

input devices on portable devices, such as mobile telephones and personal digital assistants (PDAs). One problem associated with using touch screens on portable devices is the unintentional activation or deactivation of functions due to unintentional contact with the touch screen. Thus, portable devices, touch screens on such devices, and/or applications running on such devices may be locked upon satisfaction of predefined lock conditions, such as upon entering an active call, after a predetermined time of idleness has elapsed, or upon manual locking by a user.

[0005] Devices with touch screens and/or applications running on such devices may be unlocked by any of several well-known unlocking procedures, such as pressing a predefined set of buttons (simultaneously or sequentially) or entering a code or password. These unlock procedures, however, have drawbacks. The button combinations may be hard to perform. Creating, memorizing, and recalling passwords, codes, and the like can be quite burdensome. These drawbacks may reduce the ease of use of the unlocking process and, as a consequence, the ease of use of the device in general.

[0006] Accordingly, there is a need for more efficient, user-friendly procedures for unlocking such devices, touch screens, and/or applications. More generally, there is a need for more efficient, user-friendly procedures for transitioning such devices, touch screens, and/or applications between user interface states (e.g., from a user interface state for a first application to a user interface state for a second application, between user interface states in the same application, or between locked and unlocked states). In addition, there is a need for sensory feedback to the user regarding progress towards satisfaction of a user input condition that is required for the transition to occur.

US6442251 B1 discloses a phone application including a note button. During a call, when the note button is pressed, a note entry screen is presented to a user.

"N1 Quick Start Guide",

[http://www.instructionsmanuals.com/download/telefonos\\_movil/Neonode-N1-en.pdf](http://www.instructionsmanuals.com/download/telefonos_movil/Neonode-N1-en.pdf) discloses a mobile phone with a touch screen. The mobile phone can be unlocked by moving a finger over the touch screen.

## SUMMARY

In accordance with a first aspect of the invention, there is provided a method of controlling a device comprising a touch-sensitive display as defined by claim 1 of the appended claims.

[0007] In some ~~embodiments~~examples of the disclosure, a method of controlling an electronic device with a touch-sensitive display includes: detecting contact with the touch-sensitive display while the device is in a user-interface lock state; moving an image corresponding to a user-interface unlock state of the device in accordance with the contact; transitioning the device to the user-interface unlock state if the detected contact corresponds to a predefined gesture; and maintaining the device in the user-interface lock state if the detected contact does not correspond to the predefined gesture.

[0008] In some ~~embodiments~~examples, a method of controlling a device with a touch-sensitive display includes: displaying an image on the touch-sensitive display while the device is in a user-interface lock state; detecting contact with the touch-sensitive display; transitioning the device to a user-interface unlock state if the detected contact corresponds to moving the image to a predefined location on the touch-sensitive display; and maintaining the device in the user-interface lock state if the detected contact does not correspond to moving the image to the predefined location.

[0009] In some ~~embodiments~~examples, a method of controlling a device with a touch-sensitive display includes: displaying an image on the touch-sensitive display while the device is in a user-interface lock state; detecting contact with the touch-sensitive display; and transitioning the device to a user-interface unlock state if the detected contact corresponds to moving the image on the touch-sensitive display according to a predefined path on the touch-sensitive display; and maintaining the device in the user-interface lock state if the detected contact does not correspond to moving the image according to the predefined path.

[0010] In some ~~embodiments~~examples, a method of controlling a device with a touch-sensitive display includes: displaying first and second images on the touch-sensitive display while the device is in a user-interface lock state; detecting contact with the touch-sensitive display; transitioning the device to a first active state corresponding to the first image if the detected contact corre-