

Request #: **HUTRR95**
Title: Privacy Screen
Spec Release: 1.12
Requester: Sean O'Brien
Company: Google LLC

Pages Affected: Consumer (0x0C)
Values checked: By chair (Matthew Williams)

Current Status: Approved
Priority: Normal

Required Voter: Apple
Required Voter: Intel
Required Voter: Microsoft

Voting Begins: 8th May 2020
Voting Ends: 15th May 2020
Voting Result: 5-0-2

Summary:

We would like to propose new usages for controlling an electronic privacy screen.

Background:

Some displays have an electronic privacy screen which can be activated to prevent others from seeing data on the user's screen, by limiting or obscuring the light that is emitted at an angle far from perpendicular to the screen.

It may be desirable to adjust the privacy level to account for ambient lighting, so the user can achieve their desired screen visibility while maintaining an acceptable level of privacy.

Control for privacy screens may be performed by a dedicated device, or embedded in another device, such as a keyboard. We are proposing new usages to support this as a HID input.

Proposal:

The proposed change is in chapter 15: Consumer Page (0x0C).

1. Add new usages to Table 17: Consumer Usage Page.

2D0	Privacy Screen Toggle	OOC	15.5
2D1	Privacy Screen Level Decrement	RTC	15.5
2D2	Privacy Screen Level Increment	RTC	15.5
2D3	Privacy Screen Level Minimum	OSC	15.5
2D4	Privacy Screen Level Maximum	OSC	15.5

2. Add the following text in section 15.5: Display Controls.

Privacy Screen Toggle	OOC - Toggles state of privacy screen
Privacy Screen Level Decrement	RTC - Decrease level of privacy screen
Privacy Screen Level Increment	RTC - Increase level of privacy screen
Privacy Screen Level Minimum	OSC - Engage lowest level of privacy screen
Privacy Screen Level Maximum	OSC - Engage highest level of privacy screen

Sample Report Descriptor:

A sample report descriptor for a device which has all of the defined controls.

```
0x05, 0x0C,          // Usage Page (Consumer)
0x09, 0x01,          // Usage (Consumer Control)
0xA1, 0x01,          // Collection (Application)
0x05, 0x0C,          // Usage Page (Consumer)
0x15, 0x00,          // Logical Minimum (0)
0x25, 0x01,          // Logical Maximum (1)
0x75, 0x01,          // Report Size (1)

0x0A, 0xD0, 0x02,    // Usage (Privacy Screen Toggle)
0x0A, 0xD3, 0x02,    // Usage (Privacy Screen Level Minimum)
0x0A, 0xD4, 0x02,    // Usage (Privacy Screen Level Maximum)
0x95, 0x03,          // Report Count (3)
0x81, 0x06,          // Input (Data, Variable, Relative)

0x0A, 0xD1, 0x02,    // Usage (Privacy Screen Level Decrement)
0x0A, 0xD2, 0x02,    // Usage (Privacy Screen Level Increment)
0x95, 0x02,          // Report Count (2)
0x81, 0x02,          // Input (Data, Variable, Absolute)
0xC0                 // End Collection
```