

Installation tips for Windows users

REVISION HISTORY

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Chapter 1

Introduction

When Kidekin TRNG is inserted for the first time in a USB port, Windows look for the appropriate driver to install. This process takes several minutes and sometime is not successful. This document present the different problems that may be encountered and their solution.

LIST OF POTENTIAL PROBLEMS ON WINDOWS:

1. The driver is not found and not installed at all, see [FD2XX explicit installation procedure](#).
 2. The driver is installed but use the wrong mode (the so called "VCP" driver mode), see [VCP driver disabling procedure](#).
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Chapter 2

FD2XX explicit installation procedure

The software package of kidekin TRNG includes FTDI's FD2XX driver.

FD2XX EXPLICIT INSTALLATION PROCEDURE:

1. Unplug Kidekin TRNG from the computer
2. Unzip and open the Kidekin TRNG software package
3. Browse to the folder "application_notes_software\ftdi_d2xx\common\windows"
4. Run "dp-chooser.exe" as administrator, this is done with a right click (see screen-shot below).
5. Follow the steps of the installer
6. Restart the computer
7. Connect Kidekin TRNG

application_notes_software > ftdi_d2xx > common > windows

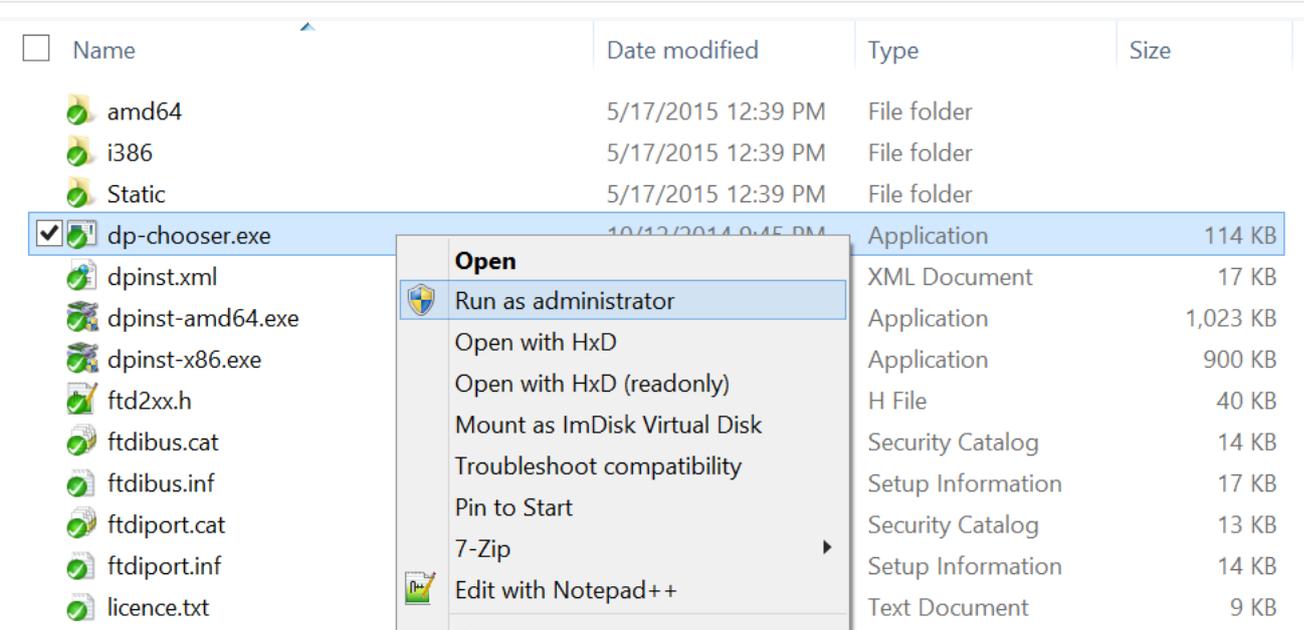


Figure 2.1: Running "dp-chooser.exe" as administrator

If you still have problems, please check if [VCP driver disabling procedure](#) applies.

Chapter 3

VCP driver disabling procedure

On some computers Windows wrongly assumes that Kidekin TRNG will use the so called VCP driver and load it right away. This prevent any software to access the TRNG as it meant to be, so the default driver must be disabled. You can detect this situation by using the software **trng_cpature.exe**. If its output match the following screen-shot, this procedure should solve the problem.

trng_capture.exe output when VCP driver is loaded instead of FD2XX:

```
1 C:\ftdi_d2xx\trng_capture\build_dir>trng_capture.exe
2 FT_ListDevices OK, number of devices connected is in numDevs=2
3 FT_ListDevices OK
4 *kidekin_trng A*
5 FT_ListDevices failed
6 FT_Open failed, device id=-1: 0x00000002
7 Exception: ERROR: could not open kidekin_trng
```

trng_capture.exe output when VCP driver is loaded instead of FD2XX (another case):

```
1 C:\ftdi_d2xx\trng_capture\build_dir>trng_capture.exe 16 stdout txt
2 FT_ListDevices failed
3 FT_Open failed, device id=-1: 0x00000002
4 Exception: ERROR: could not open kidekin_trng
```

This procedure is needed only once per USB port. If a USB hub is used, then once for each port of the hub.

VCP DRIVER DISABLING PROCEDURE:

1. Open "Computer Management" / "Device Manager":
 - a. Open Explorer
 - b. Right click on "This PC" (Windows 8) or "Computer" (Windows 7)
 - c. Click on "Manage"
 - d. Click on "Device Manager"
2. Expand the list "Universal Serial Bus controllers"
3. Insert TRNG into USB port
4. Wait until a new device "USB Serial Converter B" appears. (It may take a couple of minutes, be patient, we really need to wait for the "B" to show up, the "A" is of no use)
5. Notice that in the list "Ports (COM & LPT)", a new COM device appeared, that's what we want to avoid!
6. Right click on the device "USB Serial Converter B" that just appeared and click on "Properties"

7. Click on "Advanced" tab
8. Uncheck "Load VCP" (see screen shot next page)
9. Click "OK"
10. Disconnect Kidekin TRNG
11. Connect it again. Now "Universal Serial Bus controllers" appears immediately and the COM port does not.

From now on Kidekin TRNG is ready to use on that USB port.

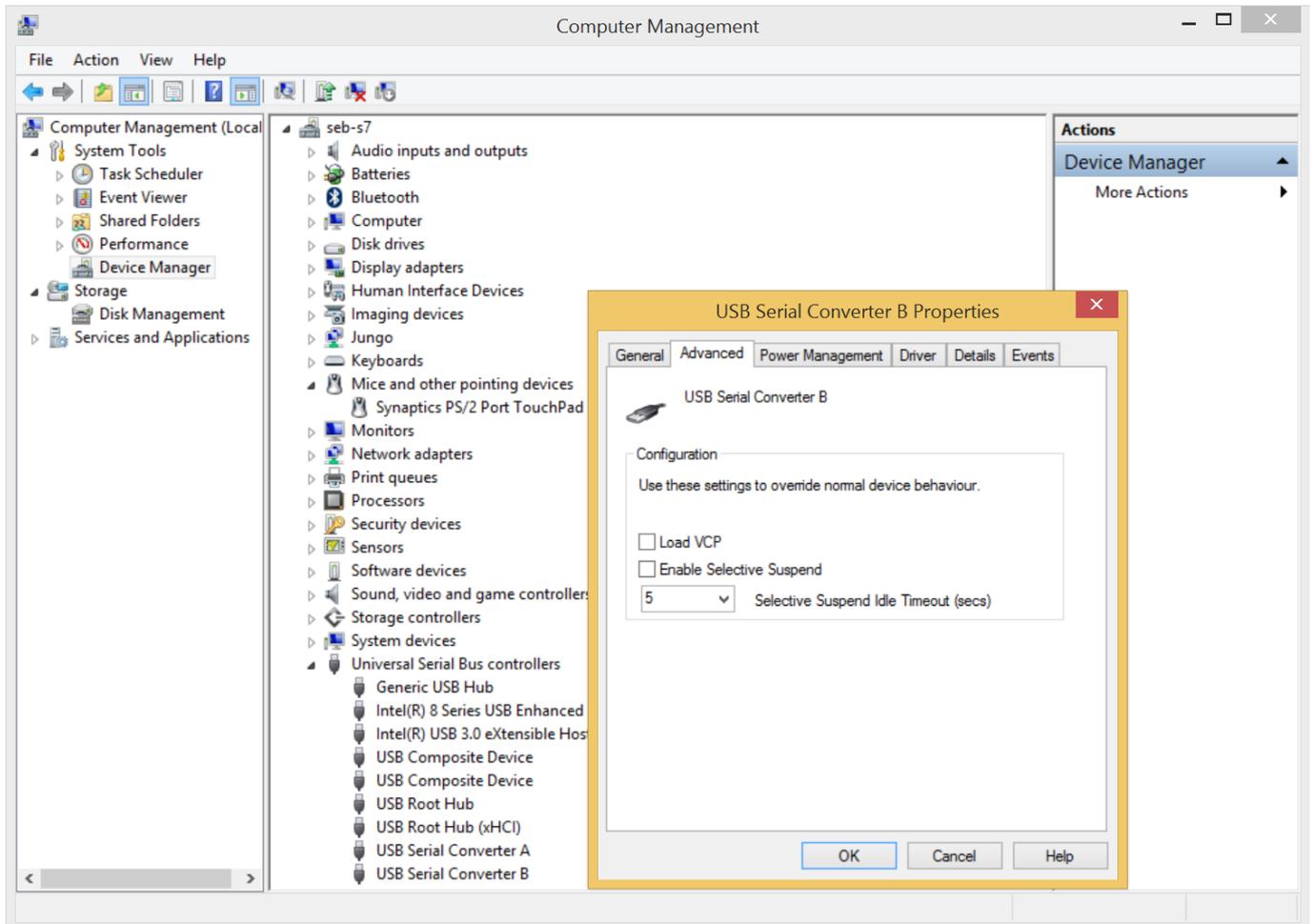


Figure 3.1: Windows "Device Manager" screen shot after step 8