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**EXTERNAL MEMORY ENABLING A USER  
TO SELECT AN APPLICATION PROGRAM  
TO BE LAUNCHED BEFORE LAUNCHING  
AN OPERATING SYSTEM**

This is a continuation in part application of U.S. patent application Ser. No. 10/429,645 filed May 5, 2003, now issued as U.S. Pat. No. 7,822,962.

**FIELD OF THE INVENTION**

The present invention relates to a method that provides an application program for working with two operating systems of a computer. The application program is configured to work with the computer before the primary operating system is booted.

**BACKGROUND OF THE INVENTION**

The present invention relates generally to a method allowing a computer to run an application program before the operation system of the computer is booted.

Traditional computer booting sequence starts at running the instructions stored at a BIOS storage device. After the BIOS is booted, the computer is instructed to run the operating system, represented by the term OS. The commonly used OS such as different versions of the Microsoft Windows takes around one to two minutes to boot the computer. When a computer is to be turned off, the OS takes another ten to thirty seconds to turn off the computer. The booting time and shut down time of the OS, although acceptable to most desktop computer working environments, are less tolerable for notebook computer users, especially when the computer is utilized as a real paper notebook, just for retrieving a telephone number, check the time of an appointment, or to drop down some notes.

It is the objective of this invention to provide a computer system capable of accessing personalized application program prior to the booting process of the computer OS.

**SUMMARY OF THE INVENTION**

Traditional booting sequence to power up a computer starts with running the instructions stored at a BIOS storage device. Typical BIOS storage device are represented by solid-state non-volatile memory or SRAM memory back up by battery power. A common type of memory used for computer BIOS is flash memory due to the nonvolatile nature of this technology even after power is removed. After the BIOS is booted, the computer is instructed to run the operating system, represented by the term OS. The OS of a computer is provided to set up all the interfacing settings of the hardware and software key components connected to the computer. The OS also defines the default parameters of the computer when power is turned on or when the computer is reset. Technically it is possible to provide a big BIOS for performing many important functions of the OS. However, the cost per mega byte of data of solid-state nonvolatile memory is very expensive as compared with the memory cost of hard disk drives. Accordingly BIOS is usually designed to occupy very small memory size just adequate to store simple programming instructions for the computer to start running the OS. Most of the lengthy start up programs are performed by the OS.

There are many different OS systems available in the market. The most common OS available in the market for personal

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depending on the speed of the hard drive, speed of the processor and the number of supporting hardware and software installed. When a computer is shut down, the OS may take another 10 to 30 seconds to update the data and update the configuration information before closing the running programs. The booting time and shut down time is not causing significant problems to users of desktop computers. This is because the power supply of most desktop computers are left on or turned on/off only once a day. As notebook computers are getting lighter in weight, more and more notebook computers are installed with software servicing daily activities such as appointment schedulers, telephone directories, diary, note pad and many other personalized application programs. All these software servicing the daily activities of a person are collectively termed as personalized application program. Another characteristic of personalized application program is that the information stored, or retrieved are real personalized information. The broader term application program is defined to include any software servicing specific applications, requiring the support of a computer, including but not limiting to word processors and spreadsheets. It should be noted that according to this definition, the definition of application program does not include any software provided mainly to service the computer, such as to test the functions of a computer, virus scan or to configure the settings of a computer. In many actual notebook applications, an user accesses the computer only for simple information previously stored in paper notebooks, such as to retrieve a phone number, check appointments, or to write down some simple messages. The time required for these kinds of application process takes around two to ten seconds. The one to two minutes of booting time acceptable to the application of desktop computers is just too long for many simple notebook applications. It is the objective of this invention to provide a computer system capable of accessing personalized application program prior to the booting process of the computer OS, so that users are able to access data stored in the notebook computer instantly. Application programs are also classified according to the environments where they work. Pre-OS application programs are defined to be application programs working in the pre-OS environment, before a primary OS is booted. Primary OS, or simply OS application programs are defined as application programs suitable for working in the primary OS environment. Primary OS application programs will not work in the more primitive pre-OS environment. On the contrary, it is possible to configure pre-OS application program to work in primary OS environment. It is also a desire of this invention to provide a special form of dual modes application programs. A simple, fast to run application program is configured to run only in the pre-OS environment. At the same time, another application program offering at least the similar functions of the simple, fast to run application program is added with enhancements for running in the more luxury primary OS environment. This enriched, or enhanced application program to run in a primary OS environment is defined as a imaging application program of the corresponding primitive version of the pre-OS application program. When a pre-OS application and a corresponding image application program are bundled for selling to a customer, it is usually desirable to include a synchronizing program to synchronize the application data of the pre-OS application program and that of the primary OS application program, unless these application programs share the same data file. Application data is defined as the user data generated when the user works with an application program. Although application program are usually stored in the hard disk of a computer, in a preferred embodiment, a pre-OS application program is stored in an external