



enSuite

Parameterization and Analysis Software

Installation Instructions

Installation and security measures

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1. Considerations and first steps

1.1 Is an update relevant for me?

You can use the change history of a new enSuite version to check which device releases it will be released with and whether the new functions, improvements, bug fixes and resolved security problems are relevant for you. The change history is available on the Elster-Instromet website as a PDF file in the download area

www.elster-instromet.com/en/ensuite

1.2 Current enSuite on Elster-Instromet website

The Elster-Instromet website contains the latest software releases for enSuite and for the Elster gas device series. Download the required enSuite version from the download area to the service computer and unpack it:

www.elster-instromet.com/en/software-downloads

1.3 System requirements and user rights

The following minimum system requirements apply for installing or updating the enSuite software:

- Microsoft® Windows™ 7 (64-bit recommended) or higher
- A graphics board with a resolution of at least 1024 × 768 pixel
- Mouse
- 10 GB free space on hard disk
- 1 GB RAM



Installation instructions apply to an update in the same way

An update is internally an uninstallation and an installation of enSuite. Therefore, all installation instructions apply to the update in the same way.

For the installation (and uninstallation) of the enSuite software, we recommend administrator rights. During enSuite operation, only the rights to execute the software as well as read/write access to the user directory (e.g. C:\documents and settings\

2 Install enSuite

The enSuite ZIP file in the download area on the Elster-Instromet homepage contains all files required to install and update the enSuite software.



The screenshots shown in this section may differ depending on the software's configuration and operating system.

Perform the following steps to install enSuite:

- ▶ Before an update, first back up the data directories of enSuite.
⇒ [6.2 Back up data regularly](#) (p. 14)



Back up data before an update

The first time enSuite is started after an update, it automatically converts its database data. No rollback of the data is possible after the conversion. To be able to restore the status prior to the update if required, we recommend to do a backup of your data before the update.

- ▶ Download the enSuite-ZIP from the download area of the Elster-Instromet homepage:
www.elster-instromet.com/en/ensuite
- ▶ Unpack the ZIP into a directory of your choice
- ▶ In this directory switch to the subdirectory enSuite.
- ▶ Run the file enSuite_Windows[Version].exe.



The name of this file may be different depending on the software's version.

- ✓ The installation wizard starts and the following window opens:

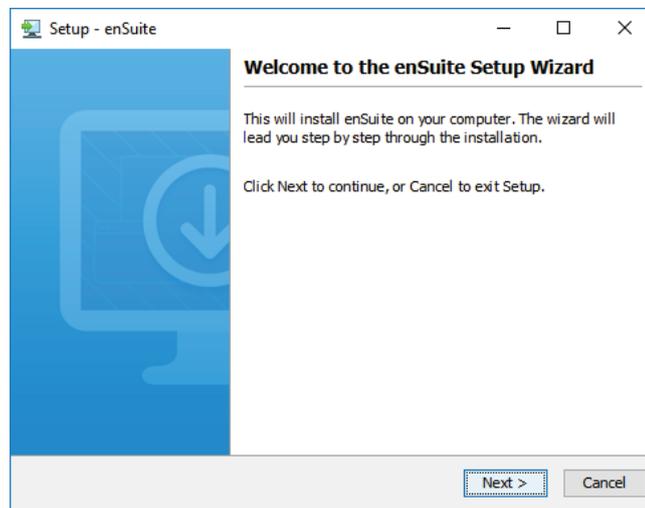


Figure 1: Installation wizard

- ▶ Go to the license agreement with **[Next >]**.

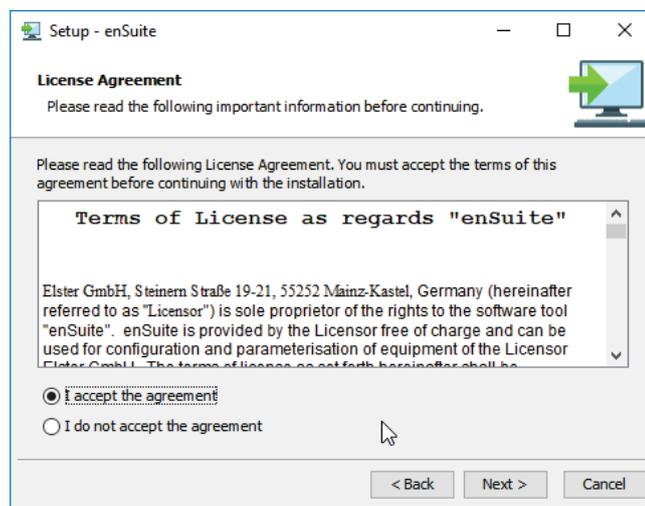


Figure 2: Accept the license agreement

- ▶ Accept the license agreement with **[Next >]**.

✓

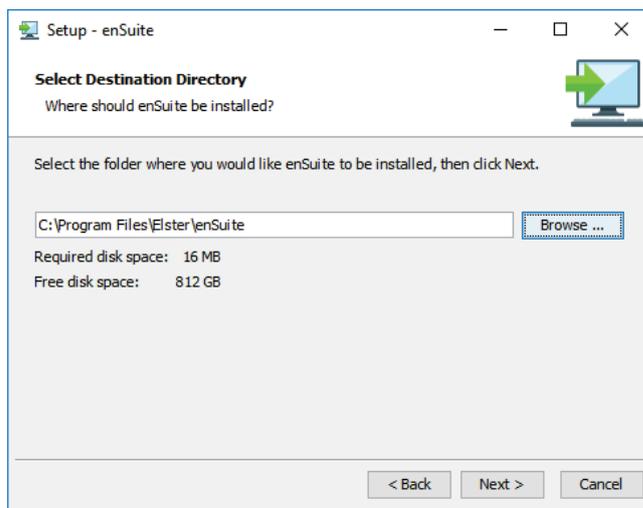


Figure 3

- ▶ If necessary, you can change the folder in which the software is to be installed with **[Browse...]**.
- ✓ The selected folder is automatically created if it does not already exist.
- ▶ Go to the next window with **[Next >]**.

✓

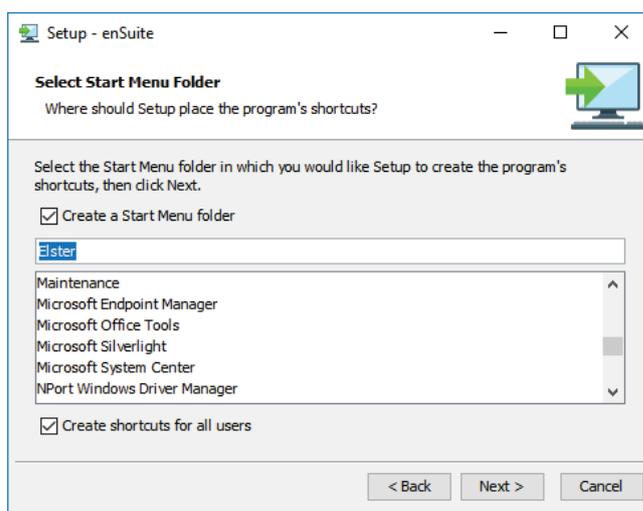


Figure 4

- ▶ This window allows you to specify the program groups in which the program shortcut should be installed. By default, the shortcut is created in the program group **Elster**.

- ▶ Go to the next window with **[Next >]**.
- ✓

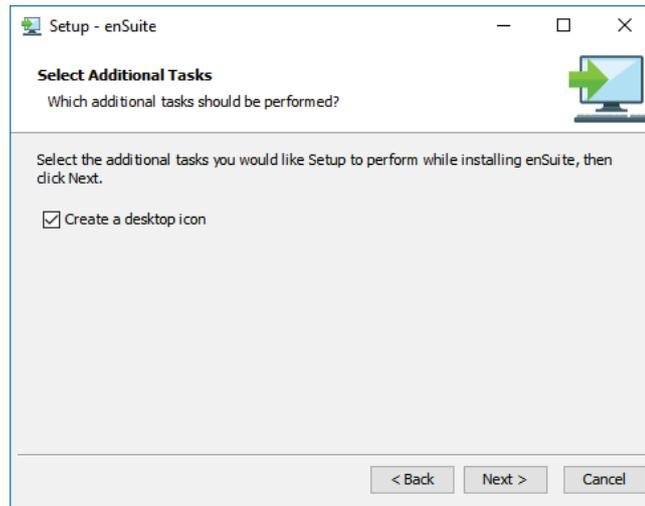


Figure 5

- ▶ In this window, you can choose whether a shortcut on the desktop should be created in addition to the shortcut in the start menu
- ▶ Go to the next window with **[Next >]**.
- ✓ The next window shows the progress of the installation:

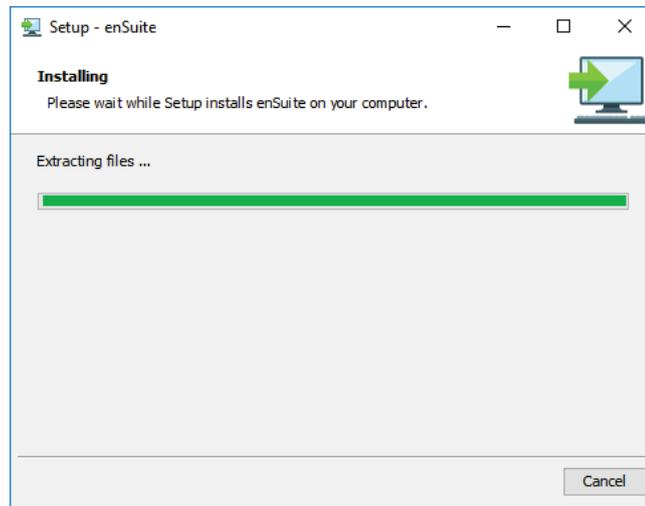


Figure 6

- ✓ At the end of the installation, the next window is displayed automatically:

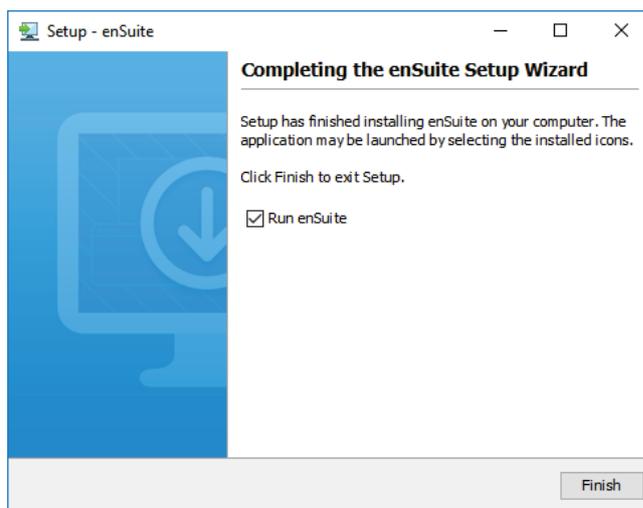


Figure 7

- ▶ Complete the installation with **[Finish]**.
- ✓ The installation process is complete and if **Run enSuite** is activated, enSuite starts automatically.

3 Additional device-specific installation activities

3.1 **Windows 7 only:** enCore devices (e.g. FC1, Q.Sonic^{plus}) – Installation of the USB device driver



Warning! Do not run this installation under Windows 10!

Windows 10 can communicate with enCore devices without a driver installation.

If USB should be used to establish a connection between enSuite and an enCore device, further installation of an USB device driver is necessary when at least one of following cases is true:

- enSuite is running on a Windows 7 computer.
- The enCore device is running with a firmware prior to version 03-01.



Background

enSuite 3.1 (and higher) is using advanced USB drivers, which allow to install the appropriate drivers for our enCore FC device series on modern Windows computers automatically. Hence, no further steps are required to install or update the USB device driver, when you are connecting FC devices with 03-01 (or higher) to a Windows 8 computer (or higher).

We recommend using the open source tool Zadig for the USB driver installation. The tool is certified by Akeo Consulting and does not require an installation.

The following steps describe the USB driver installation with the tool Zadig – both, the generic WinUSB driver and the tool Zadig are available in the enSuite installation folder:

- ▶ Open the `\drivers\Zadig` node in the installation directory.
- ▶ Run the file `zadig_[version no.].exe` with administrator rights.

- ▶ You may need to confirm the **User Account Control (UAC)** dialog.

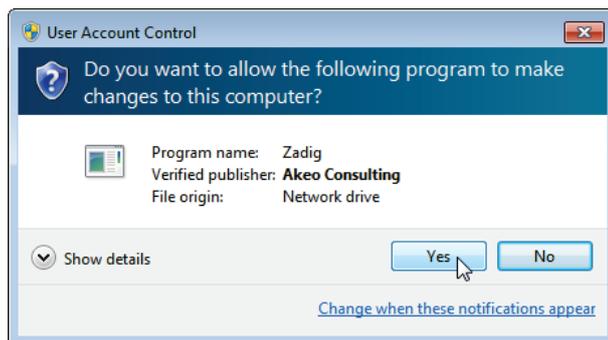


Figure 1

- ✓ The tool Zadig is running.

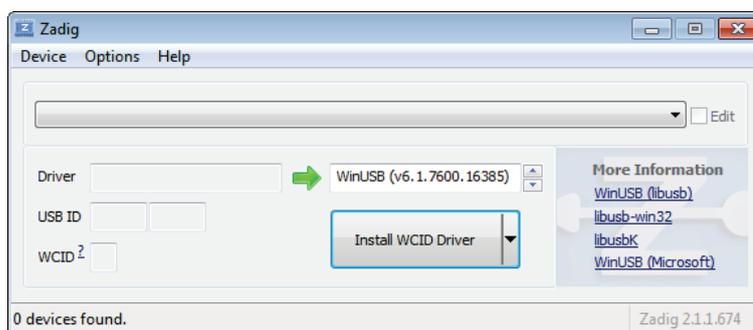


Figure 2

- ▶ From the menu select **Device – Load Preset Device**.

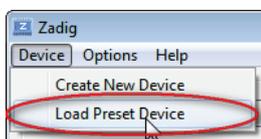


Figure 3

- ▶ Select and open the Zadig configuration file `Elster_enCore_device.cfg`.

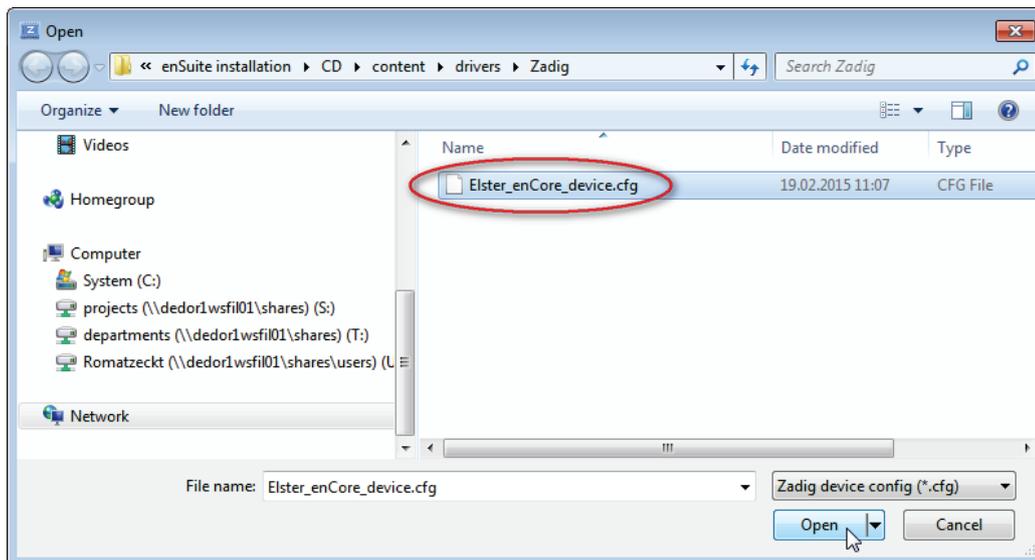


Figure 4

- ✓ The appropriate configuration for Elster enCore devices is preset.
E.g. as shown in the screenshot: the driver **WinUSB (v6.1.7600.16385)** for the USB devices with vendor ID = 1C29 and product ID for Elster enCore devices = 10FC will be installed.

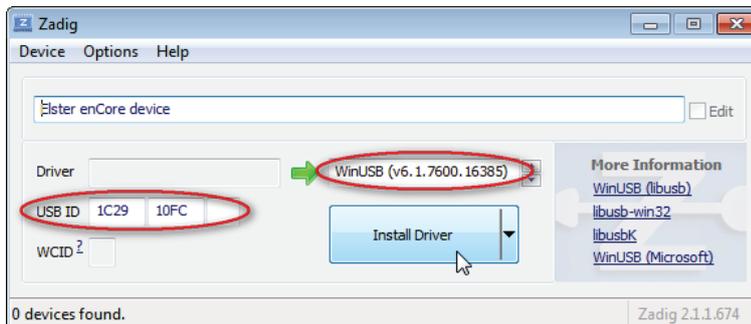


Figure 5

- ▶ Run the installation with **Install Driver**.
- ✓ In the dialog **Installing Driver...** the current status is displayed.

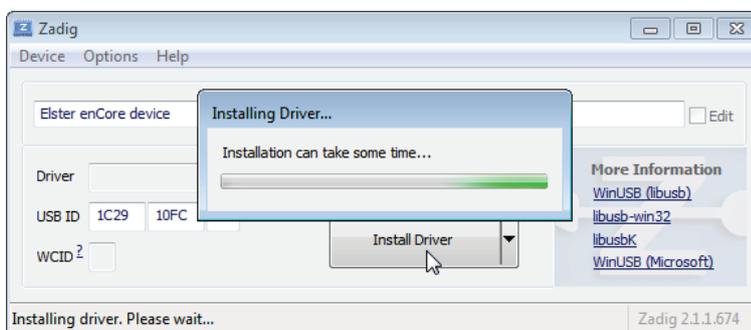


Figure 6

- ▶ In case additional steps are required please follow the instructions.
- ✓ The following message is displayed at the end of the installation:

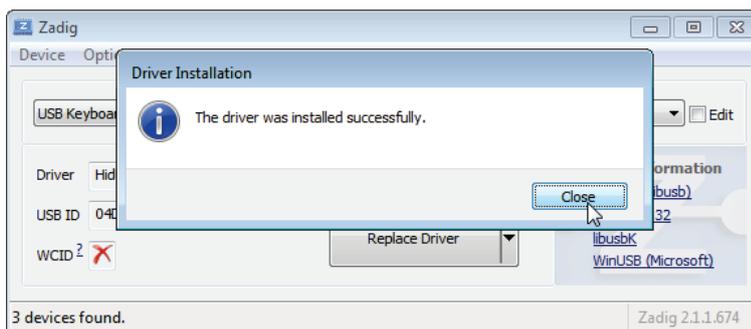


Figure 7

- ▶ End the tool Zadig with **Close**.



Manual driver update or installation – Windows 7 only!

Alternatively, Windows 7 does allow the manual installation or update of unsigned drivers.

In short:

Connect the device to the Windows 7 computer. If Windows cannot find a suitable driver (i.e. the old driver has not been installed), open the Windows Device Manager. In the device tree go to node **Other devices/Elster encode device** – it is marked with an error. In the context menu select **Update Driver Software....** Navigate to the enSuite installation folder and select the subfolder

drivers. The message **Windows can't verify the publisher of this driver software** is displayed; select **Install this driver software anyway**.

3.2 Uninstall the USB device driver from a previous enSuite installation (up to enSuite version 3.0 only)

If you were updating enSuite and an USB driver had already been installed, uninstall the previous USB driver as soon as the enCore device is connected.

- ▶ Open the Windows Device Manager.
- ▶ Look for the Elster enCore device in the device tree – usually it is located below the node `libUsb[-win32] devices`.
Note: If no Elster driver is listed here, then no deinstallation is required.
- ▶ In the context menu select **Uninstall**.
- ▶ At the end of the deinstallation close the Windows Device Manager.
- ✓ Next time the device is connected, it will be listed below the node `Universal Serial Bus devices` in the Windows Device Manager

3.3 LIS-200 devices – installation of the IR readout head with USB interface

If the Elster IR readout head with USB interface (Elster Order No. 04 115 530) should be used under Windows to establish a connection between enSuite and a LIS-200 device (EK2x0, DL2x0), further installation and configuration activities are necessary.



The following description assumes that no installation of the Optical Readout head with USB interface has been carried out.

- ▶ Connect IR readout head with USB interface.
- ✓ The **Found New Hardware** wizard starts automatically.
If the PC can establish a connection to the Microsoft ® Windows ™ update server, the USB driver is installed automatically.
- ▶ If the automatic installation fails, the USB driver can alternatively be downloaded from the Elster-Instromet homepage: [Driver for Elster Opto head](#)

To be able to use the installed IR readout head, parameterize the COM port in enSuite:

- ▶ In the enSuite menu **Tools – Options** select tab **Interfaces**.
- ▶ Set the COM port for **Optical connections** according to the information in the Device Manager.

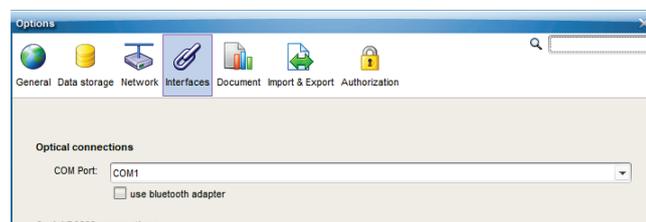


Figure 8: Set the **COM port** for **Optical connections** in enSuite – example

4 Excursus: How to use data on a new computer

If you want to use data managed by enSuite on a new computer, proceed as follows:

- ▶ To find out where the data is stored, open the **Help – About** menu item in enSuite.
- ✓ The path to the **User directory** is displayed in the lower area of the info dialog:

```

Product Version: enSuite 4.7 preliminary
System: Windows 10 version 10.0 running on amd64; Cp1252; en (ensuite)
User directory: C:\Users\H164368\AppData\Roaming\ensuite\dev
Cache directory: C:\Users\H164368\AppData\Local\ensuite\ensuite\dev
Runtime: OpenJDK Runtime Environment 1.8.0_202-b08
VM: 1.8.0_202; OpenJDK 64-Bit Server VM 25.202-b08
  
```

Figure 9: Storage location of the enSuite user directory – example

- ▶ Close enSuite.
- ▶ Copy the specified directory e.g. to a USB stick.
- ▶ Save the data in your users' directory on the new computer.
- ✓ If your username has not changed, no further step is required. You can use the data on the new computer.

Only in case your user name has changed, set the new path in enSuite:

- ▶ Run enSuite on your new computer.
- ▶ In the enSuite menu **Tools – Options** select tab **Data storage**.
- ▶ Adapt the **Path**:

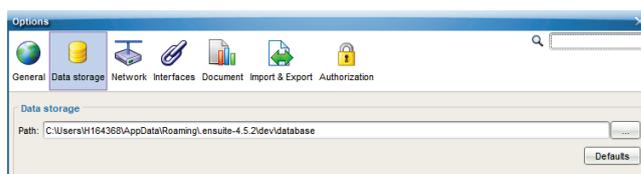


Figure 10: Customizing the location of the user directory

- ▶ To use the adapted path restart enSuite.

5 Remove data and uninstall enSuite

5.1 Remove data (optional)

Only if you want to remove all data such as parameter settings, read out archives, log files, as they may contain sensitive data, delete the data in the user and cache directories:

- ▶ To find out the location of the data, open the menu item in enSuite **Help – About**.
- ✓ The paths to the user and cache directory are displayed in the lower area of the info dialog:

```

Product Version: enSuite 4.7 preliminary
System: Windows 10 version 10.0 running on amd64; Cp1252; en (ensuite)
User directory: C:\Users\H164368\AppData\Roaming\ensuite\dev
Cache directory: C:\Users\H164368\AppData\Local\ensuite\ensuite\dev
Runtime: OpenJDK Runtime Environment 1.8.0_202-b08
VM: 1.8.0_202; OpenJDK 64-Bit Server VM 25.202-b08
  
```

Figure 11: Storage location of the enSuite files –example

- ▶ Close enSuite.
- ▶ Delete the specified directories.
- ✓ All permanent and temporary data are deleted.

5.2 Uninstall enSuite

Prerequisite

- You need administrator rights (if enSuite is saved under Programs).
- ▶ Switch to the installation directory of enSuite, e.g.:
C:\Program Files (x86)\Elster\enSuite 4.6\
C:\Program Files (x86)\Elster\enSuite 4.6\
- ▶ Run `uninstall.exe` and follow the instructions in the Windows wizard.
- ✓ enSuite is removed from your computer.

6 Security information

6.1 Security recommendations



General security recommendations

- Use an antivirus program and keep it up to date.
- Activate the Windows firewall.
- Implement strict password guidelines for Windows passwords
enSuite relies on Windows user management. Please note the following when assigning and using your password:
 - Always follow the current password guidelines when assigning passwords. Use a combination of upper and lower case letters, numbers and special characters. Protection also increases with the length of the password. A strong password consists of at least eight characters.
 - Do not share your passwords with anyone. Change your passwords regularly and whenever you suspect misuse.
- Encrypt your hard drive e.g. with the BitLocker program from Microsoft.
- Make a backup of your user directory regularly:
C:\Users\`<user name>`



Encrypt data directories

enSuite stores files that may contain sensitive data in the Users directory. To protect your data from access by third parties, we recommend encrypting the directories used by enSuite:

- C:\Users\`<user name>`\AppData\Roaming\.enSuite,
- C:\Users\`<user name>`\enSuite
- additionally, when the trace function is activated:
C:\Users\`<user name>`\temp\

OR alternatively

- the entire users' directory
C:\Users\`<user name>`

You can perform the encryption with some Windows versions using board means:

- ▶ Open the **Properties** entry in the context menu of the folder.
- ▶ On the **General** tab, click on **[Advanced]**.
- ▶ Activate the **Encrypt contents to secure data** option at the bottom of the dialog to protect data.
- ▶ Confirm with **[OK]**.

6.2 Back up data regularly

We recommend to back up the directories in which enSuite stores its data, such as its databases, on a regular basis and before every update of enSuite:

- ▶ To find out where the data is stored, open the enSuite menu item **Help – About**.
- ✓ The path to the user directory is displayed in the lower area of the **About** dialog:



Figure 12: Storage location of the enSuite user directory – example

- ▶ Close enSuite.
- ▶ Create a backup copy of the specified directory.

6.3 Evaluate log files

enSuite logs a large number of messages, fatal errors (exceptions) and security-relevant information in log files. enSuite stores these files in the Windows user directory:

enSuite uses different types of log files:

- 1 × security log files:

```
C:\Users\\enSuite\enSuite*_Security.log
```

Here enSuite logs permanently when an enCore device authenticates with a TLS certificate.

⇒ [Security for data in transit](#) (p. 15)

- up to 10 × log files:

```
C:\Users\\enSuite\enSuite*0-0.html
```

..

```
C:\Users\\enSuite\enSuite*0-9.html
```

Each time enSuite is started, enSuite creates a new log file. A maximum of ten log files are created, then they “rotate” so that the number does not increase excessively. The log files are overwritten one after the other (rotating log files). The file `enSuite*0-0.html` is the youngest, `enSuite*0-9.html` the oldest log file.

- Trace files (*optional*)

enSuite supports a trace function. You activate this function under **Tools – Options** on tab **Interfaces**:

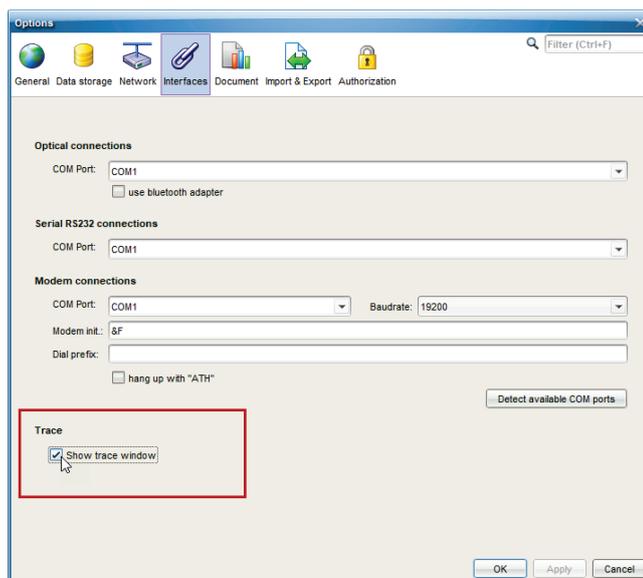


Figure 13: Activate trace logs

As soon as you activate the function **Show trace window**, enSuite writes temporary files into the user's temp directory:

```
C:\Users\\temp\
```

The trace files can contain sensitive data. When the enSuite ends normally, the files are deleted.

6.4 Security for data at rest and data in transit

Security for data at rest

enSuite is the parameterization and analysis software for current Elster products in the area of flow computers, volume converters, data loggers, gas quality measuring devices and ultrasonic gas meters. The local parameterization of the devices in enSuite can also contain sensitive data. enSuite manages parameterizations unencrypted in a database in the Windows user directory.

Security for data in transit

Data in transit is the data that is transferred between an enCore device and e.g. a control center in a public or trusted network or between enCore device and enSuite e.g. when transferring data during parameterization of the device.

In general, protocols, such as Modbus, are managed by the devices themselves and are described in the corresponding manuals.

With enCore devices, communication between enSuite and device takes place via MMS, which is secured with TLS since enSuite 4.7 and Basic System 03-39.



Use encrypted VPN connection

We recommend using a VPN connection whenever you need a secure data connection but no secure protocol is supported for data transmission.

In a VPN, data is transferred between two or more participants in encrypted form. For this reason, a VPN connection is recommended, for example, for mobile access to a flow computer, access to the private network or for data communication via different systems is of great importance.