

scroll wheel may also be rotated with linear motion of the fingers in a tangential manner.

[0133] It should be noted that although a surface scroll wheel is shown, the principals thereof can be applied to more conventional scroll wheels which are virtually based. For example, scroll wheels, whose axis is parallel to the display screen and which appear to protrude through the display screen as shown in **FIG. 28**. In this particular implementation, however, linear motion of the fingers are used to rotate the virtual scroll wheel.

[0134] The various aspects, embodiments, implementations or features of the invention can be used separately or in any combination.

[0135] The invention is preferably implemented by hardware, software or a combination of hardware and software. The software can also be embodied as computer readable code on a computer readable medium. The computer readable medium is any data storage device that can store data which can thereafter be read by a computer system. Examples of the computer readable medium include read-only memory, random-access memory, CD-ROMs, DVDs, magnetic tape, optical data storage devices, and carrier waves. The computer readable medium can also be distributed over network-coupled computer systems so that the computer readable code is stored and executed in a distributed fashion.

[0136] While this invention has been described in terms of several preferred embodiments, there are alterations, permutations, and equivalents, which fall within the scope of this invention. For example, although the invention has been primarily directed at touchscreens, it should be noted that in some cases touch pads may also be used in place of touchscreens. Other types of touch sensing devices may also be utilized. It should also be noted that there are many alternative ways of implementing the methods and apparatuses of the present invention. It is therefore intended that the following appended claims be interpreted as including all such alterations, permutations, and equivalents as fall within the true spirit and scope of the present invention.

1. A computer implemented method for processing touch inputs, said method comprising:

reading data from a touch screen, the data pertaining to touch input with respect to the touch screen, and the touch screen having a multipoint capability; and

identifying at least one multipoint gesture based on the data from the touch screen.

2. A computer implemented method as recited in claim 1 wherein said method further comprises:

performing a compounding operation associated with the at least one gesture.

3. A computer implemented method as recited in claim 1 wherein said method further comprises:

associating a user interface element to the at least one gesture.

4. A computer implemented method as recited in claim 3 wherein said method further comprises:

displaying the user interface element on the touch screen.

5. A computer implemented method as recited in claim 1 wherein said method further comprises:

displaying the user interface element on the touch screen prior to said reading; and

subsequently altering the user interface element being displayed based on the at least one gesture.

6. A computer implemented method as recited in claim 1 wherein said identifying identifies at least two multipoint gestures based on the data from the touch screen.

7. A computer implemented method as recited in claim 6 wherein the at least two gestures being identified are concurrently performed on the touch screen.

8. A computer implemented method as recited in claim 6 wherein the at least two gestures being identified are contiguously performed on the touch screen.

9. A gestural method, comprising:

detecting multiple touches at different points on a touch sensitive surface at the same time; and

segregating the multiple touches into at least two separate gestural inputs occurring simultaneously, each gestural input having a different function.

10. The gestural method as recited in claim 9 wherein touch sensitive surface is associated with a touch screen that overlays a display, and wherein the gestural inputs are selected from zooming, panning and rotating.

11. A gestural method, comprising:

concurrently detecting a plurality of gestures that are concurrently performed with reference to a touch sensing device;

producing different commands for each of the gestures that have been detected.

12. The method as recited in claim 11 wherein the plurality of gestures are implemented with the same group of touches.

13. The method as recited in claim 11 wherein the plurality of gestures are implemented with different groups of touches.

14. The method as recited in claim 11 wherein the gestures include rotate gestures, pang gestures, or zooming gestures.

15. A gestural method, comprising:

displaying a graphical image on a display screen;

detecting a plurality of touches at the same time on a touch sensitive device; and

linking the detected multiple touches to the graphical image presented on the display screen.

16. The method as recited in claim 15 wherein the graphical image is a user interface element.

17. The method as recited in claim 16 wherein the user interface element is displayed when a particular multitouch configuration is detected.

18. The method as recited in claim 17 wherein the user interface element is displayed in proximity to the multiple touches.

19. The method as recited in claim 18 wherein the user interface element is displayed underneath the multiple touches.

20. The method as recited in claim 16 wherein the multiple touches are detected over the displayed user interface element,