

receiving any of the plurality of incoming electronic mail messages; and providing notice indicating receipt of any of the plurality of incoming electronic mail messages while the PC is in the PDA mode.

[0012] Another method of accessing an Internet radio broadcast station with a PC capable of operating in either a first PC mode or a second PDA mode, wherein the PC is configured to operate in at least a first power state and a second power state, wherein the PC consumes less power in the second power state than the first power state, and wherein the PC is initially in the second power state, the method consistent with the invention including the steps of: initiating a control signal to wake up the PC from the second power state to the first power state; operating a second operating system in response to the control signal, wherein the second operating system operates the PC in the second PDA mode; accessing the Internet; identifying an Internet radio broadcast station; and accessing the station.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] For a better understanding of the present invention, together with other objects, features and advantages, reference should be made to the following detailed description which should be read in conjunction with the following figures wherein like numerals represent like parts:

[0014] FIG. 1 is a perspective view of an exemplary PC integrated with PDA functionality;

[0015] FIG. 2 is a block diagram of a PC consistent with the invention including an integrated circuit (IC) configured to provide PDA functionality to the PC;

[0016] FIG. 3 is a block diagram of one exemplary embodiment for integrating an IC consistent with the invention into a PC to provide PDA functionality to the PC;

[0017] FIG. 4 is a block diagram of one exemplary embodiment of an IC consistent with the invention;

[0018] FIG. 5 is a flow chart of an exemplary power up of a mini operating system and initiation of PDA functions in one embodiment of the present invention;

[0019] FIG. 6 is a flow chart of an exemplary sequence for Internet auction application software consistent with the invention;

[0020] FIG. 7A is a flow chart of one exemplary sequence for electronic mail application software consistent with the invention; and

[0021] FIG. 7B is a flow chart of another exemplary sequence for electronic mail application software consistent with the invention having an additional screening process for incoming e-mail messages.

DETAILED DESCRIPTION

[0022] Turning to FIG. 1, a perspective view of a PC 100 consistent with the invention is illustrated. The PC may be a laptop computer as illustrated in FIG. 1 or a desktop computer. For purposes of distinction, a laptop is configured to operate as a portable device and has a stand alone power source while a desktop is configured to operate as a stationary device and does not typically have a stand alone power source.

[0023] Advantageously, a PC consistent with the invention is configured to operate in both a PC mode and a PDA mode. In the PC mode, a first operating system, e.g., a PC operating system such as Windows® provided by Microsoft, Inc. of Redmond, Wash., is run. As such, the PC 100 operates as such and can perform any and all of the PC's functions such as word processing, email, Internet access, etc. In PDA mode, a second mini operating system is run. Such a mini operating system (Mini-OS) generally has fewer instructions and takes up less memory than the PC operating system. Such a Mini-OS may be similar to Palm OS® provided by Palm Inc. of Santa Clara Calif., PocketPC provided by Microsoft, Inc. of Redmond, Wash., or Monta Vista Linux® provided by Monta Vista Software, Inc. of Sunnyvale, Calif. Such a Mini-OS may take up much less memory than that required for the first operating system such as Windows®. When operating in PDA mode, the Mini-OS and related PDA application software is utilized to provide a smaller subset of PDA functions when compared to PC functions.

[0024] Advantageously, booting the Mini-OS for operation in PDA mode takes significantly less time than booting the first operating system for operation in PC mode. This is due in part to the Mini-OS having a smaller kernel and hence a simpler boot up routine than its counterpart PC operating system. This allows a user to access a host of PDA applications much faster than waiting for the longer boot up routine for the first operating system. The Mini-OS may take only a few seconds or less to boot, while the first operating system may take as long as minutes to boot. As such the boot up sequence for the first operating system can be as least five times longer than the boot up sequence for the second operating system, e.g., the Mini-OS.

[0025] While in PDA mode, video data may be output on a second video display 114, e.g., a PDA display screen which may be a small LCD module, to display characters and graphics for different PDA applications. The PDA display screen 114 is smaller in size or surface area than the full display screen 118 which is typically utilized when operating the PC in PC mode. The PDA display screen 114 permits power savings since the entire full display screen 118 is not needed when the PC 100 is operating in PDA mode. However, PCs that are not concerned with such a power savings feature or desire the larger display screen 118, may utilize the full screen 118 in PDA mode. Elimination of the PDA display screen would also reduce initial PC 100 costs.

[0026] A PC 100 consistent with the invention may also be provided with PDA buttons 106, 108, 110, 112 to complement typical keys found in a conventional keyboard 116. Four buttons 106, 108, 110, 112 are illustrated in FIG. 1, although there maybe any number of buttons depending on the desired functionality. These PDA buttons 106, 108, 110, 112 are similar to the PDA buttons on most PDAs enabling the user to control the PC 100 in PDA mode by using the provided buttons 106, 108, 110, 112 to bring up different PDA applications or screens. The buttons 106, 108, 110, 112 may be any type of buttons such as mechanical push buttons, slide buttons, dial buttons, electrical buttons, etc.

[0027] The Mini-OS may be triggered to operate in a variety of ways. For instance, an input device may provide an input mode signal to the PC indicating desired operation in PC mode or PDA mode. One exemplary input device may be power control buttons 102, 104. The first button or PC