

Radio Frequency (RF) band signal, and transmitting the RF signal through the antenna. In a reception mode, the communication unit **1510** performs a function of down-converting an RF band signal received through the antenna into a baseband signal, and restoring the original data.

[0118] The touch screen unit **1520** includes a touch panel **1522** and a display unit **1524**. The display unit **1524** displays state information generated during operation of the device, limited number of characters, a large amount of moving pictures and still pictures and the like. The touch panel **1522** is installed in the display unit **1524**, and displays various menus on a screen and senses a touch generated on the screen.

[0119] The memory **1530** stores a basic program for an operation of the device, setting information and the like.

[0120] The TTS unit **1540** converts text data into speech data and outputs the speech data through a speaker.

[0121] The character-Braille conversion unit **1550** supports a character-Braille conversion Application Programming Interface (API) protocol, and converts text data into Braille data and provides the Braille data to the interface unit **1560**.

[0122] The interface unit **1560** transmits Braille data input from the character-Braille conversion unit **1550**, to a Braille display through an interface.

[0123] In a description of the present invention, the process of zooming in and displaying, a process of converting into speech data and transmitting through a speaker, a process of converting into Braille data and transmitting to a Braille display and the like may be performed in any sequential order, and it is undoubted that they can be changed in order and can be implemented simultaneously.

[0124] On the other hand, it has been described that a device with a touch screen includes a character-Braille conversion unit, for example. Unlike this, in a different method, it is undoubted that a Braille display may include the character-Braille conversion unit. In this case, the device can transmit text data to the Braille display through an interface, and the Braille display can convert the text data into Braille data through the character-Braille conversion unit and output the Braille data through a Braille module.

[0125] As described above, example embodiments of the present invention provide an interface for improving the accessibility of the disabled, thereby having an advantage that the visually challenged user can make use of a communication device in a relatively smooth and easy manner.

[0126] While the invention has been shown and described with reference to certain preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. A method for providing an interface in a device with a touch screen, the method comprising:

displaying, on the touch screen, a directory comprising a plurality of names and phone numbers corresponding to the names;

when a touch event takes place, focusing a region within the touch screen where the touch event occurs; and converting a name and phone number in the focused region into Braille data and transmitting the Braille data to a Braille display through the interface.

2. The method of claim 1, further comprising: zooming in and displaying on the touch screen, the name and phone number in the focused region; and

converting the name and phone number within the focused region into speech data and outputting the speech data through a speaker.

3. The method of claim 1, further comprising: when a flicking event occurs in first and second directions, shifting the focused region to a higher level in the first and second directions,

wherein the focused region comprises at least one name and the phone number corresponding to the at least one name.

4. The method of claim 3, wherein the first and second directions comprise up and down directions.

5. The method of claim 1, further comprising: when a flicking event occurs in first and second directions, transmitting a previous and subsequent group of Braille data to the Braille display through the interface based upon a group of Braille data presently transmitted to the Braille display.

6. The method of claim 5, wherein the first and second directions comprise left and right directions.

7. The method of claim 1, further comprising: when a multi-scroll event occurs in the first and second directions, shifting the focused region proportionally to the first and second directions.

8. The method of claim 7, wherein the first and second directions comprise up and down directions.

9. The method of claim 1, further comprising: when a multi-touch event occurs, transmitting a call request signal to the phone number in the focused region.

10. A method for providing an interface in a device with a touch screen, the method comprising:

displaying on the touch screen, a text message list composed of a plurality of phone numbers and at least a portion of a text message content corresponding to the phone numbers;

when a touch event occurs, focusing a region in the touch screen where the touch event occurs; and

converting a phone number and the text message content associated with the phone number in the focusing region into Braille data and transmitting the Braille data to a Braille display through the interface.

11. The method of claim 10, further comprising: zooming in and displaying the phone number and text message content in the focused region on the touch screen; and

converting the phone number and text message content in the focused region into speech data and outputting the speech data through a speaker.

12. A method for providing an interface in a device with a touch screen, the method comprising:

when a call request signal is received, extracting sender information from the received call request signal; and converting the extracted sender information into Braille data and transmitting the Braille data to a Braille display through the interface.

13. The method of claim 12, further comprising: zooming in and displaying the extracted sender information on the touch screen; and

converting the extracted sender information into speech data and outputting the speech data through a speaker.