

Installing FTDI Drivers on Linux

(Virtual COM port (VCP) driver installation)

FTDI has two types of drivers for all supported operating systems. These are the virtual COM port (VCP) driver and the D2XX API driver. This example describes the VCP driver installation.

FTDI virtual COM port (VCP) drivers are included in Linux kernel 3.0.0-19 and up so the installation procedure is rather simple.

This example is based on Ubuntu 17.04 using Oracle VM VirtualBox 5.1.18. The installation procedure is very similar or possibly exactly the same with other versions of Linux.

These instructions will work with USB to serial adapters part number XS880, XS8801, XS890, THX-1000, XS882, XS885, AY-1060, UMC-104, MWE820A, MWE820B, US485COM, AX101, AX102, AX104 and U485G from U.S. Converters LLC.

First connect the FTDI based USB to serial adapter to the USB port.

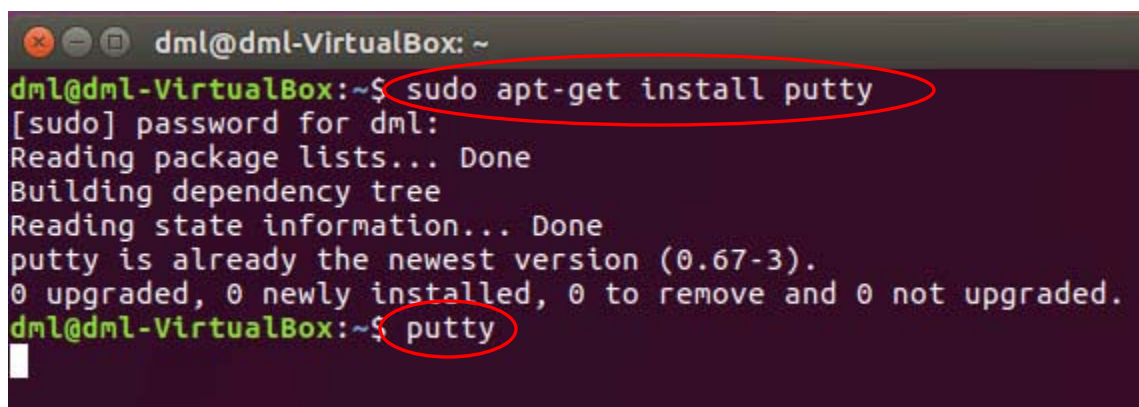
Open a Linux terminal window and enter “dmesg | grep FTDI” and press Enter.

A terminal window titled 'dml@dml-VirtualBox: ~' showing the command 'dmesg | grep FTDI' and its output. The output consists of four lines of kernel messages: '[107.640908] usb 1-2: Manufacturer: FTDI', '[107.751954] usbserial: USB Serial support registered for FTDI USB Serial Device', '[107.751974] ftdi_sio 1-2:1.0: FTDI USB Serial Device converter detected', and '[107.777546] usb 1-2: FTDI USB Serial Device converter now attached to ttyUSB0'. The text 'ttyUSB0' in the last line is circled in red.

```
dml@dml-VirtualBox: ~  
dml@dml-VirtualBox:~$ dmesg | grep FTDI  
[ 107.640908] usb 1-2: Manufacturer: FTDI  
[ 107.751954] usbserial: USB Serial support registered for FTDI USB Serial Device  
[ 107.751974] ftdi_sio 1-2:1.0: FTDI USB Serial Device converter detected  
[ 107.777546] usb 1-2: FTDI USB Serial Device converter now attached to ttyUSB0  
dml@dml-VirtualBox:~$
```

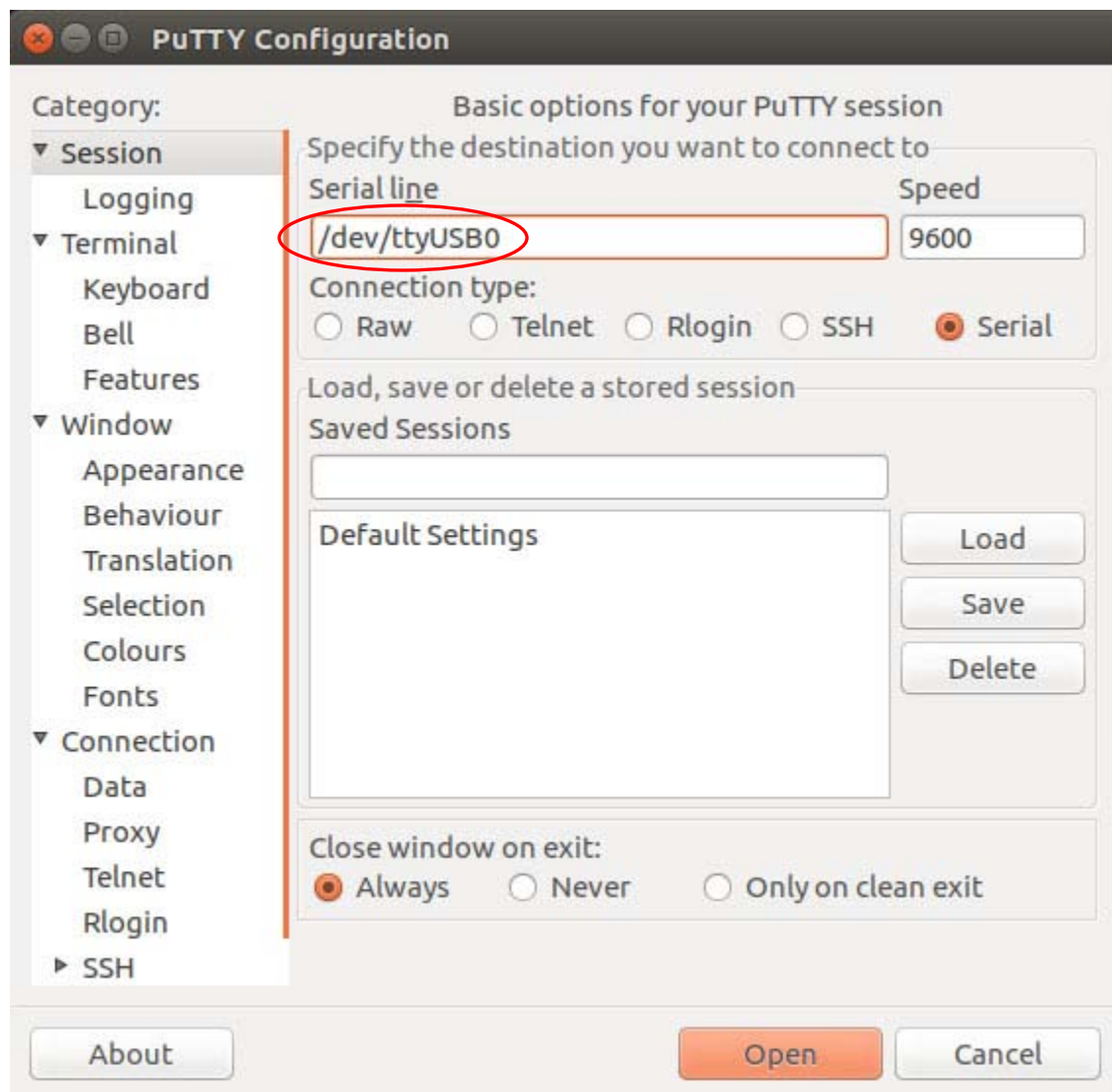
You can now see the FTDI connected device and its port location, as in this example, /dev/ttyUSB0.

To check if it is working correctly you can now open a terminal emulator such as Putty.
First install and start Putty:

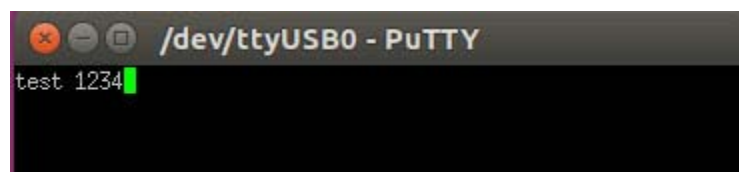
A terminal window titled 'dml@dml-VirtualBox: ~' showing the command 'sudo apt-get install putty' and its output. The output shows the command being executed, password prompt, package list reading, dependency tree building, state information reading, and the result that Putty is already installed. The command 'sudo apt-get install putty' and the prompt 'putty' are circled in red.

```
dml@dml-VirtualBox: ~  
dml@dml-VirtualBox:~$ sudo apt-get install putty  
[sudo] password for dml:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
putty is already the newest version (0.67-3).  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
dml@dml-VirtualBox:~$ putty
```

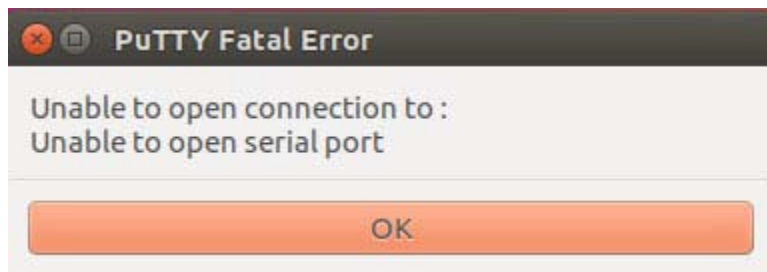
Enter the port number and click Open:



If you put a jumper on the TX and RX pins in the USB to serial adapter's DB9 connector then you can check if the adapter can send and receive characters successfully in Putty's terminal window:



If you get an error when Putty is trying to open the COM port:



It most likely is because your Linux username is not a member of the “dialout” group, to which the port or tty device (USB to serial adapter) belongs to, so you need to add your username to that group.

You can check if your username is a member of the group or not, with the “groups” command:

```
dml@dml-VirtualBox: ~  
dml@dml-VirtualBox:~$ groups dml  
dml : dml adm cdrom sudo dip plugdev lpadmin sambashare  
dml@dml-VirtualBox:~$
```

In this example the username “dml” is not a member of the “dialout” group as shown above.

We can now add “dml” to the group with the “sudo gpasswd --add dml dialout” command:

```
dml@dml-VirtualBox: ~  
dml@dml-VirtualBox:~$ sudo gpasswd --add dml dialout  
[sudo] password for dml:  
Adding user dml to group dialout  
dml@dml-VirtualBox:~$
```

After doing this you need to logout and login again for the addition to take effect.

We can now check that “dml” has been added to the group:

```
dml@dml-VirtualBox: ~  
dml@dml-VirtualBox:~$ groups dml  
dml : dml adm dialout cdrom sudo dip plugdev lpadmin sambashare  
dml@dml-VirtualBox:~$
```