

HOWTO: Installing Windows 10 Drivers

by Ian Wade, G3NRW
g3nrw@g3nrw.net

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Introduction

This short HOWTO explains how I overcame problems with serial port drivers which changed version unpredictably during recent Windows updates.

This first manifested itself when serial traffic via an FTDI serial device driver stopped working at 115200 baud following a Windows update. Device Manager showed the FTDI driver to be version 2.12.14.0, which was faulty. However, I was expecting it to be an older version (2.10.0.00) which I had installed previously and which did work.

The question now became: how could I force Windows to install the version I wanted, rather than automatically install a later version?

This HOWTO explains the steps I took to roll back to the driver I really wanted.

Original problem

After a recent Windows 10/64 update, the SDR Console program stopped working with the SDR-IQ SDR receiver. One symptom was that although SDR Console recognized that the SDR-IQ was plugged in, the program did not see the SDR-IQ's serial number. It was also necessary to drop the serial link speed down to 9600 baud – any faster, the serial traffic stopped altogether.

Investigation narrowed down the cause to Windows automatically replacing an old working version of the FTDI driver (2.10.0.0) with the then latest version (2.12.14).

Attempts to solve the problem

I tried uninstalling the latest FTDI driver and re-installing the older one. But this did not work. After much Googling to find out how to do it (discovering several snake oil methods on the way), I finally unearthed a method that does work.

How to replace newer driver version(s) with an older driver version

In essence this involves following the procedure at:

<https://technet.microsoft.com/en-us/library/cc730875.aspx>

Summary

1. Create a Restore Point (just in case things go wrong).
2. Unplug all FTDI devices (including SDR-IQ) from the PC.
3. Discover an instance of the FTDI driver, using the CLI command: `pnputil.exe -e`
4. The output consists of a record for each driver, looking something like this:
 - o Published name: oem56.inf
 - o Driver package provider: FTDI
 - o Class: Universal Serial Bus controllers
 - o Driver date and version: 01/27/2014 2.12.00
 - o Signer name: Microsoft Windows Hardware
 - o Compatibility Publisher
5. Make a note of the "inf" reference # (in this case, 56).
6. Delete the driver with the command: `pnputil.exe -f -d oem#.inf`
For example: `pnputil.exe -f -d oem56.inf`
7. Repeat steps 3 thru 6 until there is no FTDI driver left in the Windows Driver Store.
8. Install the wanted driver version (2.10.0.0) of the FTDI driver, from here:
<http://www.ftdichip.com/Drivers/CDM/CDM%20v2.10.00%20WHQL%20Certified.exe> .
9. Prevent Windows 10 from automatically updating drivers:

`Settings > Control Panel > System > Advanced System Settings > Hardware > Device Installation Settings > No (your device might not work as expected) > Save`
10. Create another Restore Point (so that you can revert to an earlier state if necessary).
11. Reboot the PC.

In my case I discovered no fewer than three instances of the FTDI driver in the system. This was totally unexpected, and it was not until I had removed all three that I successfully installed the older version of the driver.

Conclusion

Do not rely on Windows Update to install the driver you want. You choose the version you want, not Windows.

Do not rely on Windows Device Manager to uninstall a driver. There may be other versions still lurking in the Driver Store.

Do not rely on Device Manager showing all the COM ports installed on the system.

Postscript

Since writing this procedure, FTDI has corrected the faulty driver. The current FTDI driver version (October 2017) is 2.12.24.0, which does work and which you can let Windows install automatically.

Document Version History

<i>Version</i>	<i>Date</i>	<i>History</i>
1.0	26 Oct 2017	First released version
1.1	28 Oct 2017	Minor cosmetic changes