

Technical Disclosure Commons

Defensive Publications Series

January 13, 2015

DATA SELECTION USING GESTURE AND DRAG FUNCTIONALITY

Aaron Zemach

Follow this and additional works at: http://www.tdcommons.org/dpubs_series

Recommended Citation

Zemach, Aaron, "DATA SELECTION USING GESTURE AND DRAG FUNCTIONALITY", Technical Disclosure Commons, (January 13, 2015)
http://www.tdcommons.org/dpubs_series/12



This work is licensed under a [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/).

This Article is brought to you for free and open access by Technical Disclosure Commons. It has been accepted for inclusion in Defensive Publications Series by an authorized administrator of Technical Disclosure Commons.

DATA SELECTION USING GESTURE AND DRAG FUNCTIONALITY

ABSTRACT

A data selection system and method can be used to facilitate selection of data in a computing application executing on a computing device. Such a data selection system can initiate a selection mode within the application in response to a gesture detected by the computing device. Gestures may include, for example, a long press on a touch-sensitive input device operatively coupled to or included in the computing device, one or more taps or swipes on the touch-sensitive input device, physical shakes of the computing device, touchless gestures detected by the computing device, etc. The data selection system can receive multiple selections of data while the application is in the selection mode. For example, the data selection system can receive a first selection of data at the application and initiate a timer in response to receiving the first selection. The data selection system can cause the selection mode to remain active until the timer has expired. The data selection system can then reset the timer every time the computing device detects a subsequent selection of data while the application is in the selection mode. Once the timer has expired, the data selection system can then highlight the final selections of data.

PROBLEM

Portable devices, for example, mobile devices and tablets, have gained widespread use. Portable devices may have small sized user input and output devices, for example, touch sensitive display screens. It is challenging for users to perform input and output functions, especially selection of data and/or editing of data, on such small sized touch sensitive display

screens. Methods usually used for selection of text include an initial selection that consists of a single data item and then dragging of handles for modifying the selection. However, this makes selection across multiple paragraphs, pages, or screens challenging, since scrolling the screen while dragging the selection handle is cumbersome and difficult to accurately position. In addition, large screen sized devices like desktops use a click and drag method for selection of data. Since the methods described for small and large screen sized devices are significantly different, it can be difficult for users to learn such varied methods. A system is described that facilitates selection of data in a selection mode using gesture and drag functionality.

DATA SELECTION SYSTEM

The systems and techniques described in this disclosure relate to a data selection system and method that facilitates selection of data. The data selection system can be implemented for use in an Internet, an intranet, or another client and server environment. The system can be implemented locally on a client device or implemented across a client device and server environment. The client device can be a computing device, for example, laptop, mobile phone, computer, tablet, etc.

FIG. 1 illustrates a method 100, for example, data selection method, to facilitate selection of text in a computing application executed on a computing device. The application can be a text editor, word processor, or any application that includes text. The method 100 can be performed by a system that provides selection of data, for example, the data selection system.

When a user is working in a computing application, such as a word document, the user may want to select text in the document and perform various text editing operations, e.g., cut,

copy, and paste. In order to select text in the document, the user can provide an input gesture that can be detected by the computing device. The user inputs gesture in order to trigger initiation of a selection mode to select text in the document. Gestures may include, for example, a long press on a touch-sensitive input device operatively coupled to or included in the computing device, one or more taps or swipes on the touch-sensitive input device, physical shakes of the computing device, touchless gestures detected by the computing device, etc. User can input gestures or commands through various input methods, for example, finger touch on the touch-sensitive input device, computing device shake by user's hand, stylus, and audio commands by the user. The system can initiate a selection mode in response to the gesture received at the application (Block 102). The system, through the selection mode, can facilitate the user selection of text within the application. The system can visually modify the application window by darkening borders, changing color of borders/background, etc. or produce audible alerts upon entering the selection mode.

The system can receive a first selection of text at the application (Block 104) after entering the selection mode. For example, the system receives a selection of group of words or sentence within the application. Text can be selected by the user using various touch gestures like dragging or swiping on the touch-sensitive input device, etc. The user may select the text that the user wants to copy, cut, highlight, etc. The system can differentiate the selected text from non-selected text by highlighting the selected text temporarily with a first color. Alternatively or additionally, the system may modify any other visual characteristic of the text, such as font size, color, style, etc.

Further, the system may initiate a timer after receiving the first selection of text (Block 106). The timer may limit the selection mode for a period of time during which the user can make multiple selections. The timer may be of a fixed time interval, e.g., 20 seconds, that can be set by the system or by the user. The system can provide the user with a selectable option for entering a value for the timer via a user interface menu. As the timer counts down, the system can reflect the decreasing timer by visually modifying the borders of the application window correspondingly. For example, the system lightens or blurs the color of the border(s) of the application window according to the decreasing timer. Alternatively or additionally, the system may display a clock illustrating the decreasing timer.

Further in FIG. 1, the system can detect if the timer has expired (Block 108). If the timer has not expired, the system can detect if another selection of text has been received (Block 110) after receiving the first selection of text. If another selection of text is detected by the computing device, the system can receive the selection of text (Block 114). After receiving the selection of text, the system can highlight the selected text with the first color, reset the predefined timer (Block 116), and start monitoring the timer again (Block 108).

At Block 108, if the system determines that the timer has expired, the system may end the selection mode and highlight the selections of text (Block 112). For example, the system highlights the first and other selections of text with a second color after the timer expires. The system can receive any number of selections until the timer expires. The system may reset the timer every time the system receives a selection of text. Additionally or alternatively, the system can highlight the text by underlining, bolding, etc.

In an alternate implementation, the system can provide the user an option to end the selection mode voluntarily with a soft button in the user interface. For example, if the user selects a first selection of text and wishes to end the selection mode, the user can press a “stop” button. The system can stop the timer, exit the selection mode, and highlight the selection of text.

FIG. 2 illustrates example Graphical User Interfaces (GUI) for receiving selections of text. The data selection system facilitates the selections of text in the application represented by the GUI. The GUI of FIG. 2 depicts a word processor application displayed at the display device, e.g., touch sensitive screen, of the computing device 200. FIG. 2A and FIG. 2B are divided into 4 frames each for illustration purposes.

As shown in the first frame of FIG. 2A, the user long presses on the touch sensitive screen. On detecting the gesture by the computing device, the system switches the application into a selection mode. The system highlights the borders of the application window for representing the selection mode (second frame of FIG. 2A). The user performs a drag gesture and selects a sentence (group of words) at the application. The system initiates a timer in response to the received selection. The system temporarily highlights the selection of text (as shown in fourth frame of FIG. 2A). Text can be highlighted by various methods like coloring, bolding, underlining, italicizing, etc. The system may fade the highlighting of the borders of the application window based on the decreasing timer.

As illustrated in the first frame of FIG. 2B, the system receives another selection of text from the user. In response to this selection the system resets the timer and the highlighting of the borders of the application window, as shown in second frame of FIG. 2B. The system can

temporarily highlight this selection in a particular style (color, bold, underline, etc.). The system may wait for another selection till the timer expires. The system ends the selection mode once the timer expires and highlights the final selections received in a style different from the temporary one, as shown in last frame of FIG. 2B.

The data selection system makes it easier for the users to make multiple selections in an application by initiating a timer in the selection mode. The user can easily scroll through the application and make selections conveniently.

Although the above description is based on text selection, however, the data selection system can also be used for other data items like images, URLs, objects, etc. Also, in lieu of the timer limiting the selection mode, the selection mode can be always active. Apart from receiving selections of data, the system can also provide the user a method to deselect the selection of data. For example, the user can drag backwards on the selected data to deselect the data.

The subject matter described in this disclosure can be implemented in software and/or hardware (for example, computers, circuits, or processors). The subject matter can be implemented on a single device or across multiple devices (for example, a client device and a server device). Devices implementing the subject matter can be connected through a wired and/or wireless network. Such devices can receive inputs from a user (for example, from a mouse, keyboard, or touchscreen) and produce an output to a user (for example, through a display). Specific examples disclosed are provided for illustrative purposes and do not limit the scope of the disclosure.

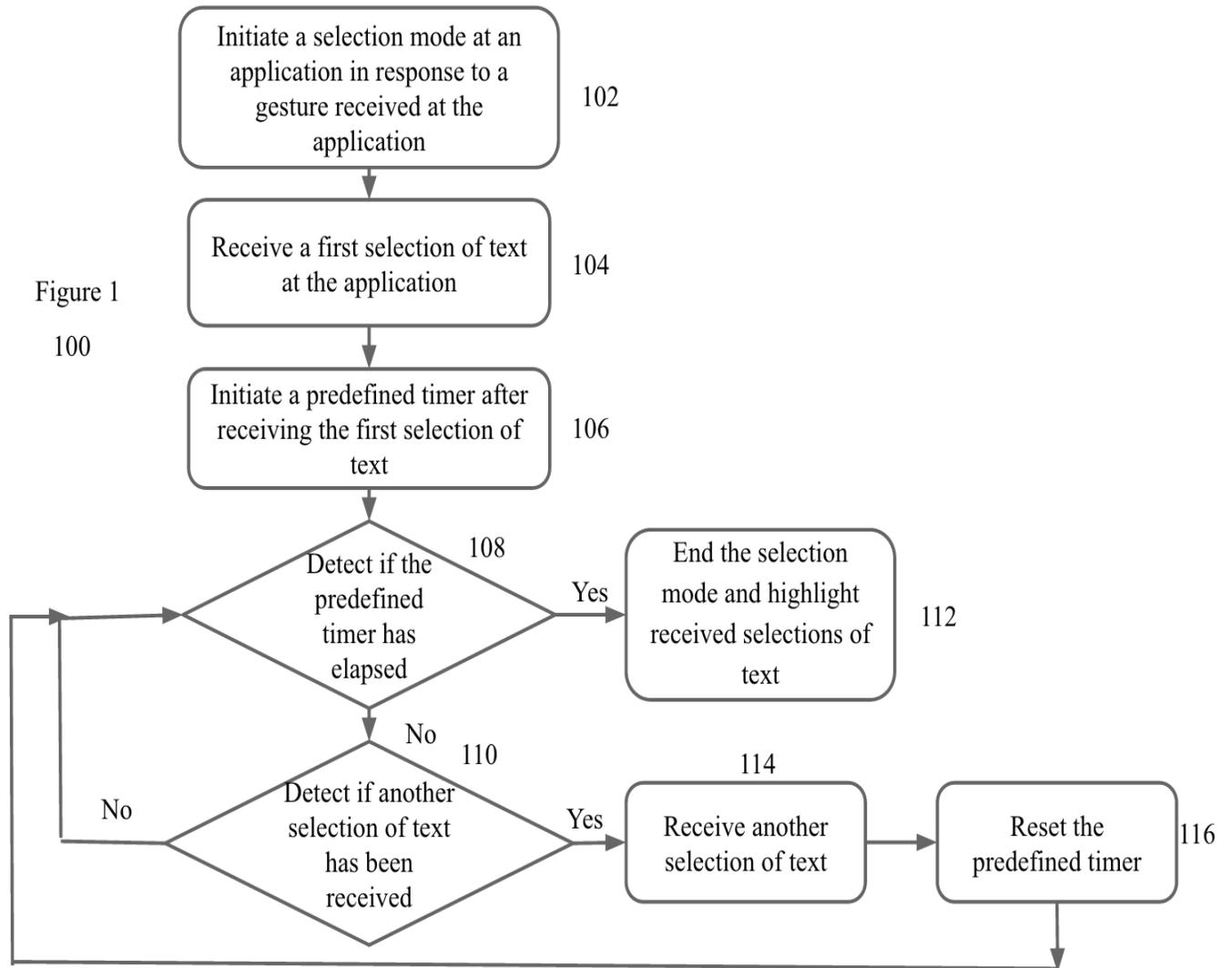
DRAWINGS

Figure 2A

<p>Australia is the world's sixth largest country by total area. It is a country comprising the mainland of the Australian continent and numerous other smaller islands. Australia has no official language but English has been entrenched as the national language. The country has been a tourist attraction for many years. Top attractions in Australia include The Great Barrier Reef and Sydney Harbour.</p>	<p>Australia is the world's sixth largest country by total area. It is a country comprising the mainland of the Australian continent and numerous other smaller islands. Australia has no official language but English has been entrenched as the national language. The country has been a tourist attraction for many years. Top attractions in Australia include The Great Barrier Reef and Sydney Harbour.</p>
<p>Australia is the world's sixth largest country by total area. It is a country comprising the mainland of the Australian continent and numerous other smaller islands. Australia has no official language but English has been entrenched as the national language. The country has been a tourist attraction for many years. Top attractions in Australia include The Great Barrier Reef and Sydney Harbour.</p>	<p>Australia is the world's sixth largest country by total area. It is a country comprising the mainland of the Australian continent and numerous other smaller islands. Australia has no official language but English has been entrenched as the national language. The country has been a tourist attraction for many years. Top attractions in Australia include The Great Barrier Reef and Sydney Harbour.</p>

Figure 2B

