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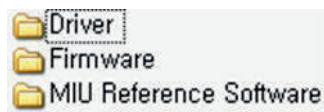


# 1. Introduction

This document describes how to use the MIU. This document explains how to install the device driver and how to use MIU Application software.

## 1.1. Software folder structure

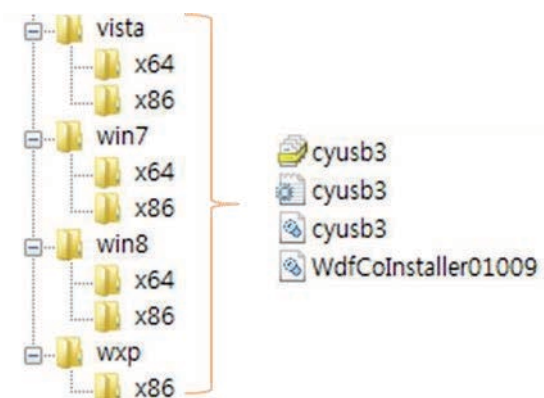
Provided software consists of the Device Driver folder, the Firmware folder which contains firmware image and utility functions, and MIU application software folder.



**Figure 1. Software folder structure**

## 1.2. Device Driver

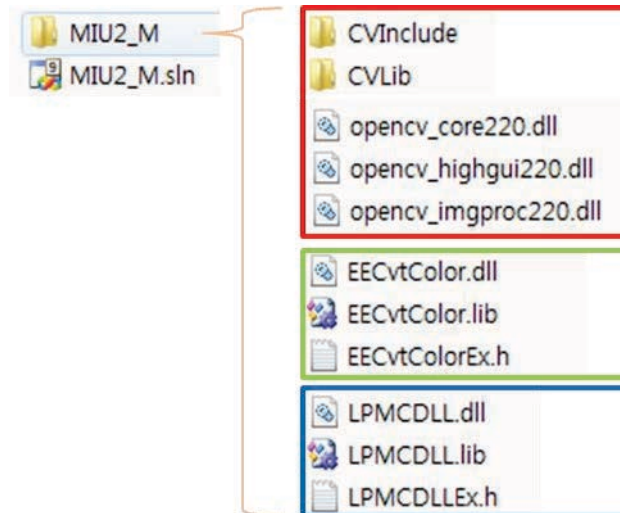
In the Device Driver folder, there are three OS supporting device drivers for Windows XP, Windows Vista, Windows 7 and Windows 8. Windows Vista, Windows 7 and Windows 8 device driver support 64-bit OS.



**Figure 2. Device Driver folder structure**

### 1.3. MIU

The MIU software folder contains the MIU reference software code.



**Figure 3. MIU folder structure**

MIU Reference Software is made by using the Visual Studio 2008, MFC.

The Application Type is Dialog Based.

LPMCDLL.dll, LPMCDLL.lib, LPMCDLLEx.h marked in blue in Figure 3 are the library and the Header file to use MIU.

The red square marked part in Figure 3. are folders and files to apply the OpenCV.

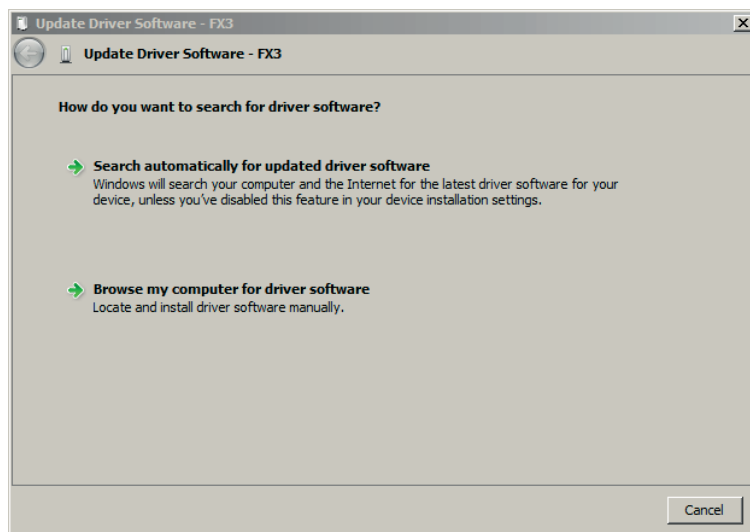
The functions of Image Interpolation and Display in the Reference software are included for they use the library of OpenCV. If you don't use the functions of OpenCV for Image Interpolation and Display, you don't need to use the files marked in red.

EECvtColor.dll, EECvtColor.lib ,EECvtColorEx.h marked with green squares in Figure 3 are the Color Conversion Library provided by LaonPeople.

YUV Image Format is a library for converting the RGB, YUV Color Conversion functions in these files also don't have to use if you don't need.

## 2. Driver Installation

1. Connect the MIU and PC via USB 3.0 cable and turn on the switch.
2. If Windows prompts for a driver to be installed, or indicates that it needs a driver, direct the PC to use the CYUSB3.SYS driver by steering it to the CYUSB3.INF file in the proper Device Driver directory.
3. If Windows does not prompt for a driver, it has already matched the device to a driver itself. In this case, you will need to see if the CYUSB3.SYS driver was selected and, if not, manually instruct Windows to use that driver.
4. Right-click on My Computer and select the Manage menu item.
5. In the Computer Management window, select Device Manager
6. In the right window pane, click the + icon next to Universal Serial Bus controllers
7. Locate your device in the list and double click on it
8. Select the Driver tab in the Properties dialog that comes up
9. Click on the Driver Details button.
10. If the driver file displayed CYUSB3.SYS, Windows has already matched the device to this driver and you should click OK and Cancel. If not, proceed with the remaining steps.
11. Click OK
12. Click Update Driver
13. Select browse my computer for driver software

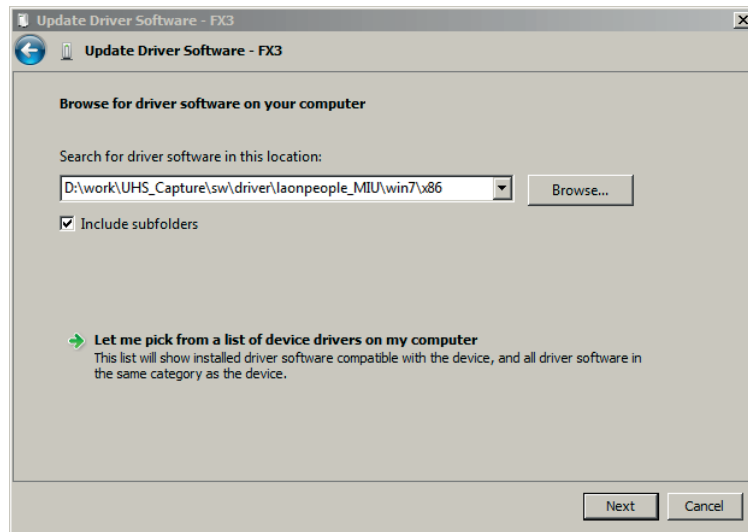


**Figure 4. Device Driver Install Process**

14. Click Next



15. Select Let me pick from a list of device drivers on my computer



**Figure 5. Device Driver Install Process**

16. Click Next

17. Select your device's type from the list below and Select show all devices

18. Click Next

19. Click Have Disk

20. Click Browse

21. Navigate to the directory containing CYUSB3.SYS (The directory Name for various Operating Systems and platforms : vista(windows Vista), win7(windows 7) and win8(windows 8) select x86(32-bit OS) or x64(64-bit OS) depending on the platform you want to install the driver on.

22. CYUSB3.INF should be automatically placed in the File name field

23. Click Open

24. Click OK

25. Click Next

26. A message will popup saying Unsigned driver, Please select 'Install driver software anyway' and click OK.

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