METHOD FOR ENTERING ALPHANUMERIC CHARACTERS INTO A GRAPHICAL USER INTERFACE

BACKGROUND OF THE INVENTION

[0001] This invention relates generally to electronic devices and, more particularly, relates to a method for entering alphanumeric characters into the graphical user interface of an electronic device.

[0002] Graphical user interfaces are increasing found in electronic devices and have gained wide popularity due to their capacity to make operation of an electronic device much more user friendly. Virtually every personal computer in use today incorporates a graphical user interface typically using icons which correspond to commands which can be selected using a pointer manipulated by a mouse. Graphical user interfaces are even used to provide the user with ability to enter data into an electronic device. One such example well known in the art relies upon a touch screen display which presents alphanumeric buttons or keys to the user which can be selected, much like typing on a keyboard, toward entering alphanumeric data. However, such well known graphical user interfaces are not typically capable of being used for alphanumeric data entry in connection with a device having a touch screen display of limited size, i.e., where the touch screen display is not of sufficient size to allow the graphical user interface elements to be clearly viewed and/or individually selected. If a touch-screen is significantly smaller than a typical computer keyboard, the displayed alphanumeric buttons or keys are often obscured from the users view by the user's own hand which is attempting to make contact with the surface of the display proximate a particular button or key. In short, the user cannot clearly see which button or key is being pressed thereby frustrating the user experience.

[0003] Accordingly, a need exists for an improved graphical user interface that allows a user to clearly discern graphical user interface elements and to interact with those graphical user interface elements even when implemented on an electronic device having a touch screen display of limited size.

SUMMARY OF THE INVENTION

[0004] In order to address this and other needs, described hereinafter is a method for entering alphanumeric characters into the graphical user interface of an electronic device. Generally, the graphical user interface displays a plurality of alphanumerical characters and, in response to user input that functions to target one of the plurality of alphanumerical characters, the user interface displays the targeted alphanumeric character with a highlighted feature that serves to distinguish the targeted alphanumeric character from the displayed, non-targeted alphanumeric characters. By way of example, the targeted alphanumeric character may be provided with a distinct size, font stylization, location, and/or color that serves to distinguishing the targeted alphanumeric character within the graphical user interface display toward confirming to the user the identity of the character being selected.

[0005] A better understanding of the objects, advantages, features, properties and relationships of the method will be obtained from the following detailed description and accompanying drawings which set forth illustrative embodiments which are indicative of the various ways in which the principles of the method may be employed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] For a better understanding of the method for entering alphanumeric characters into a graphical user interface, reference may be had to preferred embodiments shown in the following drawings in which:

[0007] **FIG. 1** illustrates a first exemplary graphical user interface by which alphanumeric information may be entered for processing by an electronic device;

[0008] **FIG. 2** illustrates a further exemplary graphical user interface by which alphanumeric information may be entered for processing by an electronic device;

[0009] **FIG. 3** illustrates yet another exemplary graphical user interface by which alphanumeric information may be entered for processing by an electronic device; and

[0010] **FIG. 4** illustrates a still further exemplary graphical user interface by which alphanumeric information may be entered for processing by an electronic device.

DETAILED DESCRIPTION

[0011] Referring now to the figures, wherein like reference numerals refer to like elements, a graphical user interface **10** for use in connection with an electrical device is described. More particularly, the graphical user interface **10** supports a method for entering alphanumeric characters such that the entered alphanumeric characters may be used to cause the electronic device to perform an action, for example, to perform a database search. While the graphical user interface **10** described hereinafter may be used in connection with any microprocessor based electronic device having an associated display, it is particularly suited for use in connection with an electronic device, such as an MP3 player, having a small touch screen display where the displayed graphical user interface elements are typically smaller than a human finger, i.e., a finger touch might overlap multiple target graphical user interface elements. It will be understood that the described graphical user interface may also be useful in a situation where an electronic device fails to include a keyboard or a limited amount of hard entry keys. While the principles of the present invention are disclosed in the context of entering alphanumeric characters into the graphical user interface, the present invention may be used to target and select other indicia for entry into a graphical user interface where such indicia includes not only alphanumeric characters but also symbols and/or graphic elements.

[0012] For use in entering alphanumeric character information into the graphical user interface **10**, the graphical user interface **10** is adapted to present to the user a plurality of alphanumeric characters **12** that are selectable by the user. As illustrated in FIGS. **1-3**, the alphanumeric characters **12** may be presented to the user, for example, using a linear list wherein the alphanumeric characters may be arranged in an alphabetical and/or numerically ascending/descending order. Still further, the alphanumeric characters **12** may be presented to the user using a conventional "QWERTY" or other known keyboard metaphor, as illustrated in **FIG. 4**. It will also be appreciated that all of the selectable alphanu-