

Mystic Light Software Development Kit

Reference Documentation

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Overview

- Introduction
- System Requirements
- Function APIs
- Function Documentation
- MLAPI Status Values

Introduction

- This SDK is provides the LED control functions for MSI product such as MSI Motherboard, VGA, Keyboard, Mouse, Headset, etc.
- This SDK is based on the Microsoft development environment, that supports Microsoft Visual Studio C++ and C# programming language.

System Requirements

- This SDK is supported on Windows 7 / 8 / 8.1 / 10, both 32-bit and 64-bit architectures.
- Must install MSI Mystic Light application before using SDK functions.

Function APIs

int MLAPI_GetErrorMessage(**int**, **BSTR***)

This function converts a MLAPI error code into general string.

int MLAPI_Initialize()

This function initializes the APIs.

int MLAPI_GetDeviceInfo(**SAFEARRAY****, **SAFEARRAY****)

This function retrieves information of all devices

int MLAPI_GetLedInfo(**BSTR**, **DWORD**, **BSTR***, **SAFEARRAY****)

This function retrieves the LED display name and enumerate the LED styles.

int MLAPI_GetLedColor(**BSTR**, **DWORD**, **DWORD***, **DWORD***, **DWORD***)

This function retrieves the specific LED current color.

int MLAPI_GetLedStyle(**BSTR**, **DWORD**, **BSTR***)

This function retrieves the specific LED current style.

int MLAPI_GetLedMaxBright(**BSTR**, **DWORD**, **DWORD***)

This function retrieves a specific LED supports the maximum brightness level.

int MLAPI_GetLedBright(**BSTR**, **DWORD**, **DWORD***)

This function retrieves the specific LED current brightness level.

int MLAPI_GetLedMaxSpeed(**BSTR**, **DWORD**, **DWORD***)

This function retrieves a specific LED supports the maximum speed level.

int MLAPI_GetLedSpeed(**BSTR**, **DWORD**, **DWORD***)

This function retrieves the specific LED current speed level.

int MLAPI_SetLedColor(**BSTR**, **DWORD**, **DWORD**, **DWORD**, **DWORD**)

This function sets the LED to a specific color.

int MLAPI_SetLedStyle(**BSTR**, **DWORD**, **BSTR**)

This function sets the LED to a specific style.

int MLAPI_SetLedBright(**BSTR**, **DWORD**, **DWORD**)

This function sets the LED brightness to a specific level.

int MLAPI_SetLedSpeed(**BSTR**, **DWORD**, **DWORD**)

This function sets the LED blink speed to a specific level.

Function Documentation

int MLAPI_Initialize()	
Description: This function initializes the APIs. This must be called before calling other MLAPI_ functions.	
Return values:	
MLAPI_OK	Initialized.
MLAPI_NO_IMPLEMENTED	MSI application not found or current version is not supported.
MLAPI_INITIAL_TIMEOUT	MLAPI_Initialize timeout.
int MLAPI_GetDeviceInfo(SAFEARRAY** pDevType, SAFEARRAY** pLedCount)	
Description: This function retrieves information of all devices.	
Parameters:	
[out] pDevType	Pointer to a safe array containing defined type of all devices.
[out] pLedCount	Pointer to a safe array containing the number of LEDs for all devices.
Return values:	
MLAPI_OK	Initialized.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.
MLAPI_INITIAL_TIMEOUT	MLAPI_Initialize timeout.
int MLAPI_GetLedInfo(BSTR type, DWORD index, BSTR* pName, SAFEARRAY** pLedStyles)	
Description: This function retrieves the information of the specified LED.	
Parameters:	
[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[out] pName	The LED display name of the specified LED.
[out] pLedStyles	The support styles of the specified LED.
Return values:	
MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.
MLAPI_INITIAL_TIMEOUT	MLAPI_Initialize timeout.
int MLAPI_GetLedColor(BSTR type, DWORD index, DWORD* R, DWORD* G, DWORD* B)	
Description: This function retrieves the color of the specified LED.	
Parameters:	
[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[out] R, G, B	Pointer to a DWORD variable containing the color of the specified LED.

Return values:

MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.
MLAPI_INITIAL_TIMEOUT	MLAPI_Initialize timeout.

int MLAPI_GetLedStyle(BSTR type, DWORD index, BSTR* style)

Description: This function retrieves the style of the specified LED.

Parameters:

[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[out] style	Pointer to a BSTR variable containing the style of the specified LED.

Return values:

MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.
MLAPI_INITIAL_TIMEOUT	MLAPI_Initialize timeout.

int MLAPI_GetLedMaxBright(BSTR type, DWORD index, DWORD* maxLevel)

Description: This function retrieves the maximum brightness level of the specified LED.

Parameters:

[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[out] style	Pointer to a DWORD variable containing the maximum brightness level of the specified LED.

Return values:

MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.

int MLAPI_GetLedBright(BSTR type, DWORD index, DWORD* currentLevel)

Description: This function retrieves the brightness level of the specified LED.

Parameters:

[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[out] style	Pointer to a DWORD variable containing the brightness level of the specified LED.

Return values:

MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.

MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.
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int MLAPI_GetLedMaxSpeed(BSTR type, DWORD index, DWORD* maxLevel)

Description: This function retrieves the maximum speed level of the specified LED.

Parameters:

[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[out] style	Pointer to a DWORD variable containing the maximum speed level of the specified LED.

Return values:

MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.

int MLAPI_GetLedSpeed(BSTR type, DWORD index, DWORD* currentLevel)

Description: This function retrieves the speed level of the specified LED.

Parameters:

[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[out] style	Pointer to a DWORD variable containing the speed level of the specified LED.

Return values:

MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.

int MLAPI_SetLedColor(BSTR type, DWORD index, DWORD R, DWORD G, DWORD B)

Description: This function sets the color of the specified LED.

Parameters:

[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[in] R, G, B	The color of the specified LED.

Return values:

MLAPI_OK	Initialized.
MLAPI_INVALID_ARGUMENT	The parameter value is not valid.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.

int MLAPI_SetLedStyle(BSTR type, DWORD index, BSTR style)

Description: This function sets the style of the specified LED.	
Parameters:	
[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[in] style	The style of the specified LED.
Return values:	
MLAPI_OK	Initialized.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.

int MLAPI_SetLedBright(BSTR type, DWORD index, DWORD level)	
Description: This function sets the brightness level of the specified LED.	
Parameters:	
[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[in] style	brightness level of the specified LED.
Return values:	
MLAPI_OK	Initialized.
MLAPI_INVALID_ARGUMENT	The parameter value is not valid.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.

int MLAPI_SetLedSpeed(BSTR type, DWORD index, DWORD level)	
Description: This function sets the speed level of the specified LED.	
Parameters:	
[in] type	The defined of device type.
[in] index	The LED identifier of the device.
[in] style	speed level of the specified LED.
Return values:	
MLAPI_OK	Initialized.
MLAPI_INVALID_ARGUMENT	The parameter value is not valid.
MLAPI_DEVICE_NOT_FOUND	The device is not found.
MLAPI_NOT_SUPPORTED	Requested feature is not supported in the selected LED.
MLAPI_NOT_INITIALIZED	MLAPI_Initialize has not been called successful.

int MLAPI_GetErrorMessage(int ErrorCode, BSTR* pDesc)	
Description: This function converts a MLAPI error code into general string.	

Parameters:

[in] ErrorCode The APIs return status values.
 [out] pDesc Pointer to a BSTR variable containing the Description of the error code.

Return values:

MLAPI_OK Always, string never null.

MLAPI Status Values

MLAPI_OK = 0
Description: Request is completed.
MLAPI_ERROR = -1
Description: Generic error.
MLAPI_TIMEOUT = -2
Description: Request is timeout.
MLAPI_NO_IMPLEMENTED = -3
Description: MSI application not found or installed version not supported.
MLAPI_NOT_INITIALIZED = -4
Description: MLAPI_Initialize has not been called successful.
MLAPI_INVALID_ARGUMENT = -101
Description: The parameter value is not valid.
MLAPI_DEVICE_NOT_FOUND = -102
Description: The device is not found.
MLAPI_NOT_SUPPORTED = -103
Description: Requested feature is not supported in the selected LED.