Claims

1. An input device for providing a scrolling input to an application, the input device comprising:

a scroll wheel; and

a control circuit configured to provide exactly a single step of scrolling input the application for any amount of an instance of rotation of the scroll wheel regardless of an angle that the scroll wheel is rotated through in the instance of rotation,

wherein the input device is a computer mouse,

further comprising:

a detection circuit configured to detect at least one of a start of an instance of rotation of the scroll wheel or an end of the instance of rotation of the scroll wheel, wherein the detection circuit is configured to detect the start of the instance of rotation when the scroll wheel transits from rotating in a first direction to rotating in a second direction.

2. The input device of claim 1, wherein the detection circuit is configured to detect the end of the instance of rotation when a change in a rotation speed of the scroll wheel exceeds a predetermined threshold.

3. The input device of claim 1, wherein the detection circuit is configured to detect the end of the instance of rotation when the scroll wheel transits from being rotating to being stationary.

4. The input device of claim 1, wherein the detection circuit is configured to detect the end of the instance of rotation when the scroll wheel transits from rotating in a first direction to rotating in a second direction, the second direction being opposite to the first direction.

5. The input device of claim 1, further comprising:

a mode determination circuit configured to determine a scrolling control mode to be used from a first scrolling control mode and a second scrolling control mode and to instruct the control circuit accordingly.

6. The input device of claim 5, wherein the control circuit is configured to, when controlling the input device in the first scrolling control mode, provide exactly the single step

of scrolling input to the application for any amount of the instance of rotation of the scroll wheel regardless of the angle that the scroll wheel is rotated through in the instance of rotation.

7. The input device of claim 5, wherein the control circuit is configured to, when controlling the input device in the second scrolling control mode, provide a plurality of steps of scrolling input for every instance of rotation of the scroll wheel, wherein a number of steps in the plurality of steps correspond to the angle that the scroll wheel is rotated through in the instance of rotation.

8. The input device of claim 1, wherein the scroll wheel is a ratchet scroll wheel.

9. The input device of claim 1, wherein the scroll wheel is a ratchet-less scroll wheel.

10. The input device of claim 1, wherein the scroll wheel is a scroll ball.

11. A method for providing a scrolling input to an application, the method comprising:

providing a scroll wheel; and

providing exactly a single step of scrolling input to the application for any amount of an instance of rotation of the scroll wheel regardless of an angle that the scroll wheel is rotated through in the instance of rotation;

wherein the input device is a computer mouse,

further comprising:

detecting at least one of a start of an instance of rotation of the scroll wheel or an end of the instance of rotation of the scroll wheel, wherein detecting the start of the instance of rotation comprises detecting a change in a direction of the rotation of the scroll wheel.

12. The method of claim 11, wherein detecting the end of the instance of rotation comprises detecting a change in a rotation speed of the scroll wheel and determining whether the change exceeds a predetermined threshold.

13. The method of claim 11, wherein detecting the end of the instance of rotation comprises detecting when the scroll wheel transits from being rotating to being stationary.

14. The method of claim 11, wherein detecting the end of the instance of rotation comprises detecting a change in a direction of the rotation of the scroll wheel.

15. A non-transitory computer readable medium having stored therein instructions which when executed by a processor, causes the processor to perform a method for providing a scrolling input to an application using an input device, the method comprising:

providing exactly a single step of scrolling input to the application for any amount of an instance of rotation of a scroll wheel of the input device, regardless of an angle that the scroll wheel is rotated through in the instance of rotation;

wherein the input device is a computer mouse,

further comprising:

a detection circuit configured to detect at least one of a start of an instance of rotation of the scroll wheel or an end of the instance of rotation of the scroll wheel, wherein the detection circuit is configured to detect the start of the instance of rotation when the scroll wheel transits from rotating in a first direction to rotating in a second direction.

16. The input device of claim 1, wherein the control circuit is configured to control the input device in a single-step scrolling control mode activated via a pre-programmed input button.

17. The input device of claim 1, wherein the second direction is opposite to the first direction.