FIG. **2** is a perspective view of the computer system according to an exemplary embodiment of the present invention;

FIGS. **3**A and **3**B are drawings illustrating character values preset corresponding to key areas of a touch pad according to an exemplary embodiment of the present invention; and

FIG. **4** is a flow diagram illustrating a control method of the computer system according to an exemplary embodiment of the present invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

Reference will now be made in detail to the present embodiments of the present invention, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to like elements throughout. The embodiments are described below in order to explain the present invention by referring to the figures.

As shown in FIG. **1**, a computer system according to the present invention comprises a touch pad **10**, a display **40**, a user selecting unit **30**, a storing unit **20**, and a controller **50**. The computer system may be a desktop system, a notebook (portable computer), a portable entertainment device, a mobile phone, or any computing device requiring user input.

The touch pad **10** is provided as a panel which senses pressure applied when a stylus or a user's hand touches the panel. The touch pad **10** has a plurality of key areas. The touch pad **10** functions as a keyboard which generates a key signal according to a touch input of the respective key areas and supplies the key signals to the controller **50**.

The touch pad **10** senses whether touch input is generated by contact with the touch pad **10**. Then, if touch input is generated, the touch pad **10** generates the key signal according to the touch input. A firmware is coupled to the planar bottom of the touch pad **10**. The firmware may generate the key signal after determining the key areas of the input generated on the touch pad **10**. Then, the character values corresponding to the generated key signal are displayed on the display **40** by the controller **50**, which will be described later.

The touch pad **10** will be described in more detail with reference to FIGS. **3**A and **3**B. FIGS. **3**A and **3**B illustrate an example in which character values corresponding to the key areas of the touch pad **10** are preset. In this example, the character values are English capital letters; however, the key areas may represent any character set, such as English lower case letters, Korean, Japanese, etc.

As shown in FIG. **3**A, the touch pad **10** is divided into a plurality of key areas, and the character values (the characters making up the English alphabet) are arranged in the respective key areas. The key areas may have the same arrangement as the keyboard, as shown in FIG. **3**B. The character values corresponding to the respective key areas may be set by the user. Other aspects of the invention may employ other arrangements of the key values, depending on the circumstances. For example, a touch screen included in a mobile phone may have an arrangement corresponding to the arrangement of keys on a phone.

When the user moves an input device across the touch pad **10**, the touch pad **10** performs the function of a mouse by moving the pointer on the display **40** according to movement by contact of the user. The input device may be a stylus (such as a stylus manufactured especially for use with the touch pad **10**, a pen, a pencil, or the like) or the user's finger. The touch pad **10** is connected with the controller **50** through a PS/2 interface method, and may provide the input signal generated by a user's operation. However, the interface is not limited to PS/2 as long as the input device and the controller **50** can be connected to each other. According to other aspects of the present invention, the interface may be a Universal Serial Bus (USB) interface.

The user selecting unit **30** comprises keys to set a user environment to input characters through the touch pad **10**. The user selecting unit **30** may be provided on one side of the computer system. Whether the touch pad **10** will perform the function of the keyboard or the function of the mouse may be set through the user environment, for example by a dialog box or pull-down menu. In addition, the kind of languages (such as Korean, English upper-case letters, English lower-case letters, Japanese, and special characters) of the character values corresponding to the key areas of the touch pad **10** can be set through the user environment.

A relation table is stored in the storing unit **20**. The relation table relates the character values to each of the key areas of the touch pad **10**. The storing unit **20** may be provided as an EEPROM (Electrically Erasable Programmable Read-Only Memory), an EPROM (Erasable Programmable Read-Only Memory), or any type of recording media. Various types of displays **40** may be used, such as a liquid crystal display (LCD) or a plasma display panel (PDP), and displays an image signal supplied from the controller **50**.

The controller **50** reads, from the storing unit **20**, the character values corresponding to the areas where the key signal inputted onto the touch pad **10** was generated and displays the character values on the display **40**. If successive key signals are generated, the controller **50** sequentially reads the character values corresponding to the successive key areas to changeably display the character values on the display **40**. The controller **50** may be provided as a CPU or a MICOM.

As shown in FIG. **1**, the controller **50** comprises a driver **53**, and an application **51**. According to other aspects of the present invention, the controller **50** may include other components in addition to the driver **53** and the application **51**. Similarly, the functionality of two or more components may be performed by a single component.

The driver **53** reads character values corresponding to the key areas in which the touch input is generated from the storing unit **20** on the basis of the key signal generated from the touch pad **10**. The driver **53** converts the key signal into the character values. The driver **53** sequentially reads the character values corresponding to the successive key areas when successive key signals are generated and sequentially converts the successive key signals into the character values. The driver **53** converts the character values corresponding to the key signal outputted from the touch pad **10** according to the user environment preset by the user through the user selecting unit **30**.

The application **51** processes the character values converted by the driver **53** and displays the converted character values on the display **40**. The character values that the application **51** processes are processed the in the same fashion as those inputted from a conventional keyboard. For example, when the user touches the key area u**1** of FIG. **3**A, the touch pad **10** generates the key signal of the key area u**1** and outputs the key signal to the controller **50**. The controller **50** receives the key signal and controls the character value 'A' preset in the key area u**1** to be displayed on the display **40**.

If the user moves the touch input in the direction indicated by the arrow shown in FIG. **3**A, from key area u**1** to key area u**3**, the touch pad **10** successively generates the key signal according to the generated touch input and outputs the key signals to the controller **50**. As the user moves the touch input in the direction indicated by the arrow, a stream of key signals (i.e., successive key signals) is generated: first a key signal