

stored, transferred, combined, compared, and otherwise manipulated in a computer system. It has proven convenient at times, principally for reasons of common usage, to refer to these signals as bits, bytes, values, elements, symbols, characters, terms, numbers, or the like.

[0034] It should be borne in mind, however, that all of these and similar terms are to be associated with the appropriate physical quantities and are merely convenient labels applied to these quantities. Unless specifically stated otherwise as apparent from the following discussions, it is appreciated that throughout the present invention, discussions utilizing terms such as “generating,” “detecting,” “translating,” “changing” or the like, refer to the action and processes (e.g., process 800 of FIG. 8) of a computer system or similar intelligent electronic computing device, that manipulates and transforms data represented as physical (electronic) quantities within the computer system’s registers and memories into other data similarly represented as physical quantities within the computer system memories or registers or other such information storage, transmission or display devices.

[0035] Exemplary Palmtop Computer System

[0036] FIG. 1 is a perspective illustration of the top face 100a of an exemplary portable computer system 100 that can be used in accordance with one embodiment of the present invention. Portable computer system 100 is also known as a palmtop computer system, a palm-sized computer system, a handheld computer system, or a personal digital assistant (PDA). In one embodiment, portable computer system 100 has the ability to transmit and receive data and information over a wireless communication interface (e.g., a radio interface, not shown). Portable computer system 100 can also contain a wireless infrared communication mechanism (not shown) for sending and receiving information from other devices.

[0037] The top face 100a contains a display device 105 surrounded by a bezel or cover. A removable stylus 80 is also shown. The display device 105 is a touch screen able to register contact between the screen and the tip of the stylus 80. The stylus 80 can be of any material to make contact with the display device 105. The top face 100a also contains one or more dedicated and/or programmable buttons 75 for selecting information and causing the computer system to implement functions. The on/off button 95 is also shown.

[0038] FIG. 1 also illustrates a handwriting recognition pad (e.g., an alphanumeric input device 106) containing two regions 106a and 106b. Alphanumeric input device 106 is also known as a digitizer, digitizer tablet, or graffiti area. Region 106a is for the drawing of alphabetic characters therein (and not for numeric characters) for automatic recognition, and region 106b is for the drawing of numeric characters therein (and not for alphabetic characters) for automatic recognition. The stylus 80 is used for stroking a character within one of the regions 106a and 106b. The stroke information is then fed to an internal processor for automatic character recognition. Once characters are recognized, they are typically displayed on the display device 105 for verification and/or modification.

[0039] In accordance with the present embodiment of the present invention, portable computer system 100 also includes a flip interface 500 coupled to the housing of the top

face 100a. Although shown coupled to top face 100a, it is appreciated that flip interface 500 can be otherwise coupled to portable computer system 100. That is, flip interface 500 may be coupled in a different position to portable computer system 100, or flip interface 500 may be a peripheral device coupled to portable computer system 100 using either a cable or a wireless connection.

[0040] Flip interface 500 allows a user to control or change an image displayed on display device 105, and to move from one application to another or to move to different pages, screens, etc., within an application. Flip interface 500 can also be used to select certain commands or functions implemented by portable computer system 100. In one embodiment, flip interface 500 replaces programmable buttons 75. Flip interface 500 is further described in conjunction with FIG. 4A, below.

[0041] FIG. 2 illustrates the bottom side 100b of one embodiment of the portable computer system 100 that can be used in accordance with various embodiments of the present invention. An extendible antenna 85 is shown, and also a battery storage compartment door 90 is shown. A communication interface 180 is also shown. In one embodiment of the present invention, the communication interface 180 is a serial communication port, but could also alternatively be any of a number of well-known communication standards and protocols, e.g., parallel, SCSI (small computer system interface), Firewire (IEEE 1394), Ethernet, etc.

[0042] FIG. 3 is an exploded view of exemplary portable computer system 100. Portable computer system 100 contains a back cover 245 and a front cover 210 having an outline of alpha-numeric input device 106 and holes 75a for receiving buttons 75b. A flat panel display device 105 (both liquid crystal display and touch screen) fits into front cover 210. Any of a number of display technologies can be used, e.g., liquid crystal display (LCD), field emission display (FED), plasma, etc., for the flat panel display device 105.

[0043] In this embodiment, flip interface 500 is coupled to front cover 210, although it is appreciated that flip interface may be otherwise positioned in accordance with the present invention, as described above. Additional information with regard to flip interface 500 is provided in conjunction with FIG. 4A, below.

[0044] A battery 215 provides electrical power. A contrast adjustment (potentiometer) 220 is also shown, as well as an on/off button 95. A flexible circuit 230 is shown along with a printed circuit (PC) board 225 containing electronics and logic (e.g., memory, communication bus, processor, etc.) for implementing computer system functionality. The digitizer pad is also included in PC board 225. A midframe 235 is shown along with stylus 80. Position-adjustable antenna 85 is shown.

[0045] Infrared communication mechanism 64 (e.g., an infrared emitter and detector device) is for sending and receiving information from other similarly equipped devices. A signal (e.g., radio) receiver/transmitter device 108 is also shown. The receiver/transmitter device 108 is coupled to the antenna 85 and also coupled to communicate with the PC board 225. In one implementation the Mobitex wireless communication system is used to provide two-way communication between portable computer system 100 and other networked computers and/or the Internet via a proxy server.