Future Technology Devices International Ltd.

Mac OS X Installation Guide

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1   Welcome to the Mac OS X Installation Guide

This document describes the procedure for installing the Mac OS X FTDIUSBSerial driver for FTDI's FT2232C, FT232BM, FT245BM, FT8U232AM and FT8U245AM devices. The driver is available for free download from the Drivers section of the FTDI web site.
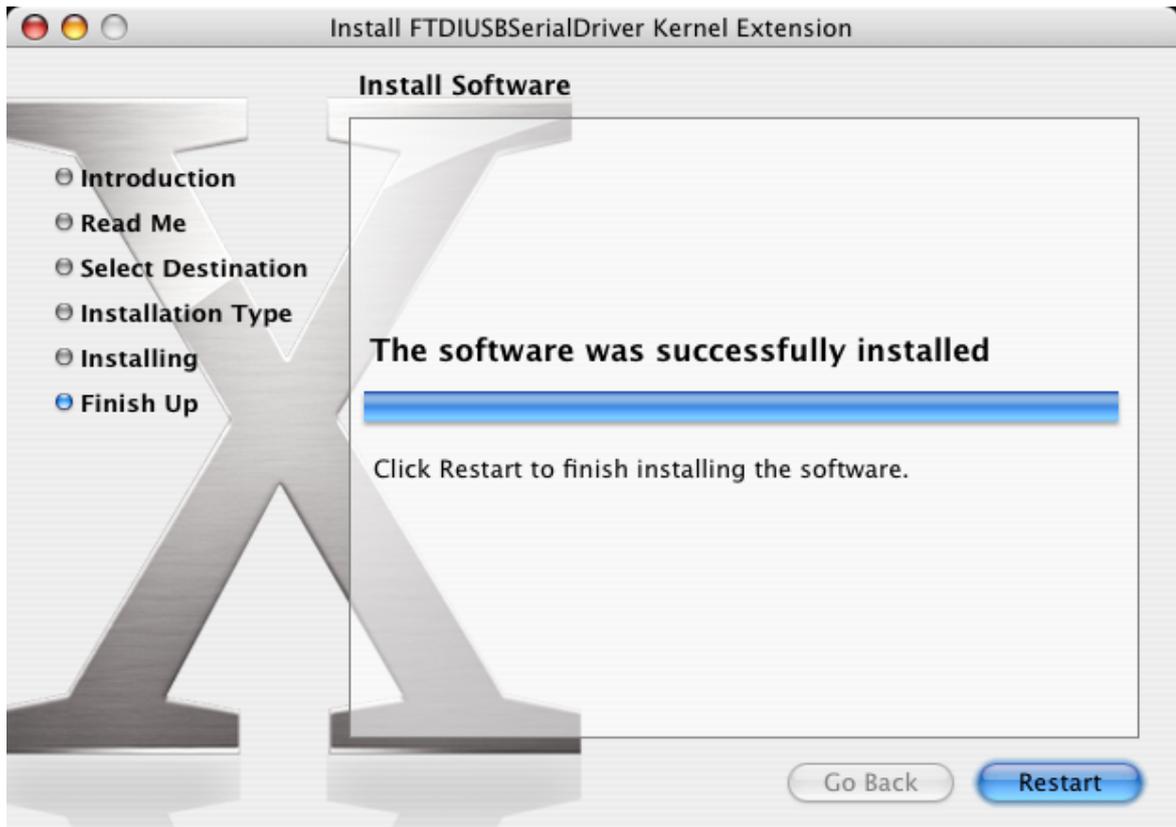
2   Installing FTDIUSBSerialDriver

Download the driver from the <u>Drivers</u> section of the <u>FTDI web site</u> and save it to the hard disk. The driver is now available in disk image (.dmg) format. Run the installer by double clicking on the FTDIUSBSerialDriver.dmg icon.

Click Continue to proceed with the installation and follow the instructions on screen.

When the installation is complete, reboot the computer.

When the computer has rebooted, plug in the device. If the device is installed properly, you will see entries in the /dev directory:

/dev/cu.usbserial-xxxxxxxx
/dev/tty.usbserial-xxxxxxxx

where xxxxxxxx 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 FT2232C devices port A is denoted by the serial number appended with "A" and port B is designated by the serial number appended with "B".
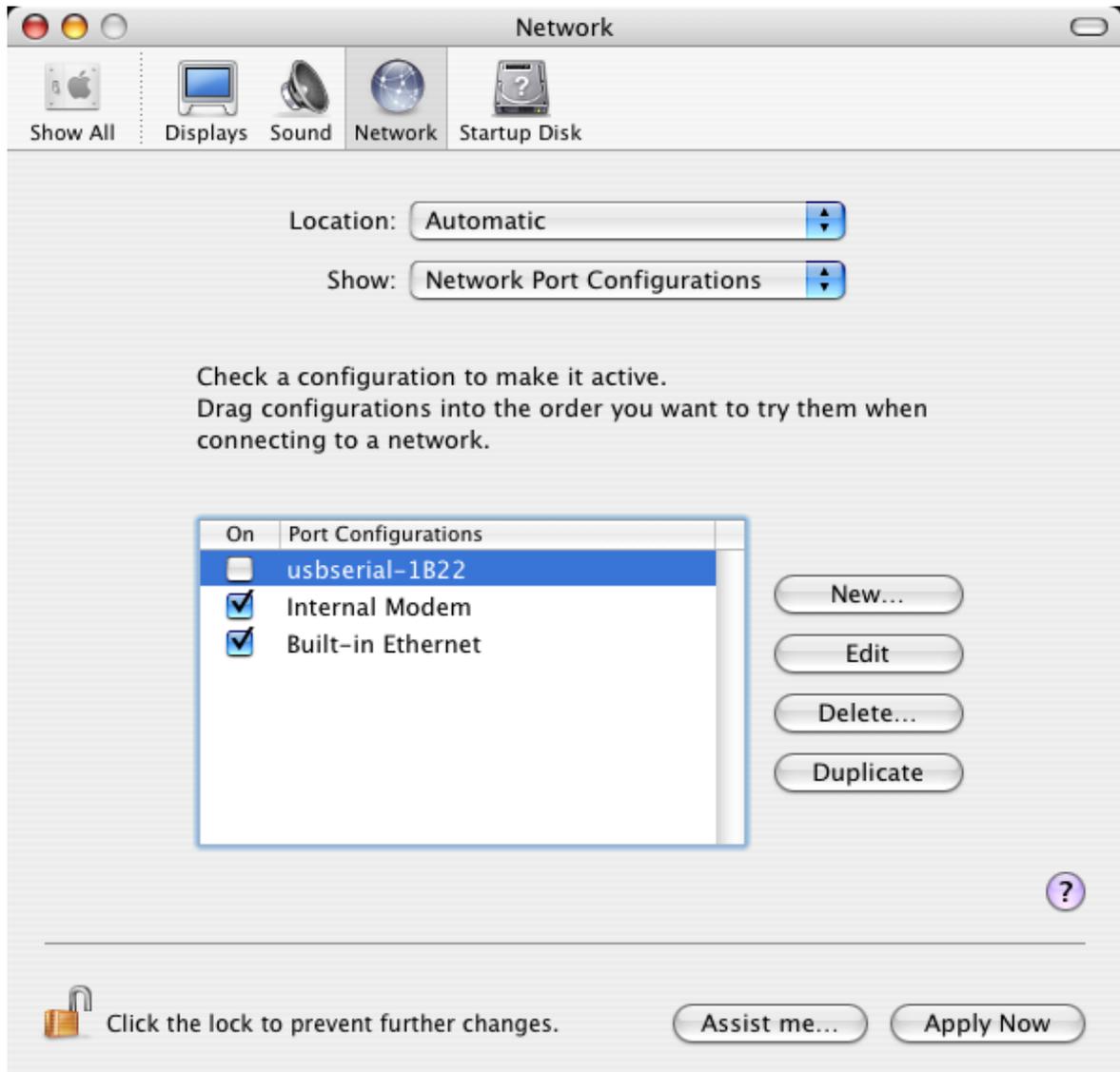
/dev can be accessed through the Terminal application. The Terminal application can be launched by selecting Go > Applications > Utilities > Terminal. Type the following lines in the Terminal window to produce the file list:
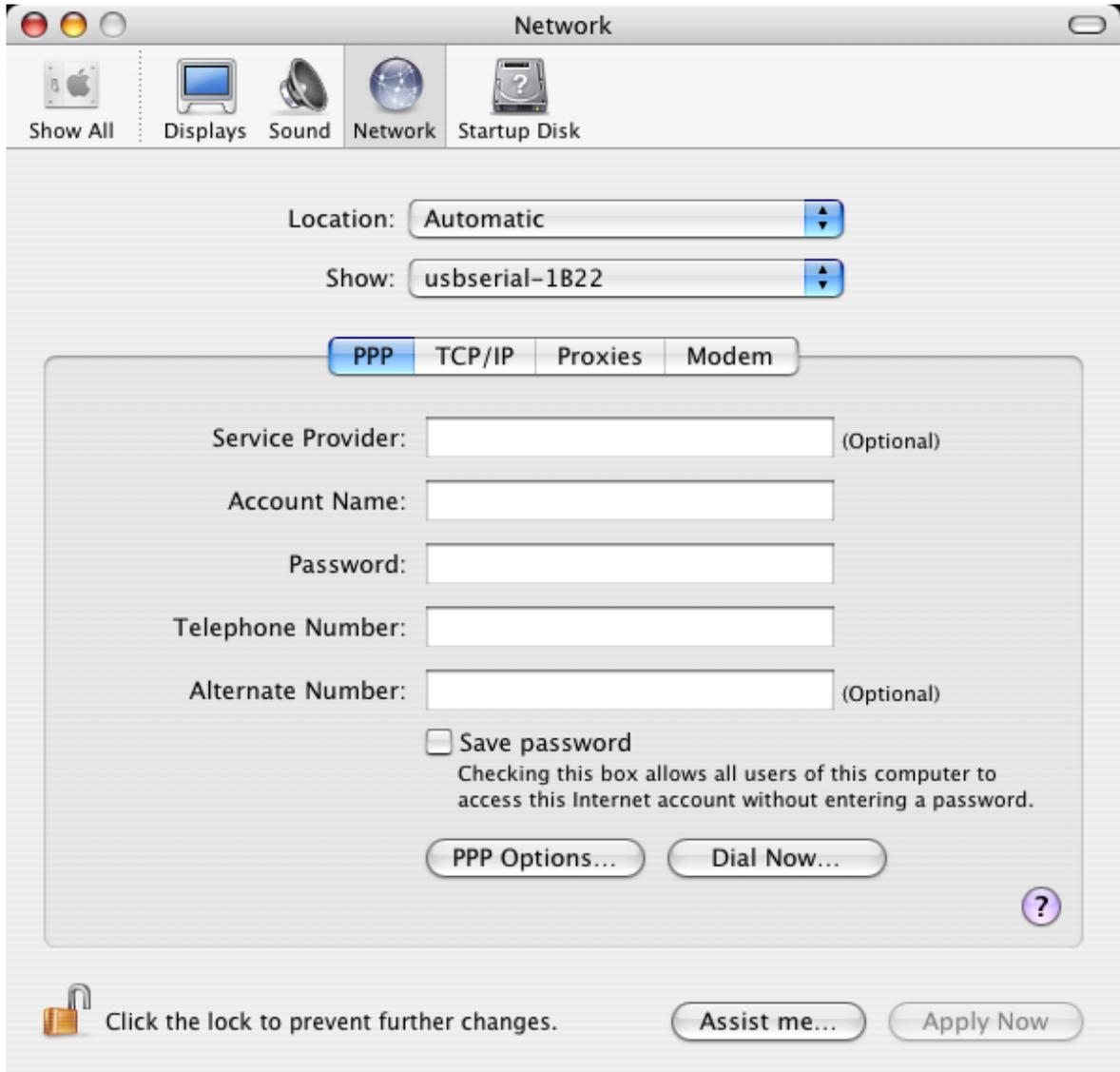
cd /dev
ls-l

If you run the application System Preferences and select Network (Go > Applications > System Preferences > Network), you should see the text "New Port Detected".

Click OK and select Network Port Configurations from the Show list. The new port can be enabled from this screen by checking the On box and clicking Apply Now.

At this point, it is possible to exit Network and use the device as a COM port. If you wish to set the device up a a modem for an Internet connection, select the new port from the Show list to display the window below. Please note that the FT2232C device has two ports available and these must be configured separately.

Entries for this screen are specific to the Internet account for each user. If you do not know the required details, contact your Internet service provider.
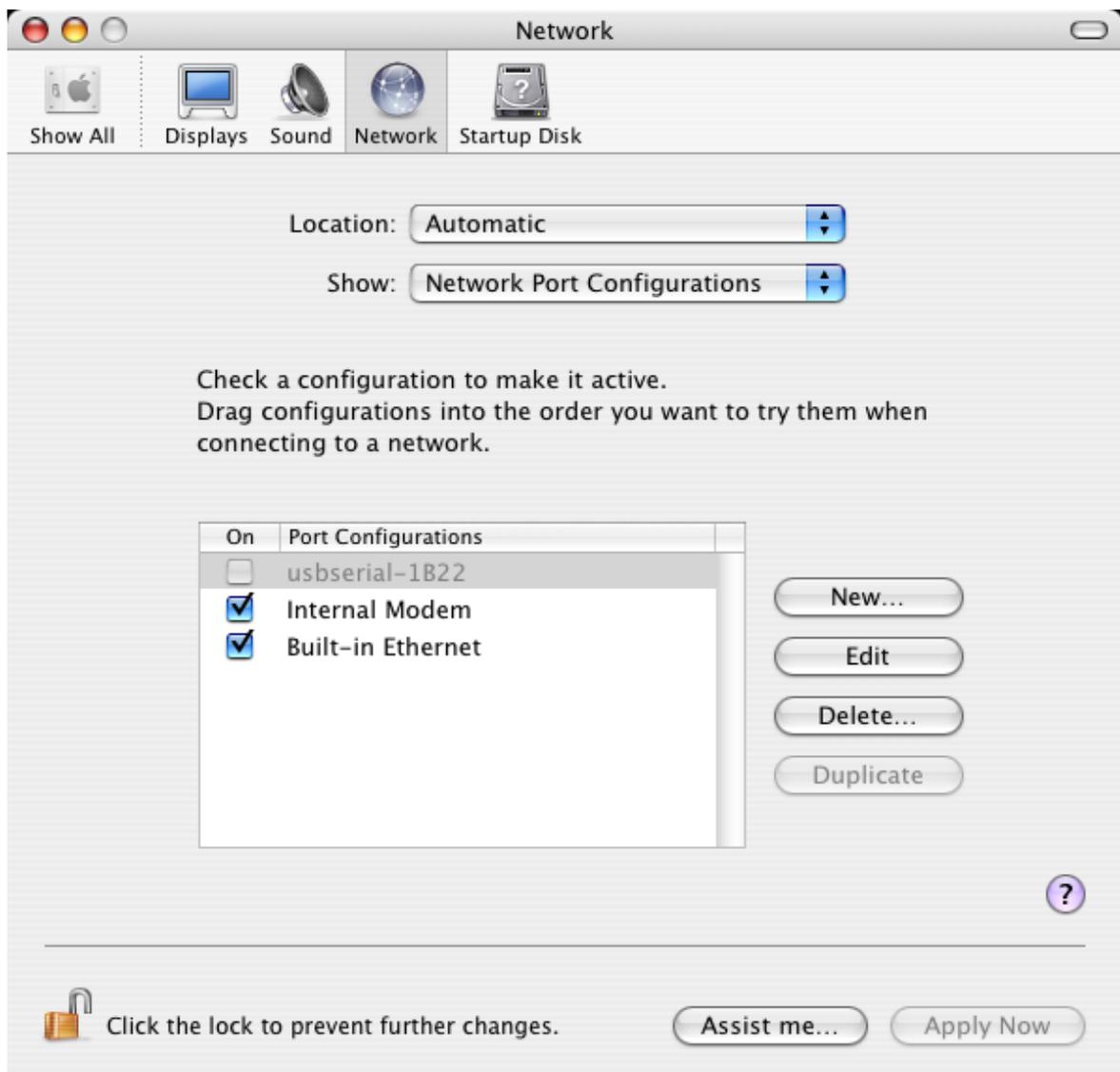
3   Uninstalling FTDIUSBSerialDriver

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

The driver will then be removed from the system.

To remove the port from the system, run the application SystemPreferences and select Network. Selecting Network Port Configurations from the Show menu will display the port as greyed out. Select the uninstalled port and click Delete. Confirm the deletion to remove the port.
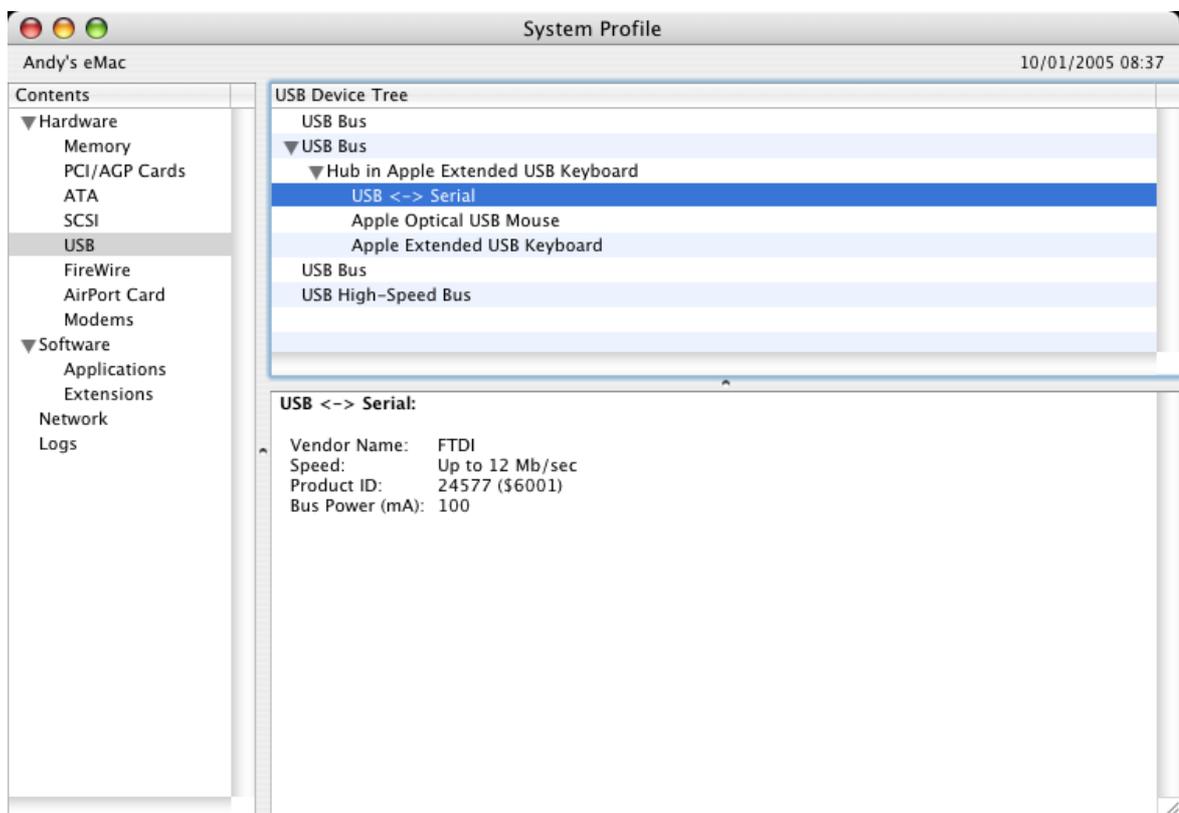
4   Troubleshooting

4.1   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 pane to the left and then select the appropriate device from the USB Device Tree. In the screen shot below (from OS 10.3), the device has a deviceID given by:

          Vendor Name: FTDI
          Prioduct ID: 24577 ($6001)

A Vendor Name of FTDI is equivalent to a Vendor ID of 1027 ($0403).

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 FTDI Support with the PID that needs to be added to the driver. If the VID is not 0x0403, it is likely that the device is not an FTDI device and we cannot support it.

4.2   The device does not appear in the /dev directory or the text "New Port Detected" is not displayed in SystemPreferences-Network

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 FTDI quoting your deviceID and a description of your device.

4.3   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.

4.4   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.

5   Revision History

Version	Release Date	Comments
1.0	December 2004	Initial release
1.1	January 2005	Screen shots added Root username explained Expander information added Uninstallation section added FT2232C device driver added DeviceID topic added under Troubleshooting
1.2	March 2005	Additional explanations included for Terminal application and port configuration Terminal topic added in Troubleshooting
2.0	October 2005	Updated to describe installation of version 2 driver References to FT2232CUSBSerialDriver removed as FTDIUSBSerialDriver now supports all devices Re-enumeration script references removed as no longer required

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