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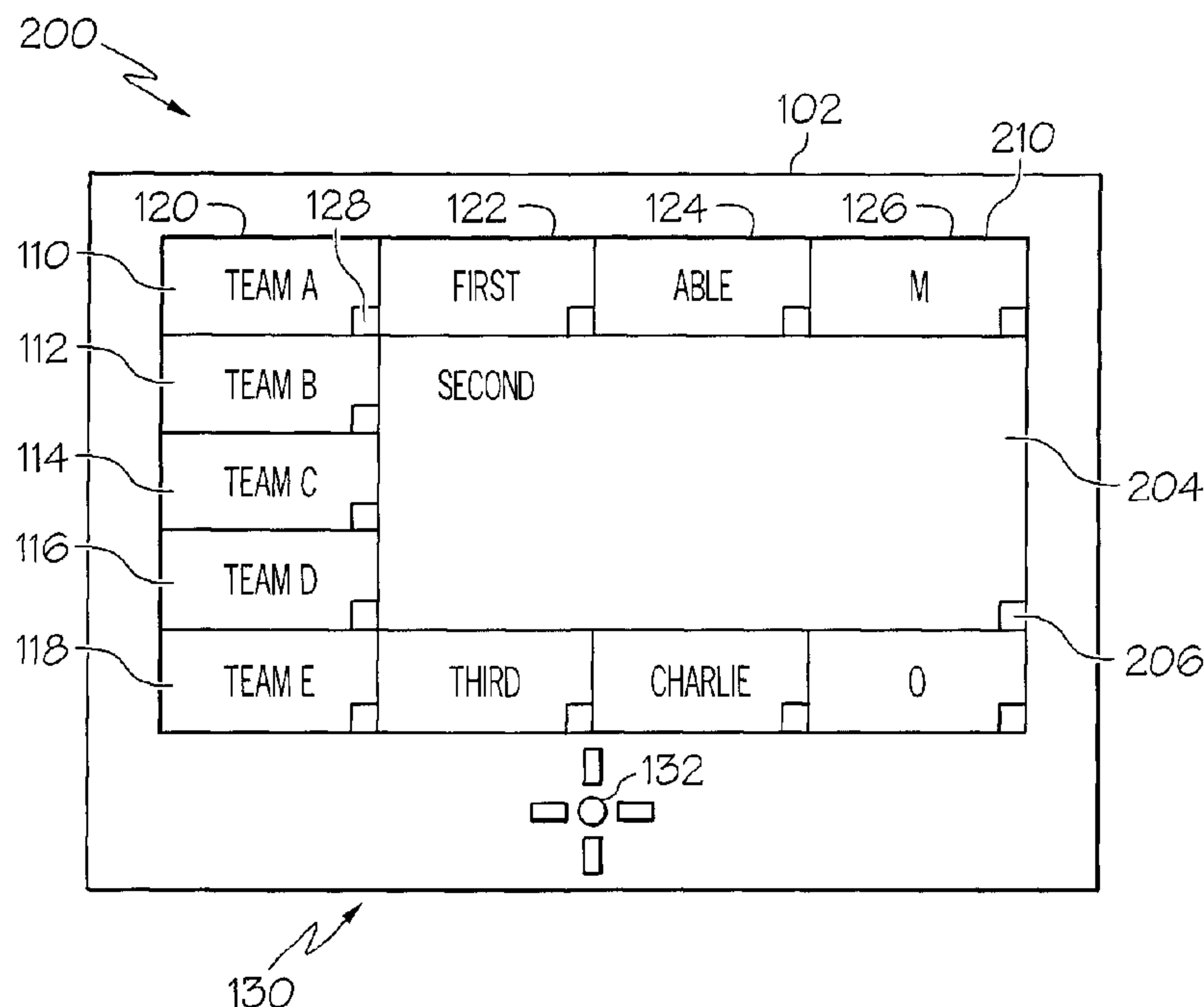
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(54) **Titre : REDIMENSIONNEMENT SELECTIF DE CELLULES DE SAISIE DE DONNEES**

(54) **Title: SELECTIVE RESIZING OF DATA INPUT CELLS**



(57) **Abrégé/Abstract:**

A system and method to increase the size of a displayed data input cell (140, 204, 324, 404) in order to more effectively use a touch screen (634) to enter data. A user selects an input cell (140, 324) to expand by a touching of or dragging an expansion icon (142, 350). The user is then able to use that expanded area as a drawing area for handwritten input containing text, numbers, or sketches. After drawing in the expanded area, the user can select reducing (514) the size of the input cell.

ABSTRACT

A system and method to increase the size of a displayed data input cell (140, 204, 324, 404) in order to more effectively use a touch screen (634) to enter data. A user selects an input cell (140, 324) to expand by a touching of or dragging an expansion icon (142, 350). The user is then able to use that expanded area as a drawing area for handwritten input containing text, numbers, or sketches. After drawing in the expanded area, the user can select reducing (514) the size of the input cell.

SELECTIVE RESIZING OF DATA INPUT CELLS

FIELD OF THE DISCLOSURE

[0001] The present disclosure generally relates to user interfaces for electronic devices and more particularly to user interfaces for receiving user input.

BACKGROUND

[0002] Electronic devices, such as computers and handheld devices, often present user interface displays into which users are able to enter information. Some user interface displays include cells or fields into which data can be entered. Examples include forms with input cells or displays of spreadsheet cells that can receive data provided by a user. Textual or numeric information is often entered into data input cells of a form by selecting a particular cell through the user interface facilities and typing information into the cell with a keyboard. These techniques for entering text or numeric data sometimes limits the usefulness of user interfaces presented on some portable electronic devices. Some portable electronic devices include a touch screen display that allows a user to input information by drawing on the display to input, for example, text, numbers, or even sketches of images. User input displays generally present data input cells with a size suitable to display characters entered with a keyboard. The size of cells on conventional user input displays can make writing directly into a data input cell using the touch screen display input capabilities difficult.

[0003] Therefore, using touch screen display input facilities is limited by the dimensions of displayed input forms.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] The accompanying figures where like reference numerals refer to identical or functionally similar elements throughout the separate views, and which together with the detailed description below are incorporated in and form part of the specification, serve to further illustrate various embodiments and to explain various principles and advantages all in accordance with the present disclosure, in which:

[0005] FIG. 1 illustrates a data input cell grid user interface in accordance with one example;

[0006] FIG. 2 illustrates an expanded data input cell grid user interface, in accordance with one example;

[0007] FIG. 3 is a user input form display according to one example;

[0008] FIG. 4 illustrates an expanded cell user input form display in accordance with one example;

[0009] FIG. 5 illustrates an input cell resizing process, in accordance with one example; and

[0010] FIG. 6 is a block diagram of an electronic device and associated components in which the systems and methods disclosed herein may be implemented.

DETAILED DESCRIPTION

[0011] As required, detailed embodiments are disclosed herein; however, it is to be understood that the disclosed embodiments are merely examples and that the systems and

methods described below can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the disclosed subject matter in virtually any appropriately detailed structure and function. Further, the terms and phrases used herein are not intended to be limiting, but rather, to provide an understandable description.

[0012] The terms “a” or “an”, as used herein, are defined as one or more than one. The term plurality, as used herein, is defined as two or more than two. The term another, as used herein, is defined as at least a second or more. The terms “including” and “having,” as used herein, are defined as comprising (i.e., open language). The term “coupled,” as used herein, is defined as “connected,” although not necessarily directly, and not necessarily mechanically.

[0013] Described below are systems and methods that allow a user of an electronic device with a touch screen display input to increase the size of a displayed data input cell in order to more effectively use the touch screen to enter data into the expanded data input cell. The display of various examples present a multiple input cell presentation that consists of a number of displayed input cells. The user input facilities of a device allow a user to indicate which one input cell of the number of displayed input cells is to be a selected input cell that the user wishes to expand. The one selected input cell is able to be expanded to any size. The one selected input cell is able to be expanded to a size that is independent of data contained within the selected cell. In other words, expansion of the selected input cell is not limited to expansion to a size that allows the text or other content within the selected cell to be entirely visible, but is able to be expanded to display

only a greater portion of the contents of the cell or over-expanded beyond a size required to show the entire contents of the selected input cell. The one selected input cell is also expanded to a size that is independent of the other displayed input cells.

[0014] Once the selected input cell is expanded, the touch screen display input mechanism is able to use the area of the expanded cell as a drawing area for handwritten input. The expanded area makes it easier for a user to enter handwritten text, numbers, or sketches. Further processing of the handwritten input is able to perform, for example, handwriting recognition to derive machine readable data such as character codes from the handwritten text input. Once the user has completed data entry, the user is then able to select that the selected input cell be reduced in size. The reduced size may correspond to a default input cell size or a size required to display the user provided input. Once the selected input cell is reduced in size, the user provided content is also able to be reduced in size to better fit the reduced size of the selected input cell.

[0015] FIG. 1 illustrates a data input cell grid user interface 100 in accordance with one example. The data input cell grid user interface 100 includes a touch screen display input 102. The touch screen display input 102 is an example of a display screen that presents a grid of a number of input cells 104. The grid of a number input cells 104 is an example of a multiple input cell presentation. The touch screen display input 102 of this example displays a rectangular grid of a number of input cells 104 that are able to receive data from a user. Each input cell 104 may be selected by touching the touch screen display input 102, e.g., with a stylus, finger or other touch enabling device, in an area associated with the corresponding input cell 104. The data input cell grid user interface 100 may also include a navigation key cluster 130 that includes keys to allow a user to move a

commands to resize the selected input cell. In the illustrated example, the selected input cell is the input cell that is associated with the expansion icon touched or moved by the user.

[0020] In further examples, a particular input cell is expanded automatically when the user provides an input to identify that particular input cell as the input cell. Additionally, a user of a touch screen display input 102 is able to use a touch screen gesture to indicate a command to resize the selected input cell. A touch screen gesture is made, for example, by moving one or more fingers in a determined manner across the touch screen display input 102. A number of touch screen gestures may be defined for a particular touch screen display input 102, such as to display another image, open another application and the like.

[0021] FIG. 2 illustrates an expanded data input cell grid user interface 200, in accordance with one example. The expanded data input cell grid user interface 200 illustrates an expanded cell display 210 that includes an expanded second input cell 204 of the two dimensional grid of data input cells described above with regards to the data input cell grid user interface 100. The expanded cell display 210 is an example of a multiple input cell presentation. As depicted for the expanded data input cell grid user interface 200, the expanded cell display 210 presents an unaltered display of the first row 110 and the first column 120 of input cells. The expanded data input cell grid user interface 200 depicts an expanded second input cell 204, which corresponds to the second input cell 140 of the data input cell grid user interface 100.

embodiments without departing from the scope of the disclosed subject matter. The scope of the disclosure is not to be restricted, therefore, to the specific embodiments, and it is intended that the appended claims cover any and all such applications, modifications, and embodiments within the scope of the present disclosure.

