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**DRAFT DOCUMENT**

**The feature has 1 function:**

**[0x2200] MousePointer Basic Optical Sensors**

MousePointerInfo = [0]GetMousePointerInfo()

**Event**

None

GetMousePointerInfo

Returns information about the mouse pointer, like resolution, need for sensor orientation tuning, need for acceleration, etc.. basically all information needed by SetPoint UI for pointer/cursor settings.

**Returns**

SensorResolution [16bits] Returns the sensor resolution, in 1 DPI steps (0...65'536 DPI)

Flags [8bits] Various informative bits, see definition below.

SensorResolution:

This value gives the typical sensor resolution on a standard surface, in real life; the optical sensor resolution can change up to +/- 20% the indicated resolution depending on the surface.

Flags**:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| bit 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| reserved | reserved | reserved | reserved | Suggest vertical  orientation tuning (trackball) | Suggest OS ballistics\* | Pointer acceleration bit1 \* | Pointer acceleration bit0 \* |

Pointer acceleration [2bits]

00 = none,

01 = low,

02 = med,

03 = high

The device informs which ballistics curve is more appropriate given its physical characteristics. If the host SW has several ballistics curves, (up to 4) the host can choose a default curve based on this information. If the host does not provide multiple ballistics, then this information is to be ignored.

Suggest OS ballistics [1bit]

0 : If the host SW can override the OS native ballistics, then this setting suggests that it is OK to do so.

1 : The device suggests that the OS native ballistics is used.

Suggest vertical tuning [1bit]

0 = No vertical tuning *(Standard mice)*

1 = Provide vertical tuning (orientation) *(Trackball)*

When suggest vertical tunning bit is set, the host SW can provide a mechanism for the user to fine tune its X and Y movement vs the cursor movement on the screen. This is typically required for trackballs.

**Report format**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Byte 0 | 1 | 2 | 3 | 4 | ... | 15 |
| Sensor ResolutionMSB | Sensor ResolutionLSB | Flags | reserved | reserved | reserved | reserved |

**SW Response Error Exception**

None

**Remarks**