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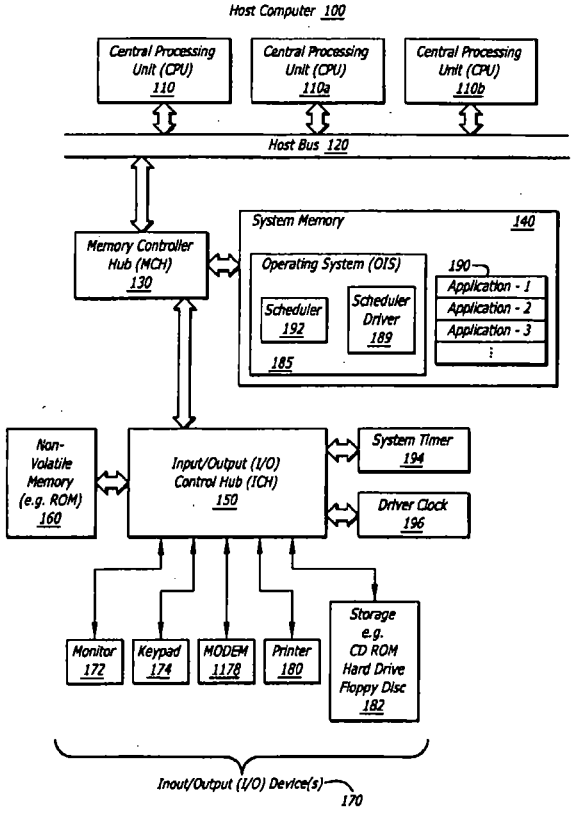
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(54) Title: METHOD AND APPARATUS FOR A SCHEDULING DRIVER TO IMPLEMENT A PROTOCOL UTILIZING TIME ESTIMATES FOR USE WITH A DEVICE THAT DOES NOT GENERATE INTERRUPTS



(57) **Abstract:** The present invention provides a method and apparatus for a scheduling driver to implement a protocol using time estimates for use with a device that does not generate interrupts. An application calls the scheduling driver to start an Input/Output (I/O) request to a device. The scheduling driver determines if the device is busy. If the device is not busy, the scheduling driver provides an estimated processing time (EPT) for the I/O request to be completed to the application. In one embodiment, if the device is busy, the scheduling driver calculates an estimated amount of time left (EATL) until the device will be available to the application and provides this EATL to the application. When the device is not busy, the application sleeps for the estimated processing time (EPT) and calls the scheduling driver to obtain the I/O operation results. If the I/O request has been completed, the scheduling driver provides the I/O operation results to the application. However, if the I/O request has not been completed, the scheduling driver calculates an estimated processing time remaining (EPTR) for the I/O request to be completed and provides the EPTR to the application. The application then sleeps for the estimated processing time remaining (EPTR) and again calls the scheduling driver to obtain the I/O operation results. These operations can be repeated until the I/O request has been completed.

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