

6. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of a location of a touchdown.
7. The method of claim 1, wherein the prediction a future user input event comprises a prediction of a location of a touchup.
8. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of a gesture.
9. The method of claim 8, wherein the gesture comprises a multi-finger gesture.
10. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of a dragging path.
11. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of timing of the future user input.
12. The method of claim 1, wherein the prediction of a future user input event comprises one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
13. The method of claim 12, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
14. The method of claim 12, wherein the one or more measures of probability are used to determine data to be cached.
15. The method of claim 1, wherein the object is a stylus.

32. The method of claim 21, wherein the prediction of a future user input event comprises one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
33. The method of claim 32, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
34. The method of claim 32, wherein the one or more measures of probability are used to determine data to be cached.
35. The method of claim 21, wherein the object is a stylus.
36. The method of claim 21, wherein the model is stored in the device as a table.
37. The method of claim 21, wherein the model comprises a model of a liftoff phase.
38. The method of claim 21, wherein the model comprises a model of a correction phase.
39. The method of claim 21, wherein the model comprises a model of a drop-down phase.
40. The method of claim 21, wherein the model utilizes changes in speed of the motion of the finger or object.
41. A method for caching and using information that prepares a device or application for at least one future event, the method comprising:
- storing a model of user input from a touch sensor capable of sensing location of a finger or object above a touch surface;
 - creating in the electronic device data representative of current user input to the electronic device;

applying the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;

using the data reflecting the prediction of future user input to identify data useful to prepare the device or application for at least one particular event;

caching in a memory of the electronic ~~the device~~ the data useful to prepare the device or application for at least one future event, the data comprising data useful to prepare the device or application for at least one particular event; and, retrieving the cached data from the memory in the electronic device.

42. The method of claim 41, wherein the device or application is a user interface element of a graphical user interface.

43. The method of claim 41, wherein the particular ~~user input~~ event comprises a temporary conclusion of interaction by the user and the cached data comprises commands to put the device into a low power mode.

44. The method of claim 42, wherein the interface element is a button, the particular event is a press of the button, and the cached data is a pre-rendering of an appearance of the button.

45. The method of claim 42, wherein the interface element is an open button, the particular event is a press of the button, and the cached data is the contents of a current directory.

46. The method of claim 41, wherein the cached data is retrieved from the memory of the electronic device in response to the predicted user input event.

47. The method of claim 41, wherein the cached data is retrieved from the memory of the electronic device prior to the predicted user input event.

48. The method of claim 41, wherein the steps of retrieving the cached data and using the data are implemented in hardware integrated with the electronic device.

49. The method of claim 41, wherein the steps of retrieving the cached data and using the data are implemented in software running on the electronic device.
50. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of a location of a touchdown.
51. The method of claim 41, wherein the prediction a future user input event comprises a prediction of a location of a touchup.
52. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of a gesture.
53. The method of claim 52, wherein the gesture comprises a multi-finger gesture.
54. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of a dragging path.
55. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of timing of the future user input.
56. The method of claim 41, wherein the prediction of a future user input event comprises one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
57. The method of claim 56, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.

58. The method of claim ~~47~~ 57, wherein the one or more measures of probability are used to determine data to be cached.

59. The method of claim 41, wherein the object is a stylus.

60. The method of claim 41, wherein the model is stored in the device as a table.

61. The method of claim 41, wherein the model comprises a model of a liftoff phase.

62. The method of claim 41, wherein the model comprises a model of a correction phase.

63. The method of claim 41, wherein the model comprises a model of a drop-down phase.

64. The method of claim 41, wherein the model utilizes changes in speed of the motion of the finger or object.

65. A low-latency touch sensitive device comprising:

- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive electronic device;
- b. a memory having stored therein a model of user input from the touch sensor;
- c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify at least one particular response associated with the at least one predicted future user input event;
 - iii. cache in memory data useful to implement graphical state changes, the data comprising data reflecting at least one particular response associated with the predicted future user input; and,
 - iv. retrieve the cached data reflecting the at least one particular response from the memory of the touch sensitive electronic device and use the data to implement at least one of the graphical state changes.

66. The low-latency touch sensitive device of claim 65, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive ~~electronic~~ device in response to the predicted user input event.
67. The low-latency touch sensitive device of claim 65, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive ~~electronic~~ device prior to the predicted user input event.
68. The low-latency touch sensitive device of claim 65, wherein the device comprises hardware configured to retrieve the cached data and use the data.
69. The low-latency touch sensitive device of claim 65, wherein the device comprises software configured to retrieve the cached data and use the data.
70. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a location of a touchdown.
71. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a location of a touchup.
72. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a gesture.
73. The low-latency touch sensitive device of claim 72, wherein the gesture comprises a multi-finger gesture.
74. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a dragging path.
75. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict timing of the future user input.

76. The low-latency touch sensitive device of claim 65, wherein the processor is configured to compute one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
77. The low-latency touch sensitive device of claim 76, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
78. The low-latency touch sensitive device of claim 76, wherein the one or more measures of probability are used to determine data to be cached.
79. The low-latency touch sensitive device of claim 65, wherein the object is a stylus.
80. The low-latency touch sensitive device of claim 65, wherein the model is stored in the device as a table.
81. The low-latency touch sensitive device of claim 65, wherein the model comprises a model of a liftoff phase.
82. The low-latency touch sensitive device of claim 65, wherein the model comprises a model of a correction phase.
83. The low-latency touch sensitive device of claim 65, wherein the model comprises a model of a drop-down phase.
84. The ~~method~~ low-latency touch sensitive device of claim 65, wherein the model utilizes changes in speed of the finger or object.
85. A low-latency touch sensitive device comprising:

- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive electronic device;
- b. a memory having stored therein a model of user input from the touch sensor;
- c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify at least one particular response associated with the at least one predicted future user input event;
 - iii. cache in memory data useful to implement application state changes, the data comprising data reflecting at least one particular response associated with the predicted future user input; and,
 - iv. retrieve the cached data reflecting the at least one particular response from the memory of the touch sensitive electronic device and use the data to implement at least one of the application state changes.

86. The low-latency touch sensitive device of claim 85, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive electronic device in response to the predicted user input event.

87. The low-latency touch sensitive device of claim 85, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive electronic device prior to the predicted user input event.

88. The low-latency touch sensitive device of claim 85, wherein the device comprises hardware configured to retrieve the cached data and use the data.

89. The low-latency touch sensitive device of claim 85, wherein the device comprises software configured to retrieve the cached data and use the data.

90. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a location of a touchdown.

91. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a location of a touchup.
92. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a gesture.
93. The low-latency touch sensitive device of claim 92, wherein the gesture comprises a multi-finger gesture.
94. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a dragging path.
95. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict timing of the future user input.
96. The low-latency touch sensitive device of claim 85, wherein the processor is configured to compute one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
97. The ~~method~~ low-latency touch sensitive device of claim 96, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
98. The low-latency touch sensitive device of claim 96, wherein the one or more measures of probability are used to determine data to be cached.
99. The low-latency touch sensitive device of claim 85, wherein the object is a stylus.
100. The low-latency touch sensitive device of claim 85, wherein the model is stored in the device as a table.

101. The low-latency touch sensitive device of claim 85, wherein the model comprises a model of a liftoff phase.
102. The low-latency touch sensitive device of claim 85, wherein the model comprises a model of a correction phase.
103. The low-latency touch sensitive device of claim 85, wherein the model comprises a model of a drop-down phase.
104. The low-latency touch sensitive device of claim 85, wherein the model utilizes changes in speed of the motion of the finger or object.
105. A low-latency touch sensitive device comprising:
- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive electronic device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify data useful to prepare the device or application for at least one particular event;
 - iii. cache in memory the data useful to prepare the device or application for the at least one particular event; and,
 - iv. retrieve the cached data useful to prepare the device or application for the at least one particular event in response to the predicted user input event and use the data to implement at least state change.
106. A low-latency touch sensitive device comprising:

- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive ~~electronic~~ device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify an error in interacting with the touch sensor;
 - iii. correct for the identified error.
107. The low-latency touch sensitive device of claim 106, wherein the error comprises human error.
108. The low-latency touch sensitive device of claim ~~106~~ 107, wherein the human error comprises touching the touch sensor at a location other than an intended location.
109. The low-latency touch sensitive device of claim 106, wherein the error comprises a false touch.
110. A low-latency touch sensitive device comprising:
- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive ~~electronic~~ device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting an approach;
 - ii. use the data reflecting the approach to map a contact area to pixels;
 - iii. use the map of contact area to pixels to identify a user input event.
111. The low-latency touch sensitive device of claim 110, wherein the processor is further configured to use a likely shape of a finger pressing into a screen to map a contact area to pixels.

6. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of a location of a touchdown.
7. The method of claim 1, wherein the prediction a future user input event comprises a prediction of a location of a touchup.
8. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of a gesture.
9. The method of claim 8, wherein the gesture comprises a multi-finger gesture.
10. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of a dragging path.
11. The method of claim 1, wherein the prediction of a future user input event comprises a prediction of timing of the future user input.
12. The method of claim 1, wherein the prediction of a future user input event comprises one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
13. The method of claim 12, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
14. The method of claim 12, wherein the one or more measures of probability are used to determine data to be cached.
15. The method of claim 1, wherein the object is a stylus.

32. The method of claim 21, wherein the prediction of a future user input event comprises one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
33. The method of claim 32, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
34. The method of claim 32, wherein the one or more measures of probability are used to determine data to be cached.
35. The method of claim 21, wherein the object is a stylus.
36. The method of claim 21, wherein the model is stored in the device as a table.
37. The method of claim 21, wherein the model comprises a model of a liftoff phase.
38. The method of claim 21, wherein the model comprises a model of a correction phase.
39. The method of claim 21, wherein the model comprises a model of a drop-down phase.
40. The method of claim 21, wherein the model utilizes changes in speed of the motion of the finger or object.
41. A method for caching and using information that prepares a device or application for at least one future event, the method comprising:
 - storing a model of user input from a touch sensor capable of sensing location of a finger or object above a touch surface;
 - creating in the electronic device data representative of current user input to the electronic device;

applying the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
using the data reflecting the prediction of future user input to identify data useful to prepare the device or application for at least one particular event;
caching in a memory of the electronic device the data useful to prepare the device or application for at least one future event, the data comprising data useful to prepare the device or application for at least one particular event; and,
retrieving the cached data from the memory in the electronic device.

42. The method of claim 41, wherein the device or application is a user interface element of a graphical user interface.
43. The method of claim 41, wherein the particular event comprises a temporary conclusion of interaction by the user and the cached data comprises commands to put the device into a low power mode.
44. The method of claim 42, wherein the interface element is a button, the particular event is a press of the button, and the cached data is a pre-rendering of an appearance of the button.
45. The method of claim 42, wherein the interface element is an open button, the particular event is a press of the button, and the cached data is the contents of a current directory.
46. The method of claim 41, wherein the cached data is retrieved from the memory of the electronic device in response to the predicted user input event.
47. The method of claim 41, wherein the cached data is retrieved from the memory of the electronic device prior to the predicted user input event.
48. The method of claim 41, wherein the steps of retrieving the cached data and using the data are implemented in hardware integrated with the electronic device.

49. The method of claim 41, wherein the steps of retrieving the cached data and using the data are implemented in software running on the electronic device.
50. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of a location of a touchdown.
51. The method of claim 41, wherein the prediction a future user input event comprises a prediction of a location of a touchup.
52. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of a gesture.
53. The method of claim 52, wherein the gesture comprises a multi-finger gesture.
54. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of a dragging path.
55. The method of claim 41, wherein the prediction of a future user input event comprises a prediction of timing of the future user input.
56. The method of claim 41, wherein the prediction of a future user input event comprises one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
57. The method of claim 56, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.

58. The method of claim 57, wherein the one or more measures of probability are used to determine data to be cached.
59. The method of claim 41, wherein the object is a stylus.
60. The method of claim 41, wherein the model is stored in the device as a table.
61. The method of claim 41, wherein the model comprises a model of a liftoff phase.
62. The method of claim 41, wherein the model comprises a model of a correction phase.
63. The method of claim 41, wherein the model comprises a model of a drop-down phase.
64. The method of claim 41, wherein the model utilizes changes in speed of the motion of the finger or object.
65. A low-latency touch sensitive device comprising:
- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify at least one particular response associated with the at least one predicted future user input event;
 - iii. cache in memory data useful to implement graphical state changes, the data comprising data reflecting at least one particular response associated with the predicted future user input; and,
 - iv. retrieve the cached data reflecting the at least one particular response from the memory of the touch sensitive device and use the data to implement at least one of the graphical state changes.

66. The low-latency touch sensitive device of claim 65, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive device in response to the predicted user input event.
67. The low-latency touch sensitive device of claim 65, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive device prior to the predicted user input event.
68. The low-latency touch sensitive device of claim 65, wherein the device comprises hardware configured to retrieve the cached data and use the data.
69. The low-latency touch sensitive device of claim 65, wherein the device comprises software configured to retrieve the cached data and use the data.
70. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a location of a touchdown.
71. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a location of a touchup.
72. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a gesture.
73. The low-latency touch sensitive device of claim 72, wherein the gesture comprises a multi-finger gesture.
74. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict a dragging path.
75. The low-latency touch sensitive device of claim 65, wherein the processor is configured to predict timing of the future user input.

76. The low-latency touch sensitive device of claim 65, wherein the processor is configured to compute one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
77. The low-latency touch sensitive device of claim 76, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
78. The low-latency touch sensitive device of claim 76, wherein the one or more measures of probability are used to determine data to be cached.
79. The low-latency touch sensitive device of claim 65, wherein the object is a stylus.
80. The low-latency touch sensitive device of claim 65, wherein the model is stored in the device as a table.
81. The low-latency touch sensitive device of claim 65, wherein the model comprises a model of a liftoff phase.
82. The low-latency touch sensitive device of claim 65, wherein the model comprises a model of a correction phase.
83. The low-latency touch sensitive device of claim 65, wherein the model comprises a model of a drop-down phase.
84. The low-latency touch sensitive device of claim 65, wherein the model utilizes changes in speed of the finger or object.
85. A low-latency touch sensitive device comprising:

- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify at least one particular response associated with the at least one predicted future user input event;
 - iii. cache in memory data useful to implement application state changes, the data comprising data reflecting at least one particular response associated with the predicted future user input; and,
 - iv. retrieve the cached data reflecting the at least one particular response from the memory of the touch sensitive device and use the data to implement at least one of the application state changes.
86. The low-latency touch sensitive device of claim 85, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive device in response to the predicted user input event.
87. The low-latency touch sensitive device of claim 85, wherein the processor is configured to retrieve the cached data from the memory of the touch sensitive device prior to the predicted user input event.
88. The low-latency touch sensitive device of claim 85, wherein the device comprises hardware configured to retrieve the cached data and use the data.
89. The low-latency touch sensitive device of claim 85, wherein the device comprises software configured to retrieve the cached data and use the data.
90. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a location of a touchdown.

91. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a location of a touchup.
92. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a gesture.
93. The low-latency touch sensitive device of claim 92, wherein the gesture comprises a multi-finger gesture.
94. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict a dragging path.
95. The low-latency touch sensitive device of claim 85, wherein the processor is configured to predict timing of the future user input.
96. The low-latency touch sensitive device of claim 85, wherein the processor is configured to compute one or more measures of probability indicative of confidence that the model associates with the predicted future user input event.
97. The low-latency touch sensitive device of claim 96, wherein the one or more measures of probability comprise a measure of probability that the future user input event will occur at a particular location and a measure of probability that the future user input event will occur at a particular time or time frame.
98. The low-latency touch sensitive device of claim 96, wherein the one or more measures of probability are used to determine data to be cached.
99. The low-latency touch sensitive device of claim 85, wherein the object is a stylus.
100. The low-latency touch sensitive device of claim 85, wherein the model is stored in the device as a table.

101. The low-latency touch sensitive device of claim 85, wherein the model comprises a model of a liftoff phase.
102. The low-latency touch sensitive device of claim 85, wherein the model comprises a model of a correction phase.
103. The low-latency touch sensitive device of claim 85, wherein the model comprises a model of a drop-down phase.
104. The low-latency touch sensitive device of claim 85, wherein the model utilizes changes in speed of the motion of the finger or object.
105. A low-latency touch sensitive device comprising:
- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify data useful to prepare the device or application for at least one particular event;
 - iii. cache in memory the data useful to prepare the device or application for the at least one particular event; and,
 - iv. retrieve the cached data useful to prepare the device or application for the at least one particular event in response to the predicted user input event and use the data to implement at least state change.
106. A low-latency touch sensitive device comprising:

- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting a prediction of a future user input event;
 - ii. use the data reflecting the prediction of the future user input event to identify an error in interacting with the touch sensor;
 - iii. correct for the identified error.
107. The low-latency touch sensitive device of claim 106, wherein the error comprises human error.
108. The low-latency touch sensitive device of claim 107, wherein the human error comprises touching the touch sensor at a location other than an intended location.
109. The low-latency touch sensitive device of claim 106, wherein the error comprises a false touch.
110. A low-latency touch sensitive device comprising:
- a. a touch sensor capable of sensing location of a finger or object above a touch surface and creating data representative of current user input to the touch sensitive device;
 - b. a memory having stored therein a model of user input from the touch sensor;
 - c. a processor configured to:
 - i. apply the model of user input to the data representative of current user input to create data reflecting an approach;
 - ii. use the data reflecting the approach to map a contact area to pixels;
 - iii. use the map of contact area to pixels to identify a user input event.
111. The low-latency touch sensitive device of claim 110, wherein the processor is further configured to use a likely shape of a finger pressing into a screen to map a contact area to pixels.