a clue why the device reacts in a certain way. So even if a user is not aware how a dual point input is generated, the user can easily recognize where the actual cursor is located in the view of the device. The cursor can be implemented as a connection line between said reference point and said calculated point.

[0044] In another example embodiment said method further comprises setting said second position as the new position of an actual single point user input, if said second position input has its source not in a dual point user input.

[0045] In yet another example embodiment said method further comprises forming a fourth position signal related to a subsequent third user input to said input device, and determining if said fourth position signal has its source in a simultaneous triple point user input. This is an example in which the present invention can also be applied to determine more than just dual point user inputs.

[0046] In another example embodiment said method further comprises generating a fifth position based on said first position and said second position (and consequently said third position), and using said first and third and fifth positions, as the coordinates of said triple point user input.

[0047] This is an explicit example of a triple point user input that may also be extended to quadruple or quintuple user inputs, which may also be derived from the dual user input by repeatedly applying the dual user input algorithm for each jump of a position signal.

[0048] In yet another example embodiment said method further comprises using said first position, as the coordinate for a single point user input, and using the presence of said simultaneous triple point user input for allocating a second function to said first position. While pointing to the desired position with a finger, the user can do the equivalent of a mouse 'right-click' by touching anywhere on the touch-device with another finger. A third contact with a third finger can be used for yet another function such as e.g. a 'middle click' or a 'left click'. While using a stylus for pointing a second contact can be made with the thumb or the forefinger or the middle finger of the supporting hand. The present embodiment discloses a method for implementing the equivalent of a left mouse click, right mouse click and middle mouse click on a conventional touch screen device.

[0049] According to yet another aspect of the invention, a software tool is provided comprising program code means for carrying out the method of the preceding description when said program product is run on a computer or a network device.

[0050] According to another aspect of the present invention, a computer program product downloadable from a server for carrying out the method of the preceding description is provided, which comprises program code means for performing all of the steps of the preceding methods when said program is run on a computer or a network device.

[0051] According to yet another aspect of the invention, a computer program product is provided comprising program code means stored on a computer readable medium for carrying out the methods of the preceding description, when said program product is run on a computer or a network device.

[0052] According to another aspect of the present invention a computer data signal is provided. The computer data signal is embodied in a carrier wave and represents a program that makes the computer perform the steps of the method contained in the preceding description, when said computer program is run on a computer, or a network device.

[0053] According to another example embodiment of the present invention a touch based input device controller for a touch based user input device is provided. Said input device is only capable of outputting a single input position signal that depends on the actual user input. The controller comprises an input that is connectable to said touch based user input device, a memory, a differentiator, a first and a second evaluation circuit and an output.

[0054] Said input is connectable to said touch based user input device, to receive successive position signals from said touch based user input device which a user has touched. Because of the restrictions of the touch based user input device, the input can only receive a single point user input position signal. The input can also be implemented as an interface to said input device to supply the input device with power.

[0055] The memory is connected to said input, to store at least one of said received position signals. The memory can also be connected to one of said evaluation circuits to store a calculated position e.g. as a reference point. The memory is to be able to store a position signal at (at least) two different moments, wherein the need to store a first position is detected when the position signal has changed to a second position, and the first signal is not longer accessible. A transient memory can provide this. The memory can be directly connected to said input or indirectly via a signal pre-processing stage, such as said first or said second evaluation circuit. The memory can store said position signal as the signal itself or in a coded form such as parameters or coordinates.

[0056] Said differentiator is connected to detect time dependent transition properties between two different following positions, to determine e.g. the time gradient of transition and/or the transition time.

[0057] Said first evaluation circuit is connected to said differentiator to determine, if a position following a preceding position is caused by a single point user input or by a dual point user input. The first evaluation circuit can also be connected to said input. The differentiator can be incorporated in said first evaluation circuit. The first evaluation circuit is provided to determine if it is likely that dual-touch input is actually performed or not.

[0058] Said second evaluation circuit is connected to said input, to said memory and to said first evaluation circuit. Said second evaluation circuit is provided to calculate a dual point user input by performing the calculations required to reflect a first input position at a successive second position.

[0059] Said output is connected to said second evaluation unit, and is connectable to a processing unit to put out said calculated dual point user input to a application device, for providing an application with single point and dual point inputs. Said output can also be implemented as an interface to said input device to be supplied with power by a connected application device.