over a particular section of the sensing surface (**1**), the corresponding active button (**30**) will be highlighted in the display screen (**29**). The line (**31**) illustrated in **FIG. 6C** indicates that the display screen (**29**) and the sensing surface (**1**) work together as a system. Depending on the complexity of the objects on the screen, the mapping may not exactly mirror the display. However, software associated with the mapping function of the present system and method will calculate an optimal mapping according to the size of the sensing area and the complexity of buttons in the active area. In some embodiments, the buttons mapped on the sensing surface can be smaller or larger than the active buttons displayed on the screen.

[**0058**] Once a finger is detected on the sensing surface (**1**), the button mapping on the sensing surface ceases. With the button mapping eliminated, a user's finger (**4**) may be slid to the left to activate a browsing function. When activated, the browsing function moves to the active graphic to the immediate left of the previously selected location. Similar browsing functions may be performed by sliding a finger (**4**) to the right, up, and/or down. To make a selection of an illuminated active graphic, the operator simply presses on the sensing surface.

[**0059**] **FIG. 6D** illustrates a browsing function. As shown in **FIG. 6D**, when the operator slides a finger (**4**) slightly, the display screen (**32**) responds with a new highlighted active graphic indicating the selection of a new button (**33**). Note, however, that the new location of the finger (**4**) does not necessarily correspond with the active button mapping in **FIG. 6B** that was established for new button selections. Rather, new selections performed during a browsing operation depend on a displacement distance of the finger (**4**) position. For example, a setting can be three units vertical and two units horizontal. According to one exemplary embodiment, the units used for the above-mentioned displacement recognition may be millimeters. Accordingly, if a sensed finger (**4**) is determined to have moved three units upward, the display screen (**32**) would highlight a new active graphic located immediately up from the previously indicated active graphic. Using the exemplary displacement recognition parameters illustrated above, if the size of the sensing surface is '3.0 cm.×3.5 cm', tens of selections may be browsed in a single stroke of the finger (**4**). However, the unit settings may be changed dynamically with the changes in active objects positions, and will depend on the complexity of active objects displays on the screen. Moreover, the displacement recognition parameters may be varied according to the personal preferences of each user to provide a useful and smooth browsing experience.

[**0060**] However, for exemplary situations where the available active objects are simple, as shown in **FIGS. 6A and 6B**, or when the active objects include a choice between 'yes' and 'no' for instance, the buttons mapped during the initial mapping function may remain even after the operator's first touch, since the large space on sensing surface for each button will ensure a pleasant browsing experience. Alternatively, when the sensing surface (**1**) is very small and active objects are complex, for instance when browsing a soft keyboard, the initially mapped buttons may be removed as illustrated above.

[**0061**] When no fingertip is sensed on the sensing surface (**1**), there will be no interaction highlighted on the display screen (**21**). If, however, the finger (**4**) is sensed on the edge of the sensing surface (**1**), the distance changes in finger coordinates will be small. In this exemplary situation, the computerized system will use the change in touch area in conjunction with pressure information received from the sensor to aid in the object browsing decisions. Consequently, an operator should never run out of space, as often occurs when browsing for graphical objects using a touch pad as a mouse pointer. Additionally, extra sensors can be added around the edges according to one exemplary embodiment, to increase browsing efficiency.

[**0062**] Since, the image of the active area will not be physically displayed on the sensing surface (**1**), the user may not locate an intended position at first touch. However, a user will intuitively select a location proximally near the intended position. Accordingly the intended position may be obtained with a minor slide of the finger (**4**). In contrast, existing systems that use the cursor/pointer system such as a mouse require that the operator first control the cursor/pointer from an arbitrary position on the screen and then move the cursor toward a desired location. Once a desired location is found, the user must then search at that location for a desired button. This traditional method is increasingly more difficult when using a smaller system such as a mobile phone since the display screen is much smaller in size. The present active space interaction system and method facilitates the browsing for graphical objects.

[**0063**] **FIGS. 7A and 7B** are a flow chart illustrating a general sequential logic for the active space interaction mode functioning in a computerized system. As shown in **FIG. 7A**, blocks (a) through (f) are common processes that occur in traditional position(s) sensing devices. Note that the input device does not compute the graphical selections in the process covered by blocks (a) through (f). Rather, the input device merely reported finger positions and other messages. All raw data collected from the operations performed in blocks (a) through (f) are sent to a personal computer (PC) in processes (g) and (h). As shown in **FIG. 7A**, the input device is initially in a dormant state (a). When in this dormant state, the input device is constantly sensing for a hand hovering above the input device (b). If a hand is detected hovering above the input device (b), the input device is placed in an active state (c). When in an active state, the input device checks for the positioning of finger(s) sensed on its surface (d). If a finger is detected, its position and digit values are collected (e) and compared to previously collected positional information (f). If the collected finger information is new (YES, f), the information is passed through the host communication interface (g) and onto the host computer system (h).

[**0064**] **FIG. 7B** illustrates the above mentioned active space method operating in a computing device. When the computing device receives the information collected in steps (a) through (h), the computing device updates its positional information with the newly collected data (i). It is then determined if the newly collected finger information is detected for the first time (j). If it is determined that the finger is being detected for the first time (YES, j), the computing device will determine the active object that is being selected according to the current active area mapping (k) and update the graphical feedback on the display (s).

[**0065**] Returning again to (j), if the detected finger already has an assigned active object, the computer will search for