

as a computer program product, i.e., a computer program tangibly embodied in an information carrier, e.g., in a machine-readable storage device or in a propagated signal, for execution by, or to control the operation of, data processing apparatus, e.g., a programmable processor, a computer, or multiple computers. A computer program, such as the computer program(s) described above, can be written in any form of programming language, including compiled or interpreted languages, and can be deployed in any form, including as a stand-alone program or as a module, component, subroutine, or other unit suitable for use in a computing environment. A computer program can be deployed to be executed on one computer or on multiple computers at one site or distributed across multiple sites and interconnected by a communication network.

[0036] Method steps may be performed by one or more programmable processors executing a computer program to perform functions by operating on input data and generating output. Method steps also may be performed by, and an apparatus may be implemented as, special purpose logic circuitry, e.g., an FPGA (field programmable gate array) or an ASIC (application-specific integrated circuit).

[0037] Processors suitable for the execution of a computer program include, by way of example, both general and special purpose microprocessors, and any one or more processors of any kind of digital computer. Generally, a processor will receive instructions and data from a read-only memory or a random access memory or both. Elements of a computer may include at least one processor for executing instructions and one or more memory devices for storing instructions and data. Generally, a computer also may include, or be operatively coupled to receive data from or transfer data to, or both, one or more mass storage devices for storing data, e.g., magnetic, magneto-optical disks, or optical disks. Information carriers suitable for embodying computer program instructions and data include all forms of non-volatile memory, including by way of example semiconductor memory devices, e.g., EPROM, EEPROM, and flash memory devices; magnetic disks, e.g., internal hard disks or removable disks; magneto-optical disks; and CD-ROM and DVD-ROM disks. The processor and the memory may be supplemented by, or incorporated in special purpose logic circuitry.

[0038] To provide for interaction with a user, implementations may be implemented on a computer having a display device, e.g., a cathode ray tube (CRT) or liquid crystal display (LCD) monitor, for displaying information to the user and a keyboard and a pointing device, e.g., a mouse or a trackball, by which the user can provide input to the computer. Other kinds of devices can be used to provide for interaction with a user as well; for example, feedback provided to the user can be any form of sensory feedback, e.g., visual feedback, auditory feedback, or tactile feedback; and input from the user can be received in any form, including acoustic, speech, or tactile input.

[0039] Implementations may be implemented in a computing system that includes a back-end component, e.g., as a data server, or that includes a middleware component, e.g., an application server, or that includes a front-end component, e.g., a client computer having a graphical user interface or a Web browser through which a user can interact with an implementation, or any combination of such back-end,

middleware, or front-end components. Components may be interconnected by any form or medium of digital data communication, e.g., a communication network. Examples of communication networks include a local area network (LAN) and a wide area network (WAN), e.g., the Internet.

[0040] While certain features of the described implementations have been illustrated as described herein, many modifications, substitutions, changes and equivalents will now occur to those skilled in the art. It is, therefore, to be understood that the appended claims are intended to cover all such modifications and changes as fall within the true spirit of the various embodiments.

What is claimed is:

1. A keyboard comprising:

a plurality of keys, each key capable of being pressed to select one or more keyboard inputs; and

a micro touchpad provided on an upper surface of a first key of said keys to allow pointer or other computer control by moving a finger or other object across a top surface of the micro touchpad, wherein the first key is capable of traveling a distance of at least 0.1 mm between a pressed position and a not pressed position.

2. The keyboard of claim 1 wherein the first key is capable of traveling a distance of at least 1 mm between a pressed position and a not pressed position.

3. The keyboard of claim 1 and further comprising a keyboard controller coupled to the plurality of keys and the micro touchpad.

4. The keyboard of claim 1 and further comprising a micro touchpad provided on an upper surface of a second key of said keys to allow additional computer control by moving a finger or other object across a top surface of the micro touchpad of the second key.

5. The keyboard of claim 1 wherein the first key comprises one of the following: G key, H key, J key, F key and space bar key.

6. The keyboard of claim 1 and further comprising a micro touchpad provided on an upper surface of a second key of said keys to allow scrolling control by moving a finger or other object across a top surface of the micro touchpad of the second key.

7. The keyboard of claim 6 wherein the first key and the second key comprises one of the following: F key, G key, H key, J key or space bar.

8. The keyboard of claim 6 wherein the first key comprises either the H key or the J key, and the second key comprises the F key or the G key.

9. The keyboard of claim 1 and further comprising a flexible conductor coupled to the micro touchpad that is adapted to flex when the first key travels between a pressed position and a not pressed position.

10. The keyboard of claim 1 wherein the first key comprises an insulative key cover provided on an upper surface, a side surface and/or at least a portion of a lower surface of the key.

11. An apparatus comprising:

a plurality of keys, each key capable of being pressed to select one or more key inputs;

a micro touchpad provided on an upper surface of a first key of said keys, the micro touchpad adapted to allow