**ASUS AURA Component**

ASUS AURA component . Client search the CLSID\**109DC3E4-B9FF-4AF3-9008-AB13705D4E5F\instance to find all registered componsnts.**

**HKEY\_CLASSES\_ROOT**

**CLSID**

**109DC3E4-B9FF-4AF3-9008-AB13705D4E5F**

**Instance**

**AURA LED Device HAL**

The HAL of simple LED device. The GUID is “E9BBD754-6CF4-492E-BA89-782177A2771B”. It is registered at **109DC3E4-B9FF-4AF3-9008-AB13705D4E5F\instance.**

All instances of AURA LED device HAL are registered at the folder of “instance”

E9BBD754-6CF4-492E-BA89-782177A2771B

Instance

{Your AURA device CLSID}

**HKEY\_CLASSES\_ROOT**

**{Your AURA device CLSID}**

**Description** = Your device description.

Name = Device Name

**Manufacturer = Manufacture’s Name**

DeviceType = Type ID

Version = Major.Minor.Build.Number

SpecVersion = Major.Minor.Build.Number

DeviceType example:

|  |
| --- |
| DRAM |
| Keyboard |
| Chassis |
| Fan |
| Motherboard |
| ControlBox |
| Mouse |

For Example:

*"Description"="ASUS Keyboard HAL"*

*"Name"="ASUS ROG Keyboard"*

*"Manufacturer"="ASUSTek COMPUTER INC. "*

*"DeviceType"="Keyboard"*

*"Version"="1.00.00"*

*"SpecVersion"="1.00.00"*

**IAacLedDeviceHal**

{F2C8D5B4-3854-4325-8A4F-FD7C5072E3B9}

|  |  |
| --- | --- |
| Method | Description |
| Enumerate | Find all instances of the device. |

**Enumerate**

Find all instances of the device.

Syntax

HRESULT Enumerate(

[in, out] IAacLedDevice \*\*iDevices, [in,out] ULONG\* count

);

## Parameters

iDevices[in, out]

The array of IAacLedDevice instances in the system. If iDevices is NULL, it passes the number of instances to the second parameter count.

count[in, out]

It indicate the number of IAacLedDevice in the buffer “iDevices, and returns the number of IAacLedDevice instance created.

**IAacLedDevice**

{ 61711778-AB59-4026-89E8-7A63422C29C2 }

|  |  |
| --- | --- |
| Method | Description |
| GetCapability | Find all device instances |
| SetEffect | Set the effect and colors |
| Synchronize | Synchronize the effect. This method is used for synchronizing the time of current effect with other devices. |

**GetCapability**

Get the capability of the device including the supported effects and the number of led.

HRESULT GetCapability (

[out] BSTR \*capability

);

Example of Capability:

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>

<root>

<type>458752</type>

<device>

<name>MyComponentName</name>

<id>0</id>

<layout>

<led\_count>5</led\_count>

<size>

<width>5</width>

<height>1</height>

</size>

<led\_name>

<led>Loaction\_1</led>

<led>Loaction\_2</led>

<led>Loaction\_3</led>

<led>Loaction\_4</led>

<led>Loaction\_5</led>

</led\_name>

</layout>

<supported\_effect>

<effect>

<name>Manual</name>

<id>0</id>

<synchronizable>0</synchronizable>

</effect>

<effect>

<name>Default</name>

<id>255</id>

<synchronizable>0</synchronizable>

</effect>

<effect>

<name>Static</name>

<id>1</id>

<synchronizable>0</synchronizable>

</effect>

</supported\_effect>

</device>

</root>

Tag:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tag Name | | | Description | M/O |
| Type | | | Optional. The device type. See table Type | O |
| Name | | | Device name. | M |
| Id | | | Device id for distinguish from other instances with the same device type.  For example: 1, 2, 3… | O |
| size | Indicate the number of led and its layout | | | M |
| led\_count | | The total number of led. | M |
| width | | Width. For the device with 2D layout. | O |
| height | | Height. For the device with 2D layout. | O |
| led\_name | | | Optional. Describe the location of its name of each led. | O |
| supported\_effect | | Describe all supported effect. Some predefined effects must be implemented. See Table “Predefined Effect”. | | M |
| name | Effect name | M |
| id | The effect id to Indicate the parameter effectId of the Method SetEffect. | M |
| Synchronizable | 0: This effect does not support synchronization.  1: This effect supports synchronization. Client can call the method “Synchronize” to synchronize the effect with other devices. |  |
|  | | |  |  |

M: Must O: Optional

Type:

|  |  |
| --- | --- |
| Type name | Value |
| MB RGB LED | 0x10000 |
| MB Addressable LED | 0x11000 |
| VGA RGB LED | 0x20000 |
| Display RGB LED | 0x30000 |
| Headset RGB LED | 0x40000 |
| Microphone RGB LED | 0x50000 |
| External hard drive RGB LED | 0x60000 |
| External blue-ray RGB LED | 0x61000 |
| RGB DRAM | 0x70000 |
| RGB Keyboard | 0x80000 |
| RGB Mouse | 0x90000 |
| RBG Fan | 0xA0000 |
| Control Box | 0xB0000 |

Effect Table:

|  |  |  |
| --- | --- | --- |
| Effect Name | Effect Id | Option |
| Manual | 0x00 | M |
| Static | 0x01 | M |
| Default | 0xFF | M |
| Breathing | 0x02 | O |
| Strobing | 0x03 | O |
| Color cycle | 0x04 | O |
| Rainbow | 0x05 | O |
| User defined ID | 0x100~ | O |

M: Must O:Optional

**SetEffect**

Set the effect and its colors.

Syntax:

HRESULT SetEffect(

[in] ULONG effectId,

[in] ULONG\* colors,

[in] ULONG numberOfColors

);

Parameters:

[in] effectId:

The effect Id. See Effect Table.

[in] colors:

The array of the effect color.

[in] numberOfColors

The size of colors

Syntax:

HRESULT Synchronize(

[in] ULONG milliseconds

);

Parameters

[in] milliseconds:

Pass the current clock to tell the device to synchronize.

**IAacLedDeviceOpSpeed**

{ 0x68f0c6e1-7469-40b3-84d5e0793f449e4d }

|  |  |
| --- | --- |
| Method | Description |
| SetEffectOptSpeed | Set the effect, colors, speed level and direction. |

**SetEffectOptSpeed**

Set the effect, colors, speed level and direction.

Syntax:

HRESULT SetEffectOptSpeed(

[in] ULONG effectId,

[in] ULONG \*colors,

[in] ULONG numberOfColors,

[in] ULONG speed,

[in] ULONG direction)

Parameters:

[in] effectId:

The effect Id. See Effect Table.

[in] colors:

The array of the effect color.

[in] numberOfColors

The size of colors

[in] speed

The level of the speed of Effect.

[in] direction

The direction of Effect.