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Cooper

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(54) **SYSTEM AND METHOD FOR DYNAMICALLY ADJUSTING TO CPU PERFORMANCE CHANGES**

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(52) **U.S. Cl.** **718/108**; 718/104
(58) **Field of Search** 713/300–340; 709/100, 108, 102

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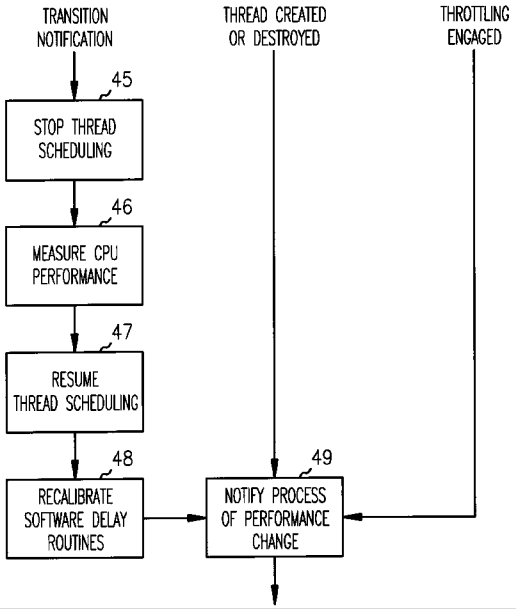
(57) **ABSTRACT**

In a computer system having a processor capable of operating at a plurality of performance states, including a first and a second performance state, wherein while the processor operates in any of the performance states it executes tasks at an expected processing performance, a system and method for dynamically adjusting to transitions between the first and second performance states. A determination is made that a performance state change is needed and a transition is initiated. The system halts task scheduling, measures CPU performance at the new performance state and resumes task scheduling within the constraints of the new performance state. The system also adjusts tasks as a function of CPU performance within the new performance state, wherein adjusting includes notifying each task of the transition between performance states.

25 Claims, 11 Drawing Sheets



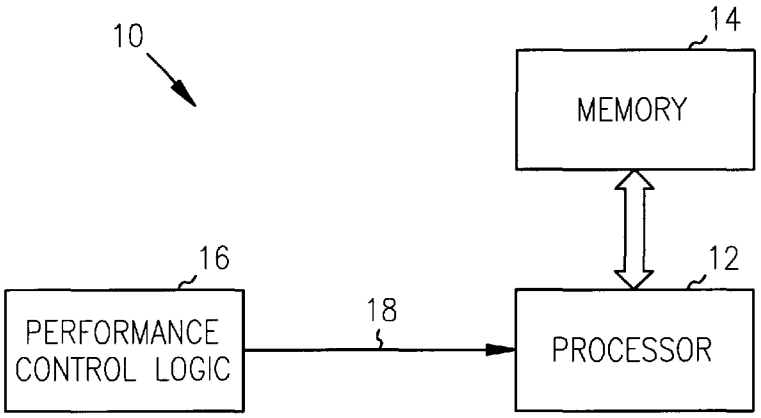


FIG. 1

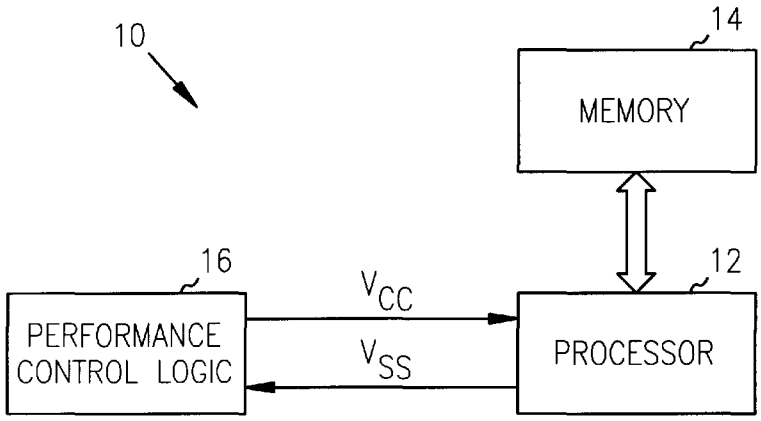


FIG. 2A

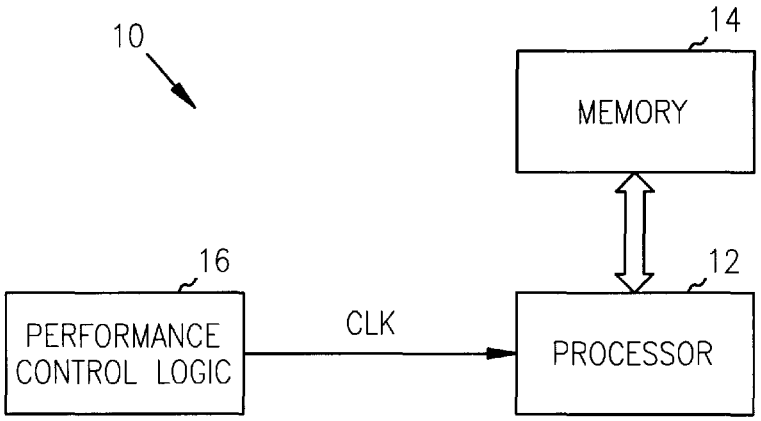


FIG. 2B

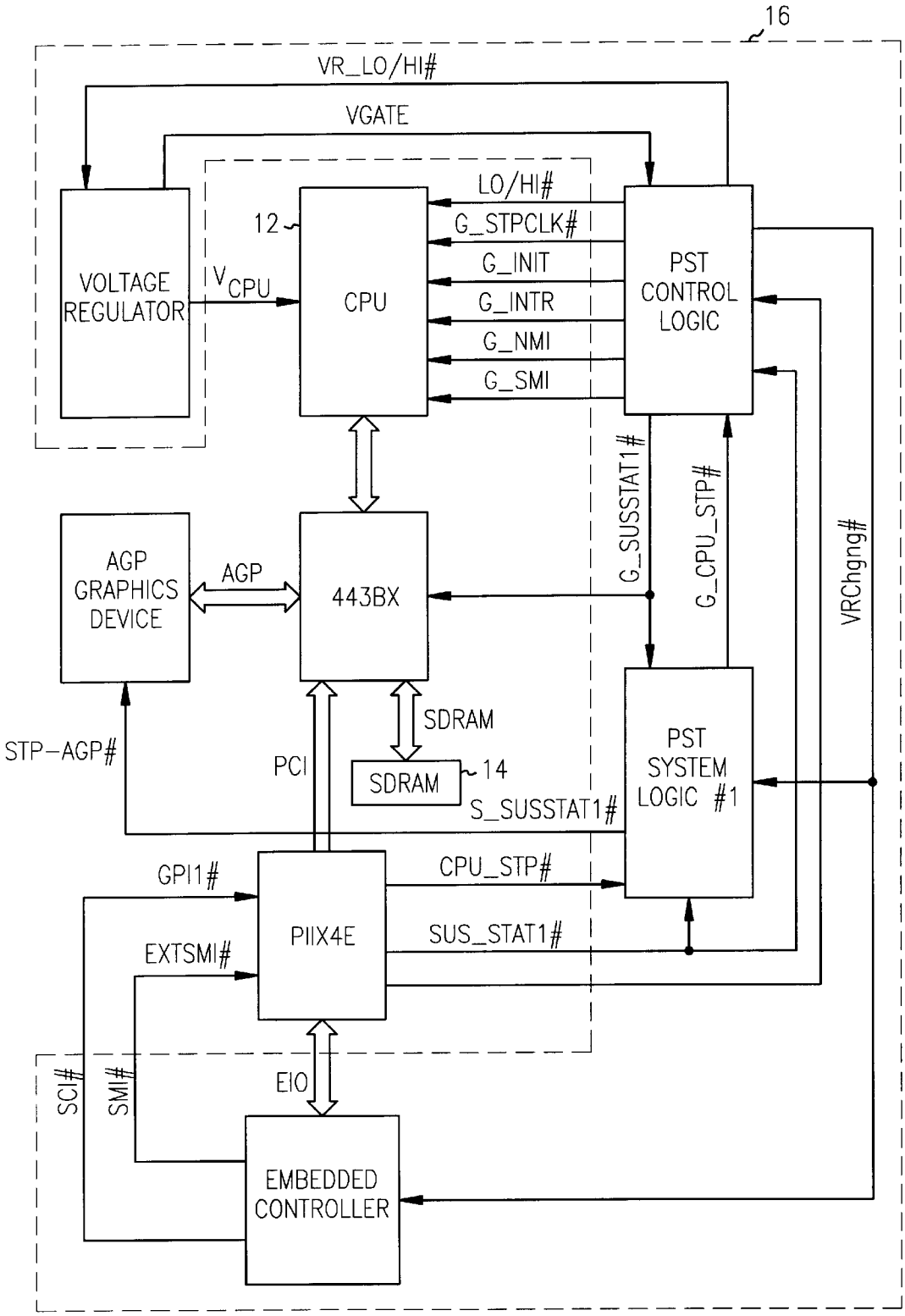


FIG. 2C

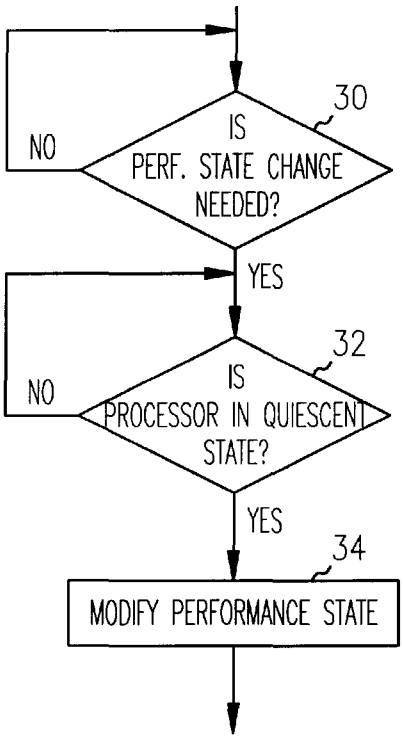


FIG. 3

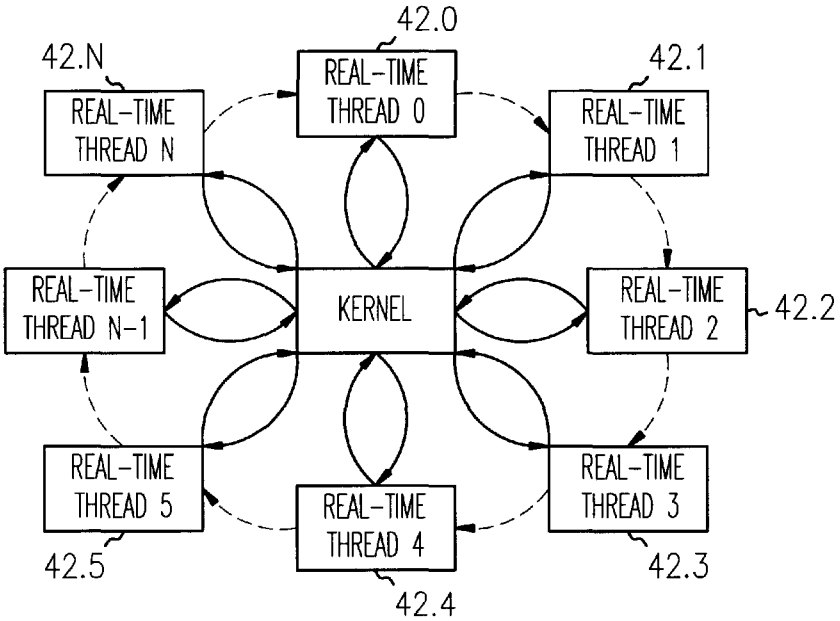


FIG. 4A

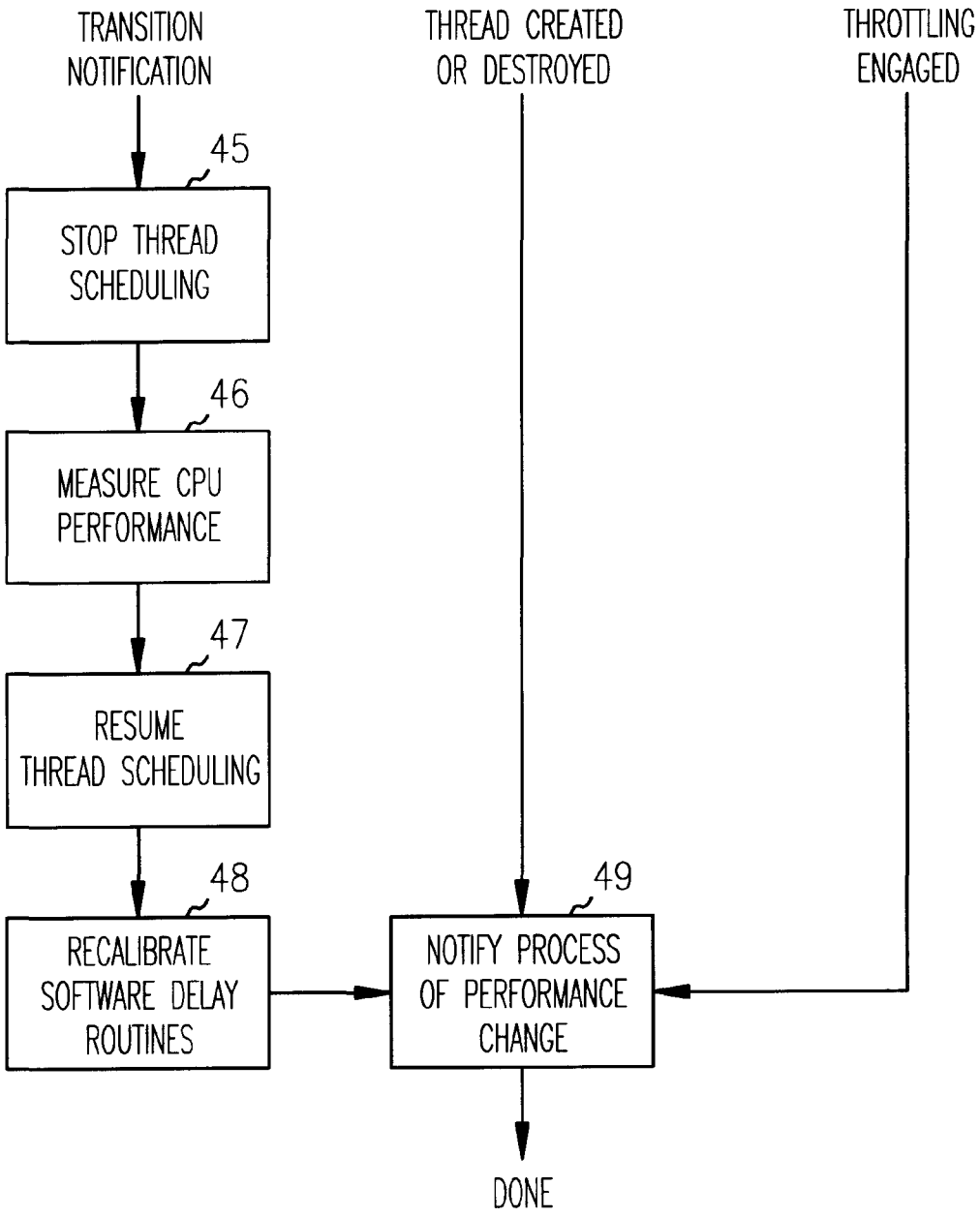


FIG. 4B

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