

be noted that the pressure sensitive means may be implemented by a dynamic or clickable (which may have only binary state) means. Clickable means may be constructed by dome structure in order to achieve physical feedback to the user when use the means.

[0021] Also the dynamic means may be used in “binary state”, whereupon “feedback” to the user when using the means may be achieved by audible click-sound.

[0022] Further a mobile terminal, both monoblock-type mobile terminal and also in flip-type terminal construction, may according to an additional embodiment of the present invention be arranged to divide the touch pad UI virtually into the two or more portion, for example one portion for a left hand and one portion for a right hand, whereupon a user can move a cursor with his right hand finger, scroll a content displayed in the display of the mobile terminal in the direction of up/down by moving his left hand finger to the up/down or in the direction of left/right by moving his left hand finger to the left/right on the surface of the touch pad UI input device. Furthermore the mobile terminal according to the invention may be arranged to zoom the content of the display in/out, when the user moves his left hand finger on the left portion of the surface of the touch pad UI, for example, and at the same time pressing the right portion of the touch pad UI input device by a right hand finger, for example. Alternatively the mobile terminal may comprise a certain button, such as a button locating, for example, in the front side of the mobile terminal, whereupon the user can press the button at the same when moving his finger on the surface of the touch pad UI in order to zoom the content of the display.

[0023] According to the invention a user can advantageously achieve all the same functionality with the touch pad UI input device than with a pen-input UI, except that the pen is not needed.

[0024] The invention relates to a method for providing a touch pad UI function for a mobile terminal, where the mobile terminal comprises a display and wherein the touch pad UI is a touch pad user interface input device, comprising the steps of:

[0025] arranging the touch pad UI into the back side of the mobile terminal,

[0026] operating the touch pad UI by touching the touch pad UI at least by one finger, and

[0027] observing the position of at least one finger on the UI, and determining the corresponding position of at least one cursor on the display in order to displaying said cursor according to the position of at least one finger on the UI.

[0028] The invention further relates to a mobile terminal comprising a touch pad UI and a display, wherein the touch pad UI is a touch pad user interface input device, and

[0029] wherein the touch pad UI is arranged into the back side of the mobile terminal,

[0030] wherein the touch pad UI is arranged to be operated by a touch of at least one finger, and

[0031] the mobile terminal is further arranged to observe the position of at least one finger on the UI, and determine the corresponding position of at least

one cursor on the display in order to display said cursor according to the position of at least one finger on the UI.

[0032] The invention further relates to a touch pad UI for a mobile terminal, where the mobile terminal comprises a display, wherein the touch pad UI is a touch pad user interface input device, and

[0033] wherein the touch pad UI is arrangeable into the back side of the mobile terminal,

[0034] wherein the touch pad UI is arranged to be operated by a touch of at least one finger, and

[0035] the UI is further arranged to observe the position of at least one finger on the UI, and determine the corresponding position of at least one cursor on the display in order to display said cursor according to the position of at least one finger on the UI.

[0036] Furthermore the invention relates to a touch pad UI, where the touch pad UI is a touch pad user interface input device comprising a touch sensitive surface to detect touch and movement of a finger on the surface of the touch pad UI and further comprising a pressure sensitive layer under the touch sensitive surface to detect press of a finger on the touch pad UI simulating a click-operation.

[0037] The best mode of the invention is considered to be an implementation of a touch pad UI input device in a mobile terminal, where the touch pad is at least in one mode arranged into the back side of the mobile terminal in use so that a user can see the display side (front side) of the mobile terminal in the field of vision, support the mobile terminal by his fingers at the back side and at the same time input data through the touch pad locating in the back side of the mobile terminal by using the same fingers by which he supports the mobile terminal and further seeing a cursor moving on the display of the mobile terminal and following the movements of his finger on the touch pad UI at the same time when moving his finger on the touch pad UI.

BRIEF DESCRIPTION OF THE DRAWINGS

[0038] Next the invention will be described in greater detail with reference to exemplary embodiments in accordance with the accompanying drawings, in which

[0039] **FIG. 1** illustrates a flow diagram of an exemplary method for providing a mobile terminal according to an advantageous embodiment of the present invention,

[0040] **FIG. 2** illustrates a flow diagram of an exemplary method for providing a mobile terminal according to an additional advantageous embodiment of the present invention,

[0041] **FIG. 3a** illustrates a front part of an exemplary mobile terminal embodying the first advantageous embodiment of the present invention,

[0042] **FIG. 3b** illustrates a back side part of an exemplary mobile terminal embodying the first advantageous embodiment of the present invention,

[0043] **FIG. 4a** illustrates an exemplary mobile terminal embodying the first aspect of the second advantageous embodiment of the present invention in a perspective view,