

Sio2PC-USB Manual

REVISION HISTORY

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1 Introduction

Sio2PC-USB is a hardware device that connects a PC to an Atari computer via its SIO port. The PC (running special software) can function as various Atari serial devices such as disk drives, printers and modems.

1.1 Features

- Compatible with several different types of SIO2PC emulation software
- All electronic elements are hidden and protected inside the device's SIO plug
- No Atari SIO cable needed

1.2 Requirements

- An Sio2PC-USB device
- An Atari 8-bit computer with free SIO port
- A USB A-Type male to B-Type male cable
- A computer with a free USB port running the Windows or Mac OS X operating systems
- FTDI software drivers for your operating system
- AspeQt serial peripheral emulator software

2 USB Driver Installation

In order for your PC to communicate with the Sio2PC-USB device, special driver software is needed. The appropriate software to install is dependent on your operating system.



Important

Do not plug the Sio2PC-USB device into your PC until you have installed the driver software!

2.1 Windows

Download the latest Windows FTDI VCP (Virtual COM port) setup executable from the FTDI website:

<http://www.ftdichip.com/Drivers/VCP.htm>

Note

On Windows Vista, Windows 7 and Windows 8, the setup executable must be run with full administrator access. This can be done simply by right-clicking the executable and selecting "Run as administrator" from the menu that appears. See <http://windows.microsoft.com/en-us/windows7/how-do-i-run-an-application-once-with-a-full-administrator-access-token> for more information.

Running the setup executable will display the following dialog:

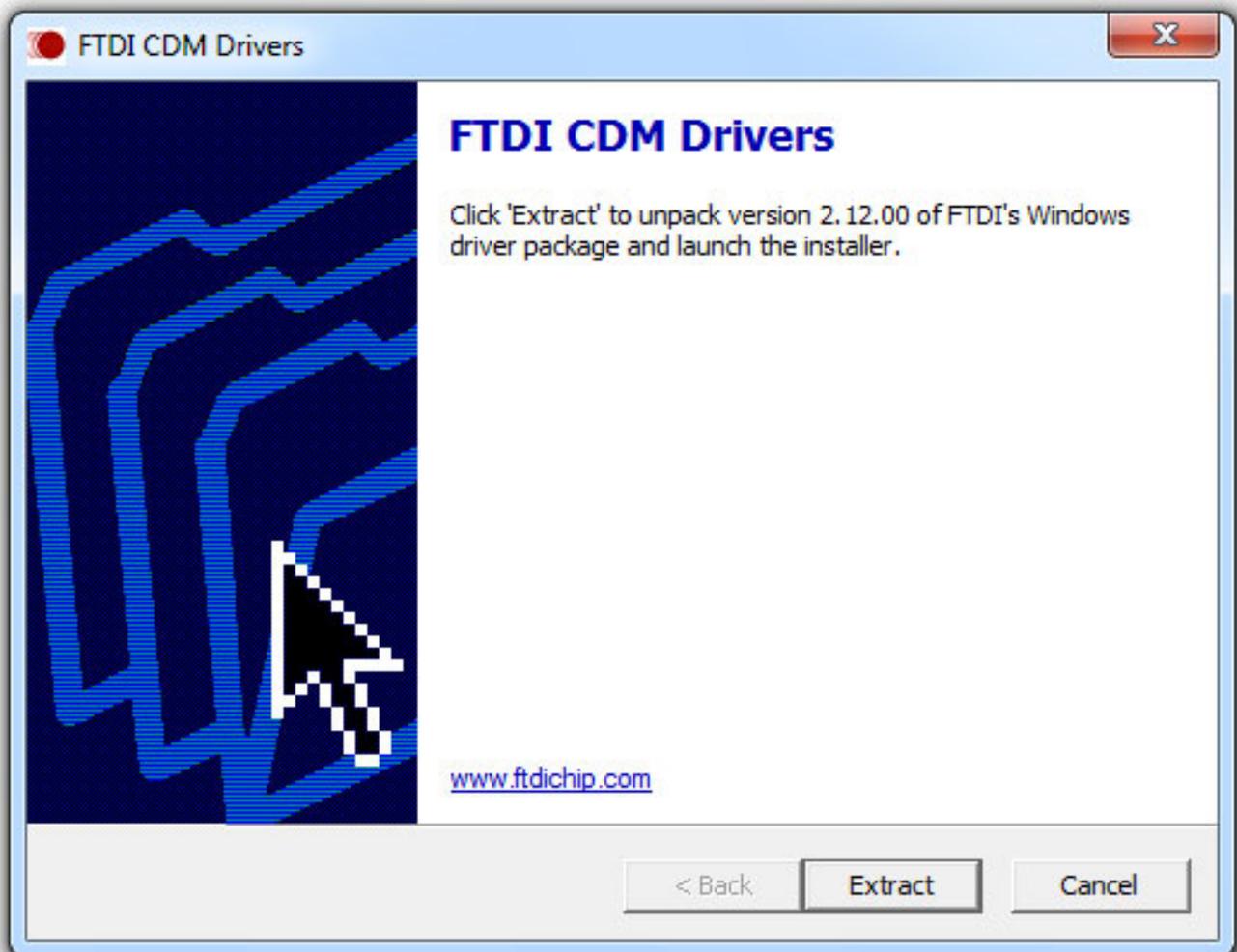


Figure 1: FTDI Setup Extract Dialog

Clicking the "Extract" button will display the following dialog:

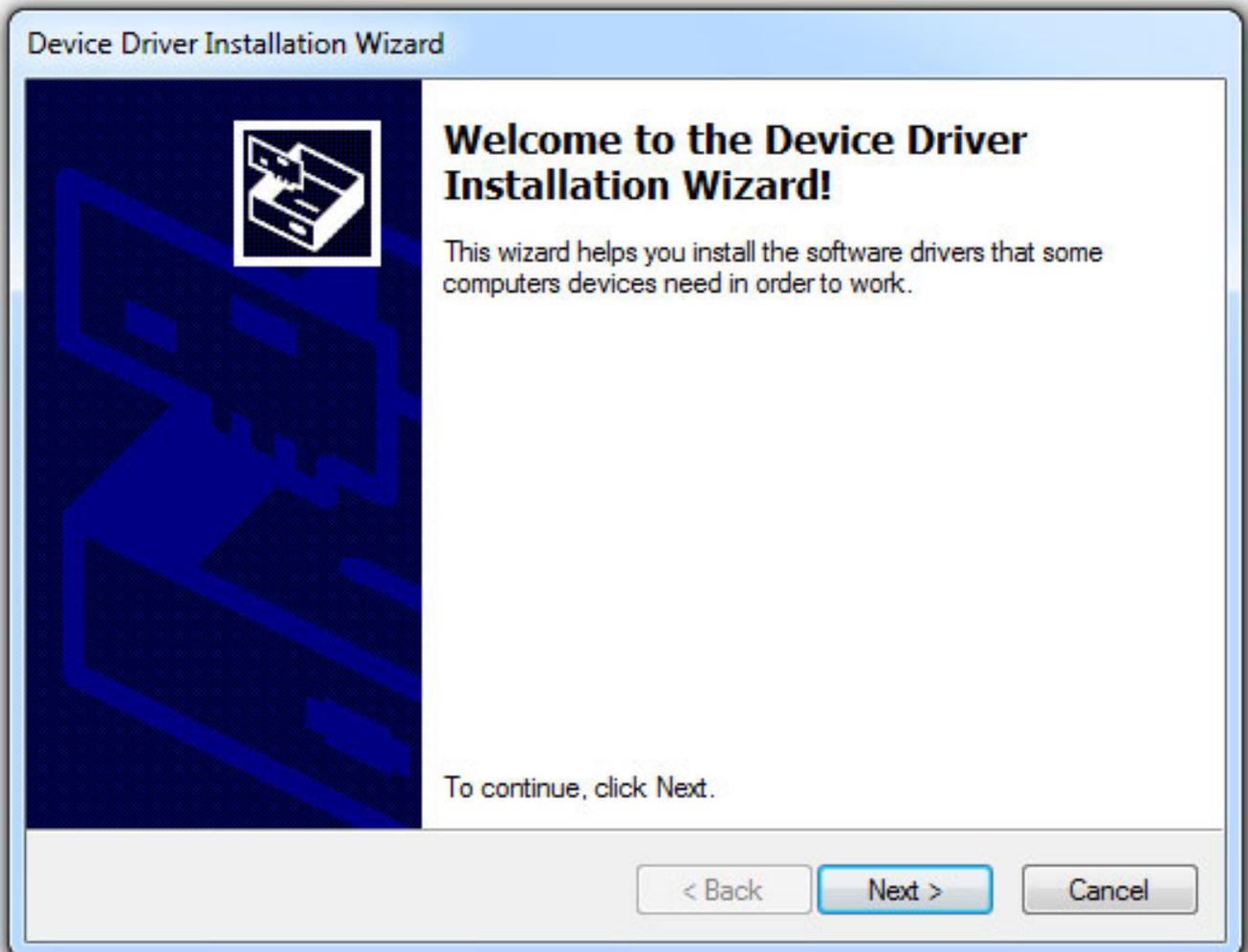


Figure 2: FTDI Setup Wizard Start

Clicking the "Next" button will ask you to agree with the licensing agreement. Click the "I agree" option and then click the "Next" button. This will initiate the driver installation. If all is successful, you will see the following dialog:

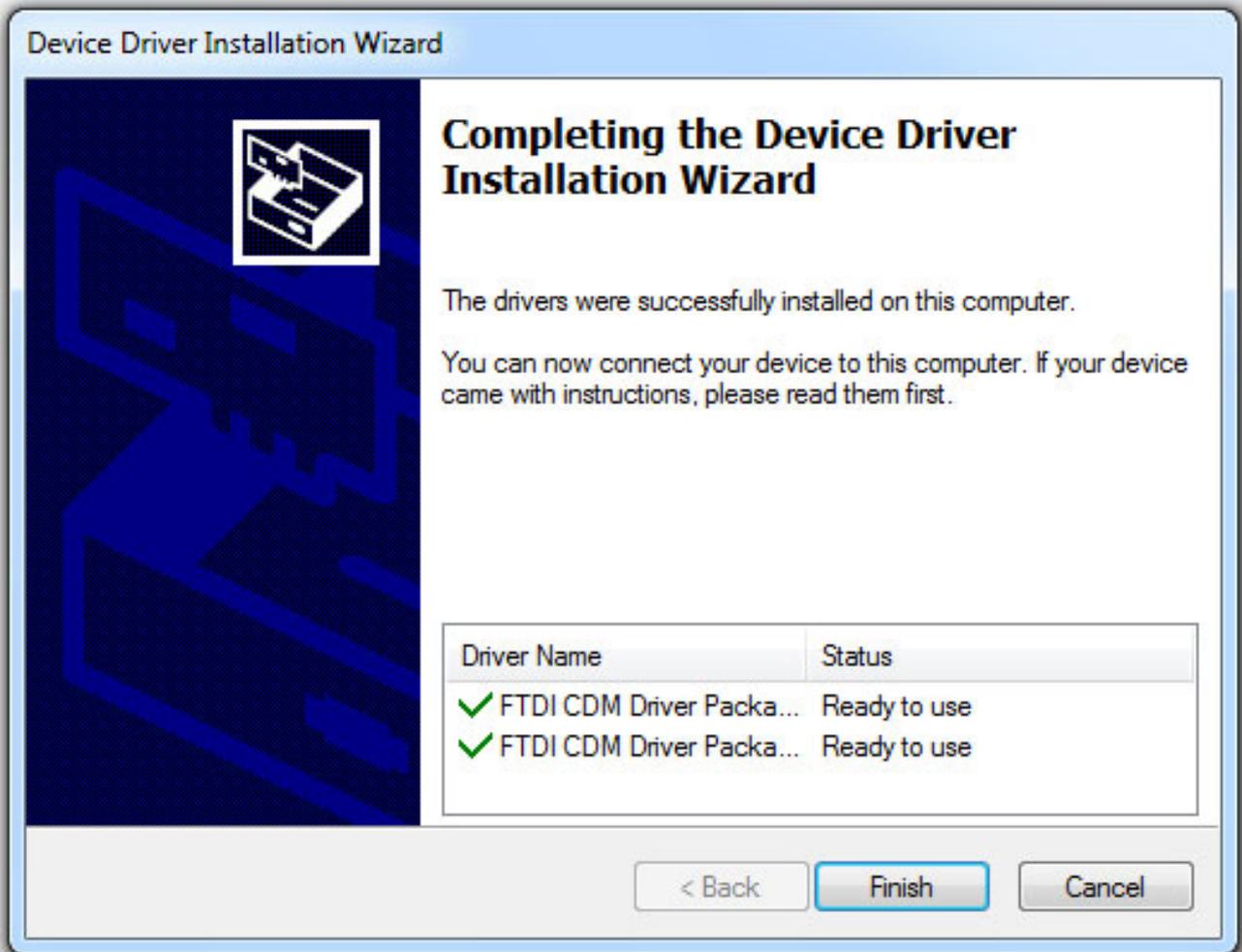


Figure 3: FTDI Setup Wizard Completion

It's now time to plug the Sio2PC-USB device into your PC's USB port. Once connected, you should see the Sio2PC-USB appear in the Windows Control Panel under the "View devices and printers" section. For example:

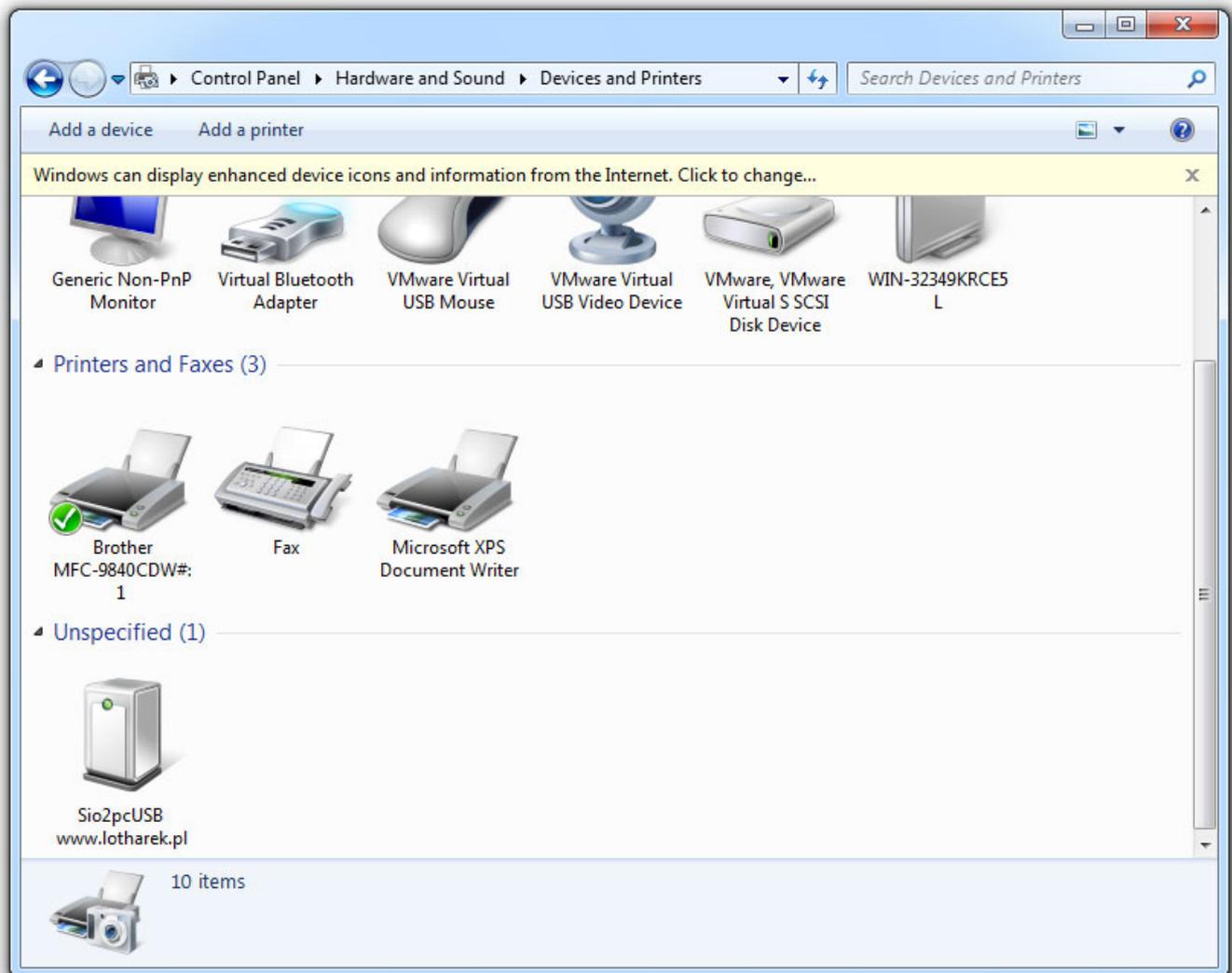


Figure 4: Windows Devices and Printers

2.1.1 Determining the serial port name

Right click on the Sio2pcUSB icon and then click "Properties". This will bring up the properties dialog for the device. Click the "Hardware" tab to see which serial port name Windows has assigned to the device. This will be needed when configuring the serial peripheral emulator software in the next section. For example, the below image shows Windows has assigned the serial device COM3:

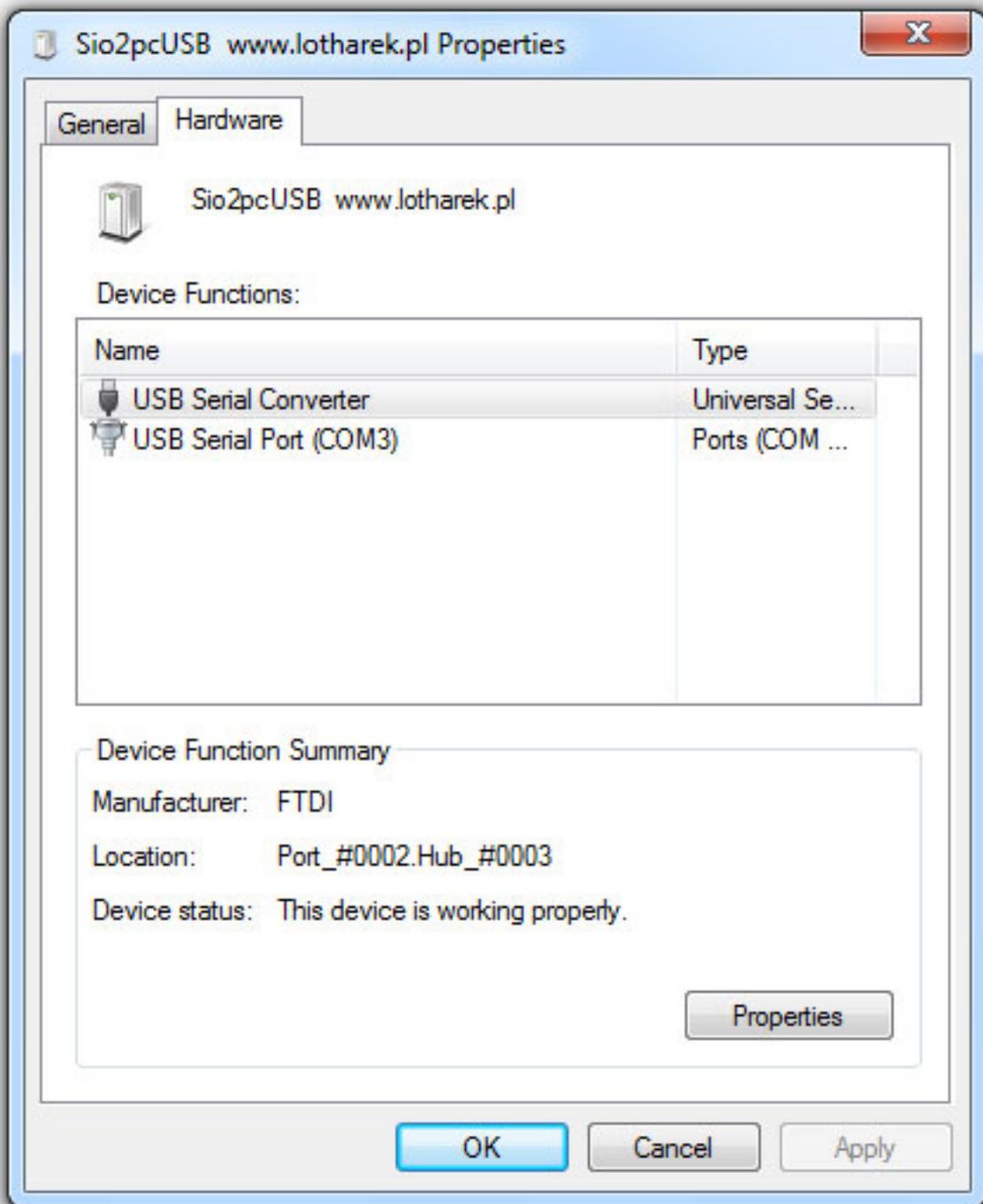


Figure 5: Sio2pcUSB Windows Device Properties

2.2 Mac OS X

For Mac OS X 10.9 and higher, there are no drivers to install as they are already pre-installed by Apple. For earlier versions, you will need to manually install the driver from the FTDI website:

<http://www.ftdichip.com/Drivers/VCP.htm>

It's now time to plug the Sio2PC-USB device into your Mac's USB port. Once connected, you will need to determine the name that Mac OS X has assigned the device. The name will be in the following format:

```
/dev/tty.usbserial-XXXXXXXX
```

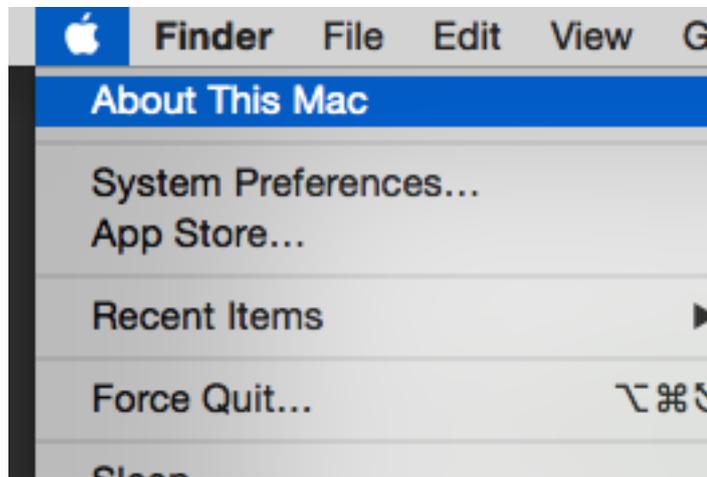
where XXXXXXXX is the serial number of the device. This name will be needed when configuring the serial peripheral emulator software in the next section.

2.2.1 Determining the serial port name

Here are two ways to determine the name of the serial port.

About This Mac

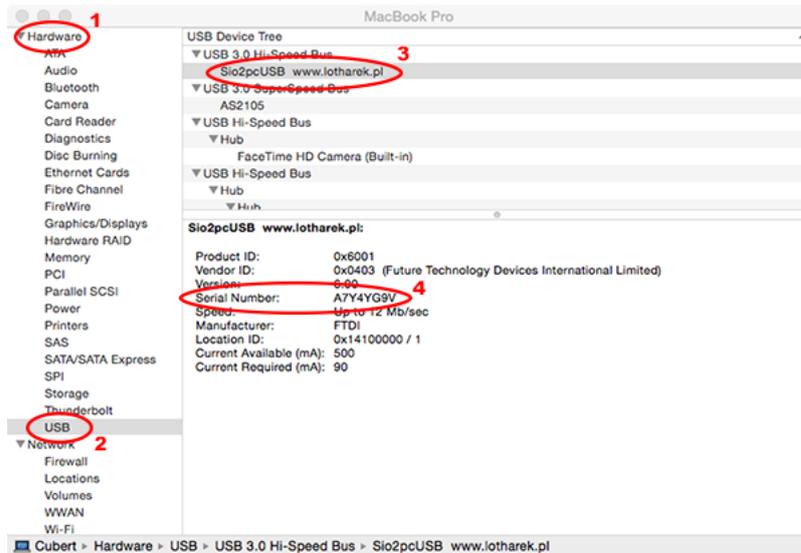
Click the Apple menu and then "About This Mac":



A dialog will appear as shown below. Click the "System Report..." button. Note that this button will be called "More Info..." on older systems.



This will bring up another dialog as shown below:



Click the "Hardware" in the left column (1), then the USB (2), then click for Sio2pcUSB (3). The serial number will be shown in the bottom right panel (4).

In this example, the serial port name would be:

```
/dev/tty.usbserial-A7Y4YG9V
```

Terminal

Another option is to run the Terminal program (located in the Applications folder under Utilities). Type the following command:

```
ls /dev/tty.usbserial*
```

If you don't have any other USB to serial adapters plugged into your Mac, you should see the name of the serial port as shown below:



Note

If you see more than one name displayed, use the "About This Mac" approach above to determine which one is the Sio2PC-USB.

2.3 Setting up AspeQt

It's the job of the Sio2PC-USB device to make the PC and Atari signals electrically compatible. However, something is still needed to emulate actual SIO devices such as disk drives, printer and modems. This is the job of special software that runs on your PC which we'll refer to generically as *serial peripheral emulator software*.

AspeQt is a cross-platform serial peripheral emulator that uses the popular graphics library Qt (hence the name). It runs on Windows, Mac and Linux. To find out more information about the software's features and capabilities or to download it, visit the project website:

<http://sourceforge.net/projects/aspeqt>

Note

The Sio2PC-USB was designed specifically to work with *AspeQt*. Other software may work but your mileage will vary.

When you run *AspeQt* you will see the main window. Click the "Tools" menu and then click "Options" (or simply type Ctrl+O) to open the options dialog as shown below.

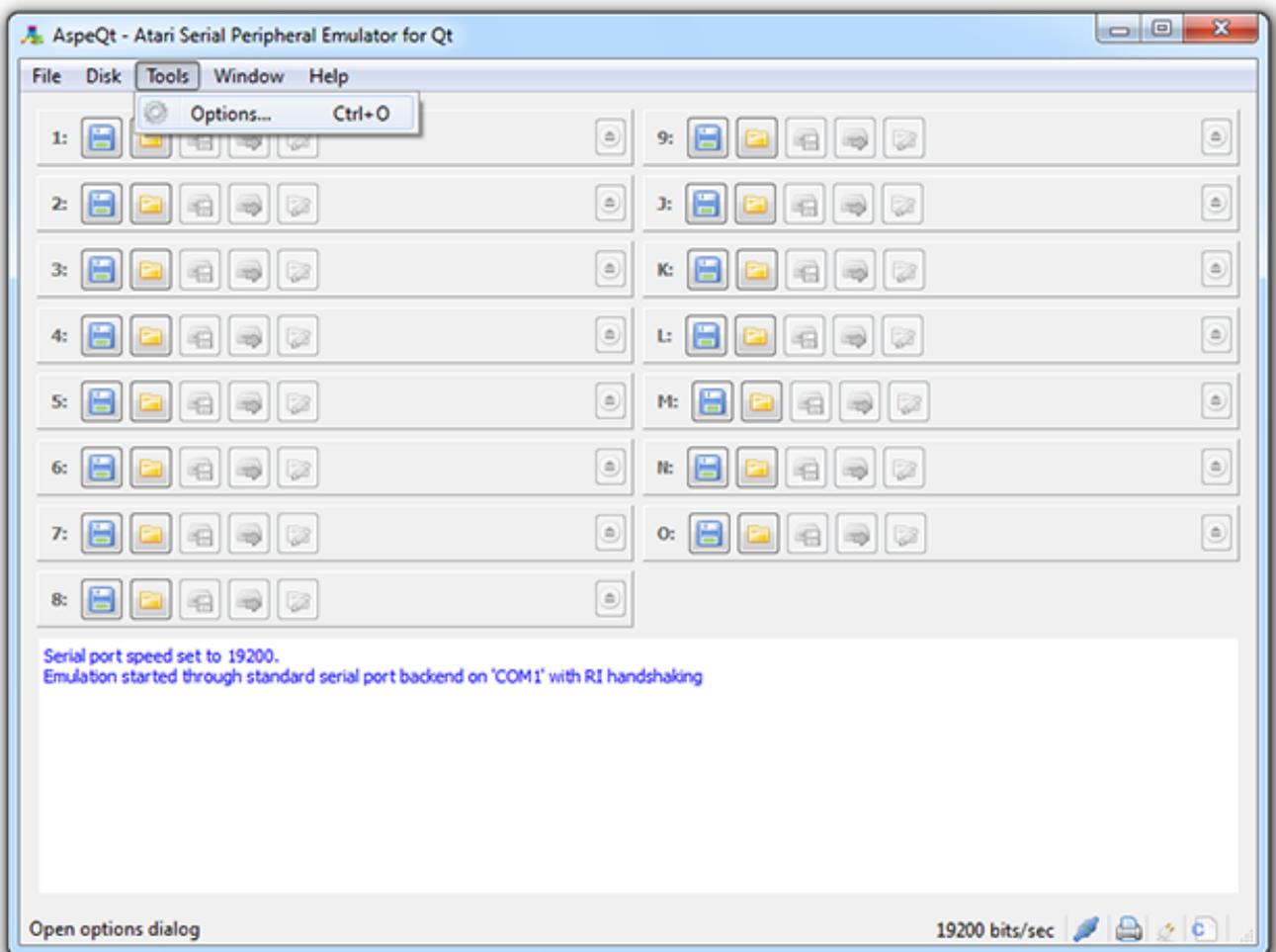


Figure 6: AspeQt Main Screen

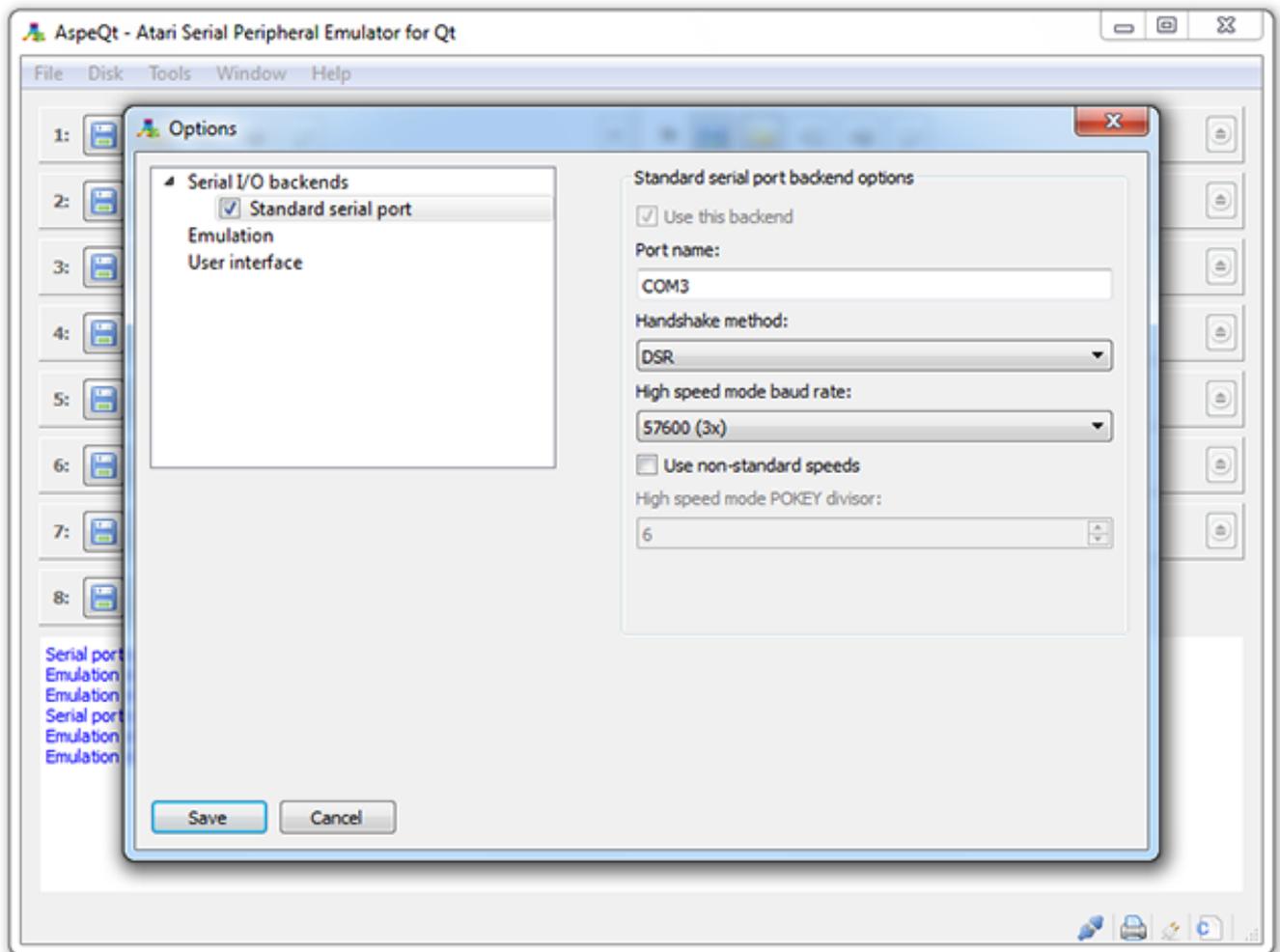


Figure 7: AspeQt Options Dialog

There are two important items needed here:

1. The "Port name" should be set to the serial port name that your operating system assigned to the Sio2PC-USB device. In the example above, it is COM3. See the *USB Driver Installation* section above for more information.
2. The "Handshake method" should be set to "DSR" as shown above.

Once those items are filled in correctly, click the "Save" button and you should be ready to use *AspeQt* with your Sio2PC-USB.

3 AspeQt Usage

3.1 Loading Your First Disk

As shown in Figure 6 above, the main *AspeQt* window has rows for 15 disk drives (1 through O). In order to load a disk, you will need to mount it in drive 1 (also referred to as D1: on the Atari). Start with your Atari powered off and click the floppy disk icon in the first row as shown below:

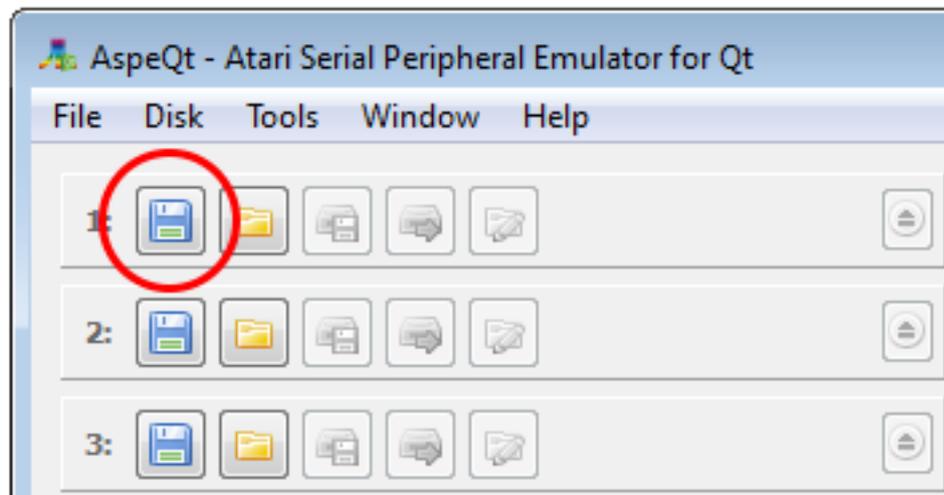


Figure 8: AspeQt Load Drive 1

This will bring up a file chooser dialog. As of this writing, AspeQt has support for the `ATR`, `XFD` and `PRO` image formats which represent the data that was on physical floppy disks. Select the bootable disk image of your choice and click the "Open" button. This will mount your selected disk image in drive 1.

Assuming your Sio2PC-USB is connected and set up correctly, turning on your Atari should be loading the disk image.

**Important**

The Atari XL/XE series computers boot into BASIC by default. If you are loading a non-BASIC disk (e.g. most games), you will need to hold down the `OPTION` key while powering the computer on to disable BASIC. On the Atari 400/800 series computers, BASIC is a cartridge which you can insert or remove based on whether it is needed.

3.2 Loading Your First Cassette

AspeQt also has the ability to load cassette images. These are files with the `CAS` extension that represent physical cassettes that were loaded with the Atari cassette recorder. Start with your Atari computer off, click the File menu and then click the "Playback cassette image. ..." menu item as shown below:

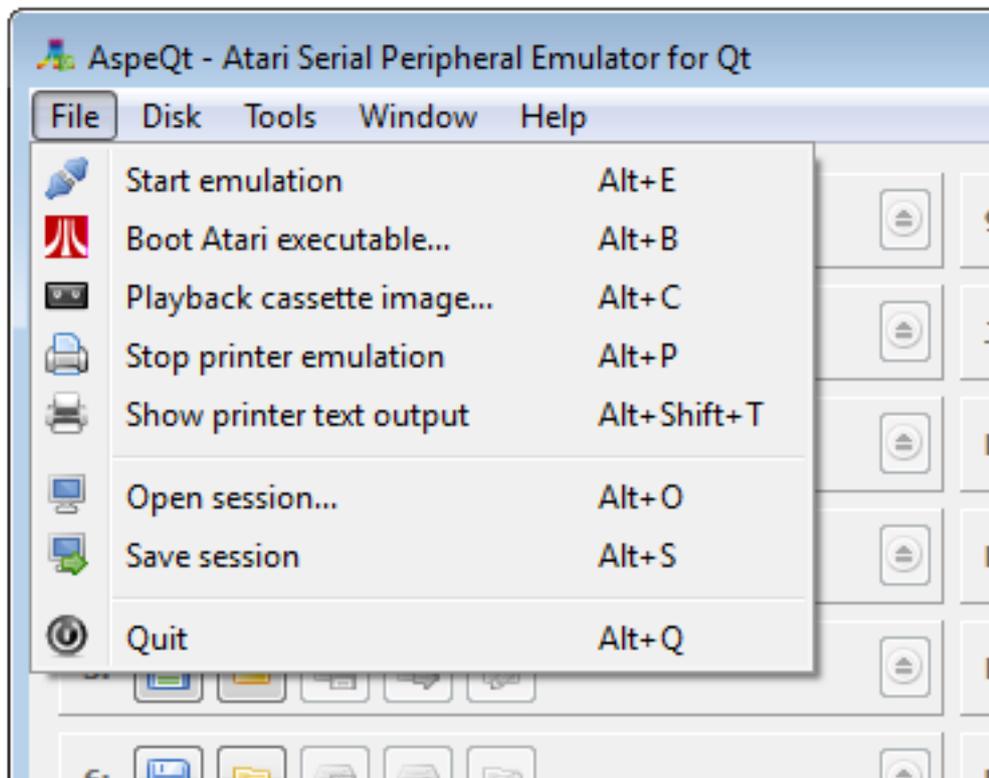


Figure 9: AspeQt Load Cassette

Select a valid Atari CAS file and click the "Open" button. This will mount the cassette in the virtual drive ready for playback and AspeQt will indicate it's ready by displaying the *Cassette image playback* dialog as shown below:

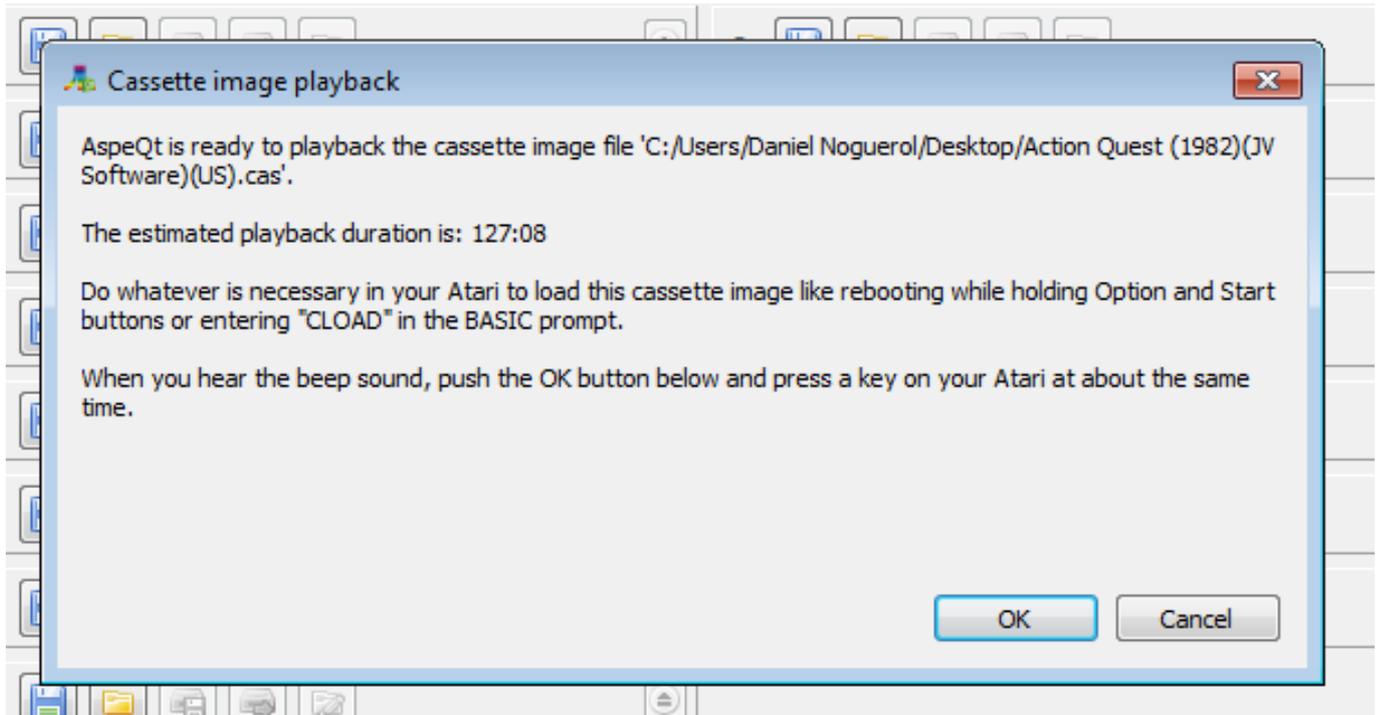


Figure 10: AspeQt cassette image playback dialog

Turn on your Atari while holding the START key down. You will hear a beep sound which indicates the computer is ready to load the cassette. Press the *Return* key on your Atari keyboard at about the same time as clicking the OK button in the *Cassette image playback* dialog in AspeQt to start loading the cassette.

Note

The same rule applies to the XL/XE series and the OPTION key if you are loading a non-BASIC cassette program.
