

Future Technology Devices International Ltd.

Application Note AN_134

FTDI Drivers Installation guide for MAC OS X

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The purpose of this application note is to provide users of FTDI chips with a simple procedure for installing FTDI drivers for FTDI devices used under MAC OS X.

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1 Introduction

The purpose of this application note is to provide users of FTDI chips with a simple procedure for installing FTDI drivers for their devices under MAC OS X.



2 Getting FTDI Device Drivers

FTDI drivers may be obtained from the FTDI website.

There are two types of driver: VCP (Virtual COM Port) and D2XX (direct access).

2.1 Getting VCP

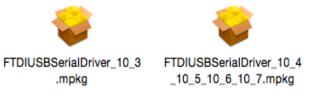
VCP creates a virtual com port on the MAC and allows applications that use the POSIX programming interface to communicate with the device. This is effectively the same us using a legacy com port.

The download is a Disk Image (dmg) file at: <u>http://www.ftdichip.com/Drivers/VCP.htm</u>

Download the version relevant to your OS version.

Clicking the weblink starts a download.

Inside the FTDIUSBSerialDriver_v2_2_18.dmg there are 2 package files:



FTDIUSBSerialDriver_10_3.mpkg which is specific to OS X 10.3 (Panther)

 $\label{eq:states} FTDIUSBSerialDriver_10_4_10_5_10_6_10_7.mpkg \ which \ is \ specific \ to \ OS \ X \ 10.4 \ (Tiger), \ OS \ X \ 10.5 \ (Leopard), \ 10.6 \ (Snow \ Leopard), \ 10.7 \ (Lion) \ and \ 10.8 \ (Mountain \ Lion).$

Inside the FTDIUSBSerialDriver_v2_3.dmg there is 1 package file:



FTDIUSBSerial.pkg is suitable for OS X 10.9 (Mavericks) and later.

2.2 Getting D2XX

D2xx uses FTDI's programming interface to access advanced features of the chips. The download is a Disk Image (dmg) file at <u>http://www.ftdichip.com/Drivers/D2XX.htm</u> The current version at the time of writing (version 1.2.2) covers all versions of OS X from 10.4 onwards.



3 Installing Drivers

3.1 Installing VCP Drivers on OS X 10.3 to OS X 10.8

To install the driver on the MAC you simply click on the .mpkg that matches your version of OS X.

With Lion and Mountain Lion, you will need to bypass the new Gatekeeper security function to install the pkg file. Simply press **Cntrl-Click** when you select FTDIUSBSerialDriver_10_4_10_5_10_6_10_7.pkg. This will bring up a pop-up menu. Select Open from this menu:

Open Open With Show Package Contents
Get Info Compress "FTDIUSBSerialDriv10_5_10_6_10_7" Burn "FTDIUSBSerialDriv10_5_10_6_10_7" to Disc Make Alias Quick Look "FTDIUSBSerialDriv10_5_10_6_10_7" Share
Copy "FTDIUSBSerialDriv10_5_10_6_10_7"
Clean Up Selection Show View Options
Label:

The following pop-up will appear:

	"FTDIUSBSerialDriver_10_4_10_5_10_6_10 _7" is from an unidentified developer. Are you sure you want to open it?
	Opening "FTDIUSBSerialDriver_10_4_10_5_10_6_10_7" will always allow it to run on this Mac.
	"FTDIUSBSerialDriver_10_4_10_5_10_6_10_7" is on the disk image "FTDIUSBSerialDriver_v2_2_18.dmg". Safari downloaded this disk image today at 8:58 AM from www.ftdichip.com.
?	Open Cancel

Select "Open" and the VCP driver install process will begin (see next page).



Welcome to the FTDIUSBSerialDriverInstaller Installer Welcome to the Mac OS X Installation Program. You will be quided through the steps processary to install this software				
	guided through the steps necessary to install this software.			
Read Me				
Select Destination				
Installation Type				
Install				
● Finish Up	Chip			

Select continue to install the driver.

000	🥪 Install FTDIUSBSerialDriverInstaller			
Important Information				
 Introduction Read Me Select Destination Installation Type Install Finish Up 	FTDIUSBSerialDriver is an implementation of a serial driver for FTDI USB devices on Mac OS X. It supports FT8U232AM, FT8U245AM, FT232BM, FT245BM, FT2232R, FT245R, FT2232H and FT4232H devices. Revision History v2.2.14 (25th August 2009) Release for Snow Leopard. v2.2.14 (25th August 2009) Release for Snow Leopard. v2.2.13 (25th August 2009) HiddenPort property now set as standard. v2.2.12 (7th July 2009) Includes x86_64 support. v2.2.11 (17th April 2009) Removed user notification dialog box. v2.2.10 (6th August 2008)			
	Print Save Go Back Continue	e) /		

Select continue at the ReadMe screen.



000	🥪 Install FTDIUSBSerialDriverInstaller
	Easy Install on "Tiger"
 Introduction Read Me Select Destination Installation Type Install 	Click Install to perform a basic installation of this software package on the volume "Tiger."
 Finish Up 	FTDI Chip
	Chip
(Customize Go Back Install

Select Install. At this point you may be asked for your password to authenticate the installation. This is just the same as you would do to log into the machine to begin using it.

		Authenticate
	Installer re	quires that you type your password.
	Name:	
	Password:	
▶ Details		
?		Cancel OK



 Introduction Read Me Select Destination Installation Type Install Finish Up 	The software was successfully installed Chip
	GO BACK CIOSE

After authentication select close to complete the installation.

Now plug the device in.

If the device is installed properly, you will see entries in the /dev directory: /dev/cu.usbserial-xxxxxxxx /dev/tty.usbserial-xxxxxxxx

where xxxxxxx is either the device's serial number or, for unserialized devices, a location string that depends on which USB port your device is connected to. Note that for FT2232D devices port A is denoted by the serial number appended with "A" and port B is designated by the serial number appended with "B".

/dev can be accessed through the Terminal application. The Terminal application can be launched by selecting Go > Applications > Utilities > Terminal. Type the following lines in the Terminal window to produce the file list:

cd /dev Is-I



3.2 Installing VCP Drivers on OS X 10.9 onwards

Since 10.9 (Mavericks), OS X has included built-in partial support for some FTDI devices in VCP mode. Starting with 10.11 (El Capitan), Apple's own driver seems to be sufficiently comprehensive that many customers will not need to install FTDI's own VCP unless they wish to use its advanced features such as baud-rate aliasing and configurable latency times.

If you do wish to use FTDI's VCP, disable the Apple-provided FTDI VCP driver as per section 7.

To install the driver on the MAC, simply click on the FTDIUSBSerial.pkg shown in section 2.1.

	😞 Insta	II FTDI USB Serial Driver	
FTDI			
Chip	Welcome to	the FTDI USB Serial Driver Installer	
Introduction	You will a software	be guided through the steps necessary to install this	
Read Me			
License			
 Destination Select 			
 Installation Type 			
 Installation 			
Summary			
		On Park	
		Go Back Continue	
	_		
	S	elect Continue	
	- la sta		0
	🥪 Insta	II FTDI USB Serial Driver	
FTDI	Important Ir	ofrmation	
Chip	FTDIUS	BSerialDriver ReadMe	
Introduction		erialDriver is an implementation of a serial driver for FTDI	
Read Me		s on Mac OS X. It supports FT8U232AM, FT8U245AM, FT245BM, FT2232, FT232R, FT245R, FT2232H, FT4232H,	
License	FT232H and	d FT X Series devices.	
Destination Select	Revision I	History	
Installation Type	v2.3.0	(26th February 2015)	
Installation		Updated for 10.9 and 10.10: signed, installs to recommended location, 64-bit only.	
Summary			
	v2.2.18	(8th August 2012) Avoid dropping bytes while writing in some scenarios.	
	v2.2.17	(24th February 2012)	
		Corrected issue with custom port names. Release for Lion.	
	v2.2.16	(28th February 2011) Added support for FT232H.	

Save...

Print...

Force FT232R/FT245R endpoint size to 64 hytes

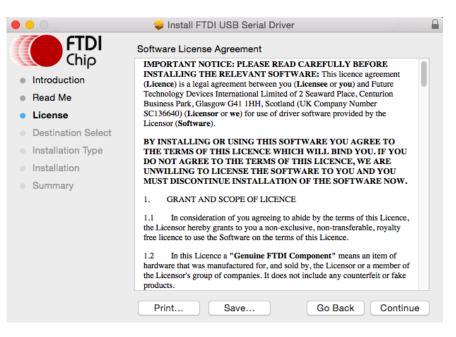
Go Back

Continue



Document Reference No.: FT_000201 FTDI Drivers Installation guide for MAC OS X Application Note AN_134 Version 1.3 Clearance No.: FTDI# 123

Select Continue on the Read Me screen.



After reading the Software License Agreement, press Continue.

0	0	🥪 Install FTDI USB Serial Driver			
			stalling the software you must agree to the terms of cense agreement.		
۰	Inti	Click Agree to continue or click Disagree to cancel the installation and			
•	Re	quit the Installe	r.		
•	Lic				
	De	Read License	Disagree Agree		
	Ins				
	Installat	tion	DO NOT AGREE TO THE TERMS OF THIS LICENCE, WE ARE UNWILLING TO LICENSE THE SOFTWARE TO YOU AND YOU		
	Summa	ry	MUST DISCONTINUE INSTALLATION OF THE SOFTWARE NOW.		
			1. GRANT AND SCOPE OF LICENCE		
			1.1 In consideration of you agreeing to abide by the terms of this Licence, the Licensor hereby grants to you a non-exclusive, non-transferable, royalty free licence to use the Software on the terms of this Licence.		
			1.2 In this Licence a "Genuine FTDI Component" means an item of hardware that was manufactured for, and sold by, the Licensor or a member of the Licensor's group of companies. It does not include any counterfeit or fake products.		
			Print Save Go Back Continue		

Click agree to continue or disagree to abort installation.



• • •	🕪 Install FTDI USB Serial Driver	
FTDI Chip Introduction	Standard Install on "Macintosh HD" This will take 278 KB of space on your computer.	
 Read Me License Destination Select Installation Type 	Click Install to perform a standard installation of this software on the disk "Macintosh HD".	
InstallationSummary		
	Change Install Location	
	Go Back Install	

Select Install.

	🥪 Install FTDI USB Serial Driver	
Chip	Installing FTDI USB Serial Driver	
Introduction		
Read Me		
License		
Destination Select	Preparing for installation	
Installation Type		
Installation		
Summary		
	Go Back Continue	

Screen will briefly show 'Preparing for installation...'



	nstaller is trying to install new software. Type your password to allow this.	
Username:	FTDI	
Password:		
	Cancel Install Software	

At this point you may be asked for your password to authenticate the installation. This is just the same as you would do to log into the machine to begin using it. Then select Install Software.

0 0	💝 Install FTDI USB Serial Driver 🔒
Chip	Installing FTDI USB Serial Driver
Introduction	
Read Me	
License	
Destination Select	Preparing FTDI USB Serial Driver
Installation Type	
Installation	
Summary	
	Go Back Continue

The screen will show 'Preparing FTDI USB Serial Driver...'



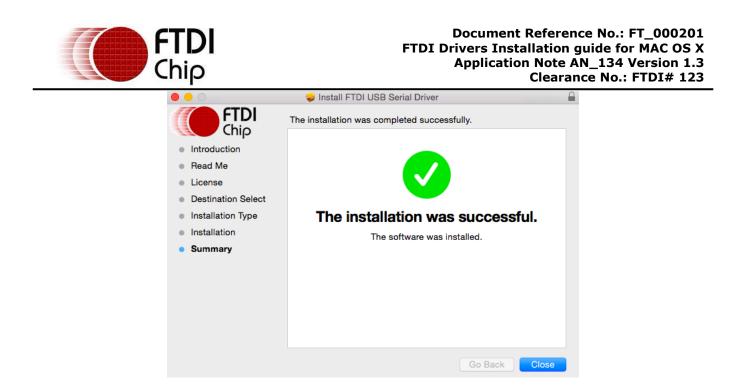
Document Reference No.: FT_000201 FTDI Drivers Installation guide for MAC OS X Application Note AN_134 Version 1.3 Clearance No.: FTDI# 123

0 😑 0	🥪 Install FTDI USB Serial Driver	
Chip	Installing FTDI USB Serial Driver	
Introduction		
Read Me		
License		
Destination Select	Validating packages	
Installation Type		
Installation		
Summary		
	Go Back Continue	

The screen will show 'Validating packages...'

0 0	🥪 Install FTDI USB Serial Driver 🔒
Chip	Installing FTDI USB Serial Driver
 Introduction 	
Read Me	
License	
Destination Select	Registering updated components
Installation Type	
Installation	
Summary	
	Install time remaining: Less than a minute
	Go Back Continue

The screen will show 'Registering updated components...'



The final screen should show that the installation was successful. Select close and then reboot.

Now plug the device in.

If the device is installed properly, you will see entries in the /dev directory: /dev/cu.usbserial-xxxxxxxx /dev/tty.usbserial-xxxxxxxx

where xxxxxxx is either the device's serial number or, for unserialized devices, a location string that depends on which USB port your device is connected to. Note that for FT2232D devices port A is denoted by the serial number appended with "A" and port B is designated by the serial number appended with "B".

/dev can be accessed through the Terminal application. The Terminal application can be launched by selecting Go > Applications > Utilities > Terminal. Type the following lines in the Terminal window to produce the file list:

cd /dev Is-l



3.3 Installing D2xx Drivers

Please note that applications using D2XX cannot access an FTDI device if OS X has already loaded a VCP driver for it. OS X does this when it detects a device with standard FTDI vendor and product identifiers being connected. This applies to both FTDI's VCP and, on OS X 10.9 onwards, Apple's.

To avoid this scenario, if FTDI's VCP is installed, uninstall it by following the instructions in section 4. On OS X 10.9 and later, block, unload or disable Apple's driver by following the instructions in section 7.

Download the D2XX disk image as per section 2.2 of this document. Click the dmg item in the Downloads area to mount the disk image, then drag the D2XX folder to your desktop.

Start a Terminal session (Go > Applications > Utilities > Terminal)

Change directory to /usr/local/lib:

cd /usr/local/lib

Note: if /usr/local/lib does not already exist, try again after creating it with:

sudo mkdir -p /usr/local/lib

Copy the libftd2xx dynamic library to /usr/local/lib (note the final space and dot are essential):

sudo cp ~/Desktop/D2XX/bin/10.5-10.7/libftd2xx.1.2.2.dylib .

Create a version-independent symbolic link to the library:

sudo ln -sf libftd2xx.1.2.2.dylib libftd2xx.dylib

The driver is now installed. You may link to it by specifying –lftd2xx in your build command.

Samples written in C are provided to show how to use the library and verify the installation. These are command-line applications that must be executed from the Terminal window. To compile and run the samples, perform the following steps (these assume you have copied all of the distribution files to the desktop and installed the library as per the Installation section above):

Open a Terminal window (Go > Applications > Utilities > Terminal).

Change directory to the root samples directory:

cd ~/Desktop/D2XX/Samples

Build all the samples:

make

If you have issues at this stage revisit the installation section above to ensure the library is correctly installed. Read the error messages and try to determine the source of the problem. If you still have issues then contact support detailing your issue with as much information as possible.

To test running an application, connect an FTDI device with default VID (0x0403) and PID (e.g. 0x6001) and type:

sudo EEPROM/read/read

Note: running as super-user (sudo) is necessary because OS X does not give ordinary users permission to access USB directly.

If you have issues at this stage then consult the troubleshooting topics in section 6. If the troubleshooting section doesn't help then contact support with your problem details.



4 Uninstalling FTDI Drivers on OS X

Follow the procedures below if you wish to remove the FTDI-provided drivers from your MAC.

4.1 Uninstalling FTDI VCP Drivers on OS X 10.3 to OS X 10.8

To remove the drivers from Mac OS X, the user must be logged on as root. Root is a reserved username that has the privileges required to access all files.

Start a Terminal session (Go > Applications > Utilities > Terminal) and enter the following commands at the command prompt:

cd /System/Library/Extensions rm -r FTDIUSBSerialDriver.kext

cd /Library/Receipts rm -r ftdiusbserialdriver.pkg rm -r ftdiusbserialdriverinstallerPostflight.pkg rm -r ftdiusbserialdriverinstallerPreflight.pkg

To temporarily operate as the root user you can use sudo at the beginning of the command

e.g.

```
cd /System/Library/Extensions
sudo rm -r FTDIUSBSerialDriver.kext
```

cd /Library/Receipts sudo rm -r ftdiusbserialdriver.pkg sudo rm -r ftdiusbserialdriverinstallerPostflight.pkg sudo rm -r ftdiusbserialdriverinstallerPreflight.pkg

The driver will then be removed from the system.

4.2 Uninstalling FTDI VCP Drivers on OS X 10.9 onwards

To remove the drivers from Mac OS X 10.9 onwards, the user must be logged on as root. Root is a reserved username that has the privileges required to access all files.

Start a Terminal session (Go > Applications > Utilities > Terminal) and enter the following commands at the command prompt:

cd /Library/Extensions rm -r FTDIUSBSerialDriver.kext

then reboot

To temporarily operate as the root user you can use sudo at the beginning of the command

e.g.

```
cd /Library/Extensions
sudo rm -r FTDIUSBSerialDriver.kext
```

then reboot

The driver will then be removed from the system.



4.3 Uninstalling D2XX Drivers

To uninstall the D2XX driver, simply delete the library and the symbolic link:

Start a Terminal session (Go > Applications > Utilities > Terminal)

Change directory to the /usr/local/lib (cd /usr/local/lib)

Delete the library (rm libftd2xx.1.2.2.dylib)

Delete the symbolic link (rm libftd2xx.dylib)

If you have installed D2xxHelper (required for OS X 10.11 onwards), it also must be removed:

sudo rm -r /Library/Extensions/D2xxHelper.kext



5 Complete the uninstallation by rebooting. VCP Troubleshooting

5.1 How do I know what my deviceID is?

Launch the System Profiler utility, or Apple System Profiler for earlier versions of OS X. This can be accessed by going to the Finder and selecting Applications from the Go menu, then open the Utilities folder.

Select USB under Hardware in the panel to the left and then select the appropriate device from the USB Device Tree.

In the screen shot below (from OS 10.4), the device has a deviceID given by: Vendor ID: 0x0403 Product ID: 0x6001

000	Intel iMac		
Intel iMac		30/10/2009 11:48	
Contents	USB Device Tree	4	
▼Hardware	USB Bus		
ATA	▼USB Bus		
Audio (Built In)	FTDI product		
Bluetooth	▼USB Bus		
Diagnostics	Thub in Apple Pro Keyboard		
Disc Burning	Apple Optical USB Mouse		
Fibre Channel	Apple Pro Keyboard		
FireWire	▼USB Bus		
Graphics/Displays	Bluetooth USB Host Controller		
Memory	IR Receiver		
PC Cards	▼USB High-Speed Bus		
PCI Cards	Built-in iSight		
Parallel SCSI			
Power			
Printers	FTDI product:		
SAS	Version: 6.00		
Serial-ATA	Bus Power (mA): 500		
USB	Speed: Up to 12 Mb/sec		
▼ Network	Manufacturer: FTDI Product ID: 0x6001		
AirPort Card	Serial Number: FTSI7OXH		
Firewall	Vendor ID: 0x0403		
Locations			
Modems			
Volumes			
▼ Software			
Applications			
Extensions			
Fonts	× · · · · · · · · · · · · · · · · · · ·		
Frameworks			

If the device does not work after installing the driver, it is likely to be because the PID is not supported by the driver. If this is the case, contact the vendor of your product to determine if they provide an edited driver to support their product. If they do not provide an edited driver you can make the edits yourself by following the instructions in TN_105 Adding Support for New Devices to MAC Driver from the FTDI website

http://www.ftdichip.com/Documents/TechnicalNotes/TN 105%20Adding%20Support%20for%20New%2 0FTDI%20Devices%20to%20Mac%20Driver.pdf

Please note that editing the kext to add a VID/PID, or alias a baud rate now requires re-signing with a kext-signing certificate.

If the VID is not 0x0403, it is likely that the device is not an FTDI device and we cannot support it.

5.2 The device does not appear in the /dev directory

FTDIUSBSerialDriver does not support your deviceID (VID and PID).

Disable the EEPROM so that the device reverts to its default deviceID, then replug.

To get support for your deviceID built into FTDIUSBSerialDriver, contact the vendor of your product to determine if they provide an edited driver to support their product. If they do not provide an edited driver



you can make the edits yourself by following the instructions in TN_105 Adding Support for New Devices to MAC Driver from the FTDI website

http://www.ftdichip.com/Documents/TechnicalNotes/TN_105%20Adding%20Support%20for%20New%2 0FTDI%20Devices%20to%20Mac%20Driver.pdf

On OS X 10.11 or later, another possibility is that VCP has been blocked by installation of D2xxHelper, bundled with an application. VCP and such an application are mutually exclusive. To force using VCP, disable D2xxHelper:

cd /Library/Extensions

sudo mv D2xxHelper.kext D2xxHelper.disabled

Then reboot. To force using D2xx again, rename D2xxHelper.disabled back to D2xxHelper.kext and reboot.

5.3 The text "NewPort Detected" is not displayed in System Preferences-Network

The device does not show in the System Preferences Netwoork window as Apple requested we remove this.

5.4 The device cannot be accessed even though the deviceID is supported in FTDIUSBSerialDriver

An ownership or permissions problem is preventing the system from making the device accessible.

Check that the driver is owned by root and wheel. The most common symptom is the group for FTDIUSBSerialDriver is not wheel.

To change the group, login as root and perform the following script in a Terminal window (Go > Applications > Utilities > Terminal):

cd /system/library/extensions chgrp -R wheel FTDIUSBSerialDriver.kext

Reboot for the change to take effect.

On OS X 10.11 or later, another possibility is that VCP has been blocked by installation of D2xxHelper, bundled with an application. VCP and such an application are mutually exclusive. To force using VCP, disable D2xxHelper:

cd /Library/Extensions

sudo mv D2xxHelper.kext D2xxHelper.disabled

Then reboot. To force using D2xx again, rename D2xxHelper.disabled back to D2xxHelper.kext and reboot.

5.5 How do I open a Terminal window?

A Terminal window can be started by selecting Go > Applications > Utilities > Terminal

The terminal window is equivalent to a DOS prompt in Windows.



6 D2XX Troubleshooting

6.1 I can't open a device even though the installation has been successful

This is possibly due to another driver claiming the device for use as a virtual COM port. To check, type:

```
kextstat | grep FTDI
```

If the output contains lines referring to either (or both) of AppleUSBFTDI or FTDIUSBSerialDriver, the solution is one of the following:

- Reprogram the FTDI chip with non-FTDI (vendor/product) identifiers. This prevents OS X from matching the device with any other driver. See <u>http://www.ftdichip.com/Support/Documents/TechnicalNotes/TN 100 USB VID-</u> PID Guidelines.pdf for guidance on this.
- On OS X 10.9 and later: install D2xxHelper which blocks AppleUSBFTDI and FTDIUSBSerialDriver from matching standard FTDI chips. See section 7.3.
- On OS X 10.10 and earlier: disable or temporarily unload the serial driver(s). For FTDIUSBSerialDriver, see section 4; for AppleUSBFTDI, see section 7.

Another possibility is an incorrect VID/PID. Try changing your application to use the FT_SetVIDPID API call to quickly determine if this is the case.

6.2 After running an application two or three times, communication stops

It is always recommended that you close a file handle obtained by FT_Open/FT_OpenEx before exiting an application. Side effects of not closing the handle with the multithreaded setting (as illustrated above) can be future communication with the device fails (always test this prior to enabling this setting).

The Sample applications demonstrate a method of trapping an abnormal exit (control C operation) and closing each handle in turn.

If you cannot find a work around then try setting the USB Reset After Open bit in the ftd2xx.cfg file but only as a last resort.

6.3 Problems upgrading to the latest D2XX driver

Upgrading the D2XX library can cause problems, such as a reported bug fix does not appear to be fixed. This is most likely related to the application executable pointing to a previous version of the library.

To determine which D2XX library your application is using perform the following steps (examples in brackets assume you have copied all of the files to the desktop and successfully compiled the samples as described in the Samples section):

Open a Terminal window (Go > Applications > Utilities > Terminal).

Change directory to the application executable folder (cd Desktop/D2XX/Samples/Simple)

Use otool to determine the library path (otool -L simple).

The following text is an example of what is displayed

simple:

/usr/local/lib/libftd2xx.1.2.2.dylib (compatibility version 1.2.2, current version 1.2.2) /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 88.1.6)

As illustrated the, simple application is pointing to libftd2xx.1.2.2.dylib.



To alter the library so that the simple sample points to use the install_name_tool (e.g install_name_tool -change /usr/local/lib/libftd2xx.1.2.2.dylib /usr/local/lib/libftd2xx.dylib simple).

Please note you may need to change user mode to perform this function depending on the file permissions set on the executable.

Run the otool (illustrated in step 3 above) to confirm that the library pointed to by the application has changed and is correct.



7 Disabling the Apple-provided VCP on OS X 10.9 and later

A VCP driver for most FTDI USB to serial converters is provided as part of the kernel in OS X 10.9 and later. OS X loads this driver (AppleUSBFTDI.kext) when a device with standard FTDI vendor and product identifiers is connected. To use FTDI's own VCP instead, or to use D2XX programs, AppleUSBFTDI must be disabled, unloaded or blocked, as follows.

7.1 Disable by Renaming (OS X 10.9 and 10.10 only)

Note: this method works only on 10.9 Mavericks and 10.10 Yosemite.

Start a terminal session (Go > Applications > Utilities > Terminal) and copy/paste the following text to the command prompt:

cd /System/Library/Extensions/IOUSBFamily.kext/Contents/Plugins

sudo mv AppleUSBFTDI.kext AppleUSBFTDI.disabled

sudo touch /System/Library/Extensions

then reboot.

To re-enable VCP, rename AppleUSBFTDI.disabled back to AppleUSBFTDI.kext

cd /System/Library/Extensions/IOUSBFamily.kext/Contents/Plugins

sudo mv AppleUSBFTDI.disabled AppleUSBFTDI.kext

sudo touch /System/Library/Extensions

then reboot.

7.2 Temporarily Unload (all versions of OS X)

Note: this method works on all versions of OS X.

It is possible to unload Apple's VCP for the current session, i.e. until the next reboot:

sudo kextunload -b com.apple.driver.AppleUSBFTDI

(If a warning message indicates that the kext can't be unloaded, then reboot and retry the above command.)

To reload:

sudo kextload -b com.apple.driver.AppleUSBFTDI

The kextunload and kextload commands can be run in any directory.

7.3 Block with D2xxHelper (OS X 10.9 and later)

Note: this is the only non-temporary method which works on 10.11 El Capitan.

FTDI provides a signed kernel extension (D2xxHelper.kext) which contains no code but acts to prevent OS X from matching an FTDI chip (with standard vendor and product identifiers) with a VCP driver, either Apple's **or FTDI's**. This leaves the device unclaimed, and **available for D2XX programs only**.

- 1. Disconnect all FTDI devices.
- 2. Download and run the D2xxHelper installer from http://www.ftdichip.com/Drivers/D2XX.htm
- 3. Reboot.
- 4. Reconnect the FTDI devices.

7.3.1 Distributing D2xxHelper

To include D2xxHelper.kext with your own D2XX application installer, download the package from the link above, then extract it with:

pkgutil --expand D2xxHelper.pkg tmpdir

tar -xf tmpdir/dst.pkg/Payload



This creates Library/Extensions/D2xxHelper.kext in the current directory.



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Appendix A – Abbreviations

Terms	Description	
PID	Product ID, a unique product identification issued by the holder of the	
VID	Vendor ID, a unique vendor identification number issued by the USB	
USB	USB Universal Serial Bus	
os	Operating System	



Appendix B – Revision History

Document Title:	FTDI Drivers Installation guide for MAC OS X
Document Reference No.:	FT_000201
Clearance No.:	FTDI# 123
Product Page:	http://www.ftdichip.com/FTProducts.htm
Document Feedback:	Send Feedback

Revision	Changes	Date
0.1	First Draft	2009-08-21
1.0	First Release	2009-11-06
1.1	Add Mavericks instructions	2013-11-25
1.2	Updated for OS X 10.10	2015-04-15
1.3	Updated for OS X 10.11	2015-09-28