

more modifications comprising a first modification implemented when two of the plurality of elements are contacting opposite edges of the displayed graphical window, the first modification changing at least the position and/or shape of the displayed graphical window in accordance with the identified positions and movement of the two elements contacting the opposite edges, a second modification implemented when two of the plurality of elements are contacting adjacent edges of the displayed graphical window, the second modification changing at least the shape and/or size of the displayed graphical window in accordance with the identified positions and movement of the two elements contacting the adjacent edges, a third modification implemented when two of the plurality of elements are contacting a same edge of the displayed graphical window, the third modification changing at least the position and/or shape of the displayed graphical window in accordance with the identified positions and movement of the two elements contacting the same edge, displaying on the display device at least a second portion of the image within the manipulated graphical window, and positions on the display device of common portions of the first and second portions of the image being substantially the same.

[0031] In accordance with an additional system embodiment of the present invention, a multi-input display system comprises a display device for displaying on a display surface a graphical window and at least a first portion of an image within the graphical window, the display device adapted to detect elements simultaneously contacting the display surface, a controller for identifying positions and movement of a plurality of elements simultaneously contacting one or more edges of the displayed graphical window, and for manipulating the displayed graphical window in accordance with one or more modifications, the one or more modifications comprising a first modification implemented when two of the plurality of elements are contacting opposite edges of the displayed graphical window, the first modification changing at least the position and/or shape of the displayed graphical window in accordance with the identified positions and movement of the two elements contacting the opposite edges, a second modification implemented when two of the plurality of elements are contacting adjacent edges of the displayed graphical window, the second modification changing at least the shape and/or size of the displayed graphical window in accordance with the identified positions and movement of the two elements contacting the adjacent edges, a third modification implemented when two of the plurality of elements are contacting a same edge of the displayed graphical window, the third modification changing at least the position and/or shape of the displayed graphical window in accordance with the identified positions and movement of the two elements contacting the same edge, the controller controlling the display device to display on the display surface at least a second portion of the image within the manipulated graphical window, positions on the display surface of common portions of the first and second portions of the image being substantially the same.

[0032] For each of the above-summarized additional method and system embodiments of the present invention, various aspects and features of such embodiments may be carried out in accordance with the present invention. Some of these features and aspects are summarized below.

[0033] As an aspect of such embodiments of the present invention, the first modification comprises changing the

shape of the displayed graphical window by positioning a first of the opposite edges of the displayed graphical window to align with the identified position of a first of the two elements contacting opposite edges, and by positioning a second of the opposite edges of the displayed graphical window to align with the identified position of a second of the two elements contacting opposite edges.

[0034] As another aspect of such embodiments, the first modification comprises changing the vertical or horizontal position of the displayed graphical window on the display device in accordance with a change in an axis defined by the positions of the two elements contacting the opposite edges.

[0035] As a further aspect of such embodiments, the second modification comprises uniformly scaling the size of the displayed graphical window in accordance with the identified movement of the two elements contacting the adjacent edges.

[0036] As yet another aspect of such embodiments, the third modification comprises changing the shape of the displayed graphical window by changing a length of said same edge in accordance with a change in distance between the positions of the two elements contacting the same edge.

[0037] In accordance with yet a further method embodiment of the present invention, a method of interfacing with a multi-input display device comprises displaying on a multi-input display device a graphical window and a first portion of an image within the graphical window, the displayed graphical window having an inner frame and an outer frame, identifying an initial position of one or more elements contacting the inner frame or the outer frame of the displayed graphical window, identifying a movement of the one or more elements, changing at least the position, shape and/or size of the displayed graphical window as a function of the initial position and movement of the one or more elements, manipulating the image displayed within the displayed graphical window in accordance with one or more modifications, the one or more modifications comprising a first modification implemented when the initial position of the one or more elements is identified as contacting the inner frame or the outer frame of the displayed graphical window, the first modification comprising manipulating the image displayed by displaying a second portion of the image within the changed graphical window, and positions on the display device of common portions of the first and second portions of the image being substantially the same, and, a second modification implemented when the initial position of the one or more elements is identified as contacting the other frame of the displayed graphical window, the second modification comprising manipulating the image displayed by changing the first portion of the image in a same manner the displayed graphical window is changed and displaying the changed first portion of the image within the changed graphical window.

[0038] In accordance with yet a further system embodiment of the present invention, a multi-input display system comprises a display device for displaying on a display surface a graphical window and a first portion of an image within the graphical window, the display device adapted to detect elements simultaneously contacting the display surface, the displayed graphical window having an inner frame and an outer frame, a controller adapted to identify an initial position of one or more elements contacting the inner frame or the outer frame of the displayed graphical window, to identify a movement of the one or more elements, to change at least the position, shape and/or size of the displayed graphical window as a function of the identified initial position and movement of