

a display for displaying information through the touch screen system.

60. The system of claim 59, wherein the display is a liquid crystal display, a light emitting diode display, a plasma display, an organic electroluminescent display, or a cathode ray tube display.

61. The system of claim 59, wherein the touch sensors comprise force sensors.

62. The system of claim 59, wherein each touch sensor produces a sensor signal indicative of a force of a touch sensed at a location of the touch sensor.

63. The system of claim 59, wherein the control system derives one or more touch signals by combining one or more sensor signals.

64. A display system, comprising:

a touch screen system, including

a touch surface;

a plurality of touch sensors, each of the touch sensors physically coupled to the touch surface and producing a sensor signal in response to a touch applied to the touch surface; and

a control system, coupled to the touch sensors and receiving the sensor signals, the control system acquiring a touch signal corresponding to a touch on the touch screen, detecting a first occurrence of a touch signal shape in the touch signal, and determining touch location using touch signal information obtained in response to detecting the touch signal shape;

a display for displaying information; and

a processor coupled to the display and the touch screen system for processing data to be displayed on the display and information received from the touch screen system.

65. The system of claim 64, wherein the display displays information through the touch screen.

66. The system of claim 64, wherein the display is a liquid crystal display, a light emitting diode display, a plasma display, an organic electroluminescent display, or a cathode ray tube display.

67. The system of claim 64, wherein the processor receives information regarding a touch made on the touch screen relative to information displayed on the display.

68. The system of claim 64, wherein the touch sensors comprise force sensors.

69. The system of claim 64, wherein each touch sensor produces a sensor signal indicative of a force of a touch sensed at a location of the touch sensor.

70. The system of claim 64, wherein the control system derives one or more touch signals by combining one or more sensor signals.

71. The system of claim 64, further comprising:

one or more data storage devices coupled to the processor for storing data;

one or more input devices for transferring information to the processor; and

one or more output devices for transferring information from the processor.

72. The system of claim 64, further comprising one or more interfaces for coupling the system to one or more networks.

73. A system for determining the location of a touch on a touch screen, comprising:

means for acquiring a touch signal corresponding to a touch on the touch screen;

means for detecting a first occurrence of a touch signal shape in the touch signal; and

means for determining touch location using touch signal information obtained in response to detecting the touch signal shape.

74. The method of claim 73, wherein means for acquiring the touch signal further comprises means for acquiring a signal indicative of a touch force.

75. The method of claim 73, wherein means for detecting the first occurrence of the touch signal shape comprises means for detecting a preferred time for obtaining touch signal information to determine touch location.

76. The method of claim 75, wherein means for detecting the preferred time comprises means for detecting a time when touch signal errors in the touch signal are minimal.

77. The method of claim 73, wherein means for detecting the first occurrence of the touch signal shape further comprises means for detecting a slope of the touch signal.

78. The method of claim 73, wherein means for detecting the first occurrence of the touch signal shape comprises means for detecting a predetermined relative slope of the touch signal.

79. A system for determining the location of a touch on a touch screen, comprising:

means for associating a touch signal shape with a level of touch signal error;

means for acquiring a touch signal corresponding to a touch on the touch screen;

means for detecting a first occurrence of the touch signal shape in the touch signal; and

means for determining touch location using touch signal information obtained in response to detecting the touch signal shape.

80. A system for determining a touch location on a touch screen, comprising:

means for acquiring a touch signal arising from a touch force on a touch screen;

means for detecting a touch signal shape within an interval of the touch signal associated with maximum touch force; and

means for determining touch location using touch signal information obtained in response to detecting the touch signal shape.

81. A computer-readable medium configured with executable instructions for causing one or more computers to perform a method of determining the location of a touch on a touch screen, the method comprising:

acquiring a touch signal corresponding to a touch on the touch screen;

detecting a first occurrence of a touch signal shape in the touch signal; and

determining touch location using touch signal information obtained in response to detecting the touch signal shape.

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