

When trying to program FX2LP in Windows7 Operating System, there are a few steps to be taken care of. These steps to follow are documented here.

### **A. WINDOWS7- 64 BIT- DRIVER SIGNING:**

In Windows7-64 bit machines, we face problems while trying to program FX2LP, we might get Code 39 error when using CyUSB.sys in Vista 64-bit machine (code 52 in the case of Windows 7).

Error message that comes is:

Windows Vista 64-bit operating system :

**“Windows cannot load the device driver for this hardware. The driver may be corrupted or missing. (Code 39)”**

Windows 7 64-bit operating system:

**"Windows cannot verify the digital signature for the drivers required for this device. A recent hardware or software change might have installed a file that is signed incorrectly or damaged, or that might be malicious software from an unknown source. (Code 52)".**

The driver CyUSB.sys is an unsigned driver, so we have to disable the driver signature enforcement while the system boots up.

Following are the steps to disable driver signature enforcement in 64-bit operating system:

1. During boot-up press F8.
2. In the list of options that appear select “Disable driver signature enforcement”.

Note:

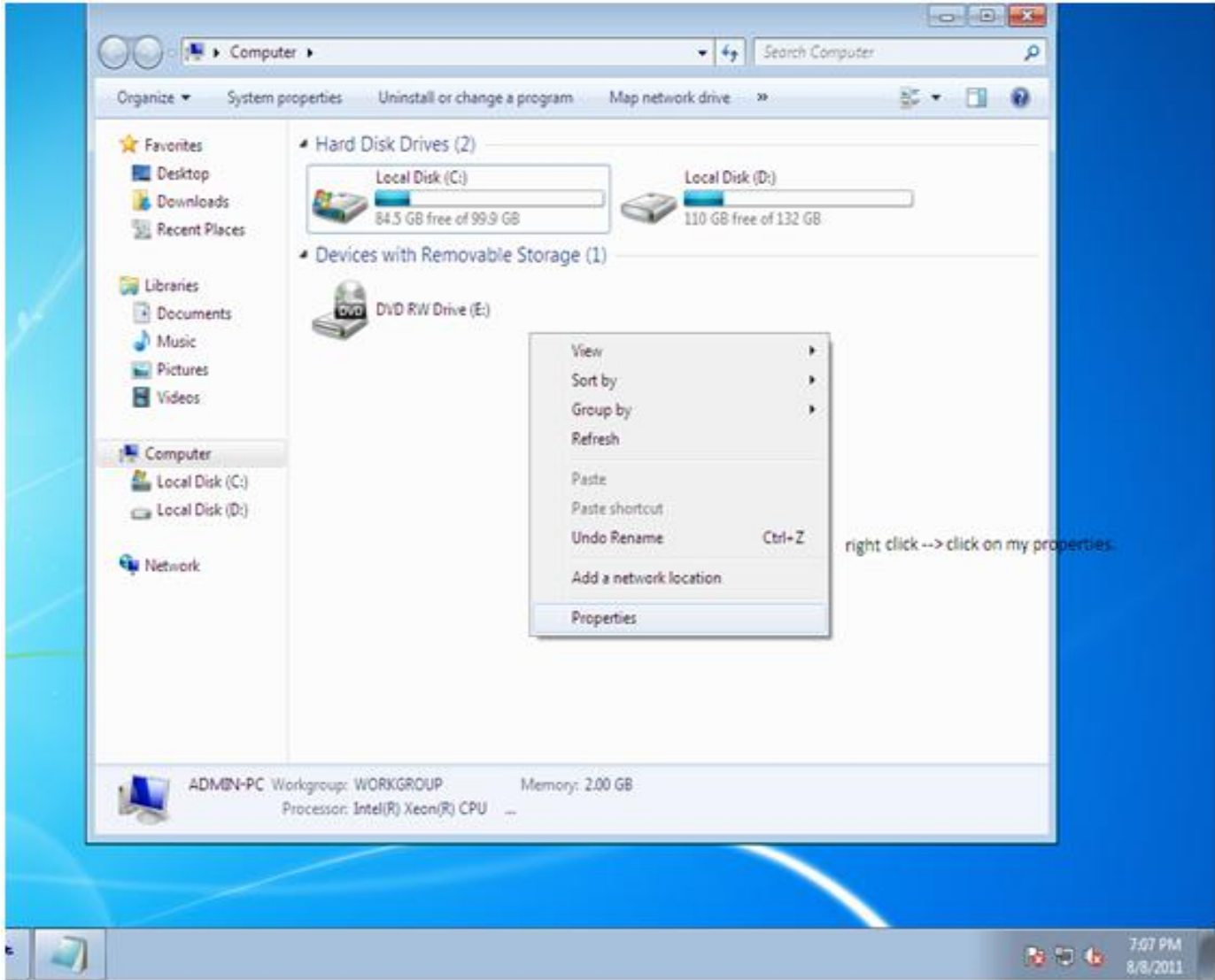
1. This procedure can be avoided by using CyUSB.sys signed driver, available on our website at:  
<http://www.cypress.com/?id=4&rID=53338>

2. The Procedure of Disabling the driver signature enforcement, has to be done every time you boot up and want to use the unsigned driver.

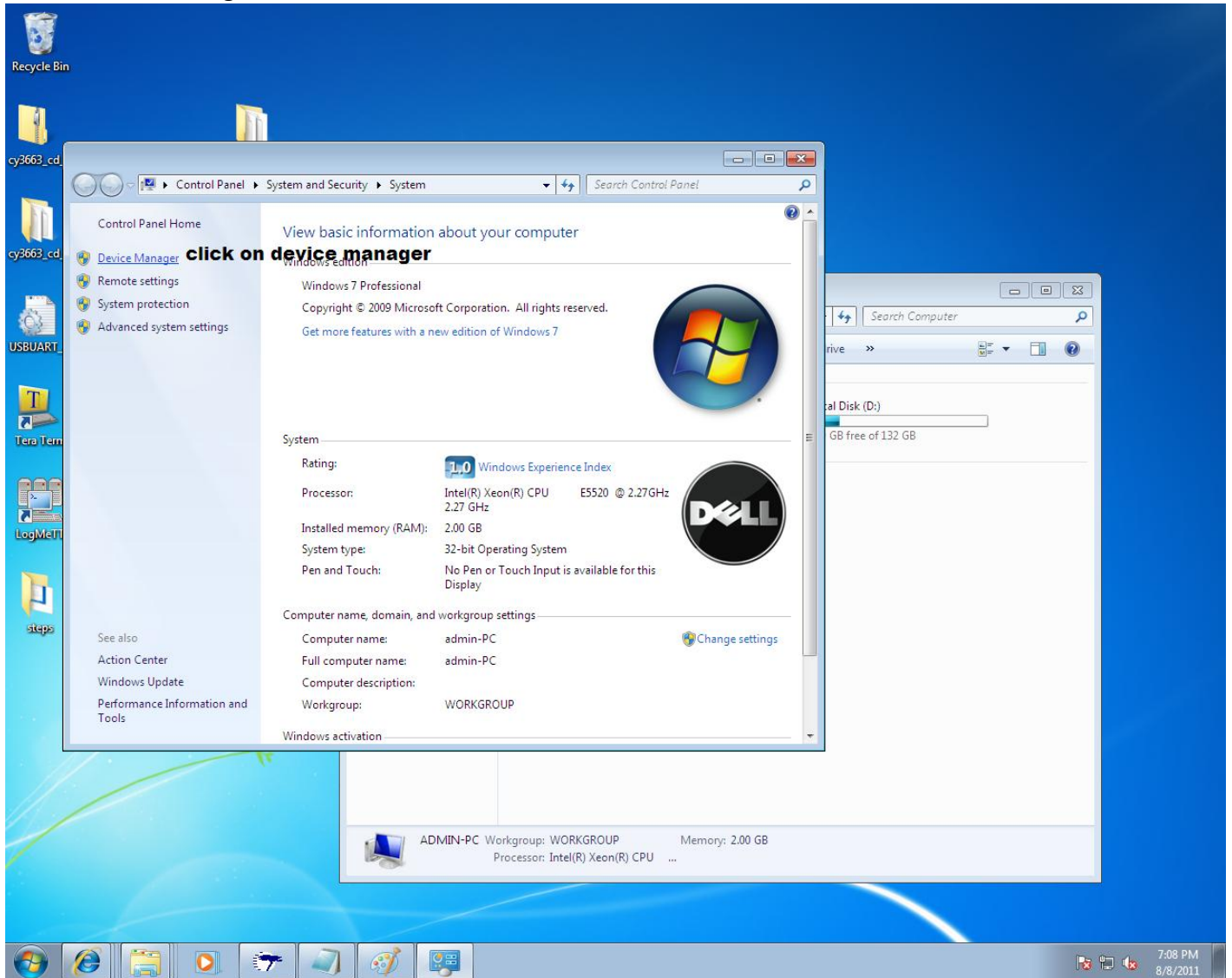
### **B. BINDING THE DRIVER TO THE DEVICE:**

The procedure for binding the driver to the device is as follows:

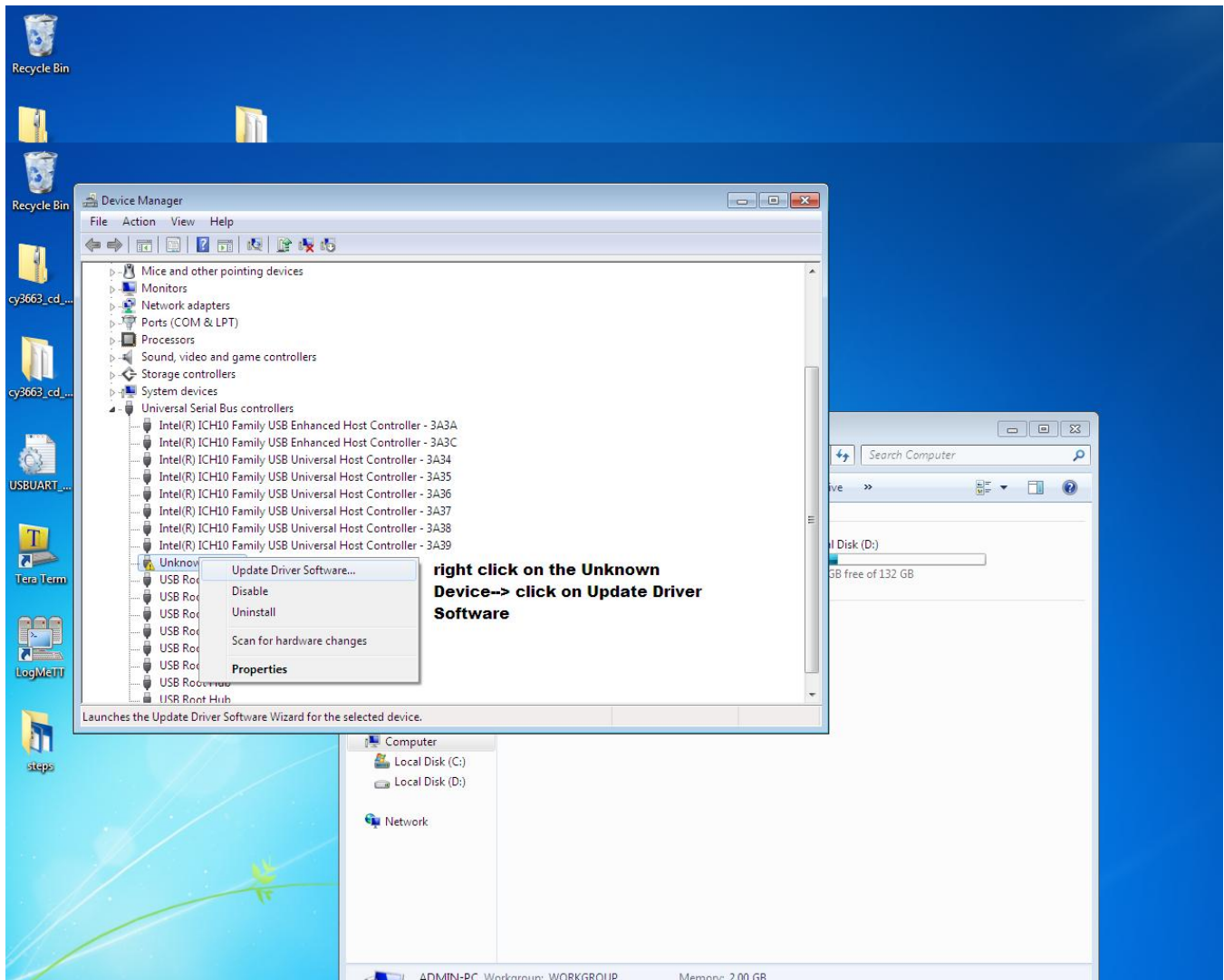
1. Right click on My Computer and select My Properties.  
Or  
While in My Computer, right click on empty space and select My Properties.



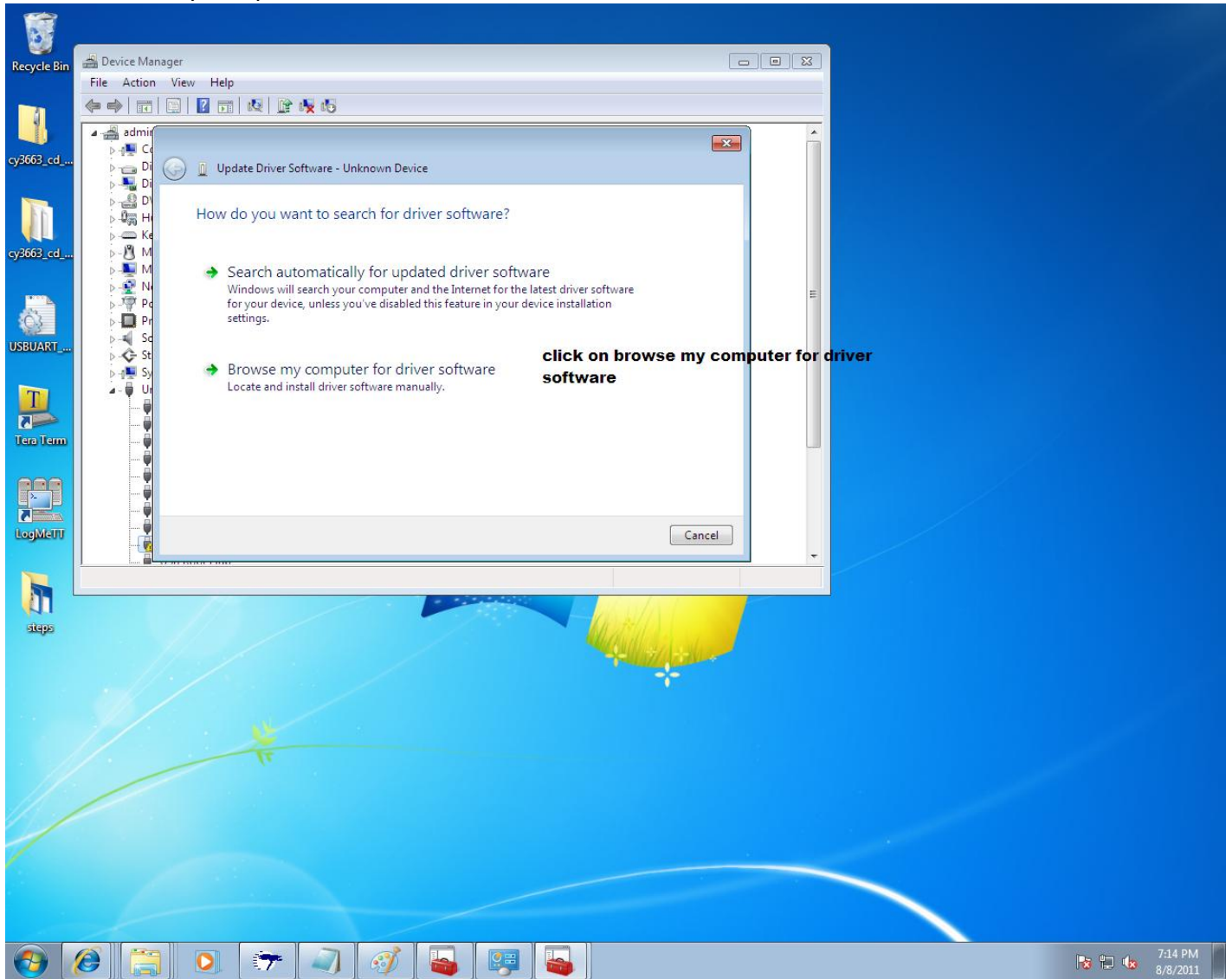
## 2. Select Device Manager.



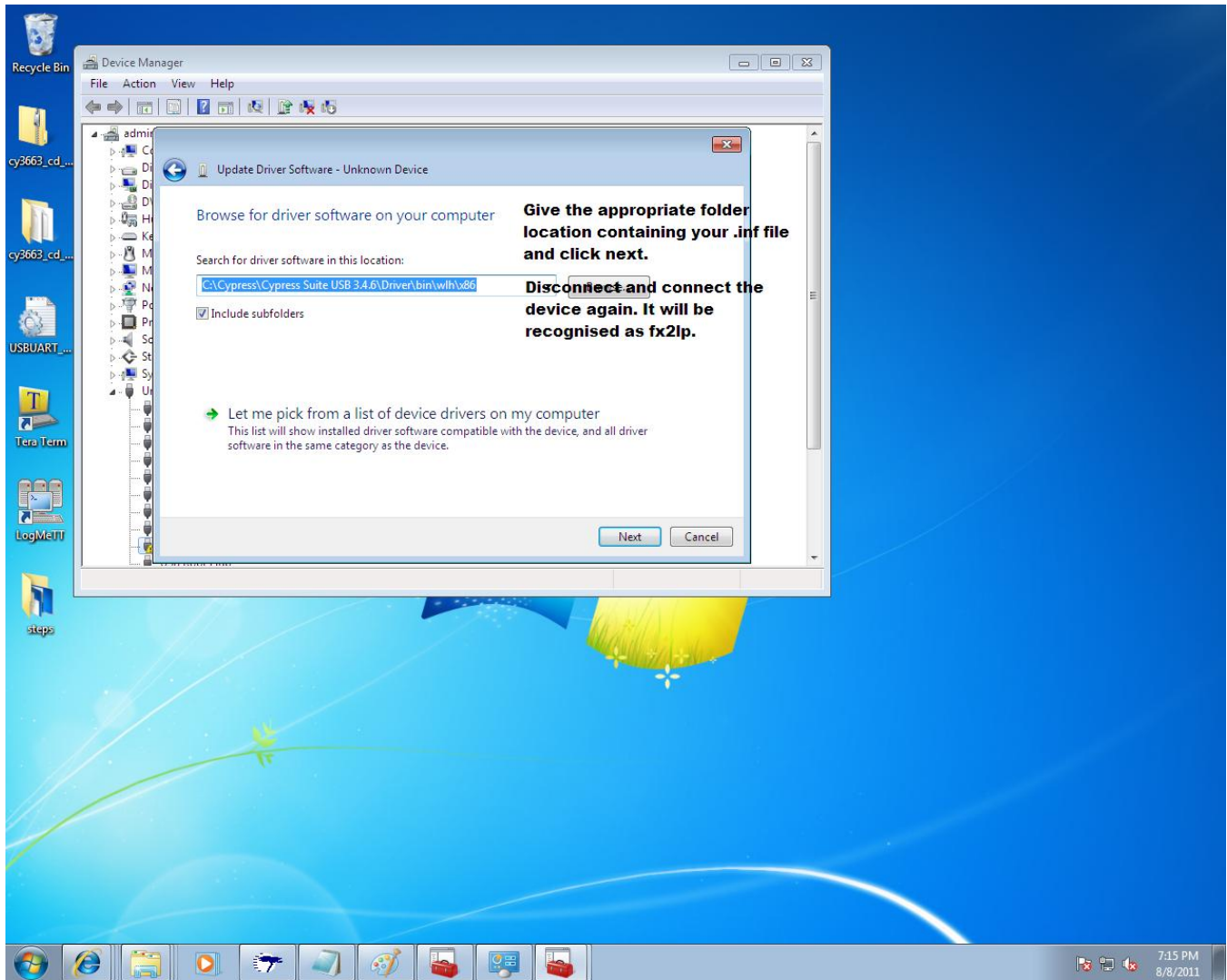
- Expand Universal Serial Bus Controller and right-click on Unknown Device and select Update Driver Software.



4. Select Browse my computer for driver software.



5. Browse and select the appropriate folder location containing your .inf file and click next. If the driver is unsigned, a warning window might pop-up, select Continue Anyways. Disconnect and connect the device again. It will be recognized as FX2LP.



### **C. USING FX2LP AFTER THIS:**

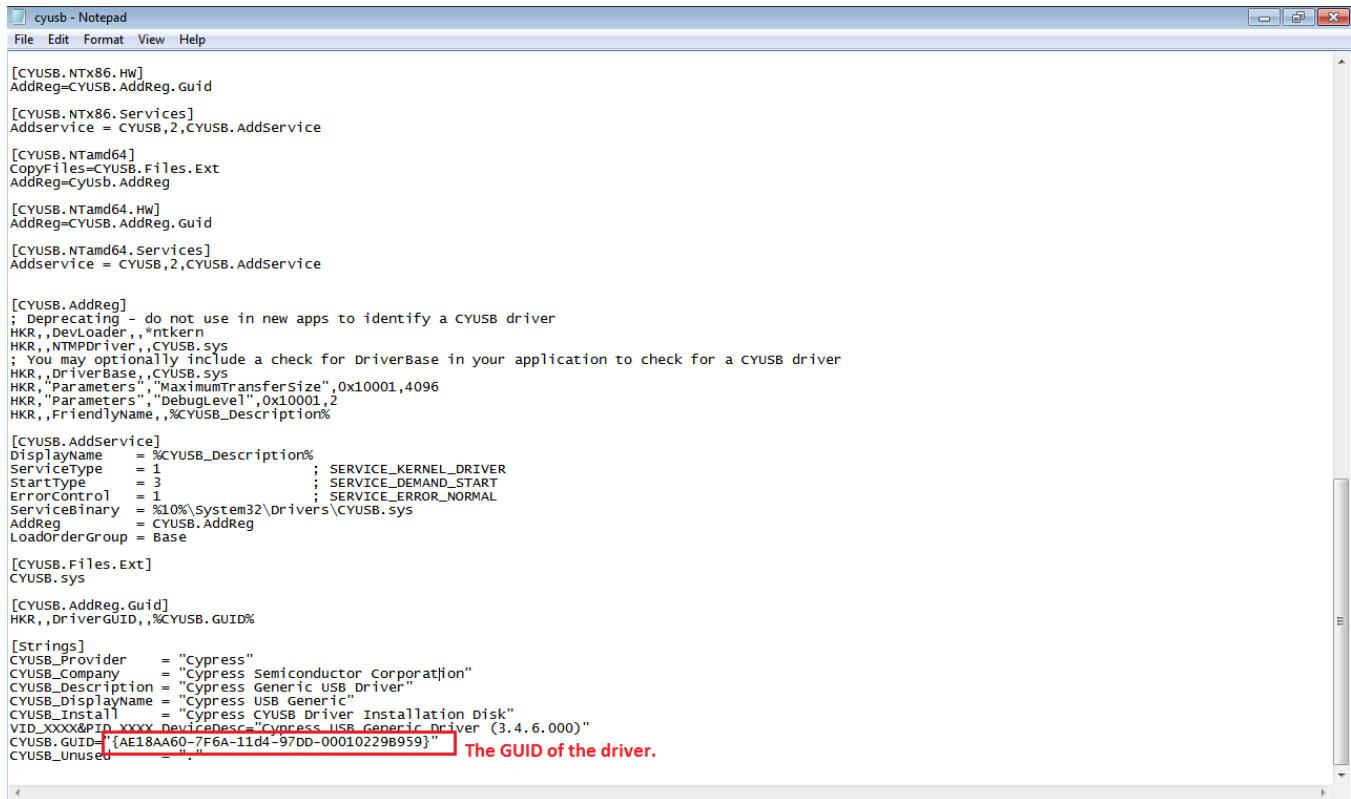
After binding CyUSB.sys to the device, you can use Control Centre for programming your device. CyConsole can also be used. But in CyConsole, one has to follow a few set of steps, you have to select the right instance of driver for the device (with the same GUID as in the .inf file of the device PID\_VID).

#### **STEPS TO FOLLOW TO USE CyConsole AFTER BINDING THE DRIVER :**

1. When you open CyConsole, you might not see any device in the EZ-USB interface or CyConsole interface.
2. You have to select the right driver from the Misc. Tab to enable CyConsole to recognize your device. The steps to do that have been given in the end as “Steps To Follow to select the right instance of driver ” . Please follow the steps and you will be able to detect your device.
3. You can now load your code on the EEPROM or RAM as per requirement using EZ-USB Interface. After the code is loaded, the device enumerates with a new set of VID\_PID. This PID\_VID should again be present in your .inf file,(or you will have to update the device driver to the right .inf file again) and if your device is not being detected by CyConsole, make sure you select the right instance of Device Driver from the list available in the Misc. Tab.

## STEPS TO FOLLOW TO SELECT THE RIGHT INSTANCE OF DRIVER:

1. Check the GUID of the driver in the .inf file for the device driver.



```
cyusb - Notepad
File Edit Format View Help

[CYUSB.NTx86.Hw]
AddReg=CYUSB.AddReg.Guid

[CYUSB.NTx86.Services]
AddService = CYUSB,2,CYUSB.AddService

[CYUSB.NTamd64]
CopyFiles=CYUSB.Files.Ext
AddReg=Cyusb.AddReg

[CYUSB.NTamd64.Hw]
AddReg=CYUSB.AddReg.Guid

[CYUSB.NTamd64.Services]
AddService = CYUSB,2,CYUSB.AddService

[CYUSB.AddReg]
; Deprecating - do not use in new apps to identify a CYUSB driver
HKR,,DevLoader,,ntkern
HKR,,NTMPDriver,,CYUSB.sys
; You may optionally include a check for DriverBase in your application to check for a CYUSB driver
HKR,,DriverBase,,CYUSB.sys
HKR,,Parameters,,MaximumTransferSize",0x10001,4096
HKR,,Parameters,,DebugLevel",0x10001,2
HKR,,FriendlyName,,%CYUSB_Description%

[CYUSB.AddService]
DisplayName = %CYUSB_Description%
ServiceType = 1 ; SERVICE_KERNEL_DRIVER
StartType = 3 ; SERVICE_DEMAND_START
ErrorControl = 1 ; SERVICE_ERROR_NORMAL
ServiceBinary = %10%\System32\Drivers\CYUSB.sys
AddReg = CYUSB.AddReg
LoaderGroup = Base

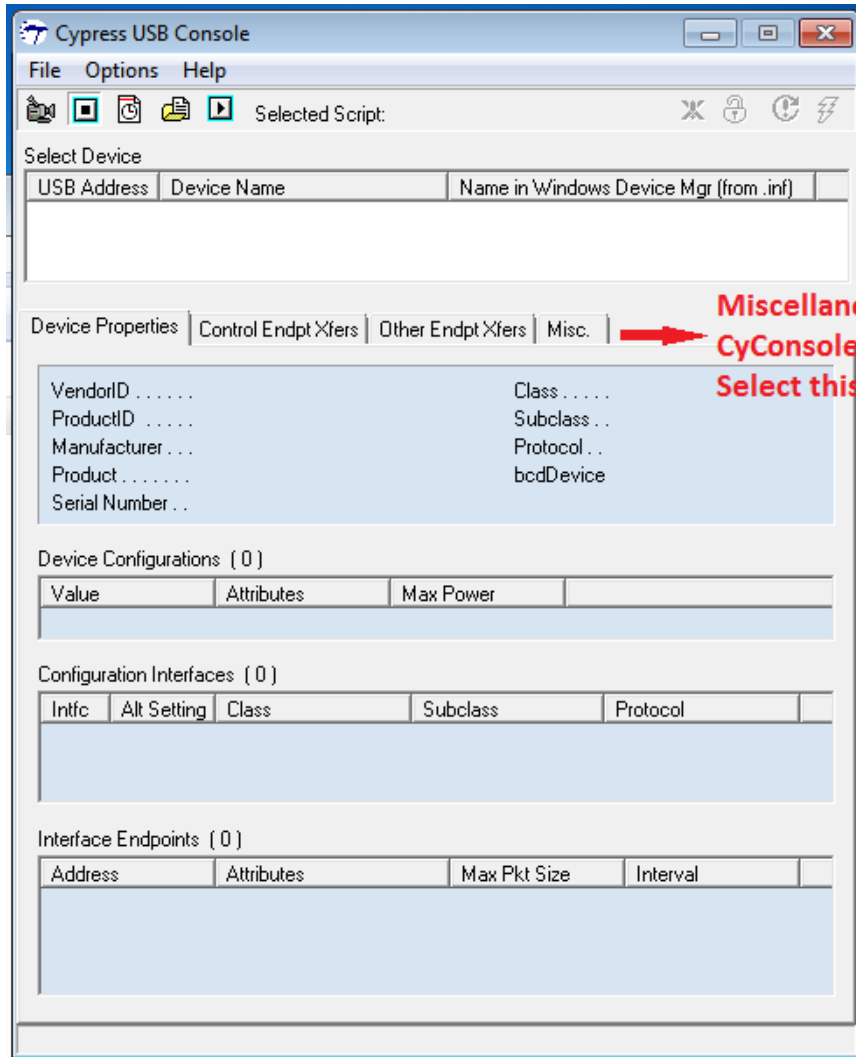
[CYUSB.Files.Ext]
CYUSB.sys

[CYUSB.AddReg.Guid]
HKR,,DriverGUID,,%CYUSB.GUID%

[Strings]
CYUSB_Provider = "Cypress"
CYUSB_Company = "Cypress Semiconductor Corporation"
CYUSB_Description = "Cypress Generic USB Driver"
CYUSB_DisplayName = "Cypress USB Generic"
CYUSB_Install = "Cypress CYUSB Driver Installation Disk"
VID_XXXX&PID_YYYY DeviceDesc="Cypress USB Generic Driver (3.4.6.000)"
CYUSB_GUID="{AE18AA60-7F6A-11d4-97DD-00010229B959}" The GUID of the driver.
CYUSB_Unused = ""
```

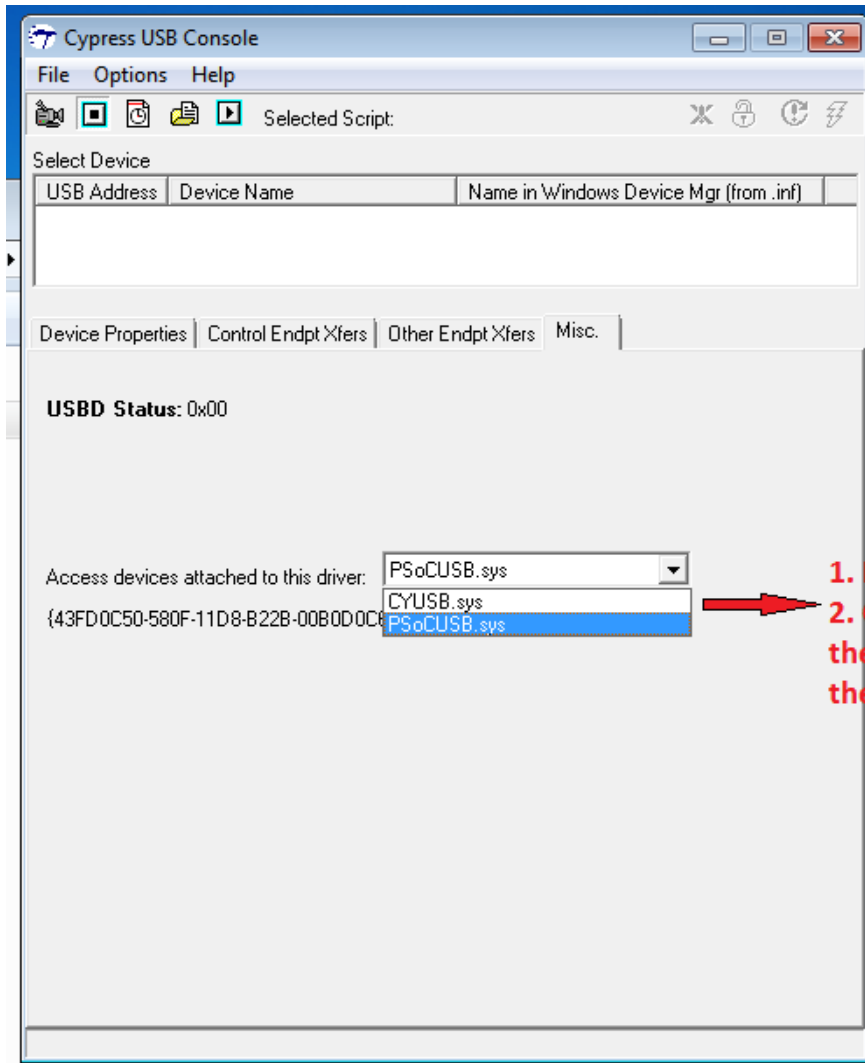


2. Open CyConsole and Select the Miscellaneous Tab.



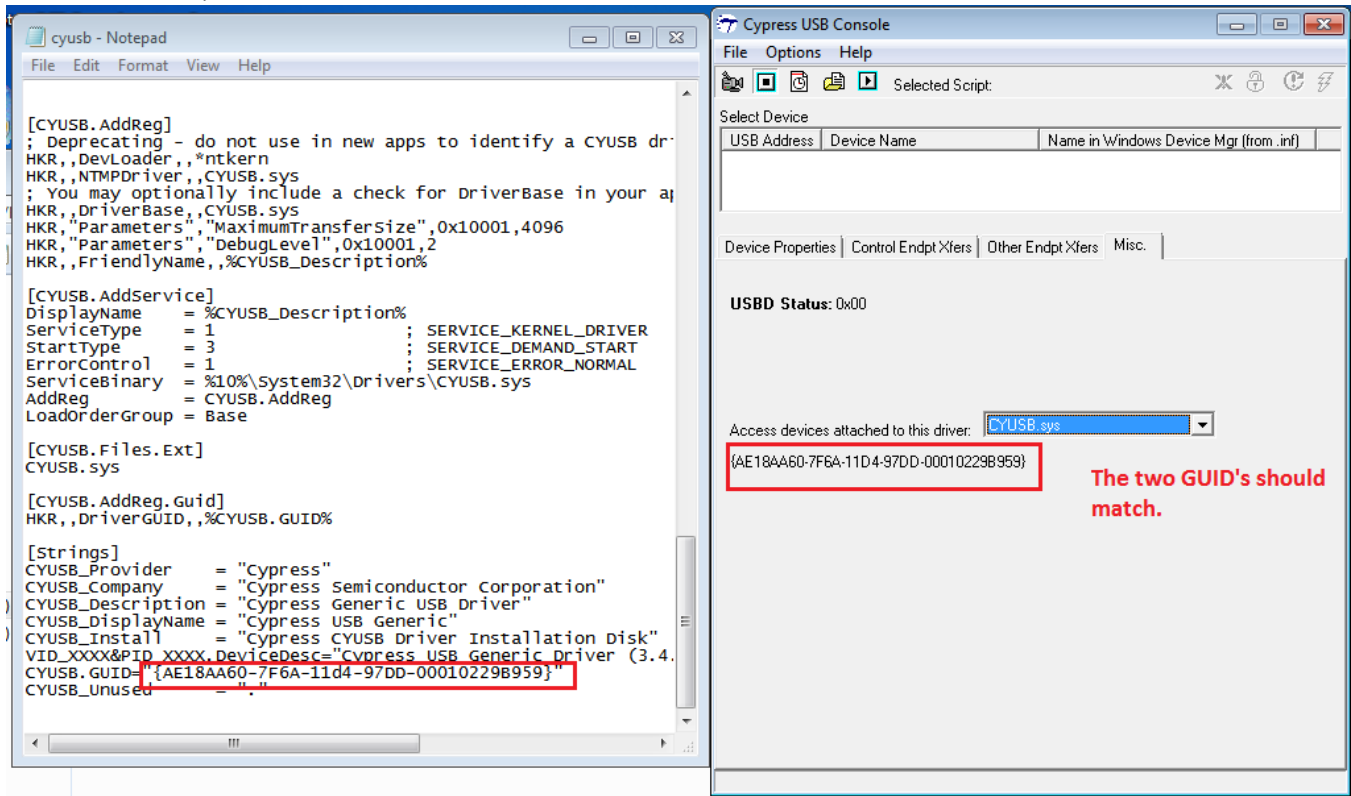
**Miscellaneous Tab on the Main  
CyConsole Window.  
Select this Tab.**

3. Click on the list of the drivers available. You get a drop down menu, with all device driver instances. Click on any one and you can see the GUID displayed on the left hand side. Click on the name of your device driver instance and check the GUID.



1. List of the drivers.
2. Click on CyUSB.sys and check the GUID that gets displayed on the side.

4. The GUID mentioned in the .inf and CyConsole should match. If there appears more than one with the same name, choose the one with the same GUID as the .inf file.



**NOTE:**

1. If your instance of driver is not present this implies that it was not bound correctly. Rebound it by following the steps mentioned in this document.

2. Sometimes in Windows7 when you try to update the device driver by 'Browsing for driver software on your computer'. It might show the message "**The best driver software for your device is already installed**". This occurs when the already bound driver uses the same PID\_VID as the new bound driver. You can avoid this by instead of browsing and pointing to the folder with the new .inf file, you select option "Let me pick from a list of device drivers on my computer". Select "Have Disk", and click browse and now select the .inf file from the right location. Click "OK" and Select "Next".

It will now install the new driver, with the same PID\_VID.

3. Some general points to take care of: (in all windows versions)

- a. The .inf file and the .sys file should be present in the same folder.
- b. If you are changing the name of the driver, the same should be done at all places in the .inf file.