

# USB to RS-232 Adapter Driver Installation Manual

For Win OS 98SE/ME/2000/XP/Vista/7/8/8.1/10; Win server OS 2008/2008R2/2012, Mac OS

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## Introduction

The USB to RS-232 adapter is your smart and convenient accessory for connecting RS-232 devices to your USB equipped Windows host computer. It provides a bridge connection with a standard DB-9 pin male RS-232 port connector in one end and a standard Type A USB plug connector on the other end. You simply attach the RS-232 device onto the RS-232 port of the cable and plug the USB connector into your PC USB port. It allows a simple and easy way of adding RS-232 connections to your PC without having to go thru inserting a RS-232 card and traditional port configuration.

This USB to RS-232 adapter is ideal for connecting modems, cellular phones, PDAs, digital cameras, card readers and other RS-232 devices to your computer. It provides RS-232 connections up to 250Kbps of data transfer rate. And since USB does not require any IRQ resource, more devices can be attached to the system without the previous hassles of device and resource conflicts.

Finally, the USB to RS-232 adapter is a fully USB Specification compliant device and therefore supports advanced power management such as suspend and resume operations as well as remote wakeup. The USB to RS-232 cable adapter is designed to work on Windows operating systems.

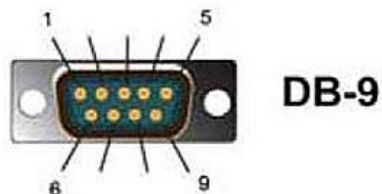
## Features & Specifications

- ✓ Smart USB to RS-232 (DB 9pin male RS-232 port) interface
- ✓ Supports various serial devices like modems, PDAs, cellular phone, digital cameras, card readers, ISDN terminal adapter etc.
- ✓ Easy Plug and Play Installation
- ✓ Fully Compliant with USB Specification 1.1 and 2.0
- ✓ Supports the standard RS-232 Interface
- ✓ Supports automatic handshake mode
- ✓ Supports Data Transfer Rate up to 1Mbps
- ✓ Supports Remote wake-up and Intelligent power-on-reset
- ✓ 1024-byte bi-directional data FIFO buffers (768-byte receive/256-byte transmit) for faster data throughput.
- ✓ Provides Dual Buffers for upstream and downstream data transfer
- ✓ No IRQ resource required
- ✓ Bus Powered – no external power adapter required

## System Requirements

- ✓ Windows OS 98SE/ME/2000/XP/Vista/7/8/8.1/10/11
- ✓ Windows server 2008/2008R2/2012/2012R2/2016/2019
- ✓ Mac OS 8.6/9.x/10.x/11.x or higher
- ✓ AMD or Intel Pentium 133MHz or higher graded CPU
- ✓ USB 1.1 or higher port

## RS 232 Pin Assignment



Pin No.	Definition	Description
1	DCD	Data Carrier Detected
2	RxD	Receive Data
3	TxD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	Signal Ground
6	DSR	Data Set Ready
7	RTS	Request To Sent
8	CTS	Clear To Sent
9	RI	Ring Indicator

## Windows OS Installation Guide

Driver can be installed through Windows Update automatically (Internet connection needed)

The Prolific drivers that have passed the WHQL tests are available for download using Windows Update.

OS requirements: Windows 7/8/8.1/10/11; Windows server 2008/2008R2/2012 or later.

Please go below ways for easy installation.

1. You may plug the device into host computer. And then it will pop up 'Installing device driver software' from the taskbar of the screen. (Fig. 1) Click and connect to the Windows Update.
2. It will check your computer OS and download the applicable driver at the Windows Update automatically.



Fig. 1

3. The program goes 'Searching Windows Update' from 'Driver Software Installation'. (Fig. 2)

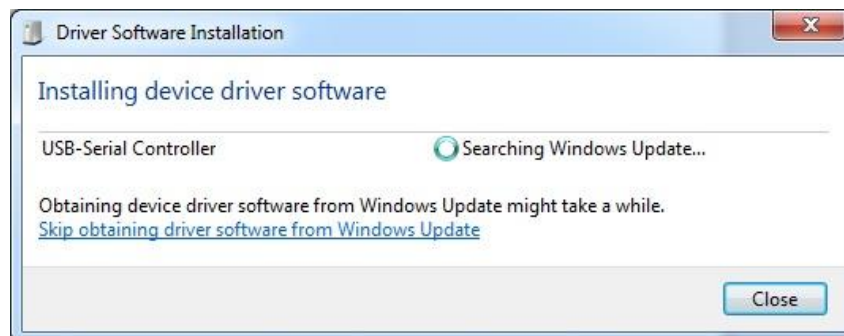


Fig. 2

4. When the applicable driver is detected, it will run 'Installing driver software'. (Fig. 3)

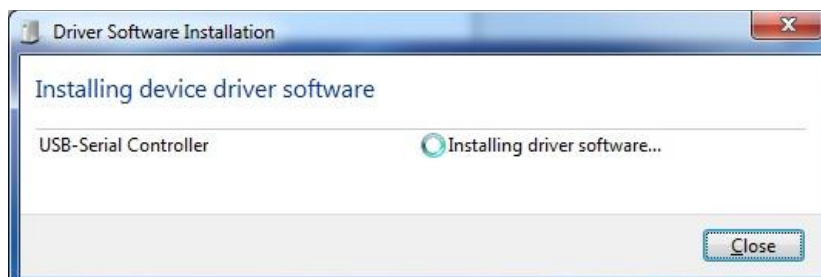


Fig. 3

5. Then it shows 'Prolific USB-to-Serial Comm Port (COM3) installed'. Click 'Close' and go next step. (Fig. 4)

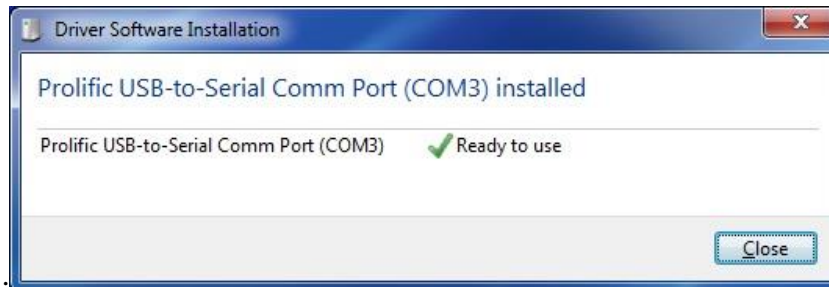


Fig. 4

6. Check 'Device Manager' of Control Panel from the computer OS and there shows Prolific USB-to-Serial Comm Port (COM3) under 'Ports (COM & LPT)'. (Fig. 5) Congratulations! You have finished installing the USB to Serial device successfully.

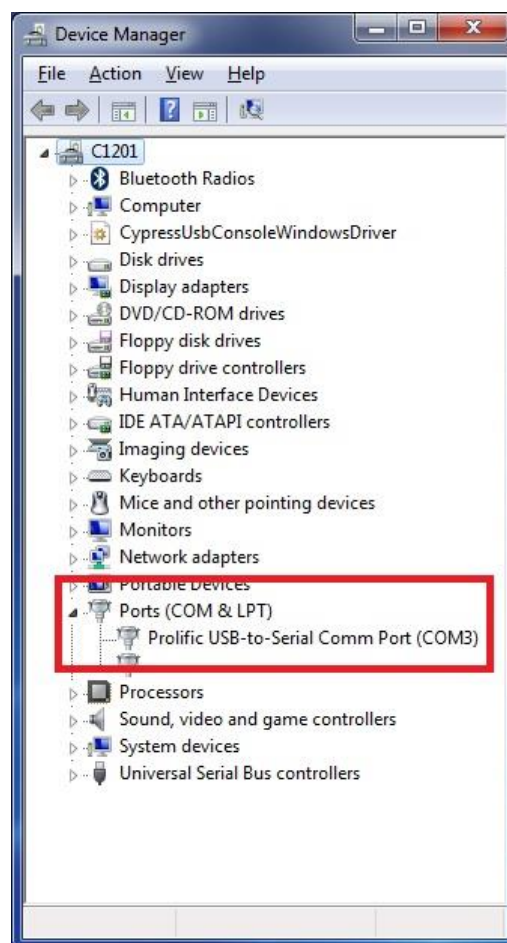


Fig. 5

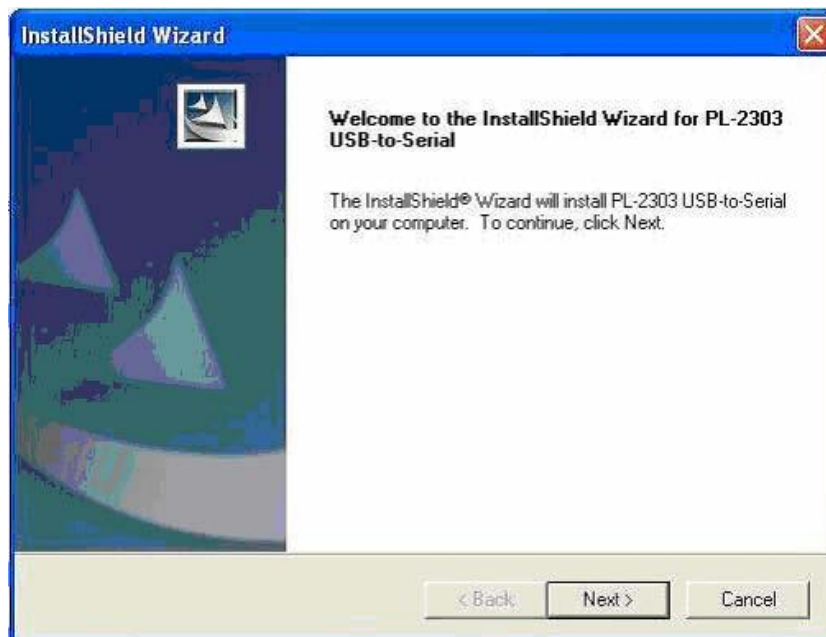
## Installing the Device with InstallShield

This section will guide you on how to install the USB to RS-232 adapter under Windows OS 98SE/ME/2000/XP/Vista/7/8/8.1/10/11; Windows server OS 2008/2008R2/2012.

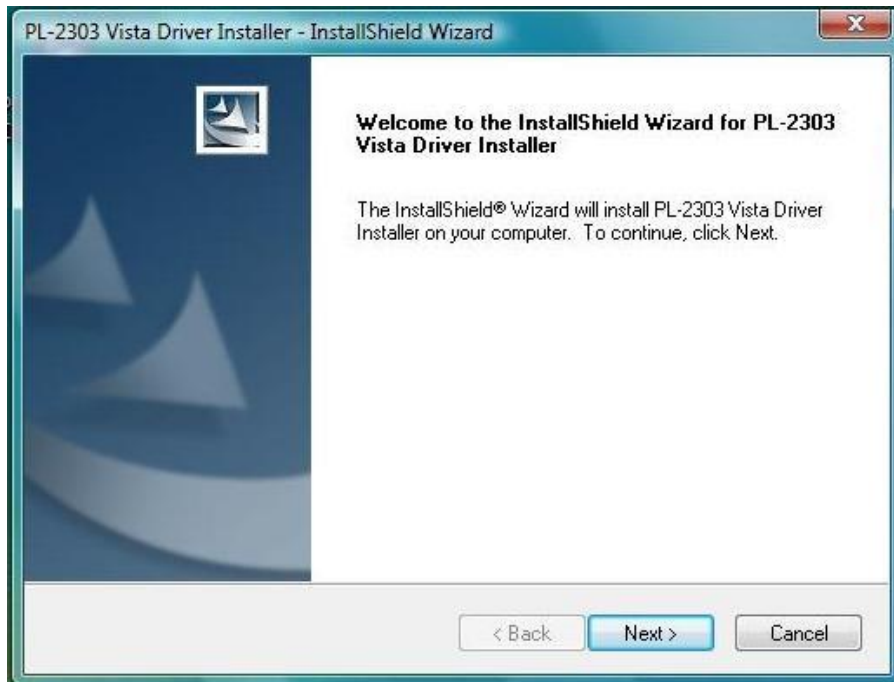
- Note:** 1. Please take notice of the installation order. First, run the InstallShield wizard, and then plug in the USB to RS-232 adapter.
2. Before updating the product driver, please be sure your OS system (Windows update) is the updated version.

The following steps will show how to install the device under Windows OS XP/Vista/7/8/8.1/10/11; Windows server OS 2008/2008R2/2012. Basically, the procedures for Windows XP are also somewhat the same for other previous Windows OS.

1. Power on your computer and boot to Windows.
2. Run or double click the InstallShield driver setup program "Driver Installer.exe" (for Windows XP and previous versions) or "Vista Driver Installer.exe" (for Windows Vista/7/8/8.1, Windows server 2008/2008R2/2012). The InstallShield Wizard will be displayed on your screen to inform you that the driver will be installed on your computer. Click **Next** to continue and start the installation.



(Windows XP and below versions screenshot)



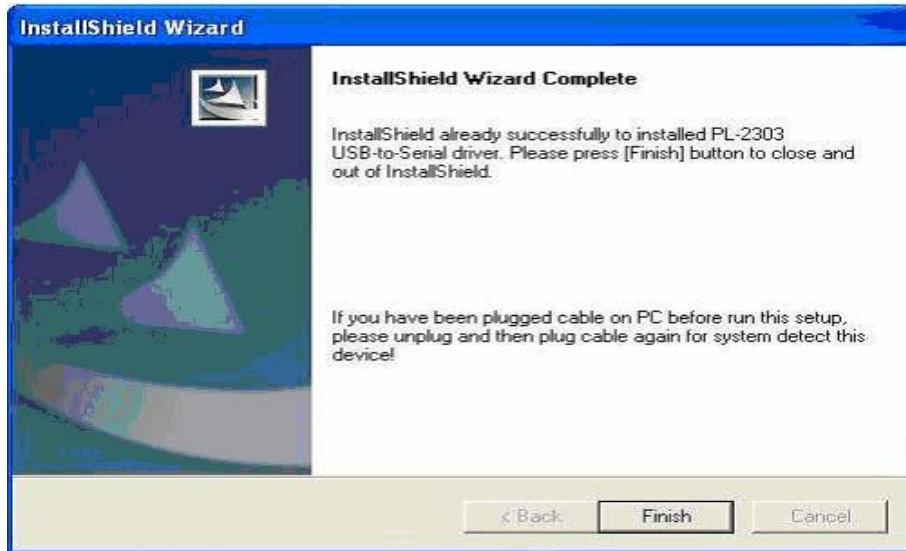
(Windows Vista/7/8/8.1/10/11; 2008/2008R2/2012 screenshot)

3. The End User License Agreement (EULA) window will be shown, click to accept the terms of the agreement and click **Next** to continue.

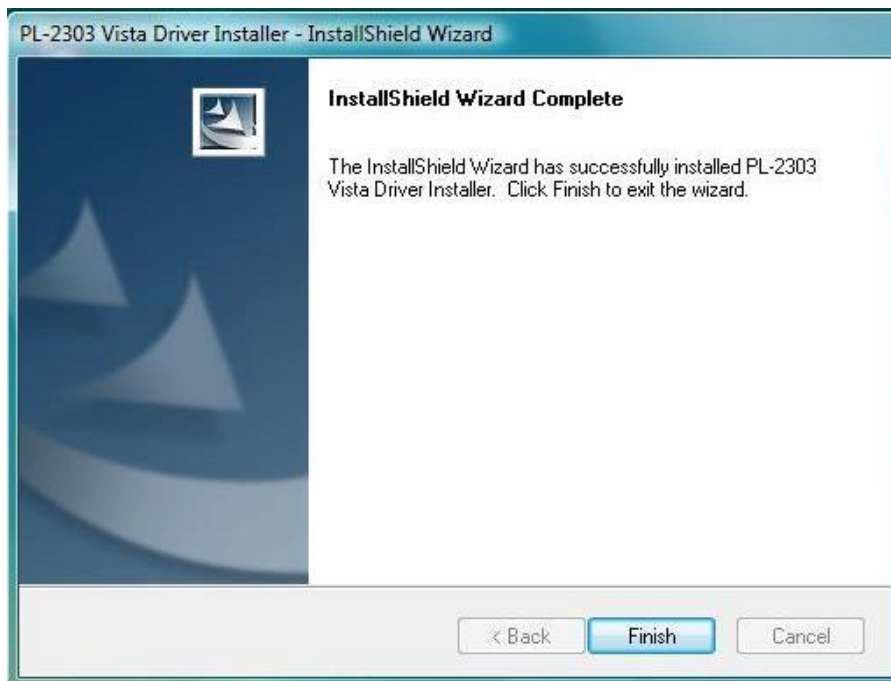


(Windows Vista/7/8/8.1/10/11; 2008/2008R2/2012 screenshot)

4. Wait until the InstallShield Wizard informs you that driver installation is successfully installed. Click the **Finish** button to close the InstallShield program. If you have plugged the cable into the PC while running the setup installation, please unplug and re-plug the cable for the system to detect the device.



(Windows XP and below versions screenshot)



(Windows Vista/7/8/8.1/10/11; 2008/2008R2/2012 screenshot)

## Uninstalling the Device Driver

You have three selections to uninstall the driver: **For Windows XP and previous versions:**

- Run the InstallShield Setup program again
- Run Start→ Programs→USB to RS-232 Driver→ Uninstaller
- Control Panel→ Add or Remove Programs→USB to RS-232

1. The InstallShield Wizard will appear and will let you choose if you want to reinstall the driver, uninstall the driver or exit the wizard. Select to **Uninstall driver**, and then click **Next** to continue.



2. When finished, the InstallShield Wizard will prompt you to restart Windows. Click the **Finish** button and wait for the system to restart your computer.



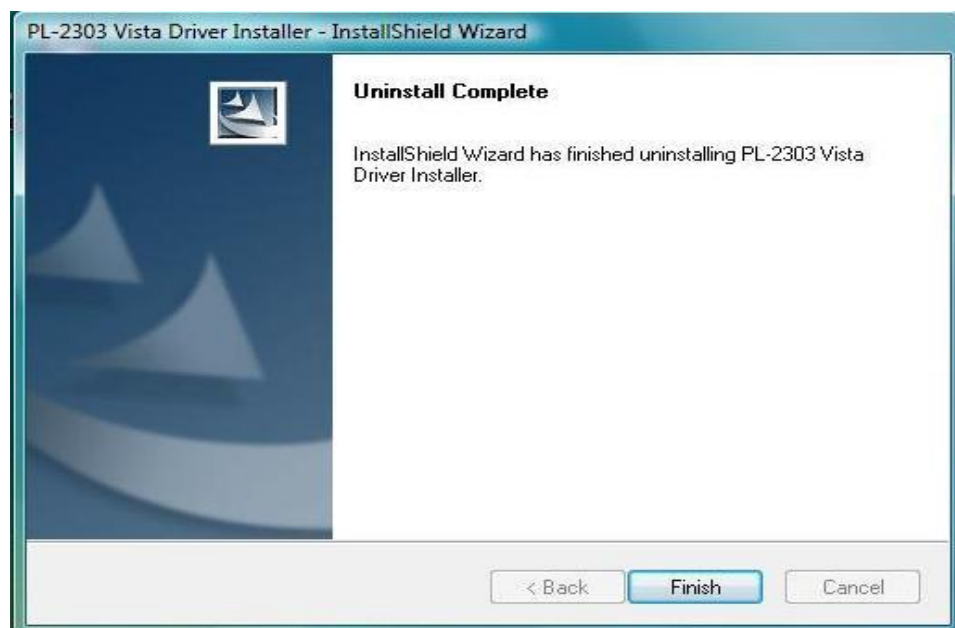


## For Windows Vista: (same for Windows 7/8/8.1/10/11; 2008/2008R2/2012)

- Run the InstallShield Setup program again
  - Run Start→ Programs→USB to RS-232 Driver→ Uninstaller
  - Control Panel→ Add or Remove Programs→Vista Driver Installer (for Windows Vista)
1. The InstallShield Wizard will appear and prompt you if you want to completely remove the driver, click **Yes** to continue.



2. When finished, the InstallShield Wizard will prompt you that uninstall is complete, click **Finish** to continue. You do not need to restart Vista after uninstall procedure.



# Mac OS X Universal Binary Driver Installation Guide

## Introduction

This installation guide document shows the procedure for installing the Mac OS X driver.

## System Requirement

The following requirements are needed:

- Mac OS X 10.1 to 10.7 operating systems (includes 64-bit support)


**Also supports Mac OS X Lion 10.7 (see page 19)**

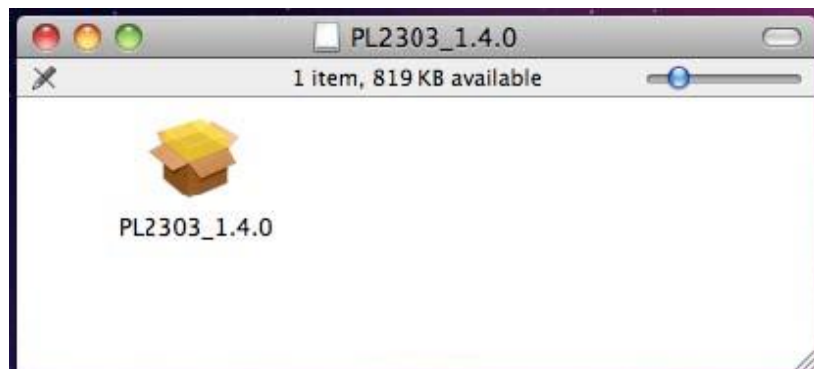
- Apple Mac OS X compatible computers (Intel or PowerPC based machines)
- USB 1.1 or higher port

## Mac OS X Driver Installation

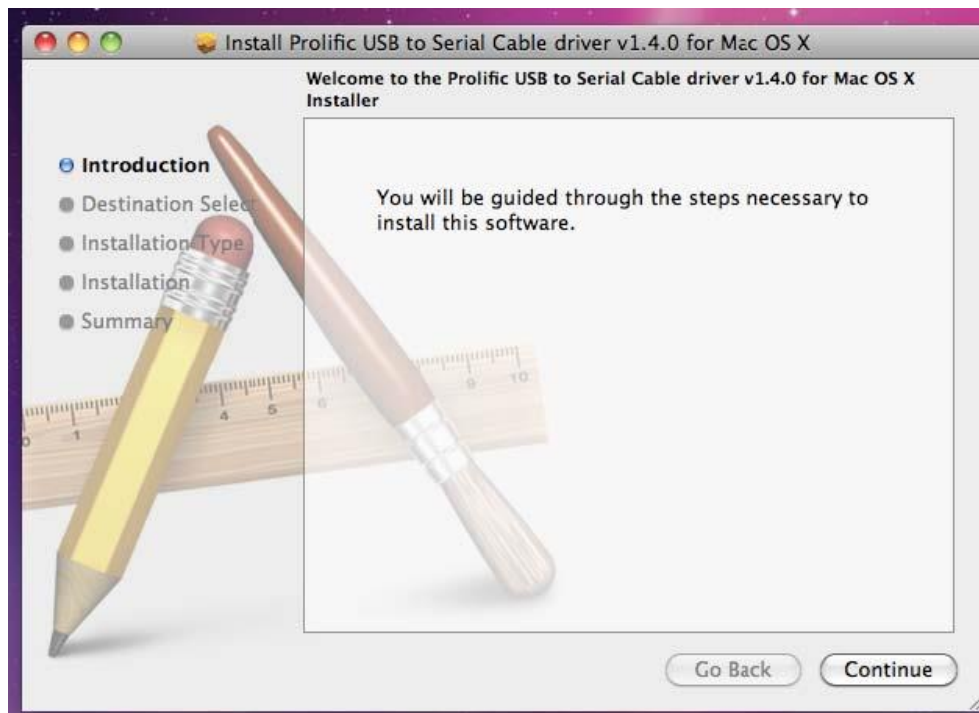
The following steps will show how to install the USB to RS-232 device under Mac OS X operating system:

1. The USB to RS-232 Mac OS X driver package contains the DMG compressed image file click on the DMG file to extract the driver installer package.

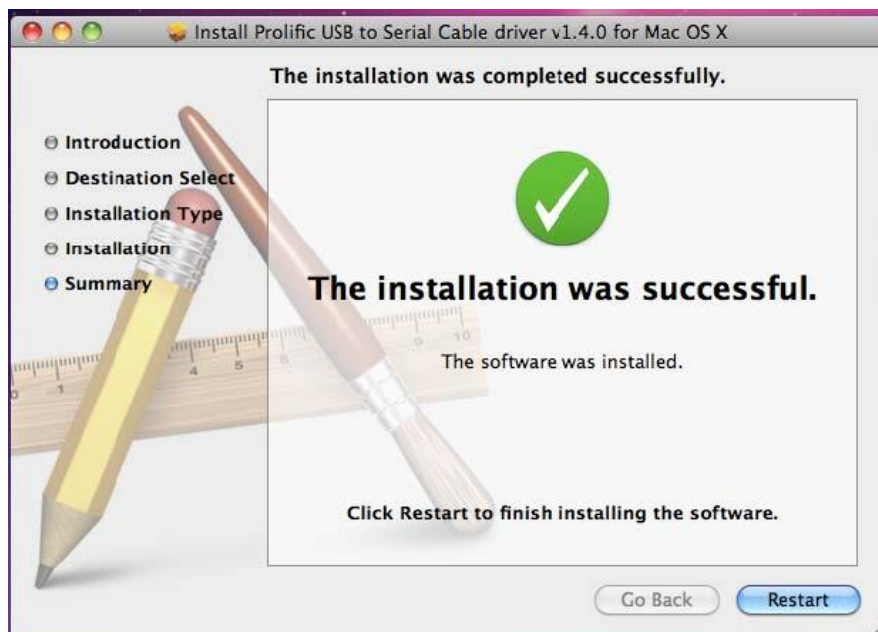
Name	Date Modified	Size
 PL2303_1.4.0.dmg	Sep 2, 2010 4:57 PM	8.9 MB



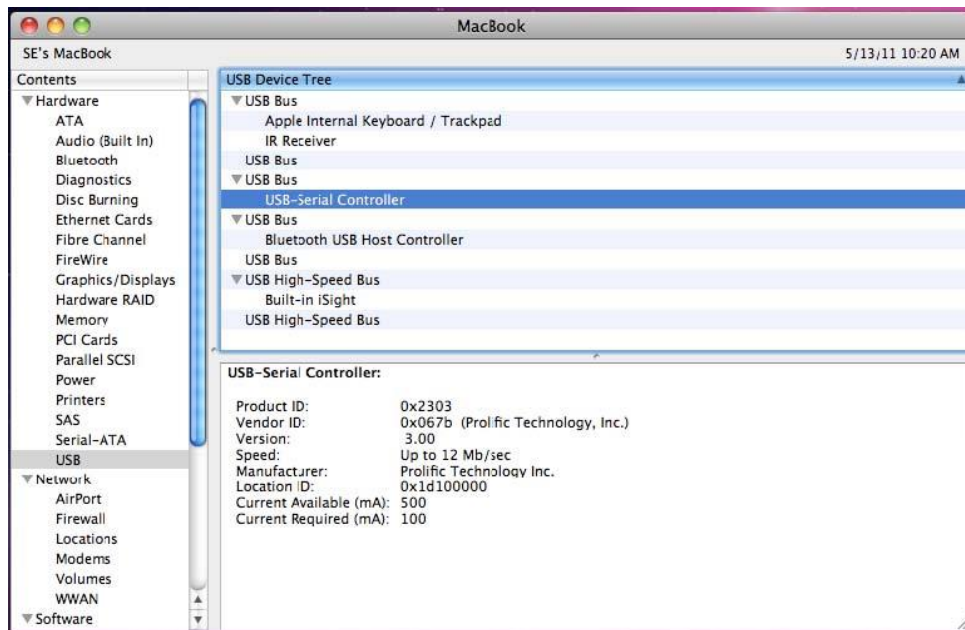
2. Click on the driver installer file to run the driver installation process. Click Continue to proceed and follow the succeeding instructions to complete the installation.



3. At the end of the installation, you will need to restart your computer. Close all programs and click Restart to complete installation and reboot the system.



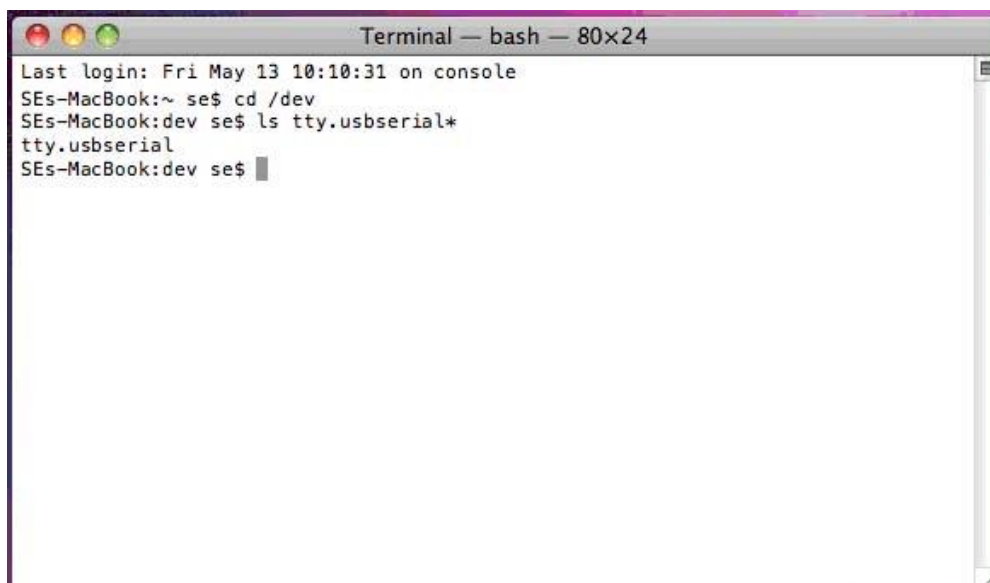
4. After rebooting the system, you can now plug the USB to RS-232 adaptor or cable to the USB port. You can first run the System Profiler program under the Applications-Utilities folder. Click USB hardware inside System Profiler and look for “USB-Serial Controller” or “USB-Serial Controller D”. This means that the hardware device is detected by your Mac computer.



5. You can then proceed to check if the USB to RS-232 port device is setup properly. You can run the Terminal program under Applications-Utilities folder and type the following commands:

```
cd /dev  
ls tty.usbRS-232*
```

You should see the “tty.usbSerial” device which means the USB to RS-232 device is already setup properly. If you try to plug another USB to RS-232 device, you should also see several “tty.usbSerialx” listed where “x” is the assigned device number similar to Windows COM port assignment.



6. **NOTE:** Mac OS may also pop-up a new network interface when it detects a new USB-Serial Controller device. See next section for more explanation.



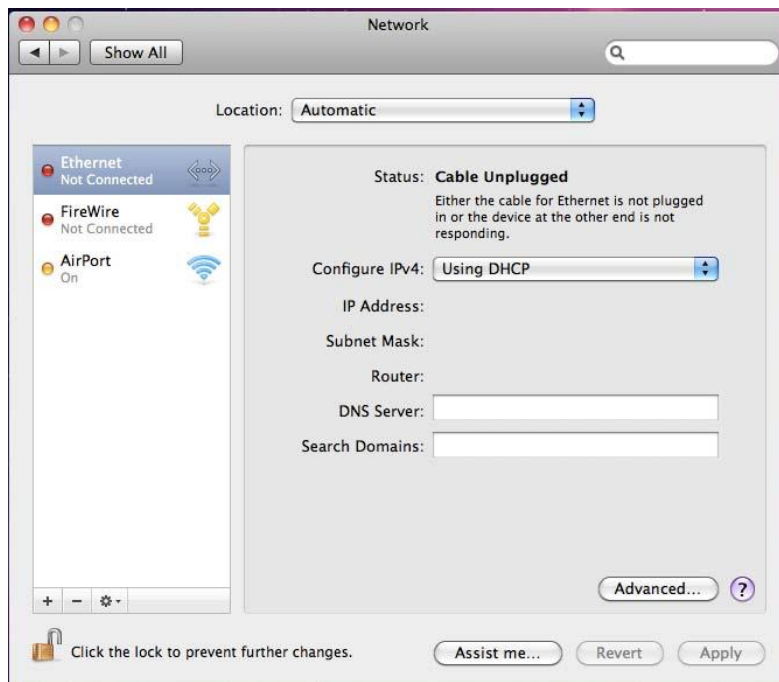
## Using the USB to RS-232 Device under Mac OS X

The following steps will show how to use the USB to RS-232 device under Mac OS X operating system:

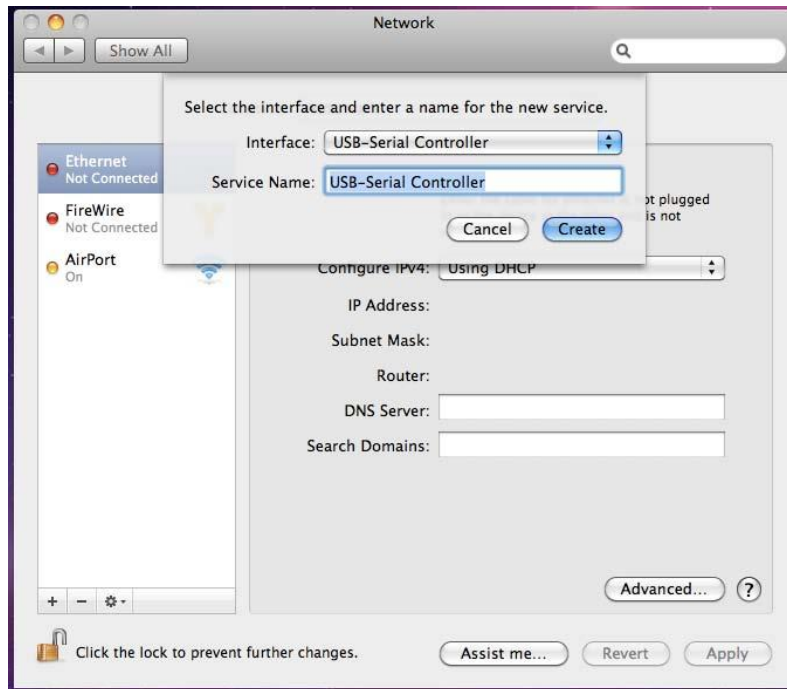
1. One common test is to connect a 56K RS-232 modem to the USB to RS-232 adapter. Go to System Preferences and click on Network.



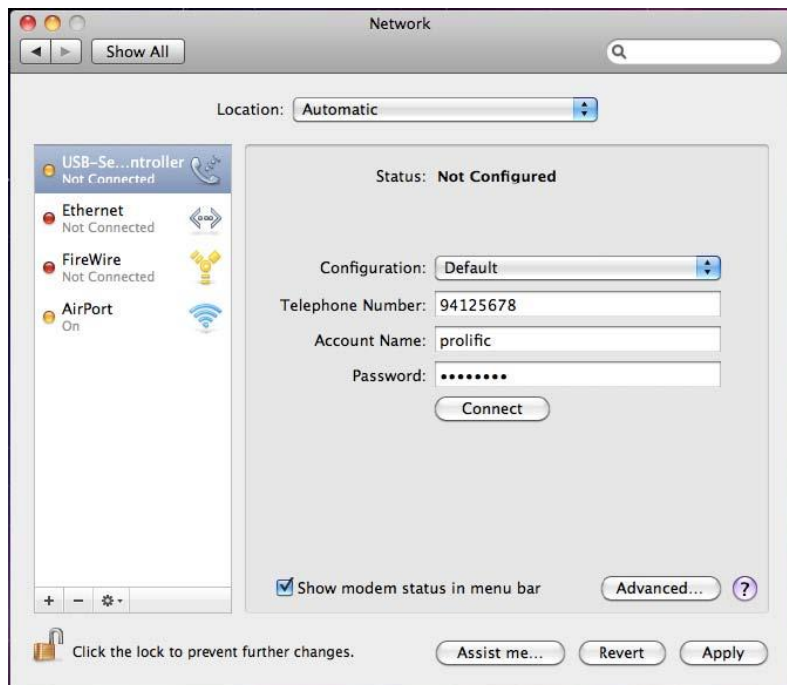
2. The left side column shows you all the existing ports and status. If you do not see the USB Serial Controller device, click on the "+" add button to look for the device.



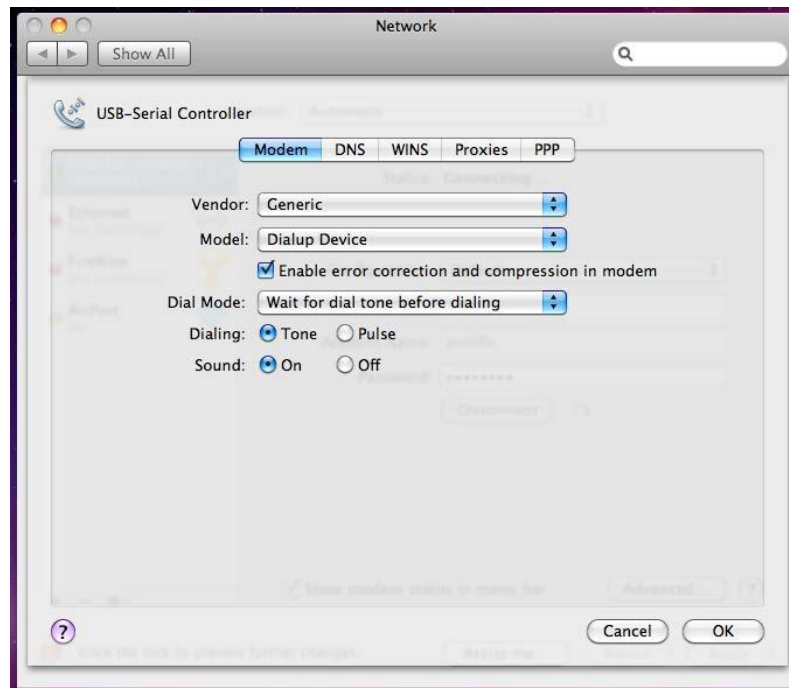
3. Select the Interface “USB-Serial Controller”. You can also choose to change the Service Name to distinguish the device if you have several devices attached.



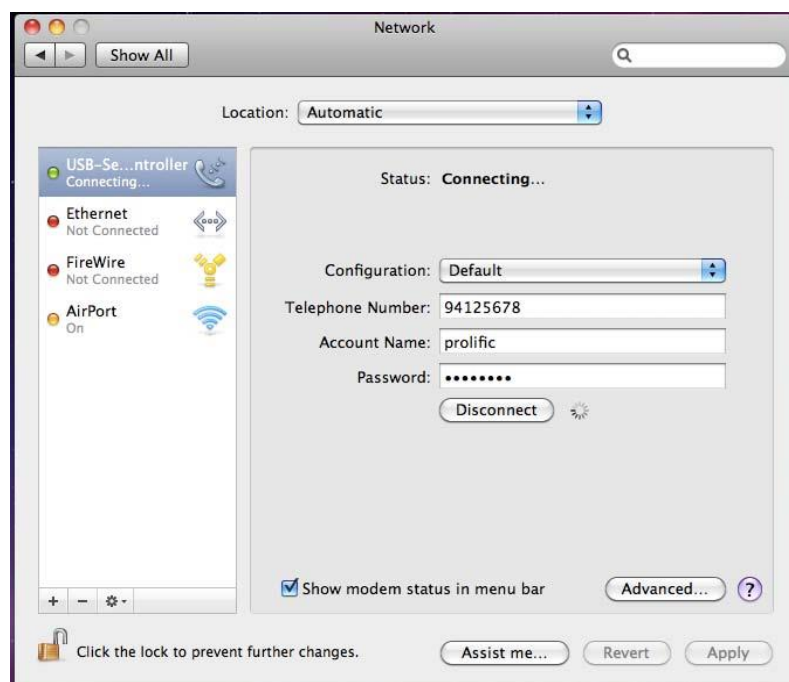
4. Now the “USB-Serial Controller” device is added to the list and you can start to configure the RS-232 modem Internet dial-up settings attached to the USB to RS-232 adaptor.



5. You can click on the Advanced button to set the correct modem vendor and model. The default modem settings normally would work on any RS-232 modems.

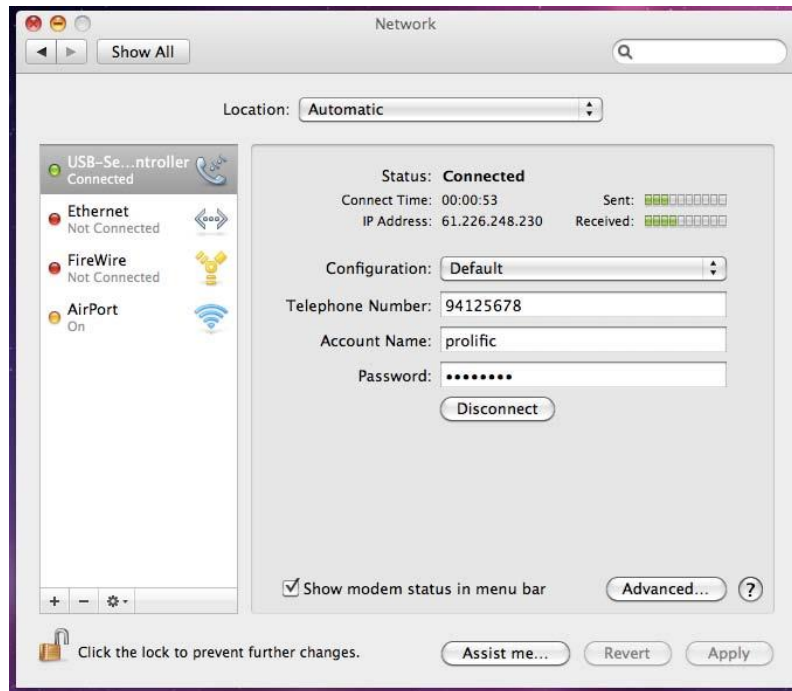


6. Click the Connect button to start the Internet dial-up connection. Make sure the RS-232 modem has a telephone connected and powered on.





7. When connection is made, you can start to use Mac OS X Safari web browser and monitor the modem connection status by data sent and received.



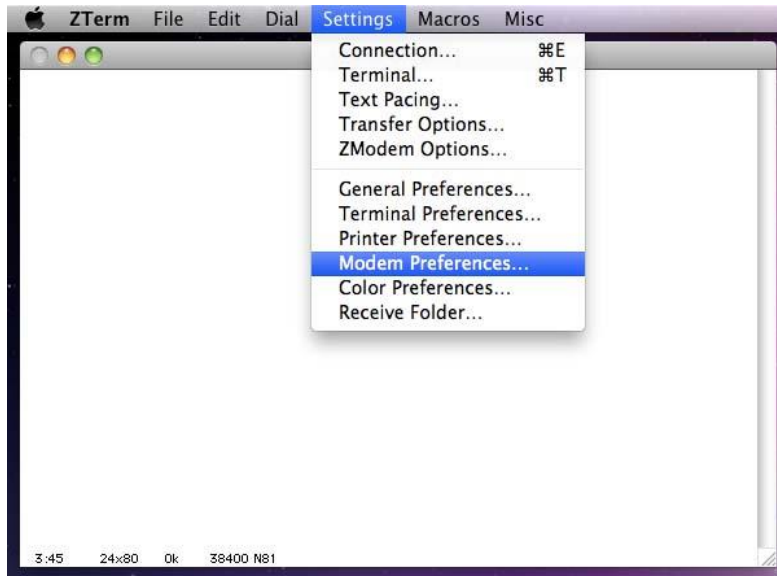
8. You can also click the “Show modem status in menu bar” to see the connection status on top of the menu bar. Then click on the Modem status on the menu bar to show the controls.



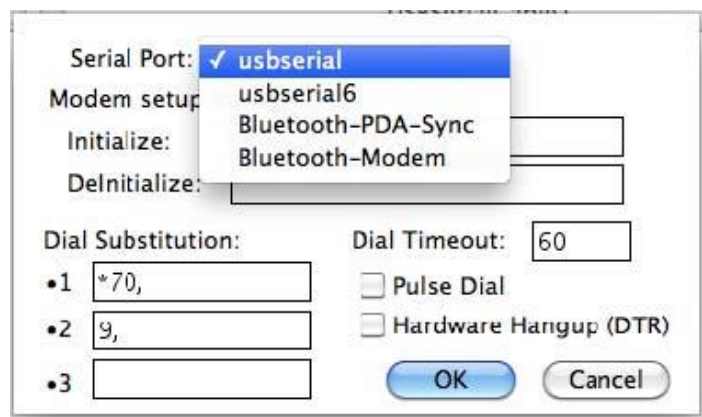
## Using ZTerm program under Mac OS X

You can also test the USB to RS-232 device by using the ZTerm RS-232 port terminal program and a null modem cable to connect two computers and transmit/receive data files. The following steps will show how to use the program:

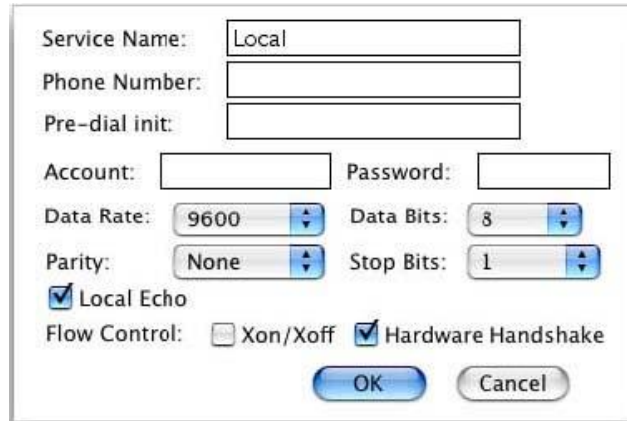
1. Run the ZTERM program and select the USB to RS-232 device by clicking on Settings-Modem Preferences.



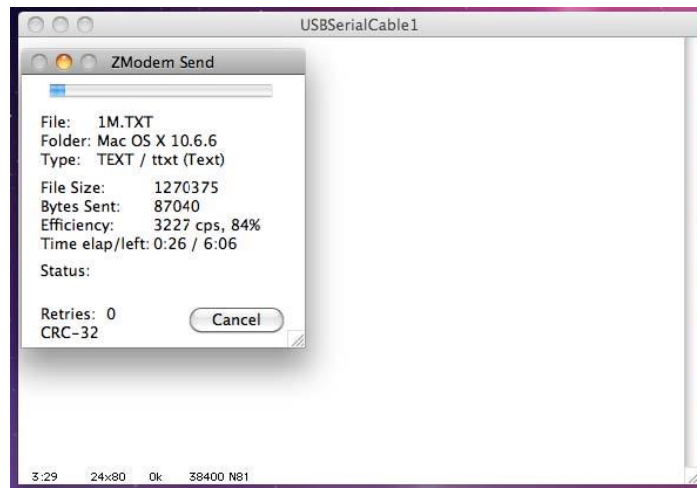
2. Click on the RS-232 Port box. If you have several USB to RS-232 devices attached, you will find those devices listed similar to the list shown when running the Mac OS Terminal program.



3. Then click on Settings-Connections to set the date transfer rate and flow control settings.



4. Run all of the above same procedures for the other Mac OS computer. Use a RS-232 null modem cable to connect the USB to RS-232 port from both computers. On one computer, click File-Send Files and choose the file to send. On the other computer, click File-Receive Files. You will then see the file transfer to begin.



5. You can also simply plug a loopback connector (TX-RX short) to the USB to RS-232 port and type the keyboard to show the send characters on the Local window display.



## How to Uninstall Driver

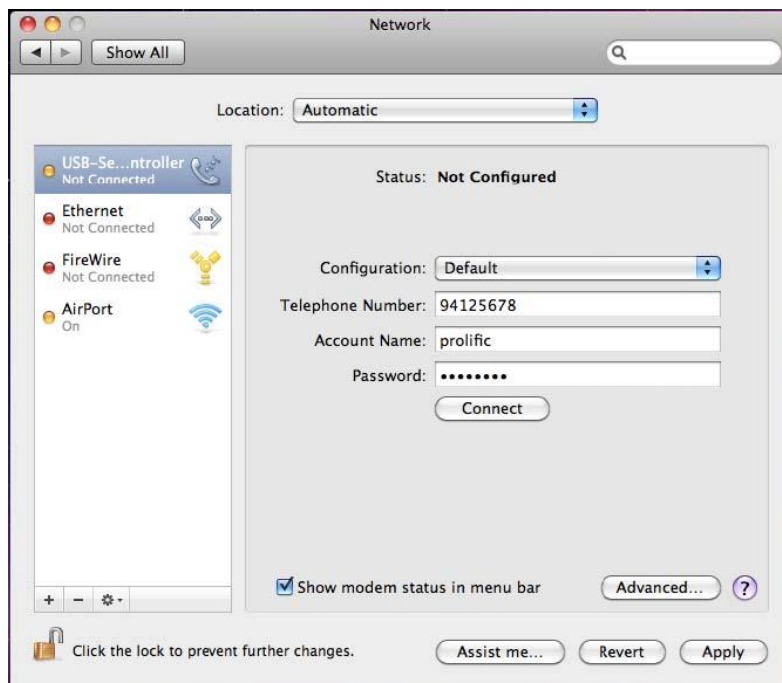
To remove and uninstall the USB to RS-232 drivers from Mac OS X operating system, you must be logged on as root. You can use the “sudo” command option to substitute user privileges.

1. Run a Terminal session (Applications-Utilities-Terminal) and enter the following commands at the command prompt:

```
cd /System/Library/Extensions sudo kextunload ProlificUSBRS-232.kext (enter system password) rm -r ProlificUSBRS-232Driver.kext
```

You can also go to the System-Library-Extensions file folder to delete the “**ProlificUSBRS-232Driver.kext**” file.

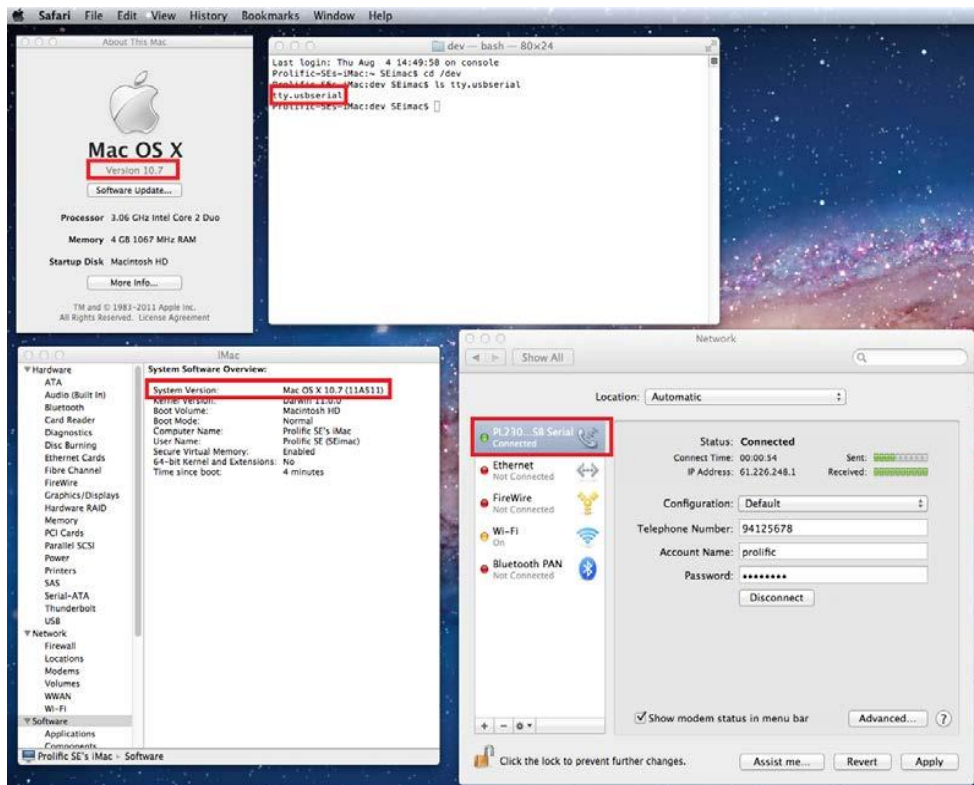
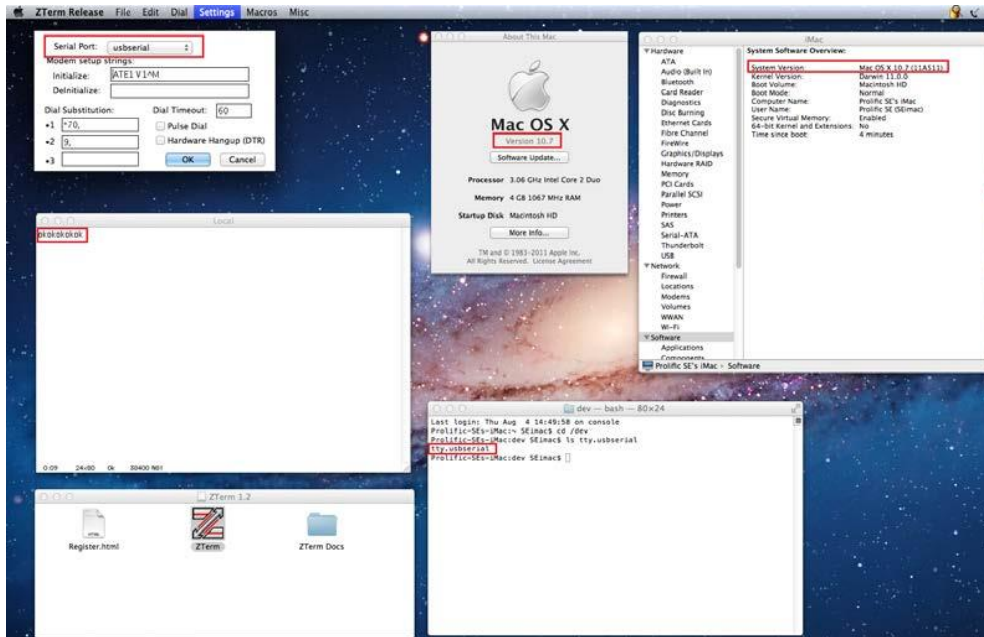
2. To remove the port from the system, go to System Preferences and select Network. Select the “USB-Serial Controller” device shown from the Show menu and click on the “-” remove button to uninstall the port.



3. Restart the computer again before reinstalling the driver.

# Mac OS X 10.7 Lion Support

The USB TO RS-232 is also tested to be compatible with Mac OS X 10.7 Lion version using ZTerm terminal program and Network-Dialup RS-232 modem.



# Regulatory Compliance

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## CE Certification

This equipment complies with the requirements relating to electromagnetic compatibility. It has been manufactured under the scope of RoHS compliance.

## FCC Compliance Statement

This equipment generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation



## WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.