x4522 - Disable Keys By Usage

Version 0

DisableKeysByUsage

This feature provides the ability to disable/enable any keys by HID usage.

Functions

Overview

This feature is similar to feature 0x4521 with the exception that it allows for any key to be disabled.
A unifying device containing this feature should adopt HID++ reset policy #3 and implement the 0x0020 configuration change feature.
A gaming keyboard with a game lock switch will only apply the disabled keys when game lock is on.
A gaming keyboard with a game lock switch should ignore the Windows key and the Menu key if they are enabled using this feature.

Functions

[0] getCapabilities() → usageCount

Returns the capabilities of this feature.

Parameters

None

Returns

maxDisabledUsages [8-bit]

Maximum number of usages that can be disabled on the device.

NOTE	The maximum number of usages can exceed the number of usages that be sent at a time on a HID packet. For example, a HID long packet can disable 16 usages at a time, but we may wish for 32 usages to be disabled in total. So we must send 2 long packets to disable 32 usage.

Table 1. getCapabilities() response packet format

byte \ bit	7	6	5	4	3	2	1	0
0	maxDisabledUsages							
1..15	reserved							

[1] disableKeys(keysToDisable)

Disable a list of 8-bit keyboard key usages. Multiple calls to 'disableKeys' will add to the set of disabled keys, not replace them. It will not return an error when keys already disable or disabling a key that does not exist on the keyboard.

Parameters

keysToDisable

it is a list of 8-bit keyboard key HID usage to be disabled. A usage of 0 indicates the end of the list.

Table 2. disableKeys() request packet format

byte \ bit	7	6	5	4	3	2	1	0
0	keyboard key HID usage							
1	keyboard key HID usage							
2	keyboard key HID usage							
...	...							
n	0x00							

Returns

- HIDPP_NO_ERROR when setting correct.
- HIDPP_ERR_INVALID_ARGUMENT if reach the maximum number of keys.

[2] enableKeys(keysToEnable)

Enable a list of 8-bit keyboard key usages. It does nothing and returns success when enabling a key that does not exist on the disable key list.

Parameters

keysToEnable

it is a list of 8-bit keyboard key HID usage to be enabled. A usage of 0 indicates the end of the list.

Table 3. enableKeys() request packet format

byte \ bit	7	6	5	4	3	2	1	0
0	keyboard key HID usage							

byte \ bit	7	6	5	4	3	2	1	0
1	keyboard key HID usage							
2	keyboard key HID usage							
...	...							
n	0x00							

Returns

None

[3] enableAllKeys()

Enable all keyboard key HID usages.

Parameters

None

Returns

None

ChangeLog

- Version 0: Initial version