

- feedback when the touch position or the detected pressure changes more than a preset threshold value.
- 11.** The apparatus according to claim 1, wherein: the graphical user interface object is formed with a plurality of sub-objects; and the controller section controls the haptic feedback generating unit to generate different tactile feedbacks for different sub-objects thereof.
- 12.** The apparatus according to claim 2, wherein: the controller section determines that the graphical user interface object is in the activated state by using a plurality of pressure thresholds.
- 13.** The apparatus according to claim 3, wherein: the controller section differentiates a stronger push and a lighter push based on a noise level of a signal from the touch screen, the stronger push corresponding to the pressing event, the lighter push corresponding to sliding of the user's finger or pointing device.
- 14.** The apparatus according to claim 1, wherein: the controller section controls the display section to generate visual feedback in correlation with the haptic feedback.
- 15.** The apparatus according to claim 2, wherein: the logical states of the graphical user interface object include at least a selected state and an actuated state, the selected state being a state where the graphical user interface object is selected but not actuated, the actuated state being a state where the graphical user interface object is actuated; the logical state is allowed to change to the actuated state after the selected state.
- 16.** A graphical user interface method for a touch screen, comprising:
displaying a graphical user interface object on the touch screen, the graphical user interface object having a plurality of logical states;
- detecting a touch position on the touch screen, at which a user's finger or a pointing device is touching;
detecting pressure applied on the touch screen when the touch position is detected; and
generating haptic feedback in response to the touching, a form of the haptic feedback being determined depending on (i) the detected touch position, (ii) the detected pressure value and (iii) a current logical state of the graphical user interface object;
wherein the current logical state of the graphical user interface object is determined by using a history of detected touch positions and a history of detected pressure values.
- 17.** The graphical user interface method according to claim 16, wherein:
different tactile feedback are generated for different logical states of the graphical user interface object.
- 18.** The graphical user interface method according to claim 16, further comprising:
determining the current logical state of the graphical user interaction object by detecting if there is a pressing event, the pressing event being recognized by using a history of the detected pressure value;
wherein the graphical user interface object is determined as in an actuated state if the pressing event is recognized.
- 19.** The graphical user interface method according to claim 18, wherein:
the pressing event is determined if the history of the detected pressure value satisfies a preset pattern.
- 20.** The graphical user interface method according to claim 16, wherein:
a single burst of the tactile feedback is generated when the detected touch position and/or the detected pressure changed more than a preset threshold value.

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