

calculating key parameters of the feature groups; and associating the feature groups to user interface elements on a display.

42. The computer implemented method as recited in **41** wherein said method further comprises:

recognizing when at least one of the feature groups indicates performance of a gesture relative to its associated user interface element.

43. The computer implemented method as recited in **41** wherein said method further comprises:

providing user feedback when at least one of the feature groups indicates performance of a gesture relative to its associated user interface element.

44. The computer implemented method as recited in **41** wherein said method further comprises:

implementing an action when at least one of the feature groups indicates performance of a gesture relative to its associated user interface element.

45. The computer implemented method as recited in **44**, wherein said method further comprises:

providing user feedback in conjunction with the action.

46. The method as recited in claim 41 wherein the step of associating comprises:

receiving group of features;

determining if there is a change in number of features;

if there is a change, calculating initial parameter values;

if there is no change, calculating current parameter values; and

reporting both the initial and current parameter values.

47. A computer implemented method, comprising:

outputting a graphical image;

receiving a multitouch gesture input over the graphical image; and

changing the graphical image based on and in unison with multitouch gesture input.

48. The method as recited in claim 47 further comprising:

receiving a second multitouch gesture input over the graphical image; and

changing the graphical image based on and in unison with the second multitouch gesture.

49. The method as recited in claim 47 further comprising:

outputting a second graphical image:

receiving a second multitouch gesture input over the second graphical image; and

changing the second graphical image based on and in unison with the second multitouch gesture.

50. A touch based method, comprising:

receiving a gestural input over a first region;

generating a first command when the gestural input is received over the first region;

receiving the same gestural input over a second region; and

generating a second command when the same gestural input is received over the second region, the second command being different than the first command.

51. A method for recognizing multiple gesture inputs, the method comprising:

receiving a multitouch gestural stroke on a touch sensitive surface, the multitouch gestural stroke maintaining continuous contact on the touch sensitive surface;

recognizing a first gesture input during the multitouch gestural stroke; and

recognizing a second gesture input during the multitouch gestural stroke.

52. The method as recited in claim 51 further including recognizing a third gesture input during the multitouch gestural stroke

53. A computer implemented method, comprising:

detecting a plurality of touches on a touch sensing device;

forming one or more touch groups with the plurality of touches;

monitoring the movement of and within each of the touch groups; and

generating control signals when the touches within the touch groups are moved or when the touch groups are moved in their entirety.

54. A method for recognizing a zoom gesture made on a multipoint touch screen computing system, comprising:

detecting the relative locations of a first object and a second object at the same time;

detecting a change in the relative locations of said first and second object;

generating a zoom signal in response to said detected change.

55. The method as recited in claim 54 wherein said zoom signal is a zoom out signal.

56. The method as recited in claim 54 wherein said zoom signal is a zoom in signal.

57. The method as recited in claim 54 further comprising:

associating the first and second objects to an image on a GUI interface;

58. The method as recited in claim 54 further comprising zoom out the image when a zoom out signal is generated.

59. The method as recited in claim 54 further comprising zooming in the image when a zoom in signal is generated.

60. The method as recited in claim 54 further comprising zooming the image when a zoom signal is generated, and wherein the zooming occurs substantially simultaneously with the change in relative locations of the objects.

61. The method as recited in claim 61 wherein the amount of zooming varies according to the distance between the two objects.

62. A method for recognizing a pan gesture made on a multipoint touch screen, comprising:

detecting the presence of at least a first object and a second object at the same time;

monitoring the position of the said at least first and second objects when the objects are moved together across the touch screen; and