

1 Minimum system requirements

Operating system	32-bit version of: <ul style="list-style-type: none">■ Windows 10 Pro / Enterprise■ Windows 8.1 Professional / Enterprise■ Windows 8 Professional / Enterprise■ Windows 7 Professional / Ultimate / Enterprise 64-bit version of: <ul style="list-style-type: none">■ Windows 10 Pro / Enterprise■ Windows 8.1 Professional / Enterprise■ Windows 8 Professional / Enterprise■ Windows 7 Professional / Ultimate / Enterprise
Screen	Resolution: 1024 x 768 minimum and 1280 x 1024 advised
Hardware	<ul style="list-style-type: none">■ USB cable (6.02108.000, included)■ Portable VA Analyzer Software installation USB stick (6.06002.000, included).■ 946 Portable VA Analyzer instrument (included)

The Windows user must have administrator rights in order to be able to install the **Portable VA Analyzer Software**.



CAUTION

Data loss may occur if the PC switches to sleep mode during a determination. The **sleep mode** should therefore be **disabled** in the energy settings of the operating system.



CAUTION

Install the software before connecting the instrument to the computer.

2 Installing the software

- 1 Switch on the computer.
- 2 Insert the USB stick containing the Portable VA Analyzer Software (6.06002.000) into an USB port on the computer.
- 3 Browse for the file "Portable_VA_Analyzer_installer.exe". Right-click on it and run as administrator.

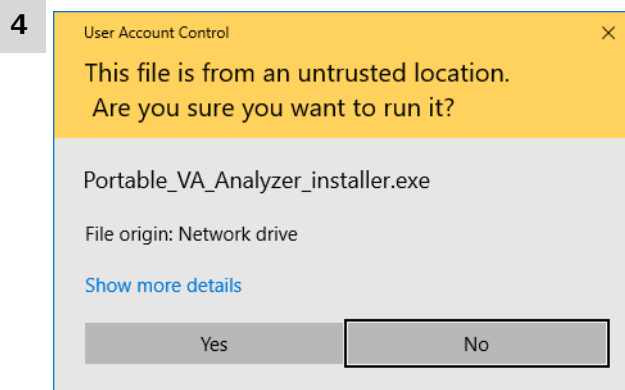


Figure 1 Software installation confirmation dialog

Click on **[Yes]** to confirm the installation of the software.

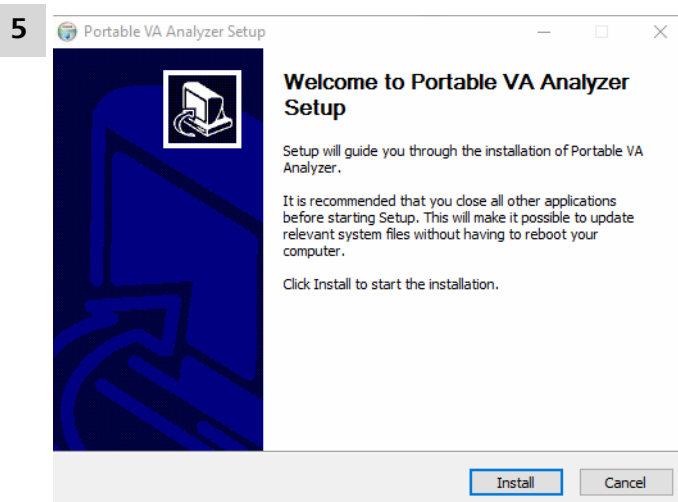


Figure 2 Portable VA Analyzer Software installation wizard

Click on **[Install]** to start the installation of the software.

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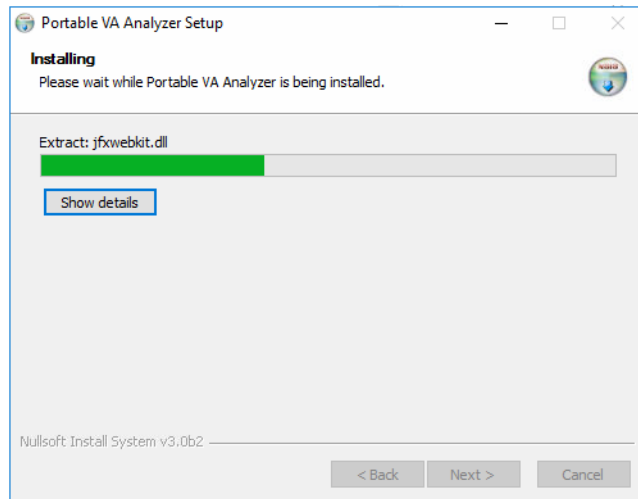


Figure 3 Software Installation

Wait for the software to be installed.

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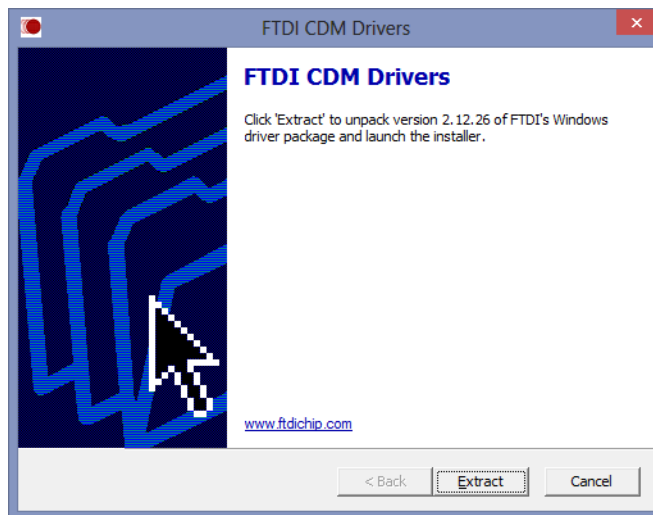


Figure 4 Drivers installation

Click on **[Extract]** to start the installation of the FTDI CDM Drivers.

8

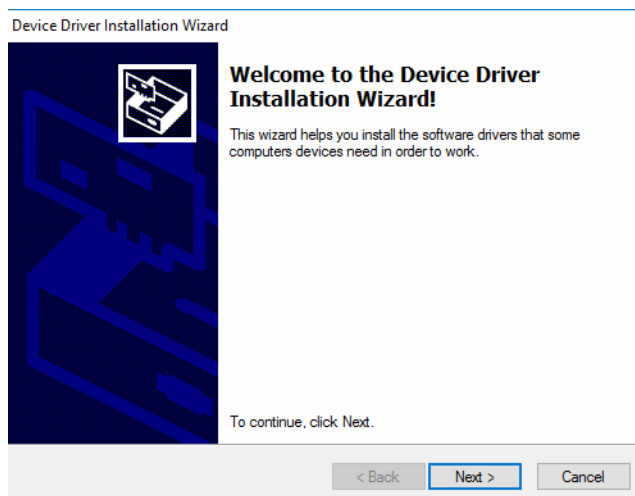


Figure 5 Device Drivers installation wizard

Click on **[Next >]** to start the installation of the device drivers.
Follow the instructions of the **Device Driver Installation Wizard**.

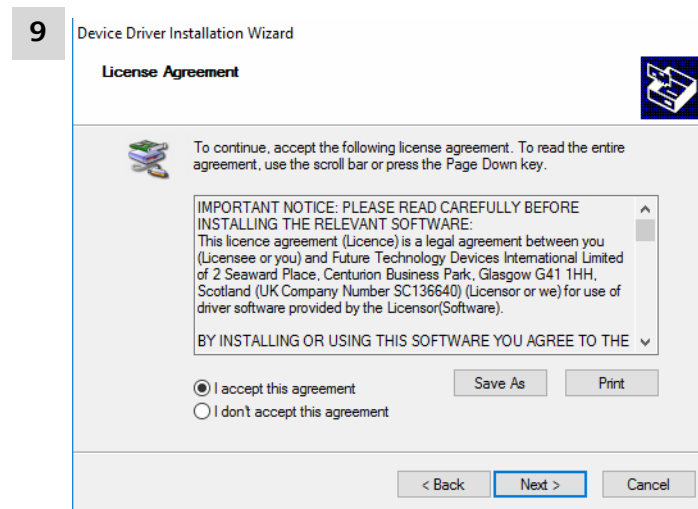


Figure 6 Drivers installation wizard agreement

To continue the installation:

- Click on **I accept this agreement**.
- Click on **[Next >]**.

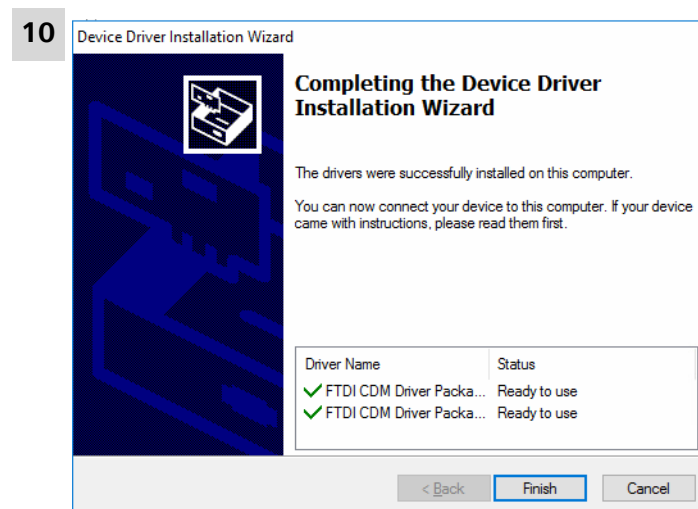


Figure 7 Success device driver installation dialog



NOTE

If a red cross is shown instead of a green tick, the device drivers must be installed manually (see Chapter 3, page 6).

Click on **[Finish]** to finish the installation of the device drivers.

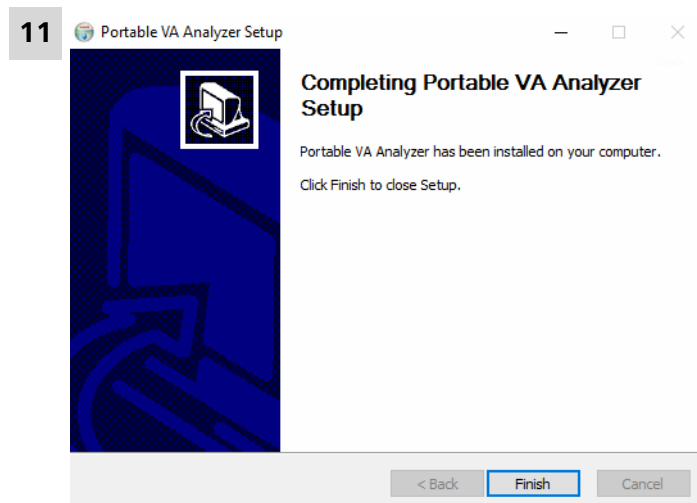


Figure 8 Success software installation dialog

Click on **[Finish]** to finish the installation of the software.

The software package will be installed in the following directories:

Program folder

For 32-bit versions of Windows:

%PROGRAMFILES%\Metrohm\Portable VA Analyzer

For 64-bit versions of Windows:

%PROGRAMFILES(x86)%\Metrohm\Portable VA Analyzer

Data folder

When the Portable VA Analyzer software is started for the first time the following folders will be created in the directory:

%USERPROFILE%\Documents\Metrohm\Portable VA Analyzer

Determination

Default directory for automatic saving of the determination file at the end of the determination.

Examples

Determinations

Library of example determinations carried out with the 946 Portable VA Analyzer. The files are read-only.

Methods

Library of example methods to be used with the 946 Portable VA Analyzer. The files are read-only.

Method

Default directory for saving of method files.

Report

Default directory for automatic saving of the PDF report at the end of the determination.

Service

Service related documents and files.



NOTE

For each Windows user individual directories **Determination**, **Examples**, **Method** and **Report** are created when the user starts the Portable Analyzer software for the first time.



NOTE

The installation directories cannot be changed.



NOTE

PDF files of the hardware manual (8.946.8001EN) as well as the software manual (8.0105.8002EN) are copied onto the hard disk. The software manual can be opened from **Menu bar ► Help ► Manual**. Determination reports are also saved as PDF files.

Chinese version of the software manual (8.946.8002CN) and the hardware manual (8.946.8001CN) are available for download from <https://www.metrohm.com>. To view the manuals and reports a PDF reader has to be installed. If it is not already part of the operating system, a software can be installed free of charge from e.g. <https://get.adobe.com/reader/>.

Connecting the device

- 1 Connect the 946 Portable VA Analyzer to the computer using the USB cable (6.02108.000).

The windows operating system will automatically recognize the device and configure it.

This process could take several minutes, especially the first time you connect the device. Wait until the end of the process:

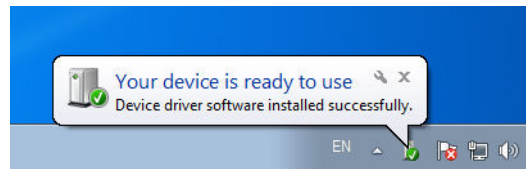


Figure 9 Device ready to use message

The following items are created:

- A desktop icon 
- An entry in the Windows start menu **Windows start menu ► All programs ► Metrohm ► Portable VA Analyzer**

3 Installation of drivers

In normal cases, the software installation routine automatically installs all the drivers necessary for controlling the supported device.

If the **Success device driver installation** dialog window (see Figure 7, page 4) shows an error and/or if the operating system displays a message when con-

necting a device to the computer, e.g. **Device driver software was not installed. No driver found**, proceed as follows to install the driver manually:

Installing the bus layer of the driver

1 Open the Windows Device Manager.

- **On Windows 10:** Click on **Windows logo ► Device Manager**
- **On Windows 8, 8.1, and 10 with classic start menu:** Click on **Bottom right hand corner of the screen Settings ► Control Panel ► Hardware and Sound ► Device Manager in Devices and Printers**
- **On Windows 7:** Click on **Start ► Control Panel ► Hardware and Sound ► Device Manager in Devices and Printers**

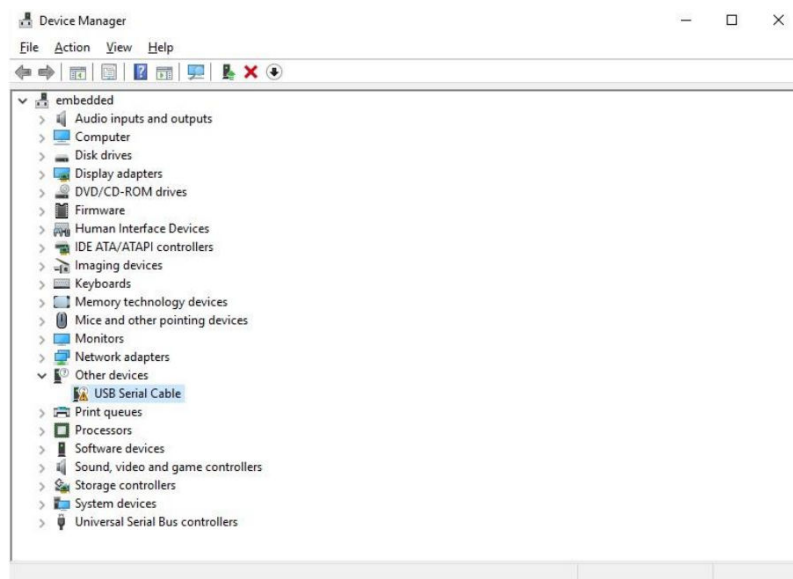


Figure 10 Device Manager View with no driver installed

The device can be found under **Other devices**. It is marked with a yellow warning symbol which indicates a problem, for example that no driver is installed.

2 Right-click on the device. The context menu opens.

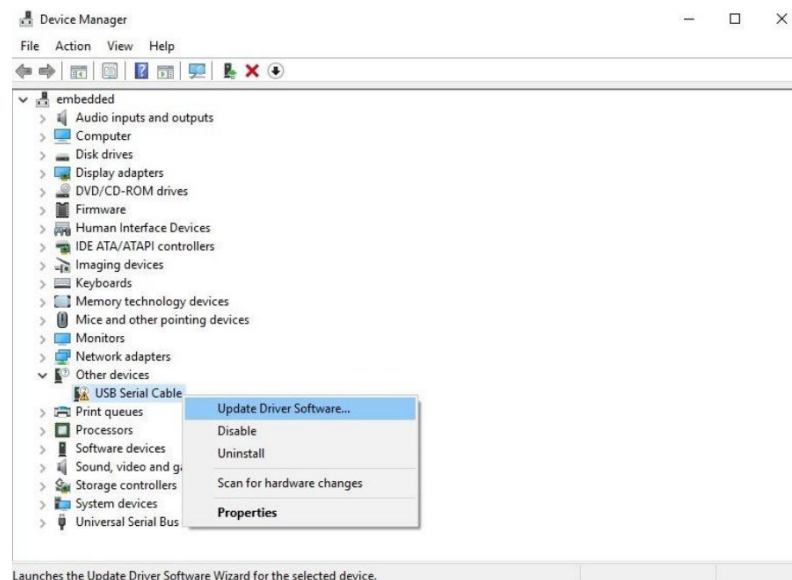


Figure 11 Update Driver Software

- 3 In the context menu, select **Update Driver Software....**

A dialog window opens.

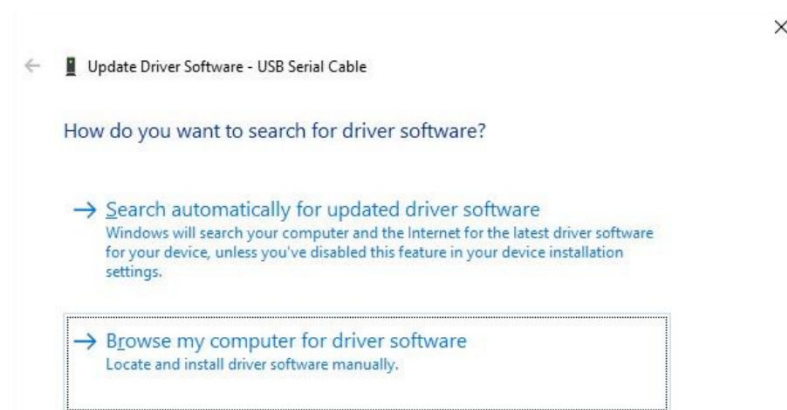


Figure 12 Browse my computer for Driver Software

- 4 Click on **Browse my computer for driver software.**

The file selection dialog opens.

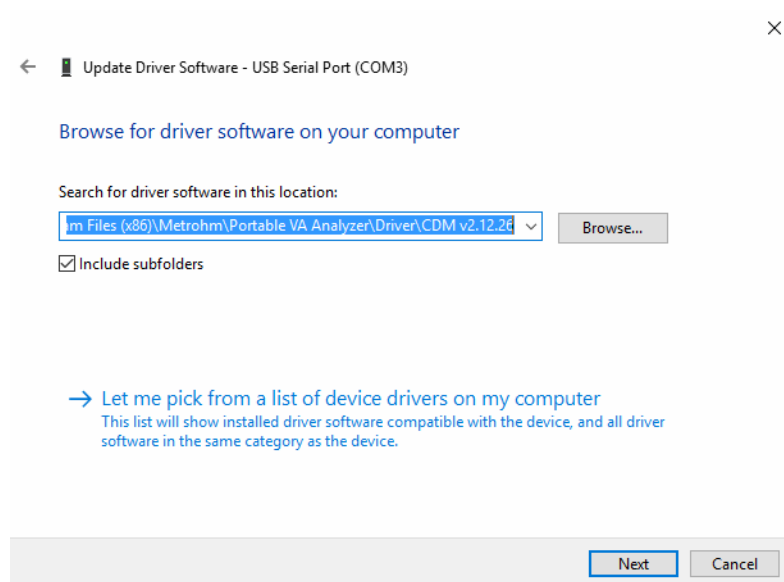


Figure 13 Search Location

- 5 Navigate to the installation folder of the software.
 - For 32-bit versions of windows: %PROGRAMFILES%\Metrohm\Portable VA Analyzer\Driver\CDM v2.12.26
 - For 64-bit versions of windows: %Program Files (x86)%\Metrohm\Portable VA Analyzer\Driver\CDM v2.12.26

Click on **[Next]** to start the installation.

When the installation has finished, a completion screen is displayed.



Figure 14 Successful Driver Software Update

Click on **[Close]** to return to the Device Manager.

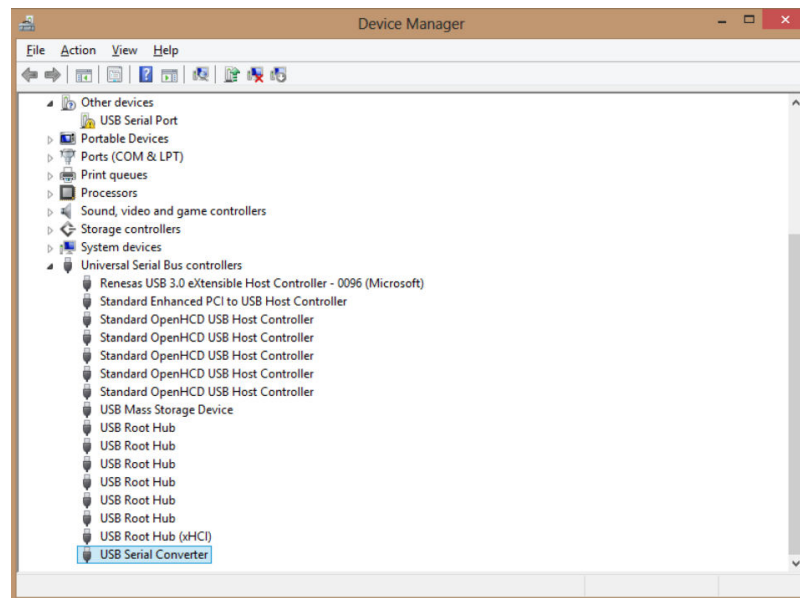


Figure 15 Successful USB Serial Converter Driver installation

If the Virtual Com Port option has been selected, then the Device Manager will still show a device under Other Devices. But in addition, a new entry **USB Serial Converter** can be found under **Universal Serial Bus Controllers**. This indicates that the bus layer of the driver is installed.

Installing the Virtual Com Port of the driver

- 1 Repeat steps 2 to 4 of the procedure of installing the bus layer of the driver (see "Installing the bus layer of the driver", page 7).
- 2 Navigate to the following folders:
 - For 32-bit versions of windows: %PROGRAMFILES%\Metrohm\Portable VA Analyzer\Driver\CDM v2.12.26
 - For 64-bit versions of windows: %PROGRAMFILES%\Metrohm\Portable VA Analyzer\Driver\CDM v2.12.26

Click on **[Next]** to start the installation.

When the installation has finished, a completion screen is displayed.

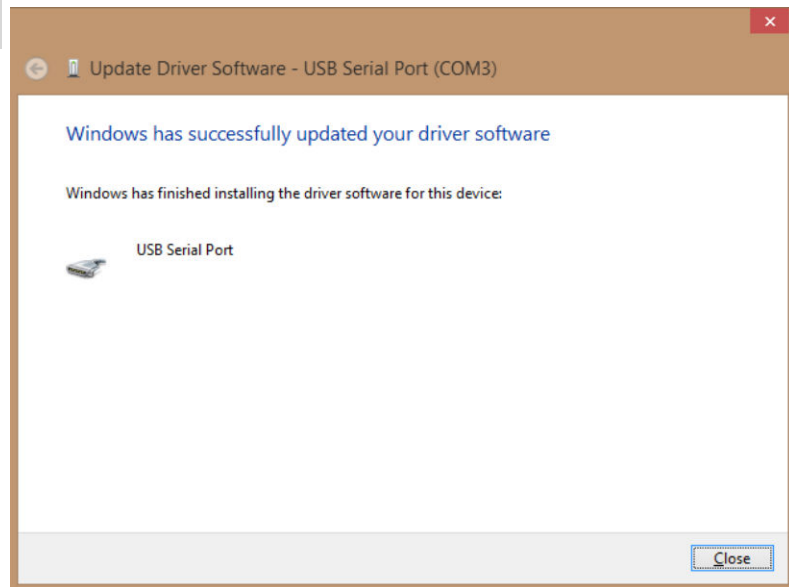


Figure 16 Successful Virtual Com Port Driver Software Update

Click on **[Close]** to return to the Device Manager.

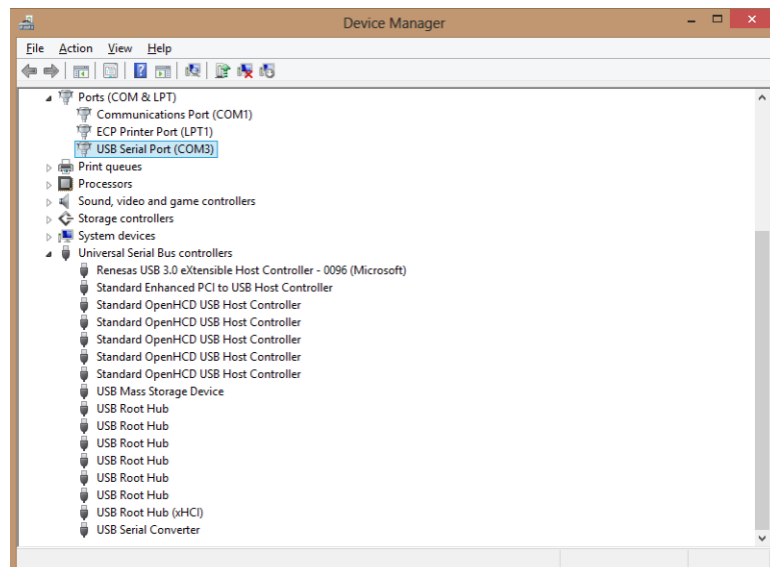


Figure 17 Final view of Device Manager with drivers installed

The Device Manager has no further entry under Other Devices. New entries can be found under Universal Serial Bus Controllers and Ports (COM & LPT).

The device is now ready to use on COM3.



NOTE

Not all devices will install to COM3. The COM port allocation is determined by the installation wizard on the basis of the next free com port as designated in the PC registry.