# TECHNICAL NOTE - ProScan III Communication Speed

Users that want to get the fastest response time to a command from the ProScan III controller can adjust the setting on their computer. The communication speed of the ProScan can be increased from the default setting of 16 ms to as fast as 1 ms. This is important for those who need faster signaling and to be able to control the system as quickly as possible.

Note that this is only applicable to USB connections with Rev. F boards that use the FTDI chip. Also, DLL users have the baud rate automatically set to highest rate of 115K. For users not using the DLL, it is incumbent on them to change the baud rate from the 9600 default rate.

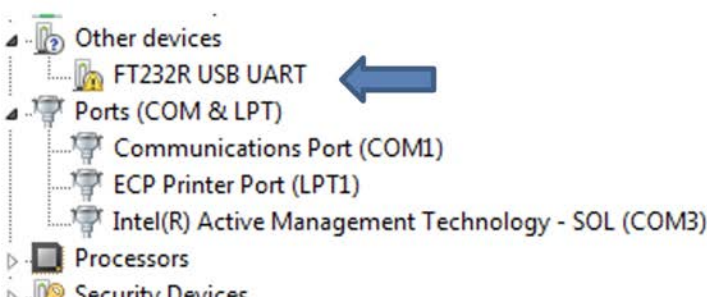Increasing the communication speed is very easy and is detailed below:

The ProScan III controller has had an upgrade/change to the USB connection hardware. The company, FTDI Ltd., manufactures the hardware and constantly updates the associated Windows USB Driver. The new USB hardware and interface driver is Windows Hardware Quality Labs (WHQL) tested and will automatically download the latest drivers when connected to a PC with internet access. The Driver Software Installation Window shown below will alert the user that the USB driver installation is complete and the Port is ready to use.
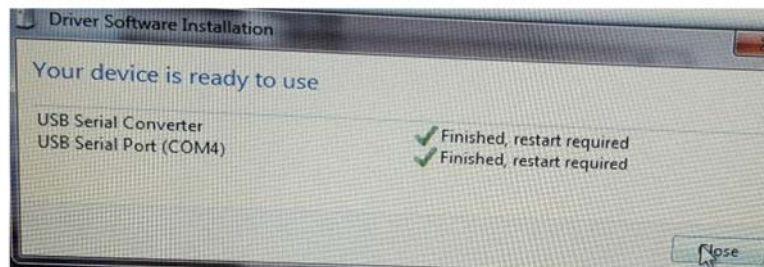
When a PC is not connected to the internet and an older or no FTDI driver is installed onto the PC there can be problems communicating via USB. The driver can appear to have installed correctly and yet not communicate. The image below is from the Device Manager of a PC where the ProScan III FTDI USB driver has set up COM3 on the PC, but USB communications is still unavailable.
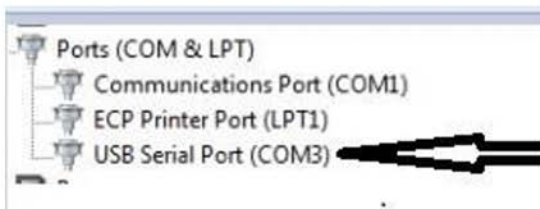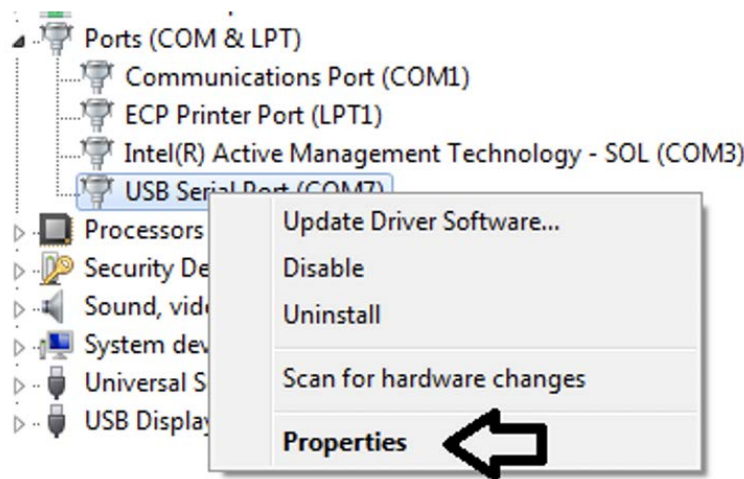

Alternatively on some installs the USB connection can show up under "Other devices" as FT232R USB UART

Right clicking on the ProScan3 USB port in Device Manager will allow you to click on the Properties menu.

In the Properties window, click on the Driver tab and view the Driver Date: If it is older than 2016 or if the Driver Provider is not listed as FTDI, see the image below, a new driver needs to be installed. If the PC does not have internet access the files can be loaded onto the PC via a USB stick.
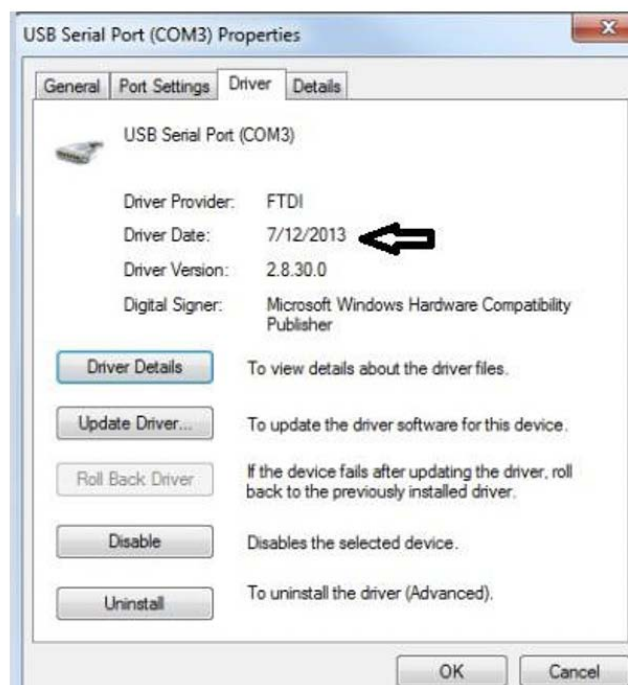
It is recommended to uninstall the existing FTDI drivers. There is an uninstaller tool that can be accessed from:

http://www.ftdichip.com/Support/Utilities.htm#CDMUninstaller

From the website download the CDM Uninstaller as shown below:

Extract all the files and run the CDMuninstallaerGUI.

🔴 CDMUninstaller	3/28/2017 5:24 PM	Application	563 KB
🔴 CDMuninstallerGUI ⬅	3/28/2017 5:24 PM	Application	644 KB

Click the Add button on the right and the Vendor ID and Product ID will be populated inside the blank area.
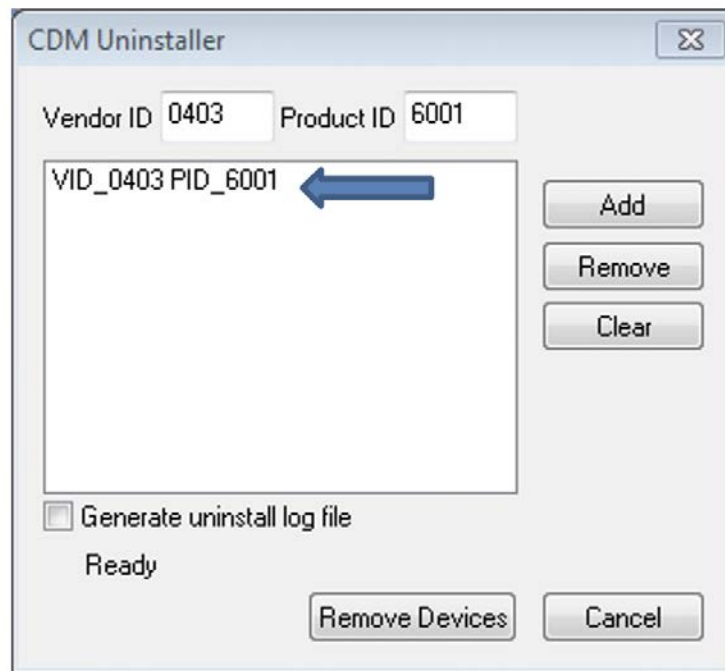
Click Remove Devices to remove the existing drivers, then close the Uninstaller.
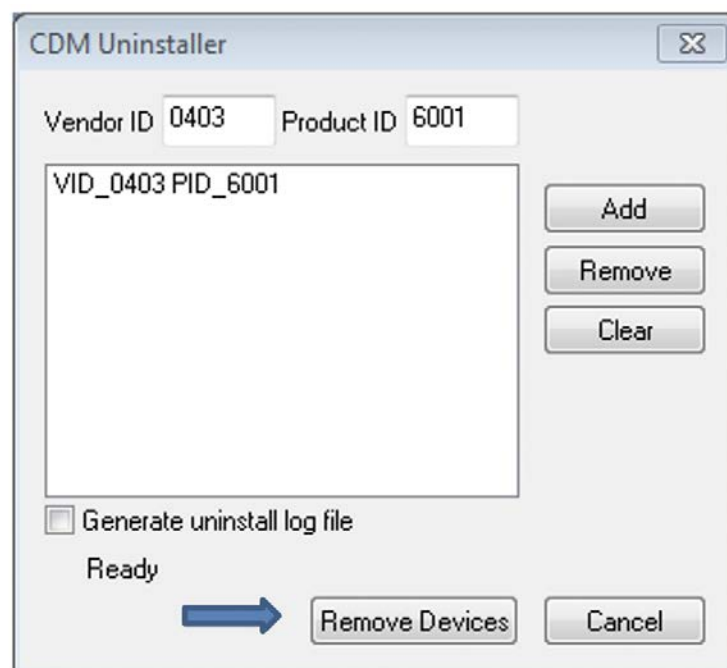
Download the latest USB Driver version
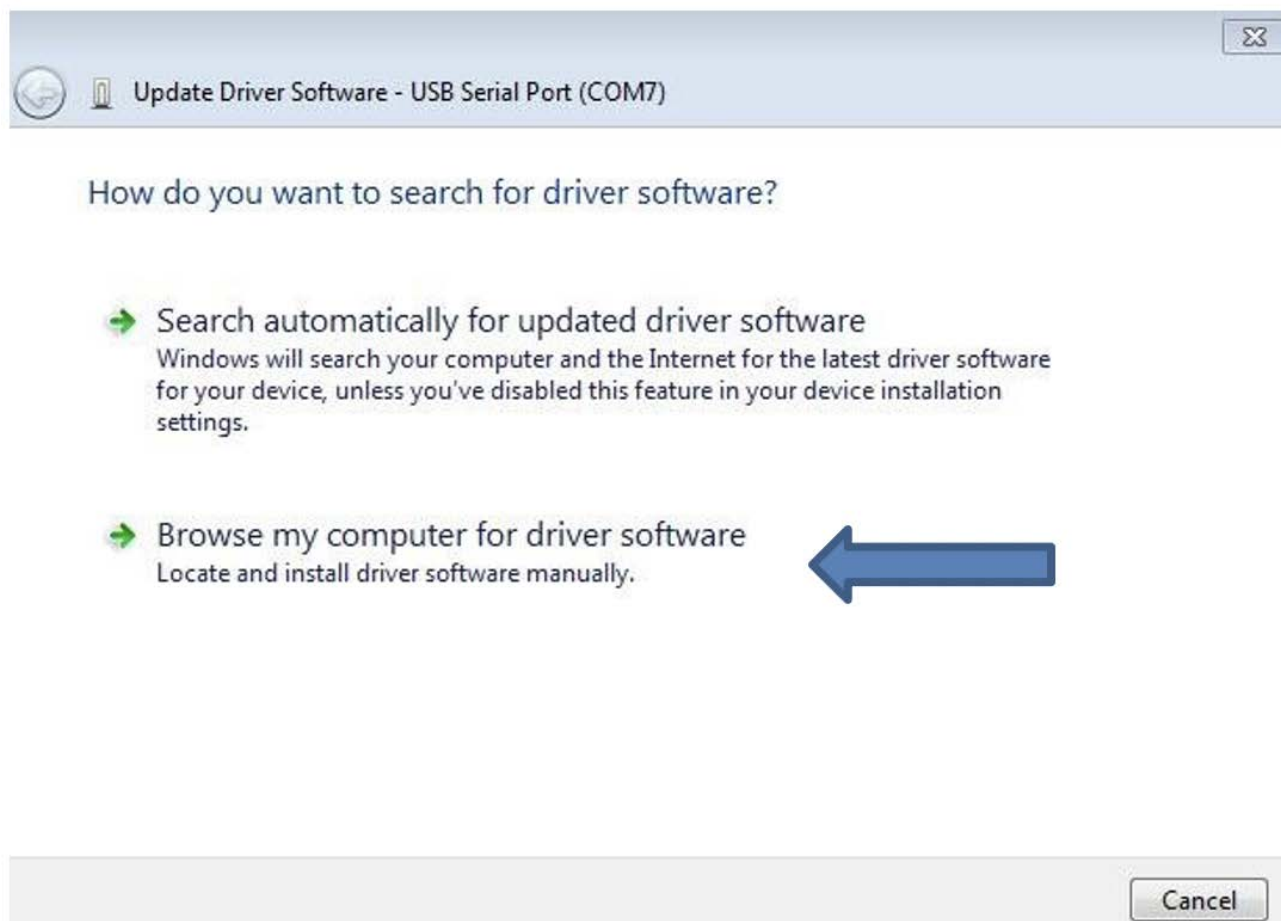from: http://www.ftdichip.com/Drivers/VCP.htm

Download the proper 32 or 64 bit driver as shown below.
Extract all of the files to the desktop or other download folder.
In Device Manager right click on the ProScan 3 USB and choose Update Driver Software
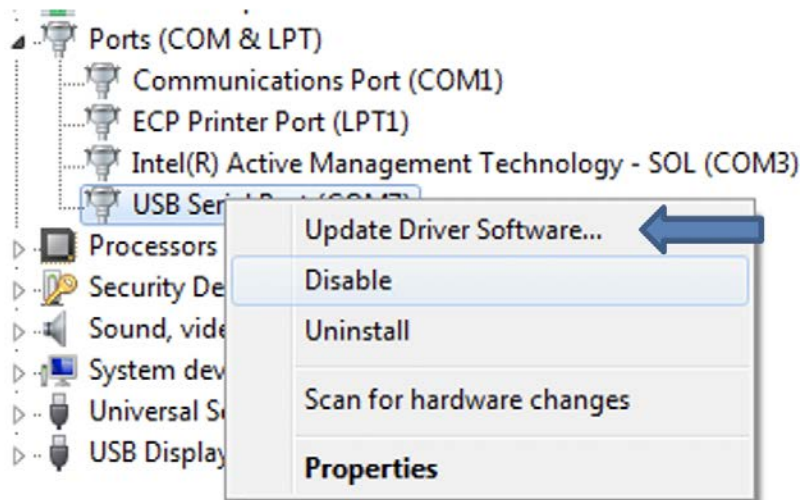
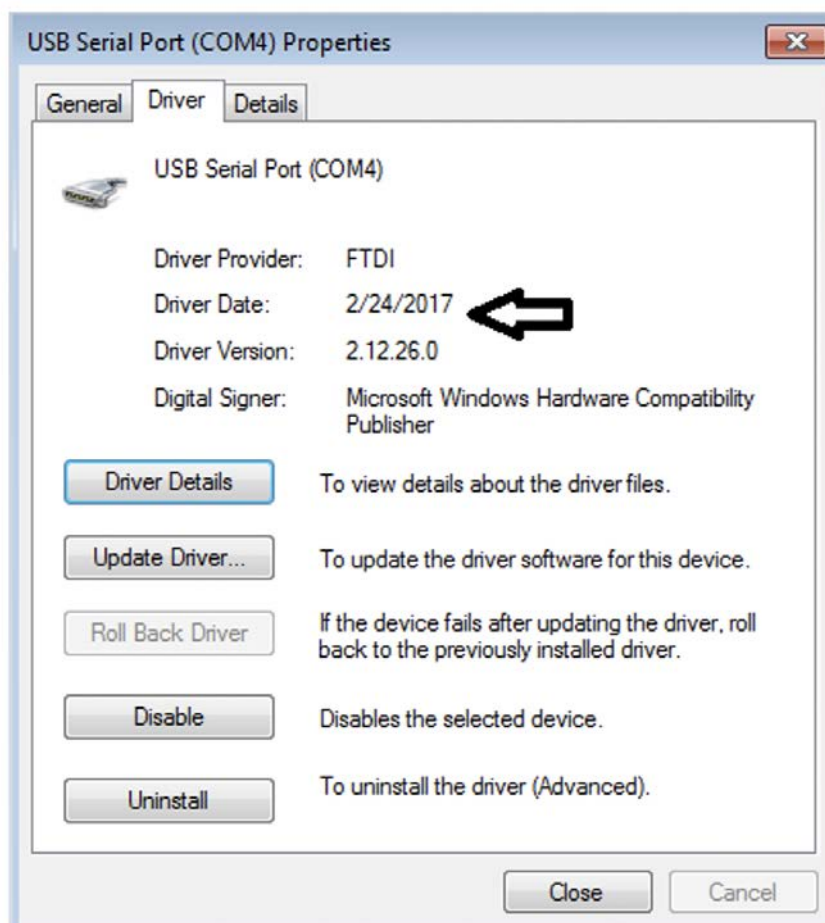Choose Browse my computer for driver software

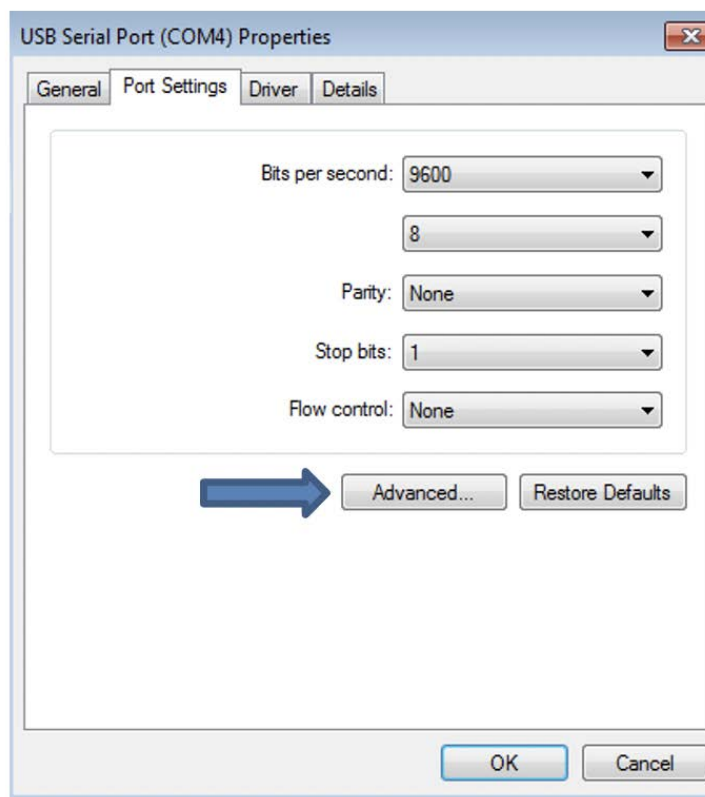Browse to the location of the saved Driver and click Next

Windows will then update the Driver using the downloaded files. A successful installation will show a new date in the USB properties as shown below.

If at this point a COM port has not been assigned to your USB connection, retry the "Update Driver Software", as in some instances Windows will not assign a proper COM port the first time the driver is updated.

At this point it is advisable to adjust the USB latency timer from the standard 16ms down to 2ms. Right click on the new COM port and choose Properties. From the Port Settings tab, click on Advanced. In the Advanced tab, change the Latency Timer from 16 to 2.

Click OK twice to save the Latency Timer change.