1. How to install CDM driver on PC for Manipulator

This installation guide is based on Window XP. Different systems may require different actions on some steps.

After the CDM driver files are installed on the PC and a new manipulator controller is added on, the device will be installed automatically. By default, the VCP driver (Virtual COM Port) will be loaded, and you can follow the next chapter "How to configure D2XX driver" to load D2XX driver (USB). Please note:

You have to configure the device driver to D2XX to make the USBTester demo program work.

1) Connect the controller with the PC through the USB port and power on the device. If no CDM driver has been installed on the computer, the "Found New Hardware Wizard" will appear and you should then select "Advanced" and click <Next>.



2) Select "Don't Search. I will choose the driver to install." and click next.

Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
C:\MyProject\Product\USB_driver\CDM Driver\v2_[Browse
Oon't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

3) Choose "Show All Devices" and highlight "Computer" then click next.

Found New Hardware Wizard		
Hardware Type.		
Select a hardware type, and then click Next. Common hardware types:		
Show All Devices Show All Debugger Device Show 61883 Device Class AVC Device Class Batteries Bluetooth Radios Bluetooth Radios Disk drives Disk drives Disclau adaptere		
<	Back Next > Cancel	

4) Click <Have Disk>.

Found New Hardware Wizard	
Select the device driver you want to install for this hardwa	re.
Select the manufacturer and model of your hardware device an have a disk that contains the driver you want to install, click Ha	d then click Next. If you we Disk.
(Unable to find any drivers for this device)	
	Have Disk
< Back	lext > Cancel
5) Browse to the folder including the CDM driver f	file and click <ok>.</ok>
Found New Hardware Wizard	
Select the device driver you want to install for this hardwa	ire.
Install From Disk	×,
Una Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel
Copy manufacturer's files from: E:\USB_driver\CDM Driver\v2_04_14\SI CDM Dri	Browse
< Back 1	Next > Cancel

6) Click <Next>.

Found New Hardware Wizard
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Model
Sutter Instrument ROE-200
This driver is not digitally signed! Have Disk Have Disk
< Back Next > Cancel

7) Click <Continue Anyway>.



8) Once the bus has been installed click <Finish>.

Found New Hardware Wizard	
Please wait while the wizard installs the softw	are
Sutter Instrument ROE-200	
FTLang.dll To C:\WINDOWS\system32	Ď
<	Back Next > Cancel

Found New Hardware Wize	ard
	Completing the Found New Hardware Wizard The wizard has finished installing the software for: Sutter Instrument ROE-200
	< Back Finish Cancel

9) Found New Hardware Wizard pop up for installing the USB Serial Port. Refer to the description of step 1) to 8) and go through 9) to 16) to install the port.

Found New Hardware Wizard	
	Welcome to the Found New Hardware Wizard
	This wizard helps you install software for:
	USB Serial Port
	If your hardware came with an installation CD or floppy disk, insert it now.
	What do you want the wizard to do?
	 Install the software automatically (Recommended) Install from a list or specific location (Advanced)
	Click Next to continue.
	< Back Next > Cancel

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Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
E:\USB_driver\CDM Driver\v2_04_14\SI CDM Drive
 Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

Found New Hardware Wizard		
Hardware Type.	E)	
Select a hardware type, and then click Next. Common hardware types:		
Show All Devices Show All Devices Show All Device Class Show 61883 Device Class AVC Device Class Buteries Bluetooth Radios Bluetooth Radios Computer Show All Devices Disclass drives Disclass adapters		
< Back Next >	Cancel	

Found New Hardware Wizard	
Select the device driver you want to install for this hardware.	
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.	
(Unable to find any drivers for this device)	
Have Disk	
< Back Next > Cancel	

Found New Hardware Wizard		
Se	elect the d	evice driver you want to install for this hardware.
	Install F	rom Disk 🛛 🔀
(Una	.	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below. Cancel
		Copy manufacturer's files from:
		E:\USB_driver\CDM Driver\v2_04_14\SI CDM Dri V Browse
		< Back Next > Cancel

Found New Hardware Wizard
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Model
Sutter Instrument ROE-200 USB Serial Port
This driver is not digitally signed! Have Disk Have Disk
< Back Next > Cancel

Found New Hardware Wizard				
Please wait wh	nile the wizard installs the software			
ڪي Sul	iter Instrument ROE-200			
	i i i i i i i i i i i i i i i i i i i			
	Hardware Installation			
	The software you are installing for this hardware: Sutter Instrument ROE-200 has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.			
	Continue Anyway STOP Installation			

Found New Hardware Wizard				
Please wait while the wizard installs the software				
Sutter In	nstrument ROE-200USB S	erial Port		
ftse To	erui2.dll C:\WINDOWS\system32	G		
		< Back	Next >	Cancel



After installing the driver successfully open <Device Manager> and you will see the device shown in the Bus and Ports folder.



2. How to configure D2XX driver for Lambda devices

1) Make sure the Lambda device power is on, then open <Device Manager>. Right click the Lambda device under "Universal Serial Bus controllers" then select <Properties>.



2) On the device properties page, select <Advanced> tab.

Sutter Instrument Lambda 10-3 Properties	? 🔀
General Advanced Driver Details	
Sutter Instrument ROE-200	
Configuration Use these settings to override normal device behaviour.	
✓ Load VCP	
OK Cancel He	IP I

3) Uncheck "Load VCP", then press <OK>.

Sutter Instrument Lambda 10-3 Properties	? 🗙
General Advanced Driver Details	
Sutter Instrument ROE-200	
Configuration	
Use these settings to override normal device behaviour.	
Load VCP	
OK Cancel	Help

4) Reboot the Lambda device and check <Device Manager>, you will see that configured Lambda device has been removed from "Ports (COM & LPT)". The Lambda device is then ready to work with the PC using the D2XX driver (USB).



3. How to uninstall CDM driver on PC for manipulator

Manipulator device can be removed using the <Device Manager> by simply rightclicking on the device and selecting "Uninstall". This will delete the associated registry entries for that device only.

Under Vista64, if you select <Delete the driver software for this device> when you uninstall the Manipulator device, all the driver files will be removed from the PC. Under Windows XP, driver files and OEM INF and PNF files must be removed manually or by a custom application. OEM INF and PNF files are located in the "Windows\inf" directory and can be identified by searching for a VID and PID string matching the device installed e.g. VID_1342 & PID _0001. Once the matching OEM INF files are found (e.g. oem10.inf for SICDMBUS.INF and oem11.pnf for SICDMPORT.INF), the corresponding PNF files must also be removed (e.g. oem10.pnf and oem11.pnf). Driver files are located in the Windows\System32 and Windows\System32\Drivers directories.

Some points to note about this un-installation method:

- If the VCP driver has been installed for this device, the COM port driver should be removed before the bus driver. If the bus is removed first, the COM port will no longer appear in the <Device Manager>.
- If Manipulator CDM driver files are deleted when you uninstall one Manipulator device while other installed devices such as Lambda devices (e.g. Lambda SC, Lambda 10B) still require them, those devices will not work correctly. This can be fixed by right clicking the device and selecting "Reinstall Driver" which will replace the missing files.
- If a device to be uninstalled is not connected to the PC, the device can still be removed by setting the device manager to show phantom devices. This can also allow a virtual COM port to be uninstalled if the bus layer has been removed first. To display phantom devices in <Device Manager>, a new system variable is required. Open "Control Panel > System" then select the "Advanced " tab and click "Environment Variables". In the System Variables section (NOT THE USER VARIABLES SECTION), click "New" to display the following window and create a new System Variable called "DevMgr_Show_NonPresent_Devices" and set the value to 1, then click OK.

Edit System Variable			
Unichla anna i	DeuMen Chara MacDresset Deuises		
variable name:			
Variable value:	1		
	OK Cancel		

Open the <Device Manager> and select "View > Show Hidden Devices". <Device Manager> will then show all hidden and phantom devices available on that PC as shaded.

