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- 3. The device driver of claim 1, wherein each access includes access characterizing data and said interface modules further operate to store said access characterizing data.
- 4. The device driver of claim 3, wherein said access characterizing data includes class, address, and value information. 5
- 5. The device driver of claim 4, wherein said operating system is Windows '95™.
- 6. A method of providing emulation services in a virtualized execution space within a computer system, said method comprising the steps of: 10
 - a) trapping access attempts to a predetermined register space;
 - b) recording the access address and data provided in connection with each access attempt; 15
 - c) providing the access address and data to a device driver corresponding to said predetermined register space;
 - d) analyzing the access address and data against pre-established information defining a plurality of operating modes of a controller coupleable to said predetermined register space to identify an intended operating mode of said controller; 20
 - e) storing said intended operating mode of said controller;
 - f) providing an emulation of said intended operating mode; 25
 - g) providing a plurality of device driver modules for respectively controlling a like plurality of sub-functions of said controller; and
 - h) selectively enabling said plurality of device driver modules to emulate said plurality of sub-functions of said controller and enabling the trapping of access attempts to said predetermined register space. 30
- 7. A device driver supporting the virtualized execution of applications within a computer system, said device driver comprising: 35

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- an interface to an operating system that supports an access trap mechanism permitting said device driver to selectively establish an access trap for accesses by an application to a controller coupled to said computer system, wherein each access includes access characterizing information;
- a parser operable to analyze said access characterizing information against pre-established information defining a plurality of operating modes of said controller to identify an intended operating mode of said controller; and
- a plurality of interface modules, wherein said controller includes a like plurality of functional sub-elements providing for the implementation of a like plurality of operational aspects of said controller, each of said plurality of interface modules selectively enableable to provide for the emulation of a corresponding one of said plurality of operational aspects defining said intended operating mode of said controller.
- 8. The device driver of claim 7, wherein said plurality of interface modules further selectively provide for the programming of respective ones of said plurality of functional sub-elements of said controller.
- 9. The device driver of claim 8, wherein said interface modules further operate to store said access characterizing data.
- 10. The device driver of claim 9, wherein said accesses by said application are to a register space in said controller.
- 11. The device driver of claim 10, wherein said access characterizing data includes class, address, and value information.
- 12. The device driver of claim 11, wherein said operating system is Windows '95™.

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