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[54] **FIRST PROCESSOR INSERTING HOOKS INTO SOFTWARE AND SENDING UNIQUE IDENTIFICATIONS TO OUTPUT BUS AND SECOND PROCESSOR ASSOCIATING DATA FRAMES AND TIME WITH THESE UNIQUE IDENTIFICATIONS**

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[57] ABSTRACT

A method and apparatus are disclosed for monitoring software applications within a first processor during development thereof. A limited number of uniquely identifiable elements or "hooks" are inserted into the software application under development and each time an element is encountered during processing of that software application, the identity of the element and a selected data frame are coupled to the output bus of the first processor. A data output card is utilized to couple that information to a data collection card via a dedicated cable. The data collection card is then utilized to transfer the identity of each element encountered and its associated data frame along with a time value, to a second processor, which is utilized to record that data. In one embodiment of the present invention, a switched bank memory system is utilized in the second processor to permit high speed data storage. In the event the software application under development generates monitoring outputs at a speed greater than may be accurately stored within the second processor, an overrun indication is stored within the second processor and subsequent tests may be run utilizing fewer "hooks" within the software application under development.

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[58] Field of Search ... 364/200 MS File, 900 MS File; 371/19

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10 Claims, 4 Drawing Sheets

