METHOD AND SYSTEM FOR DIRECTLY STARTING A PDA OPERATING SYSTEM ON A PORTABLE PC USING HARDWARE DEVICES

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The invention relates to a technique for providing a PDA (Personal Digital Assistant) OS (Operating System) in portable PC's, and particularly notebook PC's or equivalent electronic devices. More specifically, the disclosed method and system can be used to quickly start a PDA OS (including the OS's of hand held PC's, pocket PC's or other equivalent small electronic devices) by directly using a hot key during the power on procedure of the portable PC, and to use the portable PC as a PDA.

[0003] 2. Related Art

[0004] With the increase in computer popularity, people often need to use computers to solve problems either at work or at home. In general, two major methods of obtaining information are: (1) from books, newspapers, journals, CD-ROM's, etc; and (2) from the network. However, both of these methods have drawbacks. The information obtained using the first method will become outdated as time progresses. Rapid exchange of information greatly shortens the life cycle of information. Such information recorded in media like books cannot be easily updated. The information obtained using the second method, however, continuously changes along with the development of the world, also resulting in some troubles for users. One can see the problems in the following points:

[0005] 1. Existing personal computer OS's (Operating Systems), such as Windows 98, Windows 2000, Windows XP, Linux, and so on, are complicated despite (or because of) their powerful functions and designs. Moreover, the user operation designs are not intuitive and simple enough. This situation scares people without any computer background because of the obstacles they meet while using these systems.

[0006] 2. Users who do not understand the network structure do not know where to start their searches. In this case, a user often chooses to use a familiar OS or to install several different OS's on the computer hardware platform. This type of system is called a dual-OS or a multi-OS. However, this method cannot solve the above problems because a utility is needed to switch between the OS's.

[0007] 3. PDA's are becoming more popular nowadays. They have properties complementary to the desktop Windows OS, e.g. smaller volume, faster power on, more compact functions, and more convenient to use. Therefore, a method for supporting multiple PDA systems on a notebook PC is an important subject currently being studied. The user is then able to enjoy the functions of different PDA systems on the same notebook PC.

SUMMARY OF THE INVENTION

[0008] An object of the invention is to implement an OS that can quickly start a PDA OS (including the OS's of hand held PC's, pocket PC's or other equivalent small electronic devices, all of which will be generally referred as the PDA OS) using a hardware device such as a hot key. A further object of the invention is to provide a notebook PC that can be quickly started and used as a PDA.

[0009] The disclosed method has the design of a hot key installed on a notebook PC. By pre-loading a PDA booting procedure in the BIOS (Basic Input Output System) of the notebook PC, the system will skip complicated hardware diagnostic steps in the normal booting procedure of the notebook PC if the hot key is detected by the BIOS to be depressed after power is turned on. The PDA OS pre-loaded in a storage device (such as an HD) of the notebook PC is directly started, initiating PDA utilities and thus entering the PDA operating environment.

[0010] The disclosed system is mainly based upon a notebook PC. In addition to the basic OS (such as the Windows OS) pre-loaded in the notebook, a booting procedure for the basic OS, and a power on button for the OS pre-loaded in typical portable computers, the notebook PC of the invention further contains:

[0011] a hot key, which is used to directly start the PDA OS;

[0012] a PDA OS, which is stored in a storage device of the notebook PC;

[0013] a PDA booting procedure, which is pre-loaded into the BIOS of the notebook PC for starting the PDA OS and opening a PDA utilities screen; and

[0014] a hot key detecting procedure, which is pre-loaded into the BIOS of the notebook PC for detecting whether the PDA hot key is depressed and running the PDA booting procedure if the hot key is depressed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] The invention will become more fully understood from the detailed description given hereinbelow. However, the following description is for purposes of illustration only, and thus is not limitative of the invention, wherein:

[0016] **FIG. 1** is a flowchart showing the steps to implement the invention;

[0017] **FIG. 2** shows a hardware structure of the invention;

[0018] **FIG. 3** shows a system structure of the invention;

[0019] **FIG. 4** is a flowchart showing the steps to directly start a PDA OS and its utilities using a hot key; and

[0020] **FIG. 5** is a flowchart showing the detailed steps to directly start a PDA OS and its utilities using a hot key in accordance with another embodiment.

DETAILED DESCRIPTION OF THE INVENTION

[0021] With reference to **FIG. 1**, the disclosed method includes the steps of:

[0022] 1. providing a hot key, which is a hardware device installed on a notebook PC for its user to start a PDA system (the hot key can be a button or other hardware input device with analogous functions);