



US005794016A

**United States Patent** [19]

Kelleher

[11] **Patent Number:** **5,794,016**[45] **Date of Patent:** **Aug. 11, 1998**[54] **PARALLEL-PROCESSOR GRAPHICS ARCHITECTURE**[75] Inventor: **Brian Michael Kelleher**, Palo Alto, Calif.[73] Assignee: **Dynamic Pictures, Inc.**, Palo Alto, Calif.[21] Appl. No.: **570,088**[22] Filed: **Dec. 11, 1995**[51] Int. Cl.<sup>6</sup> ..... **G06F 15/80**[52] U.S. Cl. .... **395/505; 395/509; 395/497.04; 395/412**[58] **Field of Search** ..... 395/502, 505, 395/506, 507, 509, 401, 402, 497.01-497.04, 412-419, 515, 516; 382/303, 304[56] **References Cited****U.S. PATENT DOCUMENTS**

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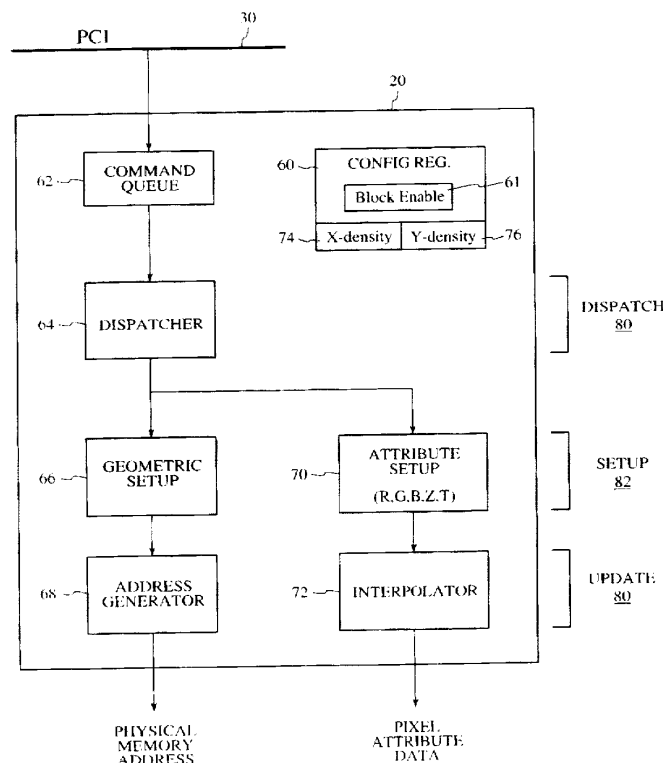
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[57]

**ABSTRACT**

A parallel-processor graphics architecture appropriate for multimedia graphics workstations that is scalable to the needs of a user. The graphics architecture includes one or more rendering processors and a graphics memory that is partitioned into blocks. Noncontiguous groups of the blocks are then assigned to different processors. The parallel-processor graphics architecture is scalable by the number of rendering processors utilized, and is configurable with respect to the allocation of the groups of the blocks to specific rendering processors.

**10 Claims, 8 Drawing Sheets**

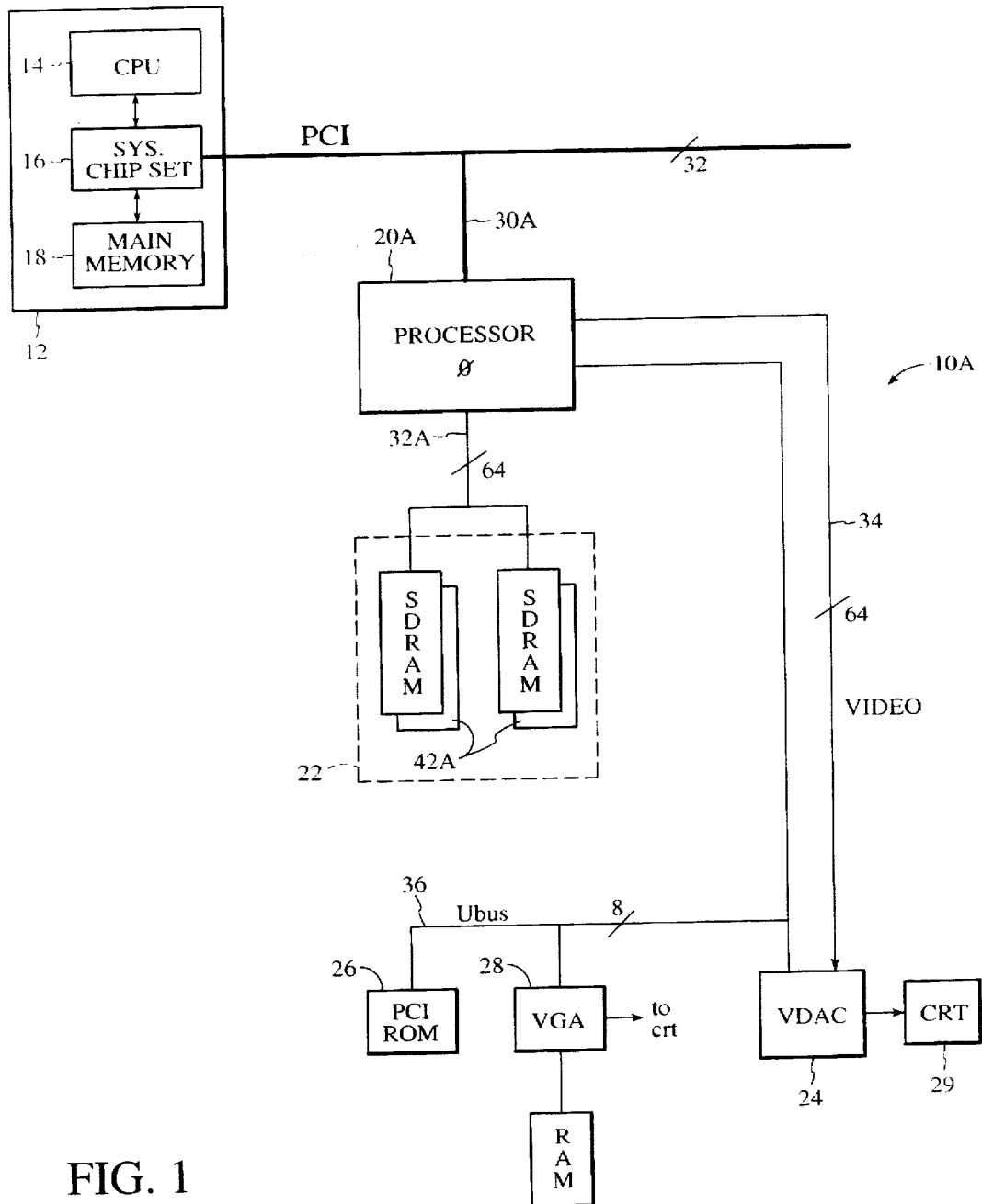


FIG. 1

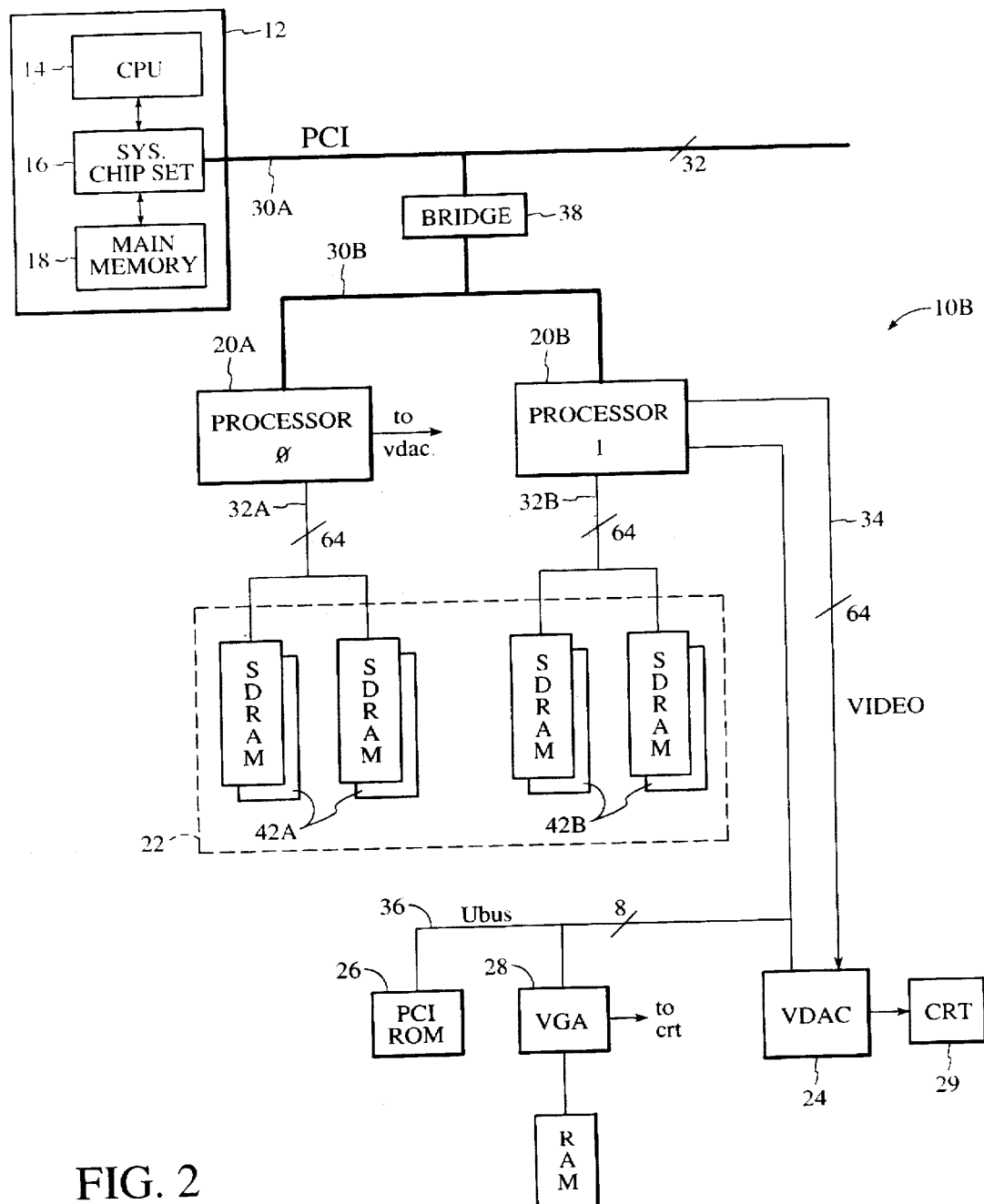


FIG. 2



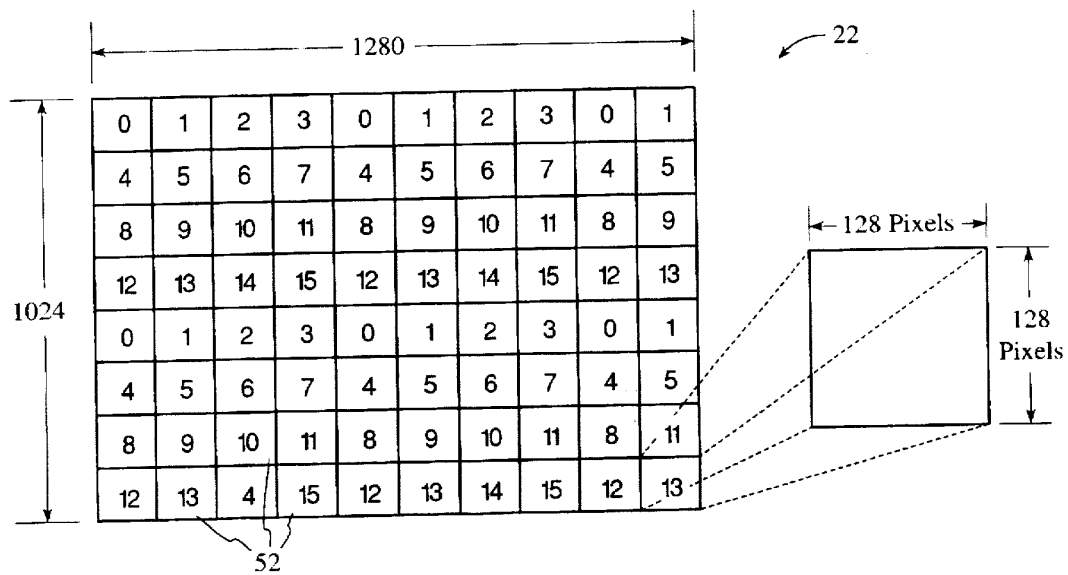


FIG. 4

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