSublistHead=new CNowPlayingList;
    cSublistTail=cSublistHead;
    cSublistHead->cElement=pElement;

    return;
}
```

```
CNowPlayingList *CNowPlayingMgr::GetCurElement() {
    return cCurElement;
}


CLibElementTrack *CNowPlayingMgr::GetCurTrack(){
    return cCurTrack;
}




///////////////////////////
// scrap below here
//////////////////////////
```

```
#if 0



    // clear all tracks out of QList
#ifdef WindowsSimulation
```

```cpp
#include <windows.h>
extern int CKODEnable;

void dumpElement(CLibElementNode *aNode, int indent){

    // is it a track?
    CStr *aStr = aNode->GetStr();
    if(!aStr){
        assert(0);
    }
    char *str = aStr->CharPtr();

    Sleep(10);

    if(aNode->GetLibElementType() == kLETTrack){
        if(indent)  CKernelObject::DebugMessage("    ",str);;
        CKernelObject::DebugMessage("Track %s \r\n",str);;
        return;
    }

    CKernelObject::DebugMessage("Node %s \r\n",str);;
    return;
}

void CNowPlayingMgr::Dump(void){
CKODEnable = 1;

    int aCurElemCount = GetElemCount();


    CKernelObject::DebugMessage("\r\n Element Count %d \r\n",aCurElemCount);

    CNowPlayingList *aCurElem= GetFirstElement();

    while(aCurElem){
        dumpElement(aCurElem->cElementAsNode,0);
        aCurElem= GetNextElement();
    }

    CKernelObject::DebugMessage("\r\n Track Count\r\n",aCurElemCount);

    CLibElementTrack *aCurTrack = GetFirstTrack();

    while(aCurTrack){
        dumpElement(aCurTrack,0);
        aCurTrack = GetNextTrack();
    }
CKODEnable = 0;

}
#else
void CNowPlayingMgr::Dump(void){
return;
}
#endif




void CNowPlayingMgr::RemoveElement(CLibElementNode *pRemElem){

    CNowPlayingList *aNode = cHead;
    while(aNode){
        if(aNode->cElementAsNode == pRemElem){
            RemoveElement(aNode);
            break;
```

```
            }
            aNode = aNode->cNext;
        }

    }


//void CNowPlayingMgr::createTrackSublist(CLibElement *pElement)
/*
void CNowPlayingMgr::createTrackSublist_recurse(CLibElement *pElement)
{
    if (pElement->GetLibElementType()==kLETNode)
        pElement=((CLibElementNode *)pElement)->Get1stChild();

    while (pElement)
    {
        switch (pElement->GetLibElementType())
        {
        case kLETNode:
            createTrackSublist(pElement);
            break;
        case kLETTrack:
            if (cSublistHead)
            {
                cSublistTail->cNext=new CNowPlayingList;
                cSublistTail->cNext->cPrev=cSublistTail;
                cSublistTail=cSublistTail->cNext;
            }
            else
            {
                cSublistHead=new CNowPlayingList;
                cSublistTail=cSublistHead;
            }
            cSublistTail->cElementAsTrack=((CLibElementTrack *)pElement);
            break;
        default:
            assert(FALSE);
            break;
        }
        pElement=pElement->GetSibling();
    }
}

    */


#endif
```

# EXHIBIT
# II

```cpp
// QMgr.h: interface for the CNowPlayingMgr class.
//
//////////////////////////////////////////////////////////////////////

#ifndef NOWPLAYINGQ__HH
#define NOWPLAYINGQ__HH
#include "CObjectLock.h"
class CLibElement; // forward decl
class CLibElementNode; // forward decl
class CLibElementTrack; // forward decl

class CNowPlayingList
{
public:
    CNowPlayingList(){cElement=NULL;cPrev=cNext=NULL;};

    union
    {
        CLibElement *cElement;
        CLibElementNode *cElementAsNode;
        CLibElementTrack *cElementAsTrack;
    };

    CNowPlayingList *cPrev;
    CNowPlayingList *cNext;
};

class CNowPlayingMgr:public CObjectLock
{
public:
    CNowPlayingMgr():CObjectLock("NowPlayingMgrLock") {cHead=cTail=NULL;cCurTrack=NULL;   ⤶
    cCurElement=NULL;};
    virtual ~CNowPlayingMgr();

    void PrependElement(CLibElement *pElement);
    void AppendElement(CLibElement *pElement);

    void PlayElement(CLibElement *pElement);
    void QElement(CLibElement *pElement);

    // get ptr to currently playing element
    CNowPlayingList *GetCurElement();
    CLibElementTrack *GetCurTrack();

    CNowPlayingList *GetFirstElement();
    CNowPlayingList *GetNextElement();


    // clear all tracks out of QList
    void ClearQList();

    // remove an element from QList
    void RemoveElement(CNowPlayingList *pRemElem);

    // position cur element to be first/next/prev element
    void GotoFirstElement();
    void GotoNextElement();
    void GotoPrevElement();

    // how many elements in QList
    int GetElemCount();

    // position to next/prev track (not element)
    void GotoNextTrack();
    void GotoPrevTrack();
```

```
        // how many total tracks in all elements in Qlist
        int GetTrackCount();
        // returns 1-based index, or 0 if not found
        int GetPlayingTracksIndex();

//      void Dump(void);

private:
        // possibly obsolete callse
        CLibElementTrack *GetFirstTrack();
        CLibElementTrack *GetNextTrack();

        // returns index in queue of pTrack (1-based), or # of tracks if pTrack==NULL, or 0
        if pTrack!=NULL but isn't in list
        int getTrackIndex(CLibElementTrack *pTrack);

        void createTrackSublist(CLibElement *pElement);
//      void createTrackSublist_recurse(CLibElement *pElement);


        CNowPlayingList *cHead,*cTail;
        CNowPlayingList *cCurElement; // pointer to current track within linked list of
        playing tracks
        CLibElementTrack *cCurTrack; // current track within cCurElement (==cCurElement if
        cCurElement is a CLibElementTrack)
        CNowPlayingList *cSublistHead,*cSublistTail;

        // first next variables
        CLibElement *fnCurTrack;
        CNowPlayingList *fnCurNode;
};
extern CNowPlayingMgr *gpNowPlayingManager;
#endif // !defined(AFX_QUEUEMGR_H__33193520_4C24_11D3_ACB2_0000E83FB110__INCLUDED_)
```

# EXHIBIT
# JJ

```cpp
// LCDQListPage.cpp: implementation of the CLCDQListPage class.
//
//////////////////////////////////////////////////////////////////////


#include "StdInclude.h"

#include "GrResources.h"
#include "LCDQListPage.h"
#include "NowPlayingQ.h"
#include "CDspManager.h"
#include "LibElement.h"

CLCDQListPage::CLCDQListPage()
{
    GDRect rect(0,0,LCDWIDTH-1,LCDHEIGHT-LCDLINEHEIGHT);
    CLCDListBox *lb = new CLCDListBox(rect);
    SetListBox(lb);

    statusLine->active = TRUE;

    SetSKLabels("Detail","Expand","Strike");
    GetListBox()->SetEmptyListStr("<nothing else waiting to play>");

    // no title on this list box.
    cListBox->SetTitle((char *)NULL);

    setSoftkeyNames();
}

tBool aExpandLists=FALSE; // should we list album as album or as individual tracks

// returns if something was updated
void CLCDQListPage::Update()
{

    statusLine->Update();

    static int sLastElemCount=0;
    static CDspManager::tPlaybackState lastPlaybackState = CDspManager::eStatePlay;

    CDspManager::tPlaybackState currentPlaybackState = gpDspManager->GetPlayState();


    int aCurElemCount= gpNowPlayingManager->GetElemCount();

    CNowPlayingList *aCurElem= gpNowPlayingManager->GetFirstElement();

    static void *prevPlayingNode = NULL;
    static void *prevPlayingTrack = NULL;

    CNowPlayingList *nowPlayingNode = gpNowPlayingManager->GetCurElement();
    CLibElementNode *nowPlayingTrack = gpNowPlayingManager->GetCurTrack();


    if ((nowPlayingTrack!=prevPlayingTrack) ||
        (nowPlayingNode !=prevPlayingNode)  ||
        (aCurElemCount!=sLastElemCount) ||
        (currentPlaybackState != lastPlaybackState) || IsPageDirty()){

        prevPlayingTrack = nowPlayingTrack;
        prevPlayingNode = nowPlayingNode;

        sLastElemCount=aCurElemCount;

        GetListBox()->DeleteStrings();
```

```
        CStr aElemStr;

        if(!aExpandLists)
        while (aCurElem)
        {
            CLibElementNode *node = aCurElem->cElementAsNode;
            node->GetStrWithIcon(&aElemStr);
            // figure out if this one is the "Current"
            // element, Either playing or ready to play
            // then replace the icon with a pointer if it is.
            if(aCurElem == nowPlayingNode){
                aElemStr.SetValue(0,ICON_POINTER);
            }
            GetListBox()->AddString(&aElemStr,aCurElem);
            aCurElem = gpNowPlayingManager->GetNextElement();
        }
        else
        while(aCurElem){
            CLibElementNode *node = aCurElem->cElementAsNode;
            if(node->GetLibElementType() == kLETTrack){
                node->GetStrWithIcon(&aElemStr);
                ////////////////////////
                if(aCurElem == nowPlayingNode){
                    aElemStr.SetValue(0,ICON_POINTER);
                }
                GetListBox()->AddString(&aElemStr,aCurElem);
                aCurElem = gpNowPlayingManager->GetNextElement();
                continue;
            }
            // iterate through the element
            CLibElementTrack *track = (CLibElementTrack *)node->GetFirstChild();

            int isSelected;
            if(aCurElem == nowPlayingNode){
                isSelected = 1;
            }
            else{
                isSelected = 0;
            }

            while(track){
                track->GetStrWithIcon(&aElemStr);
                if(isSelected){
                    if(track == nowPlayingTrack){
                        aElemStr.SetValue(0,ICON_POINTER);
                    }
                }
                GetListBox()->AddString(&aElemStr,aCurElem);
                track = (CLibElementTrack *)track->GetSibling();
            }
            aCurElem = gpNowPlayingManager->GetNextElement();

        }
        CLCDPage::Draw();
    }

    CLCDPage::Update();
}

void CLCDQListPage::setSoftkeyNames()
{
#ifdef Blinq
    CStr aLabel;

    switch (SYS.State().GetPlayMode())
```

```cpp
    {
    default:
        ASSERT(FALSE);
    case kPMPlayOnce:
        aLabel.StrCpy("PlayOnce");
        break;
    case kPMRepeat:
        aLabel.StrCpy("Repeat");
        break;
    case kPMRandom:
        aLabel.StrCpy("Random");
        break;
    }
#endif
}

void CLCDQListPage::Softkey1Handler(tBool pDown)
{

    SetNextPage(kLMListening);

}

// remove from queue
void CLCDQListPage::Softkey3Handler(tBool pDown)
{
    CNowPlayingList *aRemQueueEntry=(CNowPlayingList *)cListBox->GetHighlightedStrData();
    if(aRemQueueEntry){
        gpNowPlayingManager->RemoveElement(aRemQueueEntry);
        // now we need to rebuild the contents
        cPageDirty=TRUE;
        Update();
    }

}

void CLCDQListPage::Softkey2Handler(tBool pDown)
{

    if(aExpandLists){
        SetSKLabels("Detail","Expand","Strike");
        aExpandLists = FALSE;
    }
    else{
        SetSKLabels("Detail","Compact","Strike");
        aExpandLists = TRUE;
    }
    cPageDirty = TRUE;
}


void CLCDQListPage::Activate()
{
    CLCDPage::Activate();
}
```

# EXHIBIT
# KK

```
#ifndef LCDQListPage
#define LCDQListPage

#include "LCDPage.h"

class CLCDQListPage : public CLCDPage
{
public:
    CLCDQListPage();

    virtual void Update();

    virtual void Softkey1Handler(tBool pDown);
    virtual void Softkey2Handler(tBool pDown);
    virtual void Softkey3Handler(tBool pDown);

    virtual void Activate();

private:
    void setSoftkeyNames();
};

#endif // #ifndef LCDQListPage
```

# EXHIBIT
# LL

```cpp
// LCDListBox.cpp: implementation of the CLCDListBox class.
//
//////////////////////////////////////////////////////////////////////

#include "StdInclude.h"

#include "LCDListBox.h"
#include "LCDMgr.h"
#include "CStr.h"
#include "GrResources.h"

//////////////////////////////////////////////////////////////////////
// Construction/Destruction
//////////////////////////////////////////////////////////////////////

#define SCROLLBARWIDTH (8)
#define SCROLLBARBUTTONWIDTH (SCROLLBARWIDTH-2)
#define SCROLLBARBUTTONHEIGHT (16)
#define TEXTRIGHT ((cNumItemsInList>cNumLinesDisplayed)?cRect.right-SCROLLBARWIDTH:cRect.↙
    right)
#define LISTBOX_INDENT (4)

#define SCROLLBARTOP LCDLINEHEIGHT + 1
#define SCROLLBARBOTTOM LCDHEIGHT - SCROLLBARTOP


/* this special drawstring draws an icon in the first position */
#include <string.h>
void GDDrawStringWithIcon(short pX,short pY,char *pString)
{
    int aIdx;
    char aTmp;
    char aCopy[128],*aString=aCopy;
    strcpy(aCopy,pString);
    while (*aString)
    {
        for (aIdx=0;(aString[aIdx]>ICON_MAX);aIdx++)
            ;
        /* if it we accrued any characters > ICON_MAX, draw them */
        if (aIdx)
        {
            aTmp=aString[aIdx];
            aString[aIdx]=0;
            GDDrawString(pX,pY,aString);
            pX+=GDGetStringWidth(aString);
            aString=&aString[aIdx];
            *aString=aTmp;
        }
        /* if the end of that str was an icon, draw it */
        if (*aString) /* found an icon */
        {

            // determine the icon type
            GrPixmap *icon;
            switch (*aString)
            {
            case ICON_LIST:
                icon = &kIconList;
                break;
            case ICON_NODE:
                icon = &kIconNode;
                break;
            case ICON_SONG:
                icon = &kIconTrack;
                break;
```

```cpp
                case ICON_VOICE:
                    icon = &kIconVoice;
                    break;
                case ICON_POINTER:
                    icon = &qPPointer;
                    break;
                default:
                    icon = NULL;
                    break;
                }
                if(icon){
                    // determine how to place the icon vertically
                    int free = LCDLINEHEIGHT - icon->dimension.h;
                    if(free >= 0){
                        // don't put it anywhere if its bigger than fits
                        free = (free / 2) + (free %2);

                        free += pY;

                        GDCopyPixmap(icon,pX,free,0);
                    }
                    pX+=icon->dimension.w;
                    pX += 2;
                }
                aString++;
            }
        }
    }


void CLCDListBox::SetTitle(const char *pTitle){
    if(pTitle){
        cTitle.StrCpy(pTitle);

        return;
    }
    noTitle = TRUE;
}

CStrListAssoc *cStrListHead,*cStrListTail;



CLCDListBox::CLCDListBox(GDRect &pRect)
{
    noTitle = FALSE;
    cStrListHead=cStrListTail=NULL;
    cRect=pRect;
    cNumLinesDisplayed=(cRect.Height()+1)/LCDLINEHEIGHT-1; // -1 for space for heading
    cTitle.StrCpy("Generic List");
    cEmptyListStr.StrCpy("<empty>");
    cHighlightedLine=0;
    cFirstDisplayedLine=0;
}

CLCDListBox::~CLCDListBox()
{
    CStrListAssoc *aDel;
    while (cStrListHead)
    {
        aDel=cStrListHead;
        cStrListHead=cStrListHead->cNext;
        delete aDel->cStr;
        delete aDel;
    }
}
```

```
void CLCDListBox::invertLine(int pLine)
{
    // pLine refers to the item, but the line we want to invert is pLine+1
    // because of the title line. Thus...
    pLine++;

    GDEnableUpdate(FALSE);
    GrTransferMode aOldMode=GDGetTransferMode();
    GDSetTransferMode(GR_XFER_XOR);
    GDSetFillPattern(&grBlack);
    GrRect aInvertRect={cRect.left,pLine*LCDLINEHEIGHT+1,TEXTRIGHT,pLine*LCDLINEHEIGHT+
    LCDLINEHEIGHT};
    GDFillRect(&aInvertRect);
    GDSetTransferMode(aOldMode);
    GDEnableUpdate(TRUE);
}

void CLCDListBox::SetHighlightedLine(int pHighlightedLine)
{
    cHighlightedLine=pHighlightedLine;
    Draw();
}

void CLCDListBox::SetFirstDisplayedLine(int pFirstDisplayedLine)
{
    cFirstDisplayedLine=pFirstDisplayedLine;
    Draw();
}

void CLCDListBox::ScrollDn()
{
    GDEnableUpdate(FALSE);
    // if we're highlighting a line other than the bottom line...
    if (ibetween(0,cHighlightedLine,cNumLinesDisplayed-2))
    {
        // if there are more items to scroll down to...
        if (ibetween(0,cHighlightedLine,cNumItemsInList-2))
        {
            invertLine(cHighlightedLine);
            cHighlightedLine++;
            invertLine(cHighlightedLine);
        }
    }
    else
    {
        if (cFirstDisplayedLine<cNumItemsInList)
        {
            cFirstDisplayedLine++;
            Draw();
        }
    }
    drawScrollbar();
    GDEnableUpdate(TRUE);
}

void CLCDListBox::ScrollUp()
{
    GDEnableUpdate(FALSE);
    if (ibetween(1,cHighlightedLine,cNumLinesDisplayed-1))
    {
        invertLine(cHighlightedLine);
        cHighlightedLine--;
        invertLine(cHighlightedLine);
    }
    else
```

```
    {
        if (cFirstDisplayedLine>0)
        {
            cFirstDisplayedLine--;
            Draw();
        }
    }
    drawScrollbar();
    GDEnableUpdate(TRUE);
}

void CLCDListBox::countNumItemsInList()
{
    CStrListAssoc *aStrs=cStrListHead;
    cNumItemsInList=0;
    while (aStrs!=NULL)
    {
        cNumItemsInList++;
        aStrs=aStrs->cNext;
    }

    // if there aren't enough lines to fill display and highlight is beyond filled area, ↙
    move it up
    if (cHighlightedLine>=cNumItemsInList)
        cHighlightedLine=cNumItemsInList-1;

    // make sure first displayed line makes sense
    cFirstDisplayedLine=ibound(0,cFirstDisplayedLine, imax(0,cNumItemsInList-          ↙
    cNumLinesDisplayed) );
}

CStrListAssoc *CLCDListBox::getHighlightedPtr()
{
    int aLine=GetHighlightedIndex();

    CStrListAssoc *aStrs=cStrListHead;
    if (!aStrs)
        return NULL;
    for (int aIdx=0;aIdx<aLine;aIdx++)
    {
        aStrs=aStrs->cNext;
        if (!aStrs)
        {
            ASSERT(FALSE);
            return NULL;
        }
    }
    if (aStrs)
        return aStrs;
    else
        return NULL;
}

void *CLCDListBox::GetHighlightedStrData()
{
    CStrListAssoc *aPtr=getHighlightedPtr();
    if (aPtr)
        return aPtr->cData;
    else
        return NULL;
}

CStr *CLCDListBox::GetHighlightedStr()
{
    CStrListAssoc *aPtr=getHighlightedPtr();
    if (aPtr)
```

```cpp
            return aPtr->cStr;
    else
            return NULL;
}

void CLCDListBox::DeleteStrings()
{
    CStrListAssoc *aTmp;
    cHighlightedLine = cNumItemsInList = cFirstDisplayedLine = 0;
    while (cStrListHead)
    {
        aTmp=cStrListHead;
        cStrListHead=cStrListHead->cNext;
        delete aTmp->cStr;
        delete aTmp;
    }
    cStrListHead=NULL;
    cStrListTail=NULL;
}

void CLCDListBox::AddString(CStr *pStr,void *pPtr)
{
    if (cStrListTail)
    {
        cStrListTail->cNext=new CStrListAssoc;
        cStrListTail=cStrListTail->cNext;
    }
    else
    {
        cStrListTail=new CStrListAssoc;
        cStrListHead=cStrListTail;
    }
    cStrListTail->cStr=new CStr(*pStr);
    cStrListTail->cData=pPtr;
    cStrListTail->cNext=NULL;
}

void CLCDListBox::drawScrollbar()
{
    if (cNumItemsInList>cNumLinesDisplayed)
    {
        GDEnableUpdate(FALSE);
        GDSetFillPattern(&grWhite);
        GrRect aInnerRegion={TEXTRIGHT+1+2,
            SCROLLBARTOP + 1,
            cRect.right-1,
            SCROLLBARBOTTOM - 1 };

        GDFillRect(&aInnerRegion);
        GDSetPenPattern(&grBlack);
        GrRect aOuterBorder={TEXTRIGHT+1,
            SCROLLBARTOP,
            cRect.right,
            SCROLLBARBOTTOM - 1};

        GDDrawRect(&aOuterBorder);

        tCoord aY=1+ // 1 line below top of scroll

            (cRect.Height() -2-SCROLLBARBUTTONHEIGHT+1)* // number of positions
    scrollbarbutton can be in

            (cFirstDisplayedLine)/(cNumItemsInList-cNumLinesDisplayed ); // % down the
    scrollbarbutton should be

        if(aY < SCROLLBARTOP){
```

```
                    aY = SCROLLBARTOP;
                }

                if((aY+14) > SCROLLBARBOTTOM){
                    aY = SCROLLBARBOTTOM - 14;
                }

                GDSetFillPattern(&grGray);
                GrRect aButtonRegion={
                    TEXTRIGHT+2,
                    aY,
                    TEXTRIGHT+8,
                    aY+14};

                GDFillRect(&aButtonRegion);
                GDEnableUpdate(TRUE);
        }
}

void CLCDListBox::Draw()
{
    countNumItemsInList();

    CStrListAssoc *aStrs=cStrListHead;
    int aIdx;
    for (aIdx=0;aIdx<cFirstDisplayedLine;aIdx++)
    {
        if (aStrs==NULL)
        {
            ASSERT(FALSE);
            break;
        }
        aStrs=aStrs->cNext;
    }

    tCoord aY=cRect.top;
    GDEnableUpdate(FALSE);

    // erase entire area of listbox
    GrRect aListboxRegion={cRect.left,cRect.top,cRect.right,cRect.bottom};
    GDSetFillPattern(&grWhite);
    GDFillRect(&aListboxRegion);

    // draw heading
    GDSetPenPattern(&grWhite);
    GDSetFont(OasisDefaultFont);
    if(!noTitle){
        GDDrawStringWithIcon(cRect.left,aY,
            cTitle.CharPtr());
    }
    aY+=LCDLINEHEIGHT;

    // draw strings
    if (aStrs)
    {
        for (aIdx=0;aIdx<cNumLinesDisplayed;aIdx++)
        {
            if (!aStrs) // if we're out of strings, stop
                break;

            GDDrawStringWithIcon(cRect.left,aY,
                aStrs->cStr->CharPtr());
//          GDDrawStringWithIcon(cRect.left+LISTBOX_INDENT,aY,
//              aStrs->cStr->CharPtr());

            if (aIdx==cHighlightedLine)
```

```
                invertLine(cHighlightedLine);

            aY+=LCDLINEHEIGHT;

            aStrs=aStrs->cNext;
        }
    }
    else
        GDDrawStringWithIcon(cRect.left+LISTBOX_INDENT,aY,
            cEmptyListStr.CharPtr());

    // draw scroll location indicator
    drawScrollbar();

    GDEnableUpdate(TRUE);
}
```

# EXHIBIT MM

```cpp
// LCDListBox.h: interface for the CLCDListBox class.
//
//////////////////////////////////////////////////////////////////////

#ifndef __LCDListBox_h__
#define __LCDListBox_h__

#include "CStr.h"
#include "GrCustom.h"


// this is moved from GrCustom to here
// because GrCustom is sometimes compiled
// strictly as extern C.

class GDRect : public GrRect
{
public:
    GDRect()
    {
        left=0;
        top=0;
        right=0;
        bottom=0;
    };
    GDRect(short pLeft,short pTop,short pRight,short pBottom)
    {
        left=pLeft;
        top=pTop;
        right=pRight;
        bottom=pBottom;
    };
    short Height() {return  bottom-top;};
};


class CLCDListBox
{
public:
    CLCDListBox(GDRect &pRect);
    virtual ~CLCDListBox();

    void DeleteStrings();
    void AddString(CStr *pStr,void *pPtr);

    void Draw();

    void ScrollDn();
    void ScrollUp();

//  CStrListAssoc *&GetStrListHead() {return cStrListHead;};
//  CStrListAssoc *&GetStrListTail() {return cStrListTail;};

    void *GetHighlightedStrData();
    CStr *GetHighlightedStr();


//     void ChangeString(int index, char *data);

    void SetTitle(const char *pTitle);
    void SetTitle(CStr *pTitle) {SetTitle(pTitle->CharPtr());};

    // store string to show when list is empty
    void SetEmptyListStr(char *pEmptyListStr) {cEmptyListStr.StrCpy(pEmptyListStr);};

    void SetHighlightedLine(int pHighlightedLine);
```

```
    int GetHighlightedLine() {return cHighlightedLine;};

    // which item is highlighted (between 0 and
    int GetHighlightedIndex() {return GetFirstDisplayedLine()+GetHighlightedLine();};

    void SetFirstDisplayedLine(int pFirstDisplayedLine);
    int GetFirstDisplayedLine() {return cFirstDisplayedLine;};

private:
    void invertLine(int pLine);
    void countNumItemsInList();
    void drawScrollbar();
    CStrListAssoc *getHighlightedPtr();

    int cNumLinesDisplayed; // how many lines are displayed at once on display
    int cHighlightedLine; // which line is highlighted (from 0 to cNumLinesDisplayed-1)
    int cNumItemsInList; // how many items are in strlist
    int cFirstDisplayedLine; // which of cNumItemsInList lines is at top of display
    tBool noTitle;
    CStr cTitle; // title/heading for listbox
    CStr cEmptyListStr; // string to display in an empty list

    GDRect cRect;

    CStrListAssoc *cStrListHead,*cStrListTail;
};

#endif // !defined(AFX_LCDListBox_H__BD813660_4A74_11D3_ACB2_0000E83FB110__INCLUDED_)
```

# EXHIBIT
# NN

```cpp
// LCDPage.cpp: implementation of the CLCDPage class.
//
////////////////////////////////////////////////////////////////////

#include "StdInclude.h"
#include "LibElement.h"
#include <assert.h>

#ifdef _DEBUG
#undef THIS_FILE
static char THIS_FILE[]=__FILE__;
#define new DEBUG_NEW
#endif

#include "LCDPage.h"
#include "LCDMgr.h"

CLCDPage::CLCDPage(void){
    cMenuEnabled=TRUE;
    cSK1Enabled=cSK2Enabled=cSK3Enabled=TRUE;
    cListBox=NULL;
    cShowMenu=TRUE;

    statusLine = new CLCDStatusLine(0);

}
void CLCDPage::Update(){
     cPageDirty=FALSE;
}

//typedef struct GrLine {
//   GrPoint p[2];
//} GrLine;


GrLine topLine = {0,LCDLINEHEIGHT,LCDWIDTH,LCDLINEHEIGHT};

GrLine bottomLine = { 0, LCDHEIGHT - LCDLINEHEIGHT, LCDWIDTH, LCDHEIGHT - LCDLINEHEIGHT};

void CLCDPage::Draw()
{
    GDEnableUpdate(FALSE);
    if (cListBox)
        cListBox->Draw();
    if (cMenuEnabled)
        drawMenu();

    // now draw top and bottom lines
    GDDrawLine(&topLine);
    GDDrawLine(&bottomLine);


    GDEnableUpdate(TRUE);
}
void CLCDPage::SetNextPage(tLCDMode pLCDMode){
    gpLcdMgr->SetNextPage(pLCDMode);
}


void CLCDPage::drawMenu()
{
    GDEnableUpdate(FALSE);
    GDSetFillPattern(&grWhite);
    GrRect aMenuRegion={0,LCDHEIGHT-LCDLINEHEIGHT,LCDWIDTH,LCDHEIGHT-1};
    GDFillRect(&aMenuRegion);
    GDSetPenPattern(&grBlack);
```

```cpp
        GDSetFont(OasisDefaultFont);
        char *aStr;

        if (cSK1Enabled)
            aStr= cSKLabel1.CharPtr();
        else
            aStr= "---";

        GDDrawString(0,LCDHEIGHT-LCDLINEHEIGHT-1,aStr);

        if (cSK2Enabled)
            aStr= cSKLabel2.CharPtr();
        else
            aStr= "---";

        GDDrawString((LCDWIDTH-GDGetStringWidth(aStr))/2,
            LCDHEIGHT-LCDLINEHEIGHT-1,aStr);


        if (cSK3Enabled)
            aStr= cSKLabel3.CharPtr();
        else
            aStr= "---";

        GDDrawString(LCDWIDTH-GDGetStringWidth(aStr),
            LCDHEIGHT-LCDLINEHEIGHT-1,aStr);

        GDEnableUpdate(TRUE);
}

CLCDPage::~CLCDPage()
{
        if (cListBox)
            delete cListBox;
}

void CLCDPage::SoftkeyHandler(int pSoftkeyNum,tBool pDown)
{
        switch (pSoftkeyNum)
        {
        case 1:
            if (cSK1Enabled)
                Softkey1Handler(pDown);
            break;
        case 2:
            if (cSK2Enabled)
                Softkey2Handler(pDown);
            break;
        case 3:
            if (cSK3Enabled)
                Softkey3Handler(pDown);
            break;
        default:
            ASSERT(FALSE);
            break;
        }
}

void CLCDPage::SetPageDirty()
{
        GDEnableUpdate(FALSE);
        GDClearCanvas();
        GDEnableUpdate(TRUE);

        cPageDirty=TRUE;
}
```

```cpp
void CLCDPage::Activate()
{
    SetPageDirty();
    Update();
    Draw();
    isActive = TRUE;
}

void CLCDPage::DeActivate()
{
    isActive = FALSE;
}




void CLCDPage::addStr(CLibElementNode *pElement)
{
    CStr aStr;
    CStr *pStr = &aStr;

    pElement->GetStrWithIcon(pStr);

    cListBox->AddString(pStr, pElement);

#if 0
    if (cListBox->GetStrListHead()==NULL)
    {
        cListBox->GetStrListHead()=new CStrListAssoc;
        cListBox->GetStrListHead()->cStr=pStr;
        cListBox->GetStrListHead()->cData=pElement;
        cListBox->GetStrListHead()->cNext=NULL;
        cListBox->GetStrListTail()=cListBox->GetStrListHead();
    }
    else
    {
        cListBox->GetStrListTail()->cNext=new CStrListAssoc;
        cListBox->GetStrListTail()=cListBox->GetStrListTail()->cNext;
        cListBox->GetStrListTail()->cStr=pStr;
        cListBox->GetStrListTail()->cData=pElement;
    }
#endif

}


void CLCDPage::BuildStrList(CLibElementNode *pNode){

    if(!cListBox)
        return;

    assert(pNode);

    if(!pNode)
        return;

    cListBox->DeleteStrings();

    CLibElementNode *aElem= (CLibElementNode *) pNode->Get1stChild();

    while (aElem){
        addStr(aElem);
        aElem = (CLibElementNode *) aElem->GetSibling();
    }
```

```cpp
}


void CLCDPage::ScrollUp(void){
    if(cListBox)
        cListBox->ScrollUp();
    Draw();
}

void CLCDPage::ScrollDown(void){
    if(cListBox)
        cListBox->ScrollDn();
    Draw();
}


void CLCDPage::BuildStrList(void *pNode){;}

void CLCDPage::Softkey1Handler(tBool pDown) {};
void CLCDPage::Softkey2Handler(tBool pDown) {};
void CLCDPage::Softkey3Handler(tBool pDown) {};



#include "CDspManager.h"
#include "CPlaybackManager.h"
#include "NowPlayingQ.h"


CLCDStatusLine::CLCDStatusLine(int whichLine){

    active = FALSE;
    animationCount = 0;
    position = whichLine;


}

#include "GrResources.h"
#define NUM_TRANSPORT_PIXMAPS (8)
const GrPixmap *kTransportPixmaps[NUM_TRANSPORT_PIXMAPS]=
{
    &Disc11,
    &Disc12,
    &Disc13,
    &Disc14,
    &Disc15,
    &Disc16,
    &Disc17,
    &Disc18
};

void CLCDStatusLine::Update(void){
    if(!active)
        return;

    int currentTrack;
    int totalTracks;
    int secondsIntoTrack;

    // first format the text
    #define maxStatLen 40
    char buf[maxStatLen];

    //
    currentTrack = gpNowPlayingManager->GetPlayingTracksIndex();
```

```
    totalTracks = gpNowPlayingManager->GetTrackCount();

    secondsIntoTrack = gpDspManager->GetSecondsPlaying();
    CDspManager::tPlaybackState currentPlaybackState = gpDspManager->GetPlayState();

    int sec = secondsIntoTrack % 60;
    int min = secondsIntoTrack / 60;
    int displayIcon = 0;
    switch(currentPlaybackState){
        case CDspManager::eStatePlay:
            animationCount ++;
            if(animationCount >= NUM_TRANSPORT_PIXMAPS )
                animationCount = 0;
        case CDspManager::eStatePause:
            displayIcon = 1;
            sprintf(buf,"Track %d of %2d %3d:%02d",currentTrack,
                                            totalTracks,
                                            min,sec);
            break;

        default:
            if(totalTracks == 0){
                sprintf(buf,"No tracks left");
                break;
            }
            if(totalTracks == 1){
                sprintf(buf,"%d Track ready",totalTracks);
                break;
            }
            sprintf(buf,"%d Tracks ready",totalTracks);
            break;
    }

    GDEnableUpdate(FALSE);

    GDSetFillPattern(&grWhite);
    GrRect aDisplayRegion={LCDLINEHEIGHT*position,0,LCDWIDTH,
                        LCDLINEHEIGHT*position +LCDLINEHEIGHT };

    GDFillRect(&aDisplayRegion);

    GDSetPenPattern(&grBlack);

//  GDDrawString(0, LCDLINEHEIGHT * position,buf);
    GDDrawString(0, -2,buf);

    GDDrawLine(&topLine);

    int x = LCDWIDTH - kTransportPixmaps[0]->dimension.w;
    int y = position * LCDLINEHEIGHT;

    if(displayIcon){
        GDCopyPixmap(kTransportPixmaps[animationCount],x,y,FALSE);
    }
    else{
        GrRect aTranspRegion={x,y,
            x + kTransportPixmaps[0]->dimension.w,
            y + kTransportPixmaps[0]->dimension.h};

        GDSetFillPattern(&grWhite);
        GDFillRect(&aTranspRegion);
    }

    GDSetPenPattern(&grBlack);

    GDEnableUpdate(TRUE);
```

}

# EXHIBIT
# OO

```cpp
#ifndef LCDPage
#define LCDPage

//#include "SoftkeyActions.h"
class CLibElementNode;
extern "C" {
    #include "GrCustom.h"
};

#define LCDWIDTH (SCREEN_WIDTH+1) // real LCD width is 132, but Graphics wants a multiple
    of 8
#define LCDHEIGHT (SCREEN_HEIGHT)

// Font dependent stuff
#define OasisDefaultFont CopperB
//#define OasisDefaultFont tinyFont
#define LCDNUMTEXTLINES (7)
//#define LCDNUMTEXTLINES (8)


#define LCDLINEHEIGHT (LCDHEIGHT/LCDNUMTEXTLINES)
#define LCDMEDLINEHEIGHT (LCDHEIGHT/6)
#define LCDLRGLINEHEIGHT (LCDHEIGHT/4)


typedef enum _tLCDMode
{
    kLMSplash,
    kLMMenu,
    kLMLibrary,
    kLMTrackInfo,
    kLMListening,
    kLMQList,

    eMiRecording,
    eMiParametricEQ,
    eMiOutputSettings,
    eMiSystemStatus,
    eMiUnimplemented,

    kLMMax
}tLCDMode;

#include "GeneralTypes.h"
#include "LCDListBox.h"

class CLCDStatusLine;

class CLCDPage
{
public:
    CLCDPage(void);

    virtual void Draw();

    virtual ~CLCDPage();

    virtual void Activate();
    virtual void DeActivate();

    void SetNextPage(tLCDMode pLCDMode);

    void SetListBox(CLCDListBox *pListBox) {cListBox=pListBox;};
    CLCDListBox *GetListBox() {return cListBox;};
```

```
    void BuildStrList(CLibElementNode *anElement);

    void SetShowMenu(tBool pShowMenu) {cShowMenu=pShowMenu;};
    virtual void BuildStrList(void *pNode);//{;}

    virtual void Softkey1Handler(tBool pDown);// {};
    virtual void Softkey2Handler(tBool pDown);// {};
    virtual void Softkey3Handler(tBool pDown);// {};

    virtual void ScrollUp(void);
    virtual void ScrollDown(void);

    void SetSKLabel1(const char *pLabel) {cSKLabel1.StrCpy(pLabel);drawMenu();};
    void SetSKLabel2(const char *pLabel) {cSKLabel2.StrCpy(pLabel);drawMenu();};
    void SetSKLabel3(const char *pLabel) {cSKLabel3.StrCpy(pLabel);drawMenu();};
    void SetSKLabels(const char *pLabel1,const char *pLabel2,const char *pLabel3)
    {
        cSKLabel1.StrCpy(pLabel1);
        cSKLabel2.StrCpy(pLabel2);
        cSKLabel3.StrCpy(pLabel3);
        drawMenu();
    };

    virtual void Update(); //{cPageDirty=FALSE;};

    void SetPageDirty();
    tBool IsPageDirty() {return cPageDirty;}; // do we need complete redraw
    tBool IsActive(){return isActive;}
    void SoftkeyHandler(int pSoftkeyNum,tBool pDown);

    void addStr(CLibElementNode *pElement);

    CLCDStatusLine *statusLine;

protected:
    void setMenuEnabled(tBool pMenuEnabled) {cMenuEnabled=pMenuEnabled;};
    void setSK1Enabled(tBool pEnabled) {cSK1Enabled=pEnabled;};
    void setSK2Enabled(tBool pEnabled) {cSK2Enabled=pEnabled;};
    void setSK3Enabled(tBool pEnabled) {cSK3Enabled=pEnabled;};

    void drawMenu();

    CLCDListBox *cListBox;
    CStr cSKLabel1,cSKLabel2,cSKLabel3;


    tBool cShowMenu;
    tBool cPageDirty; // if TRUE, a complete LCD redraw is needed
    tBool cMenuEnabled; // should menu get displayed
    tBool cSK1Enabled,cSK2Enabled,cSK3Enabled; // is each menu item enabled
    tBool isActive;
};

// forward decl

// this is a single line on the page which recieves dynamic update information
// on playlist status, transport status and time into a track

class CLCDStatusLine{
public:

    CLCDStatusLine(int whichLine);

    // clear this to inhibit update
    // i.e. in lib or menu screens.
    tBool active;
```

```
    void Update(void);

protected:

    int position;
    int animationCount;

};

#endif // #ifndef LCDPage
```

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▷ **1998 Releases**
▷ **1997 Releases**
▷ **1996 Releases**
▷ **Corporate & Financial Releases**

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## Creative Expands Nomad Family With New Portable Digital Audio Players
### NOMAD Jukebox and NOMAD II MG To Be Available Spring 2000

**press room**

▶ **News Releases**
▷ **PR Contacts**
▷ **Product Information**
▷ **Artwork**
▷ **Awards and Accolades**

**MILPITAS, CA - January 5, 2000** - Creative Technology Ltd. (Nasdaq: CREAF), the leading provider of market-leading multimedia solutions for personal entertainment, today announced two new additions to its growing family of Personal Digital Entertainment (PDE) products, the NOMAD Jukebox and NOMAD II MG. Building on the success of Creative's NOMAD and the anticipation of the NOMAD II portable digital audio devices, the NOMAD Jukebox and NOMAD II MG players will be available to consumers in Q2 of this year. The NOMAD Jukebox and NOMAD II MG include USB support, are programmable and both support multiple compressed audio formats including MP3 and WMA file formats.

According to projections made by Forrester Research, portable digital audio player sales are expected to hit 32 million units in the United States by 2003.

"When Creative first introduced the NOMAD player last year, the company announced that it would make available an entire suite of portable digital audio players and introduce its customers to exciting and revolutionary new portable audio technologies in the coming months," said Hock Leow, chief technology officer for Creative. "We have successfully delivered on that promise today with the introduction of such feature-rich products as the NOMAD Jukebox and NOMAD II MG. We are thrilled to deliver two unique and innovative products to digital audio and technology enthusiasts and look forward to continue growing the company's PDE Internet Solutions."

**Creative NOMAD Jukebox**

The Creative NOMAD Jukebox is a USB, multi-format portable audio player/recorder. This new light-weight (14oz.) digital audio player, in the size of a CD disc player, features high capacity storage capabilities with 6GB of built-in storage that holds an entire music collection (over 150 albums) or up to 2,600 hours of spoken word. It features a Line-In for analog recording from external sources and dual Line-Out connections ideal for connecting a four-speaker system such as Cambridge SoundWorks, Inc.'s FourPointSurround FPS2000 Digital. Unlike other hardware-based solutions, the NOMAD Jukebox also features an onboard real-time digital signal processor (DSP) for superior audio playback and customization. A Headphone-Out jack supports headphone spatialization and equalizer effects. This SDMI-capable portable digital audio player supports multiple formats including MP3, WMA and WAV file formats. Unlike other hardware-based solutions, the NOMAD Jukebox also features an onboard real-time effects processor for superior audio playback and customization. The NOMAD Jukebox also supports downloadable features including

new effects algorithms, security features, and auto playlist generators.

**Creative NOMAD II MG**
Like its predecessor, the Creative NOMAD, the NOMAD II MG is encased in a compact, sleek magnesium case for extreme durability and a professional look and feel. The NOMAD II MG is the first digital audio device to boast time compression/expansion implementation for interactive speed control playback of voice recording, a key feature for the mobile professional. In addition, the NOMAD II MG includes a FM tuner with preset support and voice-record capabilities for storing up to four hours of dictation, messages or personal notes. A bundled docking station provides users with cable-free desktop connectivity and recharges batteries. The NOMAD II MG also comes with an electro-luminescent (EL) backlit LCD increasing the quality of viewing anywhere it is taken.

The classic design of this portable USB digital audio player comes with 64MB of flash memory onboard with an open SmartMedia™ slot for additional memory that can bring the total user-accessible memory to 128MB or 2 hours of music. In addition to being SDMI-compliant capable, the NOMAD II MG has adjustable bit-rate and multi-codec support.

**Destination NomadWorld.com**
As part of Creative's PDE Internet Services, visitors to NomadWorld.com will find the latest tools, technologies, accessories and featured content to maximize their digital audio experience. Because the NOMAD II, NOMAD II MG and NOMAD Jukebox are programmable, www.nomadworld.com is the only site where users can download authentic NOMADWare updates to keep their player up-to-date with the latest digital audio formats, standards, and software extensions.

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Creative's PDE Internet Solutions category is comprised of Internet devices, Internet applications and Internet services. Creative's PDE Internet Solutions leverage the power of the PC to create enhanced audio and video entertainment experiences. Creative's NOMAD, NOMAD II, NOMAD Jukebox, NOMAD II MG, WebCam Go, and LAVA! MusicVideo Player are all key components of Creative's PDE Internet solutions geared towards PC and Internet enthusiasts. Creative's family of PDE Internet solutions consists of:

- PDE Internet Devices: Products that enhance the PC Internet experience and can function when detached from the PC such as Creative's Video Blaster WebCam Go and the entire line of NOMAD digital audio players
- PDE Internet Applications: Software entertainment solutions like the LAVA! Player that enhance the entertainment experience when used in combination with Creative's Internet devices
- PDE Internet Services: Creative plans to offer Internet services that complement both its PDE Internet Devices and applications

**About Creative**
Creative Technology Ltd. develops, manufactures and markets a wide array of advanced multimedia solutions for the PC, entertainment, education, music and productivity tools markets. Creative's products are marketed through the OEM, systems integrator and retail channels under a variety of trademarks, including the "Blaster" family name. With the new Sound Blaster® PCI

standard, Creative has produced a solution that utilizes a combination of hardware and software for near-perfect compatibility with existing DOS and Windows titles. Creative's corporate headquarters and primary manufacturing are based in Singapore, with sales, distribution and research and development being carried out through an extensive, global network of subsidiaries located in North America, Europe, Asia and Africa.

Safe Harbor Statements Under The Private Securities Litigation Reform Act of 1995

Except for the historical information contained herein, the matters set forth herein (including statements using the words or phrases "will", "we believe will", "going to" and including any guidance on future products, future marketing efforts, future effects of Year 2000 issues, and future revenues, margins, expenses, and earnings) are forward-looking statements that are subject to certain risks and uncertainties that could cause actual results to differ materially from those set forth in the forward looking statements. Such risks and uncertainties include, among others: potential fluctuations in quarterly results due to the seasonality of Creative's business and the difficulty of projecting such fluctuations; the vulnerability of certain markets to currency fluctuations and credit shortages; reductions in the market value of products sold by Creative, including increases in supply or declines in demand or prices for CD-ROM or DVD drives, board and chip-level products, and software products; the short product cycles that characterize most of Creative's products; the increasing proliferation of sound functionality in new products from new and existing competitors and at the application software, chip and operating system levels; the increasing assertion of patents and other litigation claims affecting Creative and/or its suppliers, in areas including 3-D graphics and audio chip designs; Creative's reliance on sole sources or near-sole sources for many of its chips and other key components and possible limitations on future availability of graphic chips, memory chips, and passive components used in Creative's products; the timely ramp, delivery and market acceptance of new products, including Creative's next generation audio, graphics accelerator, CD-ROM and DVD drives and communications products; the volatility of share prices for companies in Creative's industry and the effect of those prices or other events beyond Creative's control; the uncertainties inherent in identifying and correcting all Year 2000 issus in computer codes used by Creative and its suppliers and vendors; and other risk factors described in Creative's Annual Report on Form 20-F for fiscal 1999 filed with the US Securities and Exchange Commission. Creative undertakes no obligation to publicly release the results of any revisions to such forward-looking statements which may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

# # #

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## Press Releases

## CREATIVE TECHNOLOGY POSTS BETTER THAN EXPECTED Q2 FY00 EARNINGS

### *Value-Added Venture Fund Generates Over $150 Million in Unrealized Gains*

**SINGAPORE - January 28, 2000** - Creative Technology Ltd. (NASDAQ: CREAF), the world's leading provider of multimedia solutions for personal entertainment, today announced financial results for the second quarter of fiscal year 2000, ended December 31, 1999.

Sales for the second quarter were a record US$436.8 million - the highest quarterly revenue ever reported by Creative. This compares to US$428.7 million for the same quarter last year. Net income was US$44.5 million dollars and earnings per share were US$0.52, including investment gains of US$9.2 million or US$0.11 per share. This compares to net income of US$60.6 million and earnings per share of US$0.64 for the same quarter last year.

Sales for the first six months of fiscal 2000 were US$705.9 million, compared to US$707.7 million for the same period last year. Net income for the first six months of fiscal 2000 was US$55.3 million or US$0.65 per share, including investment gains of US$13.6 million or US$0.16 per share. This compares to US$82.1 million or US$0.86 per share for the same period last year.

During the quarter, Creative continued its stock buy-back program, purchasing approximately 1.7 million shares at a cost of US$25.3 million.

"The second quarter was full of key accomplishments for Creative," said Craig McHugh, president of Creative Labs, Inc. "Our earnings exceeded expectations, and we significantly strengthened our balance sheet. It's important to note that in this quarter, we incurred about $16 million in operating expenses for our Internet initiatives - bringing our total for the first six months of fiscal 2000 to over $25 million invested in advertising, marketing, R&D and infrastructure to develop our Internet-related businesses. We continue to hit key milestones in our PDE and Internet strategies, highlighted by the successful launch of hifi.com in mid-October."

"The strong financial results we have delivered are just the beginning of the story," said Sim Wong Hoo, chairman and CEO. "Our value-added venture fund invested in more Internet, broadband and PDE companies during the quarter, bringing the total to over 20 companies and over $70 million invested since we set up the fund. The financial gains the fund has begun to produce can bring additional value to our shareholders - as reflected by this quarter's increase of $154 million in unrealized gains from quoted investments on our balance sheet."

"Since we defined and created the Personal Digital Entertainment category a year ago, we have moved at net speed to transform the entire company to a PDE and Internet company. Creative has become the leader in PDE, just as we did a decade ago with audio. Going forward, there will be five product and service areas which will allow us to focus on the opportunities we see: our PDE Desktop Solutions; PDE Internet Appliances; PDE Internet services and applications; E-Commerce; and, our Value-Added Venture Fund."

### *Second Quarter Review & Recent Highlights*

- Creative expanded its PDE market focus to include support for Apple Computer's Mac platform and the Linux OS.
- Creative's Mac products were showcased for the first time at the MacWorld Expo in San Francisco, with honors going for **Sound Blaster Live! Platinum** with a "Best of Show" award.
- Creative and Corel Corporation announced a partnership to advance the development of Linux-based high-quality audio and video applications.
- The **NOMAD Jukebox** was introduced at the Consumer Electronics Show 2000 and received rave reviews and accolades. It was recently featured on *CNNfn* and *CNBC's Power Lunch*. It garnered the "editor's choice" award for technical innovation from *Popular Mechanics*.
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### *Awards and Recommendations*

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**Safe Harbor Statement Under the Private Securities Litigation Reform Act of 1995**
Except for the historical information contained herein or in the accompanying conference call, the statements herein and in the call (including information on future products, future marketing efforts, and future revenues, margins, expenses and earnings) are forward looking statements that are subject to certain risks and uncertainties that could cause actual results to differ materially from those set forth in the forward looking statements. Such statements are subject to the attached cautionary statements which are provided pursuant to The Private Securities Litigation Reform Act of 1995.

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# # # #

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## CREATIVE TECHNOLOGY POSTS BETTER THAN EXPECTED Q2 FY00 EARNINGS
### *Value-Added Venture Fund Generates Over $150 Million in Unrealized Gains*

**SINGAPORE - January 28, 2000** - Creative Technology Ltd. (NASDAQ: CREAF), the world's leading provider of multimedia solutions for personal entertainment, today announced financial results for the second quarter of fiscal year 2000, ended December 31, 1999.

Sales for the second quarter were a record US$436.8 million - the highest quarterly revenue ever reported by Creative. This compares to US$428.7 million for the same quarter last year. Net income was US$44.5 million dollars and earnings per share were US$0.52, including investment gains of US$9.2 million or US$0.11 per share. This compares to net income of US$60.6 million and earnings per share of US$0.64 for the same quarter last year.

Sales for the first six months of fiscal 2000 were US$705.9 million, compared to US$707.7 million for the same period last year. Net income for the first six months of fiscal 2000 was US$55.3 million or US$0.65 per share, including investment gains of US$13.6 million or US$0.16 per share. This compares to US$82.1 million or US$0.86 per share for the same period last year.

During the quarter, Creative continued its stock buy-back program, purchasing approximately 1.7 million shares at a cost of US$25.3 million.

"The second quarter was full of key accomplishments for Creative," said Craig McHugh, president of Creative Labs, Inc. "Our earnings exceeded expectations, and we significantly strengthened our balance sheet. It's important to note that in this quarter, we incurred about $16 million in operating expenses for our Internet initiatives - bringing our total for the first six months of fiscal 2000 to over $25 million invested in advertising, marketing, R&D and infrastructure to develop our Internet-related businesses. We continue to hit key milestones in our PDE and Internet strategies, highlighted by the successful launch of hifi.com in mid-October."

"The strong financial results we have delivered are just the beginning of the story," said Sim Wong Hoo, chairman and CEO. "Our value-added venture fund invested in more Internet, broadband and PDE companies during the quarter, bringing the total to over 20 companies and over $70 million invested since we set up the fund. The financial gains the fund has begun to produce can bring additional value to our shareholders - as reflected by this quarter's increase of $154 million in unrealized gains from quoted investments on our balance sheet."

"Since we defined and created the Personal Digital Entertainment category a year ago, we have moved at net speed to transform the entire company to a PDE and Internet company. Creative has become the leader in PDE, just as we did a decade ago with audio. Going forward, there will be five product and service areas which will allow us to focus on the opportunities we see: our PDE Desktop Solutions; PDE Internet Appliances; PDE Internet services and applications; E-Commerce; and, our Value-Added Venture Fund."

### *Second Quarter Review & Recent Highlights*

- Creative expanded its PDE market focus to include support for Apple Computer's Mac platform and the Linux OS.
- Creative's Mac products were showcased for the first time at the MacWorld Expo in San Francisco, with honors going for **Sound Blaster Live! Platinum** with a "Best of Show" award.
- Creative and Corel Corporation announced a partnership to advance the development of Linux-based high-quality audio and video applications.
- The **NOMAD Jukebox** was introduced at the Consumer Electronics Show 2000 and received rave reviews and accolades. It was recently featured on *CNNfn* and *CNBC's Power Lunch*. It garnered the "editor's choice" award for technical innovation from *Popular Mechanics*.
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# DECLARATION OF INVENTORS GOODMAN EGAN AND BRISTOW

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|---|---|---|---|
| In re Patent No.: | **6,928,433** | Reexam Control No.: | **95/001,274** |
| Original Issue Date: | August 9, 2005 | Examiner: | STEELMAN, MARY J. |
| Original Serial No.: | 09/755,723 | Group Art Unit: | 3992 |
| Original Filing Date: | January 5, 2001 | Confirmation No.: | 6990 |
| By: | Ron Goodman, Howard N. Egan, David Bristow | | |
| For: | AUTOMATIC HIERARCHICAL CATEGORIZATION OF MUSIC BY METADATA | | |

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

## DECLARATION OF INVENTORS UNDER 37 CFR § 1.131

Being duly sworn, the undersigned executors of this declaration depose and say:

1.      The inventors of the inventions claimed in U.S. Patent No. 6,928,433 (the "'433 Patent") are Ron Goodman, Howard N. Egan, David Bristow (hereinafter, the "Inventors").

2.      The Inventors present this declaration to establish the date of invention of the subject matter of original claims 1-16 of the '433 Patent, as well as the subject matter of newly-presented claims 17-33, which are reproduced and discussed herein.

3.      Each of the Inventors has previously assigned his interest in the '433 Patent to Creative Technology Ltd. As explained herein, at the time the inventions were made, all three of the Inventors were employees of E-MU Systems, Inc. ("E-MU"). E-MU is a wholly owned subsidiary of Creative Technology Ltd.

4.      Howard Egan is currently an employee of Creative Advanced Technology Center ("Creative ATC"), located in Scotts Valley, California. Creative ATC is also a wholly owned subsidiary of Creative Technology Ltd. Creative ATC was formed in 1999 via the merging of Silicon Engineering and the Joint Emu/Creative Technology Center, which had its roots as part of E-MU.

5.      David Bristow was hired by E-MU in 1992. Ron Goodman joined E-MU in 1995. Howard

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Egan was hired by E-MU in August of 1999. All three of the Inventors were employees of E-MU during the time period from August 1999 through at least January 4, 2000.

6.     It has been explained to the Inventors that conception is "the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice." The Inventors have also been informed that "conception is established when the invention is made sufficiently clear to enable one skilled in the art to reduce it to practice without the exercise of extensive experimentation or the exercise of inventive skill."

7.     It has also been explained to the Inventors that a reduction to practice occurs when: (1) a party constructed an embodiment or performed a process that met every element of the claim, and (2) the embodiment or process operated for its intended purpose. The Inventors also understand that a reduction to practice of an invention can be done by one or more of the inventors, and/or by others on behalf of one or more of the inventors.

8.     Ron Goodman and David Bristow have reviewed the Declaration of Howard N. Egan under 37 CFR § 1.131, as executed on May 29, 2010 (the "Egan Declaration"). Ron Goodman and David Bristow have no reason to believe that any of the facts stated in the Egan Declaration are untrue. As explained herein, Mr. Goodman and Mr. Bristow have personal knowledge of some, but not all, of the facts set forth in the Egan Declaration because Mr. Goodman and Mr. Bristow were not as directly involved in Howard Egan's reduction to practice of the inventions recited in claims 1-33 of the `433 Patent.

## Conception

9.     The information and evidence presented in the Egan Declaration demonstrates that the inventions recited in claims 1-33 of the `433 Patent were conceived by the Inventors at least as early as Dec. 14, 1999. Mr. Goodman recalls that the ideas underlying at least some of the claims began at least as early as July of 1999. All of the inventors agree that the inventions recited in claims 1-33 of the `433 Patent were conceived by the Inventors *at least as early as* September of 1999.

10.     The Inventors conceived the inventions of the `433 Patent while working on a research and development ("R&D") project that was known to engineers at Creative ATC and at E-MU in 1999 as the "Oasis" (or sometimes alternatively the "Nomad Jukebox") R&D project. Development of the Nomad Jukebox began in early 1999 when members of the team specified the basic concept of a portable media "Jukebox" player using a hard disk drive to store songs (or "tracks"). Different

members of the Oasis R&D team focused on different aspects of product development. There were sub-groups focusing on electrical hardware development, mechanical parts, software, as well as other aspects of the product development. The inventions of the `433 Patent were primarily implemented by a sub-group of the Oasis R&D team, led by Howard Egan, that focused on development of embedded software for the Oasis operating system, including a user interface and file system.

11.    When Howard Egan joined E-MU in August of 1999, he was immediately deployed to work on the Oasis R&D team, and specifically assigned to work on the implementation of the user interface for the Nomad Jukebox. The use of a hard disk drive distinguished the Nomad "Jukebox" concept from Creative's earlier portable media players which used flash memory to store songs. The number of songs that could be stored on the hard disk of the Nomad Jukebox was dramatically greater than the number of songs that could be stored on the earlier flash memory based players. However, the large number of songs presented a significant problem - how to conveniently organize and access the ever growing number of songs stored on these devices using an interface limited by a small display screen and limited controls. The inventions claimed in the `433 Patent were conceived by the Inventors at least as early as September of 1999 while addressing this problem.

## Reduction to Practice

12.    The inventions recited in claims 1-33 of the `433 Patent were reduced to practice by the Inventors and others who worked diligently at the direction of the Inventors in the time period starting from December 14, 1999 and progressing through Jan. 4, 2000.

13.    The Oasis R&D team was notified some time in September of 1999 that Creative was planning to introduce the Nomad Jukebox at the upcoming Consumer Electronics Show 2000 ("CES 2000"), which was scheduled to take place in Las Vegas, NV on Jan. 5 through Jan. 10, 2000. It was understood by all members of the Oasis R&D team that this meant we needed to have a robust working prototype fully tested and ready to present at least a day before the show was scheduled to begin on Jan. 5, 2000. So, the target date was set for Jan. 4, 2000 to have a working prototype Nomad Jukebox ready for public presentation. This was a very aggressive schedule, and as explained below, it was taken very seriously by all those who participated in the implementation of the prototype.

14.    Throughout the fall of 1999, the Oasis R&D team worked very hard to develop a working prototype of the Nomad Jukebox. While work was performed on a daily basis, the Oasis R&D team as whole met once-a-week for the Oasis Engineering Meeting. Dan Freeman kept very good notes at

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the meetings. Mr. Freeman no longer works for Creative ATC. However, the Inventors have reviewed two of his engineering notebooks, which are attached hereto as Exhibits V and W.

15. All three Inventors attended at least some of the Oasis Engineering Meetings. In September of 1999, Howard Egan was assigned the task of leading the development of embedded software for the Nomad Jukebox product. Ron Goodman had previously done some work on development of the embedded software, but in early September of 1999, his responsibilities at E-Mu expanded and he began working on other projects in parallel with Oasis. However, Mr. Goodman continued to attend many of the Oasis Engineering Meetings because one of his responsibilities was leading the development of a "host software" system for the Nomad Jukebox product. Unlike the embedded software, which implemented the inventions of the `433 Patent, the host Software was not designed to run on the Nomad Jukebox portable media player itself, but rather on a separate personal computer that would be able to interface with the Nomad Jukebox in order to perform various functions such as downloading music from the personal computer to the Nomad Jukebox.

16. At the Oasis Engineering Meetings, leaders of the different sub-groups (*e.g.,* mechanical, host software, embedded software, hardware, digital signal processing, etc.) gave status updates on progress or issues arising in connection with development of their respective subsystems. *See, e.g.,* Exh. V, pp. 188-189 (notes from Sep. 15, 1999 mtg.), pp. 190-191 (notes from Sep. 22, 1999 mtg.), pp. 193-194 (notes from Sep. 29, 1999 mtg.), pp. 196-197 (notes from Oct. 6, 1999 mtg.); *see also* Exh. W, pp. 2-3 (notes from Oct. 13, 1999 mtg.), pp. 6-7 (notes from Oct. 20, 1999 mtg.), pp. 9-10 (notes from undated mtg. some time after October 20, 1999 and before Dec. 9, 1999), pp. 12-13 (notes from undated mtg. some time after October 20, 1999 and before Dec. 9, 1999), pp. 14-15 (notes from Dec. 9, 1999 mtg.), pp. 16-18 (notes from Dec. 15, 1999 mtg.).

17. At the Oasis Engineering Meeting on Sep. 22, 1999, Howard Egan reported on his progress in developing a system for emulating certain subsystems of the Nomad Jukebox, which were still in the process of being developed. *See* Exh. V, pp. 190-191; *see* p. 191 (stating "working on simulators for IDS devices and kernel"). Ron Goodman also attended the Sep. 22, 1999 meeting.

18. At the Oasis Engineering Meeting on Sep. 29, 1999, Howard Egan reported on further progress in developing the emulation system. *See* Exh. V, pp. 193-194 (stating "Block device simulator, so can start File System .... DAC works .... LCD work started ... Lib not plugged in yet"). Mr. Freeman's notes indicate that as of Sep. 29, 1999, Mr. Egan was making progress in writing source code for the Oasis File System, and that he was able to begin testing this source code

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using an emulation system. *Id.* Ron Goodman attended the Sep. 22, 1999 meeting. *Id.*, p. 194.

19.  At the Oasis Engineering Meeting on October 13, 1999, Howard Egan reported on certain issues concerning the embedded software. *See* Exh. W, p. 2. Mr. Bristow and Mr. Goodman were also present at the Oasis Engineering Meeting on October 13, 1999, and Mr. Bristow talked about efforts by the Inventors in "storyboarding" the user interface. *Id.*, p. 3.

20.  At another Oasis Engineering Meeting that took place some time after Oct. 20, 1999, but before Dec. 9, 1999, Andrei Veltchev gave a status report on the embedded software development, reporting that: "Howard [Egan] has been working on file system ... The basics work ... Load, save, create files"; "Playback mgr, DSP Mgr. ... MP3 decode works in Playback mgr"; and "Ron's UI stuff integrated into Oasis." *See* Exh. W, p. 10. David Bristow also attended the Oct. 20, 1999 meeting, and he reported that "UI storyboard completed and distributed." *Id.*, p. 9. The comment concerning "Ron's UI stuff integrated into Oasis" relates to a simulation tool called "Oasim," which Ron Goodman had begun some time in late July of 1999.

21.  Exhibit RR, attached hereto, is a document that was prepared by Ron Goodman on May 31, 2010. *Id.* This document shows screenshots from the Oasim simulator which simulates the operation of a hardware MP3 player that incorporates the methods described in `433 Patent. *Id.* The Oasim simulator was designed to be executed on a personal computer (PC). The version of the Oasim simulator used to prepare the screenshots in exhibit RR was compiled in Visual C++ on Nov. 3, 1999 at 1:24PM in Scotts Valley, California. *Id.*, p. 1. The Nov. 3, 1999 Oasim simulator uses a TreeDef.inf file to define the desired organizational hierarchy that should be presented to the user. *Id.*

22.  Running the Oasim simulator shows a splash screen, and then a music libraries categories screen showing categories including "Album," "Artist" and "Genre." *Id.*, p. 2. This opening screen is dynamically built based on the TreeDef.inf file and shows that a user can browse audio by:

- Album, and then specific track(s) on the selected album
- Artist, and then track(s) by the selected artist
- Artist, and then albums by the selected artist, and then track(s) on the album by the selected artist
- Genre of music, and then track(s) within that genre
- Voice (i.e. spoken) tracks, then by genre of spoken track, and then the specific track(s)
- Playlists of tracks

Exhibit RR, p. 2.

23.     The Oasim simulator screenshots furthermore indicate that the system could allow a user to browse tracks by any hierarchical ordering of available metadata fields by editing the TreeDef.inf file. Exhibit RR, p. 1.

24.     The document of Exhibit RR shows additional screenshots generated by the Nov. 3, 1999 Oasim simulator upon browsing through the categories, and selecting the "Artist" category, which brings up another display screen showing a list of artist names. Exhibit RR, p. 4. Upon selection of one of the artist names from the list, the Oasim simulator displays another screen showing a list of tracks by the selected artist. *Id.* Clicking on a Close button causes the simulator to return to the list of Artists. *Id.* Clicking on another button labeled "2" causes the simulator to add a selected song to the currently playing playlist (or starts the song playing if no songs are playing yet). *Id.* Clicking another button labeled "3" stops any currently playing music and immediately starts playing the selected song. *Id.* Clicking "Play" on a track shows the play screen and actually plays the song through the computer speakers (of the personal computer running the simulation). *Id.* Clicking on Q-List shows the current playlist and lets you dynamically add other songs that you browse to. *Id.*, p. 5. Returning to the home display screen (by clicking Library), you can select another view of music by artist, which shows a list of artist names. *Id.* Then, by selecting an artist (*e.g.* Ferron), the Oasim simulator displays a list of albums by the artist. *Id.* And clicking Open again shows the track list for a selected album. *Id.*. p. 6. Selecting a song and clicking Details shows detailed information about the song (*i.e.*, what places it in the hierarchy). *Id.* From the home display screen, the user may select Genre to see a list of Genre names. *Id.* And within a Genre, see the songs from that Genre. *Id.* If you wanted to see a list of Artists with songs in that Genre, you could add a line to the TreeDef.inf file. *Id.*

25.     At a meeting on Dec. 9, 1999, Mr. Egan gave a status update on the development of the Oasis embedded software. *See* Exh. W, pp. 14-15. Ron Goodman also attended the Dec. 9, 1999 meeting, and reported on host software development. *Id.*, p. 15.

26.     During a meeting on Dec. 15, 1999, Howard Egan gave another update on development of the Oasis embedded software. *See* Exh. W, pp. 16-17. Ron Goodman attended the Dec. 9, 1999 meeting, and reported on host software development. *Id.*, p. 17.

27.     In the fall of 1999, David Bristow was asked to write a guideline for demonstration of the Nomad Jukebox portable media player at the upcoming CES 2000 show that was scheduled to begin on Jan. 5, 2000. David Bristow sent an e-mail on Dec. 29, 1999 to a number of people including Dan

Freeman. *See* Exh. Y. Dan freeman forwarded this same email to Howard Egan on Dec. 30, 1999. *Id.* This email attached a Word document bearing a first-page header note "Script Guideline: Public Demonstration," and a footer note "NOMAD JukeBox DemoScript" (hereinafter the "NOMAD JukeBox DemoScript"). *Id.* The Script NOMAD JukeBox DemoScript was written by David Bristow.

28.     The purpose of the NOMAD JukeBox DemoScript was to train Creative sales and marketing personnel on how to operate the Nomad Jukebox portable media players that would be ready to demonstrate at CES 2000. *Id.* This document provides direct evidence about what functions were ready for the "demonstration" at CES 2000. *Id.* In fact, the document provide directions for how to perform the demonstration, including the following excerpts:

- "Lets start with the LibraryKey – show that this **skips between the top library Screen and the 'now playing' Screen**"
- "SoftKeys – repeat that the **softkeys are labeled depending on the screen**, and for example, **when searching the library, they are used to expand the view via different categories**";
- "Show the use of the ScrollKeys by moving up and down **lists of albums, styles, artists or tracks**";
- "Mention 6GB HD holds 100 hours of CD-quality music ...";
- "Touch the LibraryKey again to return to the **top Library screen** and **select an album. (**let the audience **choose a style**). Show how to **play this directly from the Library by pressing the PLAY** transport key"
- "You find and **select** what you want to hear and simply **press Play**'"
- "Show that the Jukebox automatically displays the **"Now Playing" screen** soon after audio has started ...see the list of tracks waiting to be played";
- "Now direct the audience to the sound quality. Have them put on a headset (if available)";
- "Remember: if **the PlayKey is pressed** when the Library Screen is active, it will **immediately play the selection** and will not act as pause"
- "**Building and playing playlists** is an important part of the JukeBox's function. We've shown how easy it is to **immediately Play any Album from the library by selecting and using the PlayKey.** However, whenever you repeat this action with the PlayKey, whatever is playing will stop and the new selection will take its place on the "virtual turntable". Show an example of this by selecting and playing a track from the Library followed by a second "played" track after about 10 seconds.
- "**To build up a list of selections,** instead of pressing the PlayKey when searching through the library, **press the QueueKey** ... This **will add your selection to the currently playing list,** and you can check this by looking at the list view of the PlayScreens. After any listening session, **you can choose to save all the music you have been listening to as a playlist** for future occasions."

*See* Exh. Y, p. 3 (emphasis added).

29.    Presented below in Table C is a chart comparing the elements of claims 1-33 of the `433

Patent with descriptions of operable features of the NOMAD® Jukebox portable media players

presented at CES 2000, as described in the NOMAD JukeBox DemoScript. (*see* Exh. Y).

## Table C

| Claim Elements | NOMAD JukeBox DemoScript |
|---|---|
| 1. A method of selecting at least one track from a plurality of tracks stored in a computer-readable medium of a portable media player configured to present sequentially a first, second, and third display screen on the display of the media player, | "NOMAD JukeBox is a portable, high quality compressed audio player capable of storing over 100 hours of CD quality music and audio." NOMAD JukeBox DemoScript, p. 1.<br><br>"LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show **Albums and other Categories** of music, depending upon what you want to view or search. TO DO THIS use ScrollKeys to select a line then press the OPEN or CLOSE SoftKey to change the view." *Id.* p. 5.<br><br>"Lets start with the LibraryKey – show that this skips between the top library Screen and the 'now playing' Screen." *Id.* p. 3.<br><br>"SoftKeys – repeat that the softkeys are labeled depending on the screen, and for example, when searching the library, they are used to expand the view via different categories." *Id.* p. 3.<br><br>"Show the use of the ScrollKeys by moving up and down lists of **albums, styles, artists or tracks.**" *Id.* p. 3 (emphasis added).<br><br>"6GB HD holds 100 hours of CD-quality music " *Id.* p. 3.<br><br>"Touch the LibraryKey again to return to the top Library screen and select an album. (let the audience choose a style). Show how to play this directly from the Library by pressing the PLAY transport key." *Id.* p. 3.<br><br>"There are three main sets of screens that you will use for searching and selecting from your library." *Id.*, p. 5.<br><br>"The user interface of Nomad JukeBox is simple and intuitive – this tutorial is designed to get you started with playing music. It starts by looking at the control buttons and the main display screens. Then you'll see how easy it is to listen to music by either Playing tracks directly from the Library or Queueing them into a list which can be repeated, played in random order or saved as a favorite list for another day." *Id.*, p. 4. |
| the plurality of tracks accessed according to a | "LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or |

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| hierarchy, | "compacted" to show **Albums and other Categories** of music, depending upon what you want to view or search. TO DO THIS use ScrollKeys to select a line then press the OPEN or CLOSE SoftKey to change the view." *Id.* p. 5.

"LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show Albums and other Catagories of music, depending upon what you want to view or search." *Id.*, p. 5.

"The total audio content of Nomad JukeBox is collectively known as the **Library**. The Library is indexed by using **Categories** and **sub-Categories**, PlayLists and **Tracks**. Icons in the display help to keep the levels clear. Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these **fields are equivalent to the Librarys' Categories**. ... When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. From this sub-category list, a particular Album can be selected and opened or expanded." *Id.*, p. 6 (emphasis added).

The NOMAD JukeBox DemoScript explains:

Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories.

| Audio Content | CONTENT DESCRIPTION FIELDS | | | | | | |
|---|---|---|---|---|---|---|---|
| Data File | Album | Artist | Style | Title | Release Date | User 1... | Etc... |

When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox.

*Id.*, p. 6 (emphasis added). |
| the hierarchy having a plurality of categories, subcategories, and items respectively in a first, second, and third level of the hierarchy, the method comprising: | "LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show Albums and other Catagories of music, depending upon what you want to view or search." *Id.*, p. 5.

"The total audio content of Nomad JukeBox is collectively known as the **Library**. The Library is indexed by using **Categories** and **sub-** |

| Claim Elements | NOMAD JukeBox DemoScript |
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| | Categories, PlayLists and **Tracks**. Icons in the display help to keep the **levels** clear. Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these **fields are equivalent to the Librarys' Categories**. ... When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. From this sub-category list, a particular Album can be selected and opened or expanded." *Id.*, p. 6 (emphasis added). |
| selecting a category in the first display screen of the portable media player; | "LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show **Albums and other Categories** of music, depending upon what you want to view or search. TO DO THIS use ScrollKeys to select a line then press the OPEN or CLOSE SoftKey to change the view." *Id.* p. 5. |
| | "Show the use of the ScrollKeys by moving up and down lists of **albums, styles, artists or tracks**." *Id.* p. 3 (emphasis added). |
| | "The Library is indexed by using Categories and sub-Categories, PlayLists and Tracks. Icons in the display help to keep the levels clear.... **When a Category is opened** or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox." *Id.*, p. 6 (emphasis added). |
| | The NOMAD JukeBox DemoScript explains: |
| | ⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ... |
| | ⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ... |
| | ⇒ Emphasize: 'You find and select what you want to hear and simply press Play' |
| | *Id.*, p. 3. |
| displaying the subcategories belonging to the selected category in a listing presented in the second display screen; | "The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using **Categories and sub-Categories**, PlayLists and Tracks. Icons in the display help to keep the levels clear.... **When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field.** For example, if the **Album category** is expanded, a |

| Claim Elements | NOMAD JukeBox DemoScript |
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| | new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a **list of all the Albums stored in the JukeBox**. From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the selected Album as the entry in its Album Field – in other words a list of all the tracks on the Album." *Id.*, p. 6 (emphasis added). |
| selecting a subcategory in the second display screen; | "The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using **Categories and sub-Categories**, PlayLists and Tracks. Icons in the display help to keep the levels clear.... **When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field**. For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a **list of all the Albums stored in the JukeBox**. From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the **selected Album** as the entry in its Album Field – in other words **a list of all the tracks on the Album**." *Id.*, p. 6 (emphasis added). The NOMAD JukeBox DemoScript explains: ⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ... ⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ... ⇒ Emphasize: 'You find and select what you want to hear and simply press Play' *Id.*, p. 3. |
| displaying the items belonging to the selected subcategory in a listing presented in the third display screen; and | "The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using **Categories and sub-Categories**, PlayLists and Tracks. Icons in the display help to keep the levels clear.... **When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field**. For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a **list of all the Albums stored in the JukeBox**. From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the **selected Album** as the entry in its Album Field – in other words **a list of all the tracks on the Album**." *Id.*, p. 6 (emphasis added). |
| accessing at least one track based on a selection | "From this sub-category list, a particular Album can be selected and |

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| made in one of the display screens. | opened or expanded." *Id.*, p. 6.<br><br>"We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens.." *Id.* p. 3.<br><br>"You find and select what you want to hear and simply press Play." *Id.* p. 3.<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3. |
| 2. The method of selecting a track as recited in claim 1 wherein the accessing at least one track comprises<br><br>selecting a subcategory in the second display screen and<br><br>playing a plurality of tracks associated with the selected subcategory. | "LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show **Albums and other Categories** of music, depending upon what you want to view or search." *Id.* p. 5.<br><br>"Show the use of the ScrollKeys by moving up and down lists of **albums, styles, artists or tracks.**" *Id.* p. 3 (emphasis added).<br><br>"The total audio content of Nomad JukeBox is collectively known as the **Library**. The Library is indexed by using **Categories** and **sub-Categories**, PlayLists and **Tracks**. Icons in the display help to keep the levels clear. Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories. ... When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. From this sub-category list, a particular Album can be selected and opened or expanded." *Id.*, p. |

| Claim Elements | NOMAD JukeBox DemoScript |
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| | 6 (emphasis added).<br><br>"SoftKeys – ... Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style). Show how to play this directly from the Library by pressing the PLAY transport key." *Id.* p. 3.<br><br>"We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To PLAY a Track or Album, simply find the Track or Album you want to listen to in your Library by using the OPEN/CLOSE SoftKeys to get to the right view, then scroll up and down with the ScrollKeys until the right item is highlighted. Now, press the PlayKey and the music will start; at the same time the NowPlayingScreen will automatically be displayed. If you tire of the track or Album you selected, go back to the LibraryScreen (use the Library Button) and select another item. When you press PLAY, the currently playing track will stop and the new selection will start, just as if you'd removed one disk from the player and inserted another. This is a great way to quickly bounce around your music collection." *Id.* p. 5. |
| 3. The method of selecting a track as recited in claim 1<br><br>wherein the accessing at least one track comprises selecting a subcategory and | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3. |
| adding the tracks associated with the selected subcategory to a playlist. | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3.<br><br>"QUEUE-ING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, |

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| | press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 4. The method of selecting a track as recited in claim 1 wherein the accessing at least one track comprises<br><br>selecting an item in the third display screen and<br><br>playing at least one track associated with the selected item. | "LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show **Albums and other Categories** of music, depending upon what you want to view or search. TO DO THIS use ScrollKeys to select a line then press the OPEN or CLOSE SoftKey to change the view." *Id.* p. 5.<br><br>"For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a **list of all the Albums stored in the JukeBox**. From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the **selected Album** as the entry in its Album Field – in other words a **list of all the tracks on the Album**." *Id.*, p. 6 (emphasis added).<br><br>"We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"You find and select what you want to hear and simply press Play." *Id.* p. 3. |
| 5. The method of selecting a track as recited in claim 1 wherein the accessing at least one track comprises<br><br>selecting an item in the third display screen and | "LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show **Albums and other Categories** of music, depending upon what you want to view or search." *Id.* p. 5.<br><br>"The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using **Categories and sub-Categories**, PlayLists and Tracks. Icons in the display help to keep the levels clear.... **When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field.** For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a **list of all the Albums stored in the JukeBox**. From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the **selected Album** as the entry in its Album Field – in other words a **list of all the tracks on the Album**." *Id.*, p. 6 (emphasis added). |
| adding at least one track associated with the selected item to a playlist. | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your |

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| | selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3.<br><br>"QUEUEING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 6. The method of selecting a track as recited in claim 1 wherein the accessing at least one track comprises one of playing or adding to a playlist at least one track associated with a selected one of the category, subcategory, and item. | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3.<br><br>"QUEUEING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 7. The method of selecting a track as recited in claim 1 wherein<br><br>the accessing at least one track is made after the presentation of the third display screen<br><br>by reverting back to one of the second and first display screens, the second display screen presented sequentially after the third display screen. | "Touch the LibraryKey again to return to the top Library screen and select an album. (let the audience choose a style)." *Id.* p. 3.<br><br>"LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show **Albums and other Categories** of music, depending upon what you want to view or search." *Id.* p. 5.<br><br>"Show the use of the ScrollKeys by **moving up and down lists** of albums, styles, artists or tracks." *Id.* p. 3 (emphasis added).<br><br>"Lets start with the LibraryKey – show that this skips between the top library Screen and the 'now playing' Screen." *Id.* p. 3.<br><br>"SoftKeys – repeat that the softkeys are labeled depending on the screen, and for example, when searching the library, they are used to expand the view via different categories." *Id.* p. 3. |

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| 8. The method of selecting a track as recited in claim 1 further comprising selecting one of the items displayed in the third display screen and | "LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show Albums and other Categories of music, depending upon what you want to view or search." *Id.* p. 5.<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| presenting a listing of items associated with the selected item in a fourth sequentially presented display screen. | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| 9. The method of selecting a track as recited in claim 1 wherein<br><br>the category genre is selected in the first display screen from available categories that include at least artist, album, and genre; and | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| the subcategories listed in the second display screen comprise a listing of at least one genre type and one of the at least one genre type is selected. | "Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks." *Id.* p. 3 (emphasis added).<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) . Show how to play this directly from the Library by pressing the PLAY transport key.<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3. |

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| 10. The method of selecting a track as recited in claim 9 further comprising<br><br>displaying in the third display screen at least one album associated with the selected genre type and | "Show the use of the ScrollKeys by moving up and down lists of **albums, styles, artists or tracks.**" *Id*. p. 3 (emphasis added).<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3. |
| selecting one of the at least one albums displayed in the third display screen and<br><br>presenting a listing of tracks associated with the selected album in a fourth sequentially presented display screen. | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3. |
| 11. The method of selecting a track as recited in claim 1 wherein<br><br>the category artist is selected in the first display screen from available categories that include at least artist, album, and genre; | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| the subcategories listed in the second display screen comprise a listing of names of artists and a first artist name is selected; and. | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| the items displayed in the third display screen comprises at least one album associated with the | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ... |

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| first artist name | ⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3. |
| 12. The method of selecting a track as recited in claim 1 wherein the track is a music track, | "NOMAD JukeBox is a portable, high quality compressed audio player capable of storing over 100 hours of CD quality music and audio." NOMAD JukeBox DemoScript, p. 1.<br><br>"LibraryScreen – this displays the entire collection contained in OASIS whenever the LibraryKey is pressed. The content view can be "expanded" using SoftKeys to show individual tracks, or "compacted" to show Albums and other Categories of music, depending upon what you want to view or search. TO DO THIS use ScrollKeys to select a line then press the OPEN or CLOSE SoftKey to change the view." *Id.* p. 5. |
| accessing at least one track comprises accessing a track title in the third display screen, and the track is played in response to the access. | "You find and select what you want to hear and simply press Play." *Id.* p. 3.<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| 13. The method of selecting a track as recited in claim 1 wherein<br><br>receipt of the selection in the first display screen results in an automatic transition of the first display screen into the second display screen and receipt of the selection in the second display screen results in an automatic transition of the second display screen into the third display screen. | "Show the use of the ScrollKeys by **moving up and down lists** of albums, styles, artists or tracks." *Id.* p. 3 (emphasis added).<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| 14. The method of selecting a track as recited in claim 1 wherein | "Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks." *Id.* p. 3 (emphasis added). |

| Claim Elements | NOMAD JukeBox DemoScript |
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| the category selected in the first display screen is from a top level of the hierarchy. | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3. |
| 15. The method of selecting a track as recited in claim 1 wherein<br><br>the category selected in the first display screen is a category from a level at least one level below the top level of the hierarchy. | "Show the use of the ScrollKeys by **moving up and down lists** of albums, styles, artists or tracks." *Id.* p. 3.<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3. |
| 16. The method of selecting a track as recited in claim 1 wherein the plurality of categories comprise a list of artist names, | "Show the use of the ScrollKeys by **moving up and down lists** of albums, styles, **artists** or tracks." *Id.* p. 3 (emphasis added).<br><br>The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| the plurality of subcategories comprise a list of album names and | "Show the use of the ScrollKeys by moving up and down lists of **albums**, styles, artists or tracks." *Id.* p. 3 (emphasis added).<br><br>"For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a **list of all the Albums stored in the JukeBox**. From this sub-category list, a particular Album can be selected and opened or expanded." *Id.*, p. 6 (emphasis added). |
| the plurality of items comprise a list of track | "From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the **selected Album** as the entry in its |

| Claim Elements | NOMAD JukeBox DemoScript |
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| names. | Album Field – in other words **a list of all the tracks on the Album.**" *Id.*, p. 6 (emphasis added). |
| 17. The method of selecting a track as recited in claim 1 wherein the hierarchy is an overlapping hierarchy having a plurality of categories that include items, and wherein at least one of the items is included in more than one of the categories. | The NOMAD JukeBox DemoScript explains: Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories.  When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which·is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. *Id.*, p. 6 (emphasis added). "SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks." *Id.*, p. 3. |
| 18. The method of selecting a track as recited in claim 17 wherein the items comprise a plurality of track names, wherein at least one of the track names is included in more than one of the categories, whereby the least one track name may be accessed in at least two different ways by starting with different ones of the categories. | The NOMAD JukeBox DemoScript explains: Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories.  When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. *Id.*, p. 6 (emphasis added). "SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks." *Id.*, p. 3. |
| 19. The method of selecting a track as recited in claim 1 wherein the hierarchy comprises an implementation of a tree-structure. | The NOMAD JukeBox DemoScript explains: Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories. |

| Claim Elements | NOMAD JukeBox DemoScript |
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| Audio Content | CONTENT DESCRIPTION FIELDS | | | | | | |
|---|---|---|---|---|---|---|---|
| Data File | Album | Artist | Style | Title | Release Date | User 1... | Etc... |

When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox.

*Id.*, p. 6 (emphasis added).

"SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks." *Id.*, p. 3.

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**20. The method of selecting a track as recited in claim 19 wherein the tree-structure is organized based on metadata associated with the tracks.**

The NOMAD JukeBox DemoScript explains:

Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories.

| Audio Content | CONTENT DESCRIPTION FIELDS | | | | | | |
|---|---|---|---|---|---|---|---|
| Data File | Album | Artist | Style | Title | Release Date | User 1... | Etc... |

When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox.

*Id.*, p. 6 (emphasis added).

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**21. The method of selecting a track as recited in claim 3 wherein the playlist is an active queue list of songs that is currently being played.**

"The user interface of Nomad JukeBox is simple and intuitive – this tutorial is designed to get you started with playing music. It starts by looking at the control buttons and the main display screens. Then you'll see how easy it is to listen to music by either Playing tracks directly from the Library or Queueing them into a list which can be repeated, played in random order or saved as a favorite list for another day." *Id.*, p. 4.

"Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.

"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3.

"Lets start with the LibraryKey – show that this skips between the top

| Claim Elements | NOMAD JukeBox DemoScript |
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| / | library Screen and the 'now playing' Screen." *Id.* p. 3.<br><br>"Show that the Jukebox automatically displays the "Now Playing" screen soon after audio has started ...see the list of tracks waiting to be played" *Id.* p. 3.<br><br>"NowPlayingScreen – this is the default screen when music is playing, it shows you information about the currently playing track, or what is coming up next on your list depending again on the view you choose. It can be expanded or compacted just like the LibraryScreen As long as tracks are queued up or playing, and there is no other buttons are pressed, the PlayScreen will be the default display." *Id.*, p. 5.<br><br>"QUEUE-ING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labelled SoftKey." *Id.*, p. 5. |
| 22. The method of selecting a track as recited in claim 5 wherein the playlist is an active queue list of songs that is currently being played. | The same citations applied to claim 21 (above) also apply to this claim. |
| 23. The method of selecting a track as recited in claim 5<br><br>wherein the selected item in the third display screen is associated with a plurality of tracks, and | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3. |
| wherein the plurality of tracks associated with the selected item are added to the playlist. | "To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3.<br><br>"QUEUE-ING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as |

| Claim Elements | NOMAD JukeBox DemoScript |
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|  | one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 24. The method of selecting a track as recited in claim 23 wherein the playlist is an active queue list of songs that is currently being played. | The same citations applied to claim 21 (above) also apply to this claim. |
| 25. The method of selecting a track as recited in claim 5 wherein the selected item in the third display screen is a selected album name, | The NOMAD JukeBox DemoScript explains: ⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ... ⇒ Emphasize: 'You find and select what you want to hear and simply press Play' *Id.*, p. 3 (emphasis added). "The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using **Categories and sub-Categories**, PlayLists and Tracks. Icons in the display help to keep the levels clear.... **When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field.** For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a **list of all the Albums stored in the JukeBox.** From this sub-category list, a particular **Album can be selected and opened or expanded..**" *Id.*, p. 6 (emphasis added). |
| and wherein the accessing at least one track comprises adding a plurality of tracks associated with the selected album name to a playlist. | "To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id.* p. 3. "QUEUE-ING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 26. The method of selecting a track as | The same citations applied to claim 21 (above) also apply to this claim. |

| Claim Elements | NOMAD JukeBox DemoScript |
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| recited in claim 25 wherein the playlist is an active queue list of songs that is currently being played. | |
| 27. The method of selecting a track as recited in claim 1 wherein:<br><br>the category album is selected in the first display screen from available categories that include at least artist and album; | "Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ..." *Id.*, p. 3 (emphasis added). |
| the subcategories listed in the second display screen comprise a listing of album names and one of the album names is selected; and | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Touch the LibraryKey again to return to the top Libraryscreen and select an album. (let the audience choose a style) ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added).<br><br>"The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using Categories and sub-Categories, PlayLists and Tracks. Icons in the display help to keep the levels clear.... When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the selected Album as the entry in its Album Field – in other words a list of all the tracks on the Album." *Id.*, p. 6. |
| the accessing at least one track comprises playing a plurality of tracks associated with the selected album name. | "find and select what you want to hear and simply press Play." *Id.* p. 3.<br><br>"We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3.<br><br>"To PLAY a Track or Album, simply find the Track or Album you want to listen to in your Library by using the OPEN/CLOSE SoftKeys to get to the right view, then scroll up and down with the ScrollKeys until the |

| Claim Elements | NOMAD JukeBox DemoScript |
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| | right item is highlighted. Now, press the PlayKey and the music will start; at the same time the NowPlayingScreen will automatically be displayed. If you tire of the track or Album you selected, go back to the LibraryScreen (use the Library Button) and select another item. When you press PLAY, the currently playing track will stop and the new selection will start, just as if you'd removed one disk from the player and inserted another. This is a great way to quickly bounce around your music collection." *Id*. p. 5. |
| 28.  The method of selecting a track as recited in claim 1 wherein: the category album is selected in the first display screen from available categories that include at least artist and album; | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id*., p. 3 (emphasis added). |
| the subcategories listed in the second display screen comprise a listing of album names and one of the album names is selected; and | "The total audio content of Nomad JukeBox is collectively known as the Library. The Library is indexed by using Categories and sub-Categories, PlayLists and Tracks. Icons in the display help to keep the levels clear.... When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the Album category is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. From this sub-category list, a particular Album can be selected and opened or expanded. A new list, a PlayList, will now be displayed which contains every audio file that has the selected Album as the entry in its Album Field – in other words a list of all the tracks on the Album." *Id*., p. 6. |
| the accessing at least one track comprises adding a plurality of tracks associated with the selected album name to a playlist. | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id*. p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for future occasions." *Id*. p. 3.<br><br>"To build up a list of selections, instead of pressing the PlayKey when searching through the library, press the QueueKey ... This will add your selection to the currently playing list, and you can check this by looking at the list view of the PlayScreens. After any listening session, you can choose to save all the music you have been listening to as a playlist for |

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| Claim Elements | NOMAD JukeBox DemoScript |
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| | future occasions." *Id.* p. 3.<br><br>"QUEUE-ING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 29. The method of selecting a track as recited in claim 28 wherein the playlist is an active queue list of songs that is currently being played. | The same citations applied to claim 21 (above) also apply to this claim. |
| 30. (New) The method of selecting a track as recited in claim 1 wherein:<br><br>the category genre is selected in the first display screen from available categories that include at least artist, album, and genre; | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| the subcategories listed in the second display screen comprise a listing of a plurality of genre types, and one of one genre types is selected; | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| the items displayed in the third display screen comprise a listing of a plurality of album names associated with the selected genre type, and one of the album names is selected; | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |

| Claim Elements | NOMAD JukeBox DemoScript |
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| | "The total audio content of Nomad JukeBox is collectively known as the **Library**. The Library is indexed by using **Categories** and **sub-Categories**, PlayLists and **Tracks**. Icons in the display help to keep the levels clear. Each audio file (for example a track of music) has a number of descriptive fields associated with it. Most of these fields (but not all) will have an entry in it. Some of these fields are equivalent to the Librarys' Categories. ... When a Category is opened or expanded, it shows a list of all the different entries that can be found in a particular description field. For example, if the **Album category** is expanded, a new sub-category, which is a list of every entry that can be found in the Album field of each audio file, will be displayed – in other words, a list of all the Albums stored in the JukeBox. From this sub-category list, a particular Album can be selected and opened or expanded." *Id.*, p. 6 (emphasis added). |
| the accessing at least one track comprises adding a plurality of tracks associated with the selected album name to a playlist. | "QUEUE-ING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 31. The method of selecting a track as recited in claim 30 wherein the playlist is an active queue list of songs that is currently being played. | The same citations applied to claim 21 (above) also apply to this claim. |
| 32. The method of selecting a track as recited in claim 1 wherein: the category artist is selected in the first display screen from available categories that include at least artist, album, and genre; | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and simply press Play'<br><br>*Id.*, p. 3 (emphasis added). |
| the subcategories listed in the second display screen comprise a listing of artist names, and one of the listed artist names is | The NOMAD JukeBox DemoScript explains:<br><br>⇒ SoftKeys – ... Show the use of the ScrollKeys by moving up and down lists of albums, styles, artists or tracks ...<br><br>⇒ Emphasize: 'You find and select what you want to hear and |

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| Claim Elements | NOMAD JukeBox DemoScript |
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| selected; | simply press Play' <br><br> *Id.*, p. 3 (emphasis added). |
| the items displayed in the third display screen comprise a listing of album names associated with the selected artist name, and one of the listed album names is selected; and | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3. |
| the accessing at least one track comprises adding a plurality of tracks associated with the selected album name to a playlist. | "Building and playing playlists is an important part of the JukeBox's function. We've shown how easy it is to immediately Play any Album from the library by selecting and using the PlayKey." *Id.* p. 3. <br><br> "QUEUE-ING means that instead of playing items immediately from the Library, they are entered into a list and played one after the other (or in random fashion, if you prefer). The list does not have to be decided in one go - items can be appended to your list at any time. For example, as one Album draws to a close, you can select another, ready to start playing as soon as the first selection is finished. A track is queued by selecting from the Library as before, but instead of pressing PLAY, press the QUEUE labeled SoftKey." *Id.*, p. 5. |
| 33. The method of selecting a track as recited in claim 32 wherein the playlist is an active queue list of songs that is currently being played. | The same citations applied to claim 21 (above) also apply to this claim. |

30.     According to schedule, the NOMAD® Jukebox was indeed presented to attendees at the CES 2000 show in Las Vegas, NV, which began on January 5, 2000. *See* Exh. PP, Exh. QQ. The prototypes presented at CES 2000 functioned as planned in accordance with the NOMAD JukeBox DemoScript. *See* Exh. Y. Howard Egan was present at the CES 2000 show, and participated in demonstrating the NOMAD® Jukebox.

31.     Because the prototypes presented at CES 2000 functioned as planned in accordance with the NOMAD JukeBox DemoScript, the Inventors are satisfied that the prototypes worked for the intended purpose of the inventions of the `433 patent, at least as early as Jan. 4, 2000.

## Diligence Toward Reduction to Practice

32.     Because Mr. Goodman and Mr. Bristow were not as directly involved as Mr. Egan was in the reduction to practice of the inventions recited in claims 1-33 of the `433 Patent, Mr. Goodman and Mr. Bristow mainly attest upon information and belief to the facts set out in the Egan Declaration as it relates to implementation of the inventions of claims 1-33 of the `433 Patent. As stated above, Mr. Goodman and Mr. Bristow have no reason to believe that any of the facts stated in the Egan Declaration are untrue.

33.     Based on the facts set forth above, Mr. Goodman and Mr. Bristow were involved in the implementation of the inventions of claims 1-33 of the `433 Patent. For example, as explained above, Mr. Goodman implemented and tested the Oasim simulator, as described above. *See* Exh. RR. In addition, Mr. Goodman and Mr. Bristow have direct personal knowledge that the Oasis R&D team was working extremely hard during the fall of 1999, leading up to the CES 2000 show, on developing and refining the Nomad Jukebox prototypes having the Oasis operating system, which implemented each and every element of claims 1-33 of the `433 Patent. In particular, the Oasis R&D team was under extreme pressure throughout the month of December 1999 and the first week of January (including at least the period between Dec. 14, 1999 through Jan. 4, 2000), because Creative's target date for public demonstration of the Nomad JukeBox was Jan. 5, 2000, which was the scheduled first day of the CES 2000 show. Therefore, Mr. Goodman and Mr. Bristow attest to the fact that Mr. Egan and the other members of the Oasis embedded software development team worked extremely hard and under significant pressure during the time period between Dec. 14, 1999 through Jan. 4, 2000 in reducing to practice the inventions recited in claims 1-33 of the `433 Patent.

## Conclusions

34.     For all of the reasons explained above, and based on all of the evidence attached to this declaration, we the Inventors conceived of the inventions of claims 1-33 of the `433 Patent at least as early as September, 1999. For all of the reasons explained above, and based on all of the evidence attached to this declaration, and also based on the Egan Declaration, we the Inventors conceived of the inventions recited in claims 1-33 of the `433 Patent at least as early as than Dec. 14, 1999.
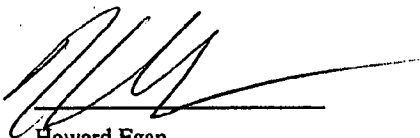
35.     For all of the reasons explained above, and based on all of the evidence attached to this declaration, and also based on the Egan Declaration, we the Inventors believe that the inventions recited in claims 1-33 of the `433 Patent were reduced to practice at least as early as Dec. 14, 1999.

36.     Alternatively, for all of the reasons explained above, and based on all of the evidence

attached to this declaration, and also based on the Egan Declaration, we the Inventors believe that: (1) the inventions recited in claims 1-33 of the '433 Patent were fully reduced to practice at least as early as Jan. 4, 2000; and (2) that the Oasis R&D team was diligent in its effort to reduce to practice the inventions recited in claims 1-33 of the '433 Patent during the time period between Dec. 14, 1999 through Jan. 4, 2000.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code.

Executed May 31, 2010 at Capitola California.

Howard Egan

Executed May 31, 2010 at Santa Cruz, California.

Ron Goodman

Executed May 31, 2010 at BAINBRIDGE ISLAND, Washington.

David Bristow

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# EXHIBIT
# V

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10/11/99

Syvex Meeting Agenda

① Power supply prototyping - Syvex to fab prototype PCBA to prove out design?

② Thermistor issue - Syvex to take ownership of making power supply pass UL/FCC/CSA etc.

③A) Systems Review

③ Preliminary Schematic Review

④ Preliminary BOM Review — Dan F to order prototype PCAs for power supply subsystem

⑤ Schedule Review

PCB Layout of Pwr Supply proto board:

- 3 weeks is soonest we could get board. Assumes PCAs are avail.

- Syvex has resources avail.

- Doesn't seem worth it to fab a whole new board just for power supply —

- Bill C could come on Thursday to help fix boot-up problem — RSVP ~~Wed~~, if no RSVP, Bill won't come over.   Thursday

10 AM ~~Thursday~~ 10/14/99
FRIDAY

☆ Lithium Batteries Not ACCOMMODATED

E-Card / Audio Drive Current Measurements

Setup
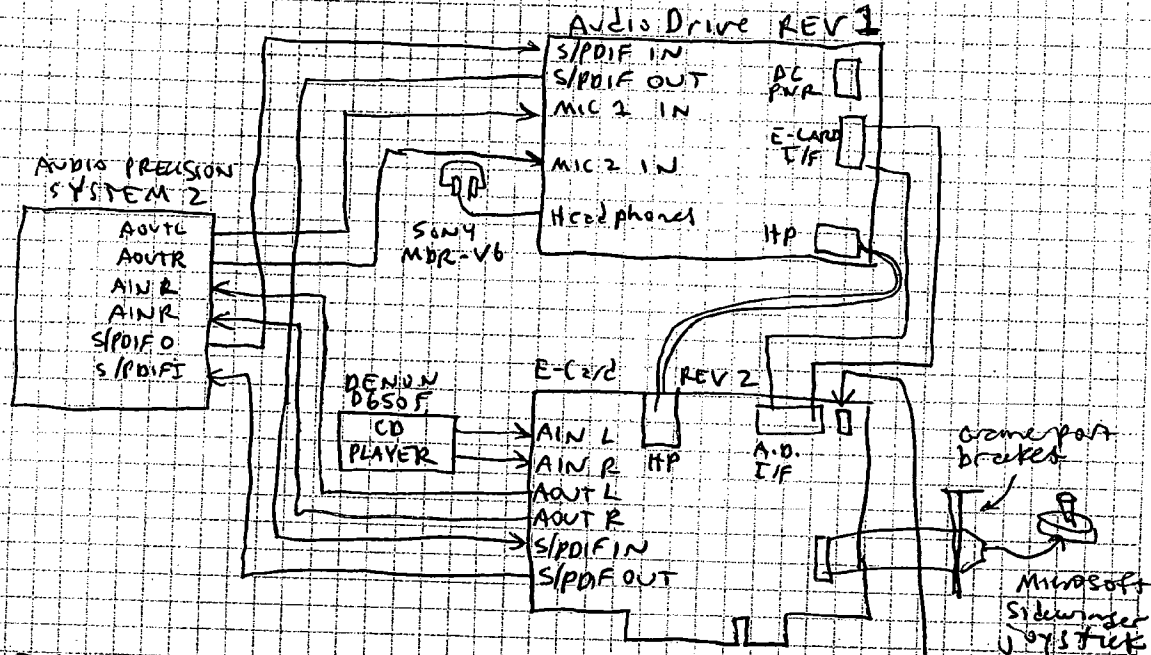


E-Card: 2 video patched to AC97

Audio P: AOUT: Zout = 40 Ω, -18BU, 1KHZ
        AIN: ZIN = 300 Ω
        S/PDIF OUT: 48 KHZ

AUDIO DRIVE: Gets pwr from E-Card
        U3, U4, L1 NOT INSTALLED
        FB9, FB10, FB11 are installed. Head phones full volume.

CD Players: Both playing Audio CD's

Current Measurement Method:          Use Alex electronics

PCIx32 isolation extender card for PCI Bus.
Replace fuses for +5, +12, -12V with solid conductor
wires. Use TEK A6302 current probe, TEK AM503
current probe amp, and TEK TDS350 Scope to take
current measurements

SUBJECT: DOF 12/20/97          DATE: 12/20/97

RESULTS:

-12V:        275 mA     (Extender card (fuse W4)

+12V:     ( 450 mA )    (Extender card fuse W3)
          ( 560 mA )    (current probe drifts like a mofo)

+5V:       1125 mA

☆ Current draw at -12V of 275 mA exceeds
   PCI spec of 100 mA.

RESULTS #2:

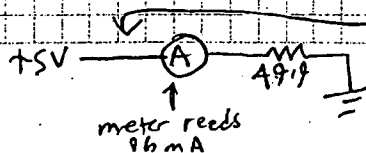Use -12V inverter on Audio drive, disconnect
-12V from E-card Interface cable.

→ APS46: Remove FB9. Install U3, L1, D4

BOGUS! -12V inverter circuit causes tons of
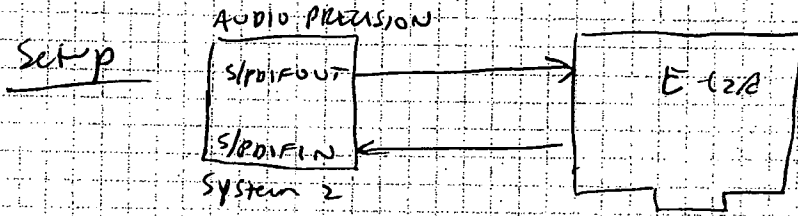noise on the headphones. Noise also induced
on +5V.

I don't believe the current probe measurements.
Try Fluke 83 Multimeter instead. Calibrate meter

→ APS46: tie U3-3 to +5V to disable it. Install
   FB9.

-12V:      115 mA    (This is close to PCI max)
                     (over by 15 mA)

+12V:      280 mA

+5V:       532 mA

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+5V ——(A)——⌇——
              49·9
      ↑
  meter reads
    96 mA

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SONY Exhibit 1004 - Page 1416

8010 LOCK BUG NOTES

Setup



AUDIO PRECISION — S/PDIF OUT / S/PDIF IN → E-C2A

System 2

Audio P system 2:   S/PDIF over BNC (RCA) unbal,
2.55 Vpp, 24 bits, 6' long crappy audio RCA-RCA
cable, -1 dBFS level.

E-C2A:   GpSPDIF routed to SPDIF0 on 8010.
         EMUX 1 set to 0 in control PAL

FAILURE MODES

8010 sample rate tracker loses lock when
S/PDIF input is close to 48 KHz sample rate.

Can watch SRT behavior by polling 8010
register 0x61, as follows:

GD8010> wr hc 10003
    > outw 7002 61                        FO BM? = FCCO
    > poll fg 7004 4 none

    Port: 7004  Data: 0303ffce
                       ↑      └→ frequency
                    LOCK bit    40000 = 48 KHz

(from the GD162pi.exe program)

SUBJECT: 8010 Lock bus                                    DATE: 12/23/97

The 8010 SRT loses lock at the following frequencies:

$$47990 < \frac{S/PDIF}{SAMPLE~RATE} < 48010~Hz.$$
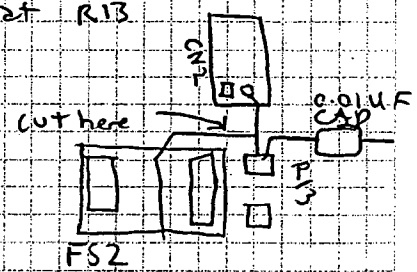
At 48 kHz, SRT loses lock every 5 seconds or so.

1/3/98
E-C2d CD ROM S/PDIF Input Fix-
Rework instructions & Test Results

Rework: (See schematic SK545 Rev 2 SH1 & SH9)

①  ~~Remove R13~~ Install 75 Ω Resistor at R13

②  Cut trace from RN1-7 to CN2-8 at RN1-7

cut here

③  Cut trace from CN2-2 to U11-20 at R13

cut here

0.01 uF CAP

CN2

R13

FS2

③  Remove R73. Install 330 K resistor at R73

④  Connect 22K resistor from U16-13 to U16-12

⑤  Connect U13-12 to U11-20

⑥  Attach 0.01 uF cap to R13/CN2 connection

⑦  Connect other side of 0.01 uF cap to U16-13

Test Result

Connect S/PDIF output from MITSUMI CD ROM Drive

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SUBJECT: E-Card CD SPDIF Input FX    DATE: 1/3/98

(CON'T)

Model # CRMC-FX14052 to E-Card
CDRom S/PDIF input using twisted-pair
2-pin cable. WORKS. Without above
rework, E-Card CD S/PDIF input will
only work if COAX cable is used.
(Above Fix also works with COAX cable)

1/6/98

A1 8010 Silicon - needs new GD16. EXB
program.

See C:\projects\gd8010\81\gd16
                              \emi.

C:\projects\gd801021\

1/12/98

E-Card meeting
✓ ① Draw Diagram for John Kraft GD16 training
     session
✓ ② Call John K about ↑
  ③ Get ready for Design Review - MON 1/19/07  (FRIDAY 1/16?)
  ④ Schedule Design Review for ↑
✓ ⑤ Write rework instructions for APS4S S/PDIF FIX
✓ ⑥ Order bench.

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(con't)

⑦ Update HW spec

✓⑧ Manage APS45, APS46 bringup

✓⑨ Meet w/ Chuck & Steve S. about FCC testing. ⟶ Brent E. will take action item

1/16/98

Audio Precision CCAR # is 986 801-06

Audio Precision P.O.:-

Buy Tone burst generator option instead of IMD analyzer.

Audio P     18500

AWT

CCIR

Brickwall

SIA ⟶ change to S2-BUR tone burst gen.

HANDLE

Delivery Date 2/3/98    Mike Hogue 475 6291 can keep Loaner until then.

APS45 Rev 2  S/PDIF Fix Rework Inst.

Bug: Audio Drive gets its S/PDIF from 8010 chip SPDIF0, should be SPDIF1.

Fix:

① Lift U3 pin 2

② Jump U3 pin 13 to lifted pin U3-2
   Remember 300K R fix to S/PDIF IN!

1/19/98  E-Card HW Meeting

My Action Items:

① Verify that I have an E-card w/ A0 8010, tell Jeannie which S/N.

② Get training from John K on 8010 Drivers.
Make sure support is included to support continued HW verification testing.

✓ ③ Write email to Mike P outlining requirements for PC computers for E-card testing (Gave Mike P Req 1/19/98)

④ HW Spec Monday 1/26/98.

⑤ Schedule with John K to give 8010 SW training session - Thursday 1/22/98?

③ Install 300K at R75, not 330K

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SUBJECT:                                                 DATE: 1/19/98
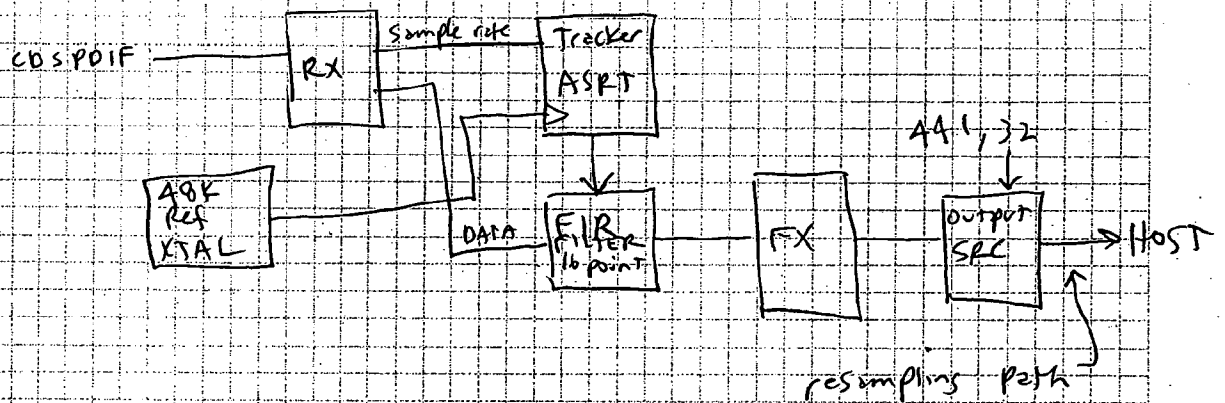
Audio Drive APS46 Rev 1    Rework:

① Install 300K at RS, NOT 330K

---

1/20/98

8010 chip - Clocking issues.

Can clock 8010 with a 44.1K clock, but MIDI won't work, and the resampling path won't work.



E-Card Eng Meeting: 1/20/98

Brent, Aime, me.

My Action Items

⑪ Use MMBZ6V2ALT1 for static-zap protection. Buy parts Change BOM → Don't Change BOM. parts don't work as BIDIR protection because diodes in MMBZ5V6 are reversed from MMBZ15.

NO BOGUS!

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ACTION REQ'D

SUBJECT:                                                        DATE: 1/21/98

DMV      476 7480

Monday   Jan 26  8:20 AM

CAPITOLA DMV

CONF # WS500126092D

Licence ID Card Appt window

---

E-Card S/PDIF Performance panic Meeting
1/21/98

My action items:

✓ ① Estimate cost/schedule of adding SRC
chip to Audio Drive.

↓ Due Monday 1/26/98, give results to Brent E.

$6.00-$10
per board,
1 man month

Idea: route internal CD ROM S/PDIF to
Audio drive so can SRC it.

---

Analog Devices - Linda M    1/21/98

AD1892 - will give quote & lead times
QTY 500/mo, max 2500/mo. via email.

Ken, Hank Z. are contacts.
Nevada

EVAL board on way.

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1/22/98

Scott Fuller - 8010 specs: All signal
paths are 20 bit except SRC's and
the sound engine.

SAMO (650) 655 4126
Music & Computers Magazine
Wants "Visual" for write-up on Audio Production
Studio in Magazine → Bill S, Dennis L will
provide data. 1/22/98

E-Card SW Meeting 1/22/98

① Advertise how Card Detect Mechanisms
Work in Technical Spec and in SW Programmers
Guide.

② Prioritize changes to HW that will require
support from Control PAL. Should we implement
EEPROM programming support?

✓③ Send email outlining new support req'd from
gd16.exe program. ACS Input routing

✓④ No training session on 8010 drivers avail.
until beta SW Drivers available, approx 2/20/98

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SUBJECT: E Card                                              DATE: 1/29/98

E-Card AC3 Input experiment

Goal: Figure out how AC3 inputs on 8010
work so can debug Digital Audio Interface
header works on E-Card

Experiment:

Connect ZVIDEO data to AC3SD1 input,
Program 8010 to replace the CDSPDIF data
with data on AC3SD1.

① Jump CN1-13 to CN4-13. (ZVIDEO serial
data to AC3SD1)

② Program the 8010 HC register to replace
CDSPDIF with AC3 channel 1, enable
phase tracking of the three SRC·s.

in gd16.exe:

    WR HC  10003
    outdw  7014   00010143
    epatch  CD    ac 97


The CD SRT appears to not lock to the
ZVIDEO SRT. Get garbage audio.


③ Jump CN1-13 to CN4-15 (ZVIDEO DATA to
                                        AC3SD0).
④ outdw 7014 00010123        (replace ZVIDEO with AC3)
→ still doesn't work. SRT doesn't lock?

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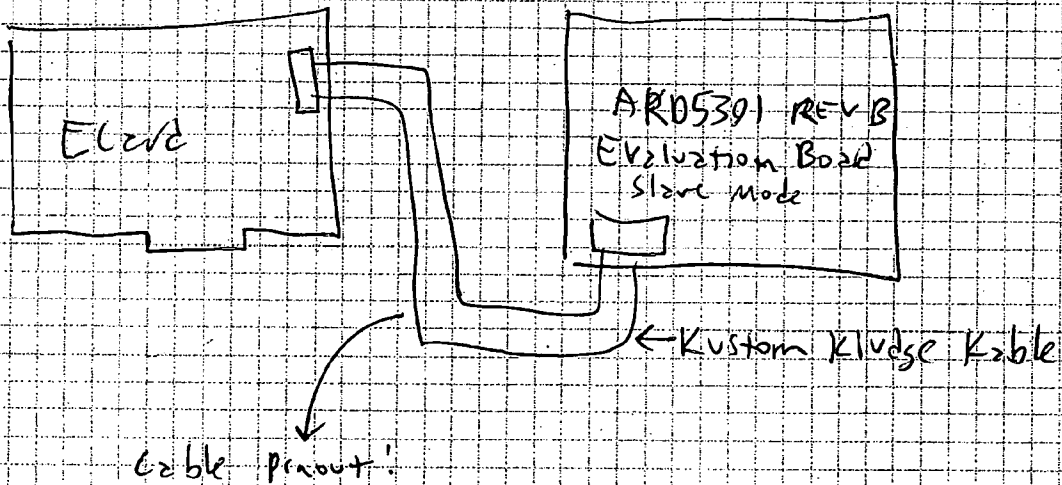CREATIVE TECHNOLOGY LTD

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1/29/98    8010 Sw Meeting

→ Discuss HW Drivers for APS45 Rev 3,
Ed's SQA efforts.

MY ACTION ITEMS

① Design in ability to program EEPROM in-system, if possible.

---

1/30/98

Ecard Dig Audio Exp I/F test Setup



Ecard

ARD5391 REV B
Evaluation Board
Slave Mode

← Kustom Kludge Kable

Cable Pinout:

| | |
|---|---|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |
| 7 | 8 |
| 9 | 10 |
| 11 | 12 GND |
| 13 | 14 |
| SDATA 15 | 16 LRCLK |
| GND 17 | 18 BCK |
| MCK 19 | 20 |

FSYNC
SDATA
LRCLK
BCK
MCLK

GND

WORKS!

14

2/4/98

Gave John Kraft #16 ecard w/EEPROM
programming rework

2/5/98

E-card Design Review

Action Items

✓ ① GND unused 2vIDEO Inputs (DAN)

✓ (DON'T NEED) ② Revisit Nuking S/PDIF XFRMR

✓ ③ Allow bypass of Joystick comparators.

✓ ④ Ecard HW spec: PCI Specific: 8010 is
universal PCI (5v or 3.3 v) UNIVERSAL

✓ ⑤ Next Rev Card - Make universal card?
Must hook PCIVIO from PCI Conn to
PCIVIO on 8010, add another cutout
on PCI edge connector. (DAN - Read
PCI spec)

✓ ⑥ Review which pins are 5V tolerant on 8010
DAN Vout-Bias H

✓ ⑦ Provide data on testpoint - BRENT

✓ ⑧ Short AGND to DGND at FB36

✓ ⑨ Implement 3-wire interface to DIG EXP I/F

SUBJECT:                                                            DATE:

Running Allegro Remote on Exceed          2/11/98

pcs45/rev3/pub/ source ~dang/.cshrc
          /source ~dang/cshrc.12
          /pub pcs45_3

Dir RMB

                                              2/12/98

HP VECTRA ALLOCATION

#1  ELAB

#2  ELAB

#3  ED   SQA

#4  JOHN   MIRRASOV   (SQA #2)

#5  ELAB

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SUBJECT: DATE: 2/17/98

HP Vectra Computer Setup Checklist

① Install CD ROM in TOP Drive Bay

② Install Network Card in BOTTOM PCI Slot

③ Install Sony Monitor Driver so can change display settings

④ Install Netscape so can access E-mu ~~WWW~~ Web Sites for ECard technical Documentation

3PM TTQ Tom Hendricks - ECard Prod. Test Mgr.

ECard Meeting 2/17/98

We will fab QTY 100 PC545 Rev 3.

Duane Ford - Ask about ECard Web.

2/18/98

E-mu ECard Web Page: emuweb.emu.com/WebServer/index.html

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2/10/98

ECar APS45-02 Bom Notes

changes from APS45-01 Rev 2 Bom

RP409   4.99K:   √Add   R1, R2, R8, R9, R10
                           R14, R15, R16, R18, R19
                 √Delete   R42, R52, R54, R62

RP402   1.0 K :   √Add   R1000, R1001

RP392   10.0 K:   √ Delete   all
RP400   33.2K:   √ Delete   all
RP424   2.26 K:   √ Delete   all
RP426   7.50 K:   √ Delete   R1, R18
RP421   39.2 :   √ Delete   R10, R16, R44, R39, R40, R41
RP433   150.0 :   √ Add   R39, R40, R41, R44
CC416   3900 p:   √ Delete   All
CC392   2200 P:   √ Delete   C36, C43, C52, C66
                   √Add   C38, C39
RP434   13.7K:   √ Add   R42, R43, R52, R53, R57, R58, R60, R62
RP432   3.32K:   √ Add   R45, R51, R56, R59
CC415   680 P:   √ Delete   all
CC430   220 P:   √ Add   C37, C40, C62, C65
CC391   1000 P:   √ Add   C36, C43, C52, C66
DD333   BAT54S:   √ Delete   all

SUBJECT: 

DATE: 3/26/98

Ensoniq Meeting

Ensoniq Personnel:

Carl Bader
Dan Genet – MKTS?
Bill Mauchley – Engr.?
Dave Nutting
Scott Peer

Co-engineering Opportunities discussed:

① Implement I/o card for IVY that has SCSI I/F to
EDS 1000 PCI card.                    cable

② EDI card for Mech MEC

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**SONY Exhibit 1004 - Page 1431**

SUBJECT:                                                          DATE: 5/8/93

Mike P Meeting.

Agenda:

- Personnel issues - reports, time cards, salaries, etc.
- Ivy Staffing
- Dept Budgets - How to work up?
- Ivy control surf. disconnects
- Status reports to Mike?

Kristy - said me $8.10 Dept.

Negotiate w/ Brent on Mark C.

Consultant House for Option Cards.

{ Jim/Ron transition to PARIS integration? }
{ Turnkey PC + PARIS + Ivy for $10K }
{ based in Creative PC }
   $1.00    system $3500   system $4500

_____

                                                    5/13/93

Mike's Staff meeting
- need budget info ASAP
- Budgets- Bottoms-up Eng budget is 6 million only 6.1 M available,
  but need to fund new business + Sounds. So → kill or delay
  one or more projects. Delay Steinway, Kill e-synth KB, or
  Phatt product
- ECZO is "imploding". Another 10K 1 bug? A4 version of chip
  is required.
- R&D budget too high. Need to recalendarize expenses,
  move them out of 1st quarter.
- Staffing: Want Intern for eng., HW eng (new hire),
  financial Analyst, Doc Control person.
- Operations Review in June. 4TH week in June? NOT last
  week in June.
- Managers meeting - was it today? Guess not.

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