**Blync API Reference Manual v3.0.2**

Version History

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| --- | --- | --- |
| **SNO** | **Version** | **Changes** |
| 1 | 3.0 | Initial version |
| 2 | 3.0.1 | BlyncLight.dll has been built for multiple architectures such as x86, x64, AnyCPU |
| 3 | 3.0.2 | Support added for Blynclight Mini, Wireless and Lumena Headsets |

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# Introduction

This document explains the application programming interface between the .Net 4.0 Dynamic Link Library (Blynclight.dll API library) and the front end Windows .Net application. This API can be used to access the Blync USB devices from the application using this Library.

# Objects referenced from DLL

The BlynclightController class is defined in the DLL with public access. The BlynclightController object can be declared in the application software which is referencing the DLL as

BlynclightController oBlynclightController = new BlynclightController ();

The BlynclightController class defines the necessary public methods which the application software references to control the Blync USB devices. The BlynclightController class defines an array of DeviceInfo objects which has a public access type. The maximum size of the array is 10, and the valid number of DeviceInfo objects would be equal to the number of Blync devices detected in the system. The individual Blync devices would be accessed by specifying the array index of the DeviceInfo objects.

# Device Types

There are 7 types of Blync USB Devices available.

1. BLYNCUSB10 - has multicolor light functions (Older device versions prior to BLYNCUSB30)
2. BLYNCUSB17/20 - has multicolor light functions (Older device versions prior to BLYNCUSB30)
3. BLYNCUSB30 - has multicolor light functions named as Blynclight Standard
4. BLYNCUSB30S - has multicolor light and music functions named as Blynclight Plus
5. BLYNC-MINI - has multicolor light and music functions named as Blynclight Mini
6. BLYNC-WIRELESS - has multicolor light and music with wireless functionality named as Blynclight Wireless
7. BLYNC-HEADETS - headset with multicolor light functions named as Lumena 110 and Lumena 120

The device type can be identified by a byte variable “byDeviceType” which is member of DeviceInfo class.

# Methods referenced from DLL

## InitBlyncDevices

Method: public int InitBlyncDevices ()

Description: This function searches for the Blync devices connected to the System’s USB ports and opens the device handle for further write access. This function call can be used for all types of devices.

Arguments: None

Return Value: integer value that represents the number of Blync Devices connected to the Systems USB Ports.

## CloseDevices

Method: public void CloseDevices (int nNumberOfDevices)

Description: This function closes the handles of all the devices opened already. This function call can be used for all types of devices.

Arguments: int nNumberOfDevices - Number of devices detected and have open handles for write access.

Return Value: None

## ResetLight

Method: public bool ResetLight (int nDeviceIndex)

Description: This function resets the light to OFF on Blync device specified by nDeviceIndex.

This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnRedLight

Method: public bool TurnOnRedLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in red color.

This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnGreenLight

Method: public bool TurnOnGreenLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in green color.

This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnBlueLight

Method: public bool TurnOnBlueLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in blue color.

This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnCyanLight

Method: public bool TurnOnCyanLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in cyan color.

This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnMagentaLight

Method: public bool TurnOnMagentaLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in magenta (purple) color. This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnYellowLight

Method: public bool TurnOnYellowLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in yellow color. This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnWhiteLight

Method: public bool TurnOnWhiteLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in white color. This function call can be used for all types of devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnOrangeLight

Method: public bool TurnOnOrangeLight (int nDeviceIndex)

Description: This function lights the Blync device specified by nDeviceIndex in orange color. This function call can be used only for the following types of devices namely BlyncUSB30 (Blynclight Standard), BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless, Lumena Headset (110 and 120) devices

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## TurnOnRGBLights

Method: public bool TurnOnRGBLights (int nDeviceIndex, byte byRedLevel, byte byGreenLevel, byte byBlueLevel)

Description: This function lights the Blync device specified by nDeviceIndex in the color which represents the combination of the red, green and blue color. The brightness levels of each color can be adjusted by the corresponding red, green, and blue level levels. This function call can be used only for the following types of devices namely BlyncUSB30 (Blynclight Standard), BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless, Lumena Headset (110 and 120) devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

byte byRedLevel – red color brightness level which ranges from 0 to 255

byte byGreenLevel – green color brightness level which ranges from 0 to 255

byte byBlueLevel – blue color brightness level which ranges from 0 to 255

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## SetLightDim

Method: public bool SetLightDim (int nDeviceIndex)

Description: This function makes the current light brightness to dim by 50% of the full brightness. This function call can be used only for the following types of devices namely BlyncUSB30 (Blynclight Standard), BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless, Lumena Headset (110 and 120) devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## ClearLightDim

Method: public bool ClearLightDim (int nDeviceIndex)

Description: This function resets the light dimness and bring the light brightness to full level. This function call can be used only for the following types of devices namely BlyncUSB30 (Blynclight Standard), BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless, Lumena Headset (110 and 120) devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## SelectLightFlashSpeed

Method: public bool SelectLightFlashSpeed (int nDeviceIndex, byte bySelectedFlashSpeed)

Description: This function selects the speed at which the light will blink. This function call can be used only for the following types of devices namely BlyncUSB30 (Blynclight Standard), BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless, Lumena Headset (110 and 120) devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

byte bySelectedFlashSpeed – blinking speed, which takes three values

for low speed, bySelectedFlashSpeed = 0x01

for medium speed, bySelectedFlashSpeed = 0x02

for high speed, bySelectedFlashSpeed = 0x03

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## StartLightFlash

Method: public bool StartLightFlash (int nDeviceIndex)

Description: This function starts the light to blink at the specified blinking speed. This function call can be used only for the following types of devices namely BlyncUSB30 (Blynclight Standard), BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless, Lumena Headset (110 and 120) devices. The blinking speed would be specified by SelectLightFlashSpeed function call.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## StopLightFlash

Method: public bool StopLightFlash (int nDeviceIndex)

Description: This function stops blinking the light. This function call can be used only for the following types of devices namely BlyncUSB30 (Blynclight Standard), BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless, Lumena Headset (110 and 120) devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## SelectMusicToPlay

Method: public bool SelectMusicToPlay (int nDeviceIndex, byte bySelectedMusic)

Description: This function selects the music to be played on the Blync light. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices. The BlynUSB30S can play 10 sounds, Blynclight Mini and Wireless devices can play 14 sounds.

Arguments: int nDeviceIndex - index of the device in the device object list

For example if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

byte bySelectedMusic - The BlynUSB30S can play 10 sounds, for which the value of bySelectedMusic ranges from 1 to 10. The Blynclight Mini and Wireless devices can play 14 sounds, for which the value of bySelectedMusic ranges from 1 to 14.

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## StartMusicPlay

Method: public bool StartMusicPlay (int nDeviceIndex)

Description: This function starts playing the selected music on the Blync light. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## StopMusicPlay

Method: public bool StopMusicPlay (int nDeviceIndex)

Description: This function stops playing the music that is being played on the Blync light. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## SetMusicRepeat

Method: public bool SetMusicRepeat (int nDeviceIndex)

Description: This function enables the repeated playing of the music that is being played on the Blync light, till the repeat flag gets cleared. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## ClearMusicRepeat

Method: public bool ClearMusicRepeat (int nDeviceIndex)

Description: This function clears repeated playing of the music that is being played on the Blync light, so that any music to be played will be played once. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## SetMusicVolume

Method: public bool SetMusicVolume (int nDeviceIndex, byte byVolumeLevel)

Description: This function sets the volume level of the music that is being played on the Blync light. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

byte byVolumeLevel – this represents the volume level to be set. There are 10 volume levels supported by the device from 10% to 100% in steps of 10%. Value of byVolumeLevel ranges from 1 to 10. If byVolumeLevel = 1, the volume level will be set to 10%. If byVolumeLevel = 2, the volume level will be 20%, if byVolumeLevel = 10, the volume level will be set as 100 %.

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## SetVolumeMute

Method: public bool SetVolumeMute (int nDeviceIndex)

Description: This function mutes the volume level of the music that is being played on the Blync light, so that if any music is being played it will not be audible. But this doesn’t stop playing the music. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example, if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.

## ClearVolumeMute

Method: public bool ClearVolumeMute (int nDeviceIndex)

Description: This function clears the volume mute on Blync light. So that if any music is being played it will be audible. This function call can be used only for the following types of devices namely BlyncUSB30S (Blynclight Plus), Blynclight Mini, Blynclight Wireless devices.

Arguments: int nDeviceIndex - index of the device in the device object list

For example if there is only one device, nDeviceIndex = 0

If there are n number of devices, to access the nth device, nDeviceIndex = (n - 1)

Return Value: boolean value - true once the function call succeeds else false

Return value will be false if there is a hardware error or passing an invalid value of nDeviceIndex.