

sensor screen with a force greater than the first pre-determined limit value. The processor unit 205 is arranged to move the symbol 211 on the display screen as a response to a situation in which the strength of the force directed to the sensor surface exceeds the first pre-determined limit value, the cursor 213 is pointing to the symbol, and the external object is moved on the sensor surface. The processor unit 205 is arranged to control the electronic device to execute a function related to the symbol 211 as a response to a situation in which the strength of the force directed to the sensor surface exceeds a second pre-determined limit value (e.g. 3 N) and the cursor 213 is pointing to the symbol.

[0055] In a user interface according to an embodiment of the invention the processor unit 205 is capable of controlling the electronic device to perform a pre-determined action as a response to a situation in which a temporal change of the force directed to the surface 208 of the electronic device is detected. The temporal change of the force can be detected with the force sensor 233.

[0056] In a user interface according to an embodiment of the invention the processor unit 205 is capable of controlling the electronic device to execute a function related to the symbol 211 as a response to a situation in which a temporal change of the force directed to the surface 208 of the electronic device is detected and the cursor 213 is pointing to the symbol.

[0057] In a user interface according to an embodiment of the invention the processor unit 205 is arranged to modify an image shown on the display screen as a response to a situation in which the force directed to the surface 208 of the electronic device exceeds a pre-determined limit value. The modification of the image can comprise e.g. zooming of the said image in or out as long as the above-mentioned force exceeds the pre-determined limit value.

[0058] An electronic device according to an embodiment of the invention comprises: (i) means for forming a location indicator that indicates a location of a spot of a sensor surface that is closest to an external object, (ii) means for forming a force indicator that indicates strength of a force directed to the sensor surface, and (iii) means for controlling the electronic device on the basis of the location indicator and the force indicator.

[0059] FIG. 3a shows an electronic device 300 according to an embodiment of the invention. FIG. 3b shows the A-A section view of the electronic device. The electronic device can be a mobile communication terminal, a palmtop computer, a portable play station, or a combination of them. The electronic device comprises a sensor element 301 that has a sensor surface 302. The sensor element is arranged to form a location indicator that is adapted to indicate a location of a spot 321 of the sensor surface that is closest to an external object 320. The location indicator can express, for example, x- and y-coordinates of the spot closest to the external object. The sensor surface can be a touch sensitive sensor surface, a capacitive sensor surface, or a combined capacitive and touch sensitive sensor surface. The electronic device comprises a force sensor equipment arranged to form a force indicator that is adapted to indicate strength of a force directed to the sensor surface. The force sensor equipment comprises a force sensor 303 that is arranged to detect the force directed to the sensor surface. In the electronic device shown in FIGS. 3a and 3b, the force sensor 303 is mounted between the sensor element 301 and a wall 304 of the housing of the electronic device in such a way that the force sensor 303 can be used for detecting

also a force directed to a surface 308 of the electronic device. The force sensor 303 can be capable of detecting also a magnitude and/or a direction of a sheer force F_2 , $-F_2$ that is in the xy-plane. The electronic device comprises a processor unit 305 arranged to control the electronic device on the basis of the location indicator and the force indicator. The sensor surface 302 is also a display screen with the aid of which visual information can be shown. The electronic device can comprise a vibration generator 307 responsive to the force indicator and/or to the location indicator. Mechanical vibration generated with the vibration generator can be used e.g. for indicating that the electronic device has received a control action from a user of the electronic device.

[0060] FIG. 4 is a flow chart of a method according to an embodiment of the invention for controlling an electronic device. Phase 401 comprises forming a location indicator that indicates a location of a spot of a sensor surface that is closest to an external object. Phase 402 comprises forming a force indicator that indicates strength of a force directed to the sensor surface. Phase 403 comprises controlling the electronic device on the basis of the location indicator and the force indicator. The external object can be e.g. a finger of a user of the electronic device.

[0061] In a method according to an embodiment of the invention another force indicator that indicates a temporal change of a force directed to another surface of the electronic device than the sensor surface is formed and the electronic device is controlled on the basis of the location indicator, the force indicator, and the other force indicator.

[0062] In a method according to an embodiment of the invention at least a part of the sensor surface is capable of operating as a display screen and visual information is displayed on that part the sensor surface.

[0063] In a method according to an embodiment of the invention the electronic device is controlled to highlight a symbol displayed on the sensor surface as a response to a situation in which a distance between the external object and the symbol is less than a pre-determined limit value.

[0064] In a method according to an embodiment of the invention the electronic device is controlled to select the symbol and to modify visual information displayed on the sensor surface around the symbol as a response to a situation in which the external object is touching the sensor surface in a location in which the symbol is being displayed.

[0065] In a method according to an embodiment of the invention the electronic device is controlled to execute a function related to the symbol as a response to a situation in which the strength the force directed to the sensor surface exceeds a pre-determined limit value and the force is directed to the sensor surface in the location in which the symbol is being displayed.

[0066] In a method according to an embodiment of the invention the electronic device is controlled to change a symbol displayed on the sensor surface from a non-selected state to a selected-to-move state and to move a position of the symbol on the sensor surface as a response to a situation in which the external object is pressing the sensor surface in a location in which the symbol is being displayed and the external object is being moved on the sensor surface. The symbol is moved along with the external object.

[0067] In a method according to an embodiment of the invention the electronic device is controlled to change the symbol from the selected-to-move state to the non-selected state as a response to a situation in which a temporal change