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(54) Title: METHOD AND APPARATUS FOR THREAD SWITCHING WITHIN A MULTITHREADED PROCESSOR

(57) Abstract

A method of performing a thread switching operation within a multithreaded processor. The dispatch of a first predetermined quantity of instruction information for a first thread, from an instruction streaming buffer to an instruction pre-decoder within the multithreaded processor, is detected. Responsive to the detection of the dispatch of the first predetermined quantity of instruction information for the first thread, a thread switching operation is performed with respect to the output of the instruction streaming buffer. The dispatch of instruction information for a second thread from the instruction streaming buffer is thus commenced. The utilization of processor resources is distributed between threads according to the quantity of instruction data for a particular thread that has been processed (or dispatch for processing), and not according to an arbitrary timing mechanism.

