



Schaeffler SmartUtility Light

User manual

Imprint

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Version 3.0.0
Original user guide.
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1 General

The Schaeffler SmartUtility Light software assists you with the basic management functions of the Schaeffler SmartCheck or ProLink device. With this software, you perform the basic configuration of the device, download measurement data from the device and update the firmware.

With the full version of Schaeffler SmartUtility, you can also open the devices directly in the Schaeffler SmartWeb software, analyse measurement data in the SmartUtility Viewer and download configurations and install them on other devices. Further information is available from your customer support representative (see Support).

About the vibration monitoring systems

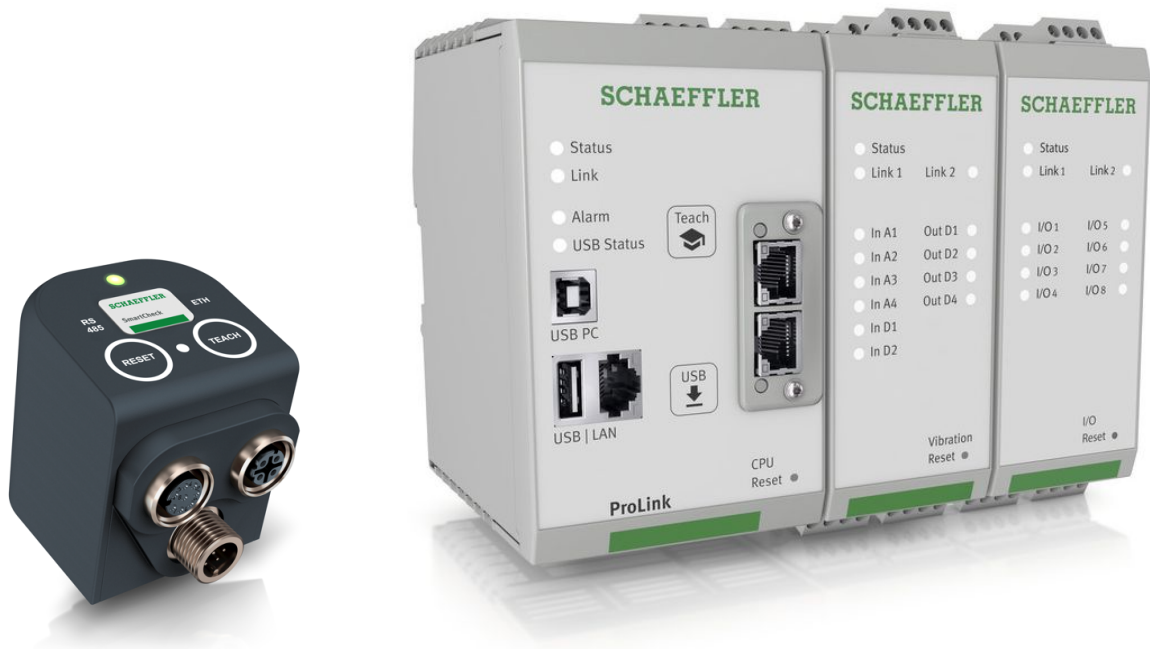
SmartCheck and ProLink are vibration monitoring systems for permanent frequency-selective monitoring. They offer you the following functionality:

The Schaeffler SmartCheck system can capture, record and analyse measurement values using two integrated signals and up to three connected signals. After the analysis, the system can switch outputs and display the status using LEDs depending on user-defined alarm limits. Inputs are available, which record additional signals, to allow the device to be integrated into a superordinate system. These signals can be used as command variables for a dependent signal analysis, e.g. to initiate time or event-controlled measurement jobs.

The Schaeffler ProLink system consists of a processor module and at least one vibration module. The system can be extended to a maximum of 4 vibration modules. Up to 4 analogue and 2 digital signals can be connected per vibration module and measured values can be logged, recorded and analysed. After the analysis, the system can switch up to 4 digital outputs per vibration module depending on user-defined alarm limits, and report the state to an external control system, for example. In addition, up to eight analogue or digital inputs or outputs can be created completely flexibly per connected I/O module.

The Schaeffler vibration monitoring system can be used to cover a wide range of applications; the system can be configured to meet your own requirements using the integrated SmartWeb web application. You can combine multiple SmartCheck or ProLink devices in a network. All devices are administered centrally on a PC via the SmartUtility Light software. With the full version of SmartUtility, you can also open the devices directly in the SmartWeb software, analyse measurement data in the SmartUtility Viewer and download configurations and install them on other devices.

With the SmartCheck and ProLink system, Schaeffler offers status monitoring that is optimised to suit your requirements.



1.1 About this guide

This guide describes how to use the Schaeffler SmartUtility Light software. Read this guide carefully before using the software, and store it in a safe place.

Make sure that

- This guide is available to all users
- If the product is passed on to other users, this guide is passed on with it
- Additions and amendments provided by the manufacturer are always attached to this guide.



System-specific instructions and illustrations

You can use the software described here with both the Schaeffler SmartCheck system and the Schaeffler ProLink system. The usage is largely the same for both systems. The text in this manual always highlights any differences.

Illustrations provide examples to clarify the information and instructions contained in the text. For instances where there is hardly any difference between the systems, we have omitted the illustration of the other system to improve readability and clarity.

Further information

This software is required for the operation of the Schaeffler SmartCheck or ProLink system. In addition to the device, these systems also include the integrated web interface and Schaeffler SmartWeb software, which are described in their respective manuals.

Optionally, instead of the Schaeffler SmartUtility Light software, you can purchase the Schaeffler SmartUtility software with enhanced functionality. This is also described in a separate manual.

Definitions

- Product: the Schaeffler SmartUtility Light software described in this manual.
- User: person or organisation with the ability to use the product.

Symbols used



This symbol indicates


- Helpful additional information and
- device settings or practical tips that will help you to perform activities more efficiently.

CAUTION



The damage that can occur is described here

Measures to prevent the damage are explained here.

Cross-reference symbol : This symbol refers to a page in the manual that provides further information. If you are reading the manual in PDF format on a screen, clicking the word to the left of the cross-reference symbol will take you straight to the section in question.

2 About this software

The Schaeffler SmartUtility Light software is provided to you as a setup version that you need to install. You can find this version in the "Schaeffler SmartUtility Light" program directory on the supplied CD-ROM or on our microsite. It automatically checks for the SmartUtility Light software requirements, such as Microsoft .NET Framework, and installs them if necessary.



Perform a software and firmware update before commissioning. You can download the latest version via the SmartUtility Light software or from the Downloads area on the microsite:

- SmartCheck: www.schaeffler.de/en/condition-monitoring/smartcheck
- ProLink: www.schaeffler.de/en/condition-monitoring/prolink

Functionality

The following overview displays the functionality of the SmartUtility software or the SmartUtility Light software:

Wizards and functions	SmartWeb	SmartUtility	SmartUtility Light
Status overview	✓	*	-
Measurement data viewer	✓	*	-
Live view	✓	*	-
Configuration	✓	*	-
User management	✓	✓ (User name, password)	-
Open devices	-	✓	-
Download data	✓	✓	✓
Analyse data	-	✓	-
Create report	-	✓	-
Edit device settings	✓	✓	✓
Downloading the configuration	✓	✓	✓
Sending the configuration	✓	✓	✓
Update firmware	✓	✓	✓
Open log file directory	-	✓	✓
Opening the default directories	-	✓	✓
Manage report templates	-	✓	-
Migrate data	-	✓	-
Import data from mailbox	-	✓	-
Import SmartWeb data	-	✓	-
Export data	-	✓	-

* This function can be accessed via the Schaeffler SmartUtility software.

2.1 User rights and write access

To install and operate the SmartUtility Light software, you require special access rights. Please contact your system administrator if you experience problems with the security requirements of your system.

User rights

To install the Schaeffler SmartUtility Light software, you require administrator rights on your system.



Tip: Install the software with administrator rights and then switch back to a normal user.

Write access

The software saves settings data and log data during operation. For this reason, you require write access for the following directories for the setup version of the SmartUtility Light software:

Default directories

- C:\data

Log file directory

- C:\Users\[User name]\AppData\Roaming\Condition Monitoring

2.2 System requirements

Your system needs to meet the following requirements for you to get the most from your Schaeffler SmartUtility Light software:

General system requirements

Windows 10 (32/64 bit)

The system requirements recommended by Microsoft must be met as a minimum:

- Dual-core processor
- 2 GB RAM (recommended: 4 GB RAM)
- 16 GB of hard disc space available
- DirectX 11-compatible graphics device

In addition:

- Screen resolution: 1024x768 (pixels) at 96 dpi and normal font size (recommended: 1280x800 or higher)
- Disk space for software: at least 40 MB free disk space
- Mouse: three-button mouse recommended



- In addition, you require disk space for the data downloaded from the SmartCheck or ProLink device. This can vary considerably according to the application type and depending on your measurement tasks.
- USB graphics cards are not supported.

Other requirements

- Microsoft .NET Framework 4.8
- Standard browsers: Google Chrome, Microsoft Edge



The SmartUtility Light software checks whether the Microsoft .Net Framework component is on the computer and installs it automatically if necessary. If you run the installation without an Internet connection, the components are set up in English by default. The SmartUtility Light software is also then fully functional.

Requirements for connection to the computer

- The UDP communication protocol must be enabled on ports 19000 and 19001 in existing firewalls in your network.
 - The ports must also be enabled for UDP broadcasts. This can be done in the Windows firewall via **Allow unicast response**.
 - If the SmartCheck or ProLink device has not been assigned an address via DHCP, it will have the IP address 192.168.1.100 by default. In this case, the IP address of your computer must be within the 192.168.1.x range.
- Please contact your system administrator if you experience problems with the network settings.



- If an SmartCheck or ProLink device cannot be opened in the browser, clear the browser cache and try again.
- If you receive a message stating that cookies are not accepted, please allow the use of cookies or enter the IP address of the device as an exception.
For further information, please see the "Introduction to network basics" section in the manual.




If you operate a larger equipment pool (e.g. more than 20 devices), we recommend that you use the Schaeffler SmartUtility software, which features enhanced functionality. For example, you can download the configurations for one device and transfer them to other devices. Data analysis can also be carried out in the Viewer software with the full version.

2.3 Installing the software

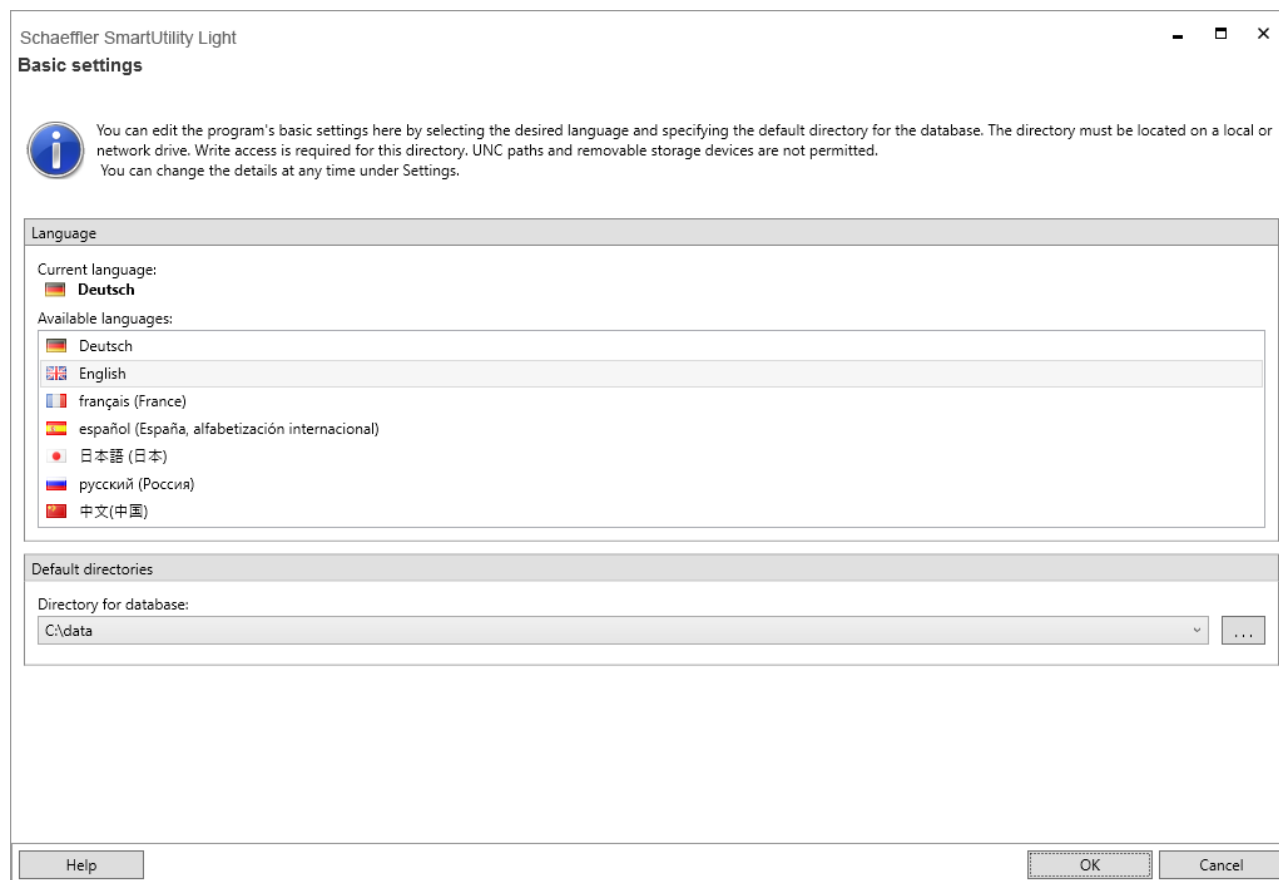
Open the "Schaeffler SmartUtility Light" program directory on the supplied CD ROM. Double-click on the file "**SmartUtility Light_Setup.exe**". Double clicking starts a wizard, which will guide you through the individual installation steps. This includes—depending on your system configuration—the following steps:

- **Select installation language:** Here you can select the language to be used during the installation of the SmartUtility Light software.
- **Install Microsoft .NET Framework:** If the wizard does not find these components on your computer, it will start installing them after confirmation.
- **Select target directory:** You can either accept the suggested directory or enter a different directory. The SmartUtility Light software is saved in the following directory by default:
C:\Programs\SchaefflerSmartUtility Light.
- **Restart computer:** In the final step of the wizard, you have the option to restart the computer immediately or to carry out the restart at another time. We recommend always restarting the computer if the DirectX or Microsoft .NET components have been installed.

During installation, links are created in the start menu; these links can be used to start the SmartUtility Light software. When you start the software for the first time after installation, the **Basic settings** wizard opens and guides you through the most important configurations in three steps. Details on this can be found under **First start-up** .

3 First start-up

You can start the SmartUtility Light software via links in the Start menu and on the desktop. During the first start-up, the **Basic settings** page opens first. This page appears in the language that you selected for the installation:




Here you can define the following basic configurations:

- **Language:** Here you can specify the language in which the user interface is displayed. Click on an available language.
- **Default directories:** Here you can specify the directories to be used by default for downloaded data.



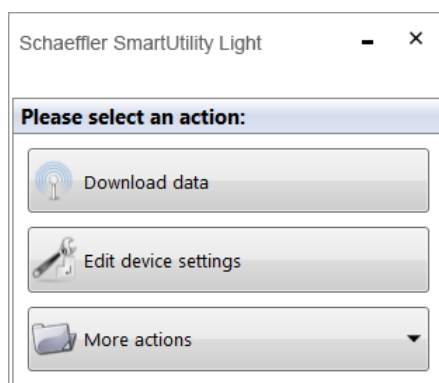
- Set up the default directories of the SmartUtility Light software on a central computer that is available at all times.
- Even if several users access the SmartUtility Light software, ensure that the data is always downloaded to the same database.

When you close the **Basic settings** page with **OK**, the SmartUtility Light software is opened directly and all functions are available. When you close the page with **Cancel**, the default settings are adopted automatically. You will then need to start the program again via links in the Start menu and on the desktop.

You can change any program settings that you specify on the **Basic settings** page at a later date under **Settings** .

4 The user interface at a glance

The SmartUtility Light software user interface consists of buttons that are used to open the wizards for the most important actions. In addition, you can find the **More actions** list box here, which includes additional functions and the settings for the SmartUtility Light software:



The wizards guide you through the individual steps with the aid of detailed instructions. For this reason, you will only find general information and important additional information regarding the wizards under **Wizards and functions**^[11]. The additional **Settings**^[26], which are not wizard-supported, are described in more detail. Here you can specify important settings for SmartUtility Light.



The **–** button minimises the SmartUtility Light window. To exit the software, click on **✕**. Only exit the software after a process has been fully completed; otherwise, measurement data could be lost.

5 Wizards and functions

If you want to use the Schaeffler SmartUtility Light software to access the Schaeffler SmartCheck or ProLink device, the following requirements must be met:

- The device must be started and must be in measuring mode.
- The device must be on the network or directly connected to your computer via Ethernet cable.
- The UDP communication protocol must be enabled on ports 19000 and 19001 in existing firewalls in your network.
- If the device has not been assigned an address via DHCP, it will have the IP address 192.168.1.100 by default. In this case, the IP address of your computer must be within the 192.168.1.x range.

Further information can be found in the Schaeffler SmartCheck or ProLink user documentation. This documentation can be found on the supplied CD ROM.



Please contact your system administrator if you experience problems with the network settings.


Accessing the SmartCheck or ProLink devices in the wizards

The name of the SmartCheck devices is "**Schaeffler SmartCheck**" and the name of the ProLink devices is "**Schaeffler ProLink**" by default. If you want to integrate multiple devices into your plant, it is important that you give each device a unique name. You can only identify devices without a unique name in the Wizard device list ^[11] via the IP address.

Configure the name using the **Edit device settings** ^[16] wizard. Within the wizard, you can find your system's SmartCheck or ProLink devices either in the automatically generated list ^[11] or by manually entering ^[13] the network parameters of the corresponding device.

If you have activated user management in the Schaeffler SmartWeb software, you also have to specify the user name and password ^[29] for each device in the **Settings** ^[26]. You can find further information on user management in the Schaeffler SmartWeb user documentation on the supplied CD-ROM.



If a device is started via the Schaeffler SmartWeb software in the maintenance system, you will be unable to open it using SmartUtility Light, download data or update the firmware. Devices that have been started in the Maintenance System are marked with the alarm symbol  in the SmartUtility Light wizards. You will also receive an error message: "A communication error occurred: The operation could not be executed. Check whether the device's Maintenance System has started."

List of Schaeffler SmartCheck or ProLink devices



In the first step - the **Select devices** step - all SmartUtility Light software wizards display the SmartCheck or ProLink devices found on the network:

Alarm	Device name	IP address	Serial number	Firmware
<input type="checkbox"/>	FAG SmartCheck 14	172.28.205.235	f4:3d:80:00:0d:d1	1.6.2
<input checked="" type="checkbox"/>	FAG SmartCheck 20	172.28.205.234	f4:3d:80:00:0d:d0	1.6.2
<input type="checkbox"/>	FAG SmartCheck 28	172.28.205.232	f4:3d:80:00:0d:ce	1.6.2
<input type="checkbox"/>	FAG SmartCheck 13	172.28.205.230	f4:3d:80:00:0d:cc	1.6.2
<input type="checkbox"/>	FAG SmartCheck 12	172.28.205.229	f4:3d:80:00:08:75	< 1.6
<input type="checkbox"/>	FAG SmartCheck 11	172.28.205.228	f4:3d:80:00:08:c6	1.6.2
<input type="checkbox"/>	FAG SmartCheck 9	172.28.205.227	f4:3d:80:00:09:2d	1.6.2
<input type="checkbox"/>	FAG SmartCheck 8	172.28.205.226	f4:3d:80:00:07:b6	1.6.2
<input type="checkbox"/>	FAG SmartCheck 7	172.28.205.225	f4:3d:80:00:08:81	1.6.2
<input type="checkbox"/>	FAG SmartCheck 4	172.28.205.224	f4:3d:80:00:09:91	1.6.2
<input type="checkbox"/>	FAG SmartCheck 8	172.28.205.222	f4:3d:80:00:08:c2	1.6.2
<input type="checkbox"/>	FAG SmartCheck 7	172.28.205.221	f4:3d:80:00:09:16	1.6.2

55 Devices (New devices are searched for every 120 seconds)

The following information and functions are to be found here:

- The list columns provide information on the alarm status, name, IP address, serial number and firmware version of the individual SmartCheck or ProLink devices.

- The alarm symbols show you at a glance:
 - Green: There is no alarm.
 - Yellow: One or several characteristic values have triggered a pre-alarm.
 - Red: One or several characteristic values have triggered a main alarm.
 - White: The alarm status is still unknown, e.g. because the SmartCheck or ProLink device has not yet carried out any measurements.
 - : The device is in the Maintenance System (maintenance mode).
 - : The device is not accessible, e.g. because the firmware is currently being updated.
- The alarm symbols are updated on a regular basis.
- You can set any column of the list as a sort criterion by clicking in the column title. Click a second time to change the sort order, i.e. from ascending to descending or vice-versa. The current sort order is displayed by the symbols ▲ for ascending and ▼ for descending.
- Sorting by column is retained, even if you close the wizard and re-open it.
- You can adjust the column width. To do this, drag the line extent on the right-hand side of the column heading with the mouse until the column reaches the desired width. The device name column cannot be resized.









- If the list does not contain any entries or a device is missing, you can update the list. To do so, press the **F5** key or add the device manually (see below). If there are still no devices displayed, make sure:
 - that the device is in measuring mode and connected to the network
 - that you are connected to the network
 - that the settings in the SmartUtility Light software are correct.
- Manually added devices are then displayed even when unavailable. They are then highlighted in light grey.

Select Schaeffler SmartCheck or ProLink devices

In the wizards, you can select one or more devices for each action. To do so, activate the tick ☒ in front of the respective device name in the list.

Below the list, you will also find symbols to filter the selection:

Symbol	Explanation
	Here you can select all the devices.
	Here you can deselect all the devices.
	Here you can invert the selection of the devices.
	Here you can select all the devices for which a pre or main alarm has been triggered. This option is only available for functions that work with files on the hard drive, such as Analyse data and Create report .
	Here you can select all the devices for which a main alarm has been triggered. This option is only available for functions that work with files on the hard drive, such as Analyse data and Create report .
	Here you can manually add a device via the TCP/IP address or via a UNC path.
Context menu	Right-click in the area of the device list to use the options described above via the context menu: Select all devices , Deselect all devices , Invert device selection and Add device manually . There, you will also find the command Scan for new devices , with which you can update the device list:

Symbol	Explanation



The following hotkeys can also be used for the options described above:

Ctrl+A	Select all devices
Ctrl+D	Deselect all devices
Ctrl+I	Invert device selection
Ctrl+S	Add device manually
F5	Scan for new devices

Updating the device list

The list of SmartCheck or ProLink devices is updated automatically within a specified search interval. You can adjust this in the Settings [\[27\]](#). You can also update the list by pressing the **F5** key.

Add device manually

This function is particularly important if a SmartCheck or ProLink device cannot be found via UDP. A possible reason for this is that the device is behind a router. The TCP protocol is used to find manually added devices for the device list. If a proxy has been entered in Internet Options on the Control Panel, this will also be used.

To add a device manually, click  in the **Select device** step:

Here you have the following options:

- Enter the **address** (IP address or UNC path) and the relevant **port number** of the SmartCheck or ProLink device.


- If the device is password-protected, specify the **user name** and **password**.
- You can also activate the **Use default user and password** option to log on with your user data.
- Click **Verify** to test the connection to the SmartCheck or ProLink device.

As soon as the connection to the device has been established, the **serial number** and **device name** are displayed.

- Click on **OK**.

The device is included in the device list and marked with an asterisk after the IP address.

Manually input devices are retained in the SmartUtility Light software and are also available in the other wizards of the same software.

If you no longer need to use a device, you can remove it from the device list. Further information on this can be found in the Settings  section.



- Further information on the password protection of SmartCheck or ProLink devices can be found in the **User management** chapter in the Schaeffler SmartWeb user documentation.
- If the SmartUtility software is not connected to a manually entered device, the device is listed in a light grey font.

5.1 Download data

With this wizard, you can download the measurement data from the Schaeffler SmartCheck or ProLink devices. Proceed as follows:

Step 1:

Select the required SmartCheck or ProLink device or devices from which you want to download the data.

Step 2:

Next, determine the time range for which the data is to be downloaded. You must also specify the format in which the data will be saved and whether the analysis should be started immediately:

Here you have the following options:

Time range

This is where you determine the time range for which the measurement data is to be downloaded:

- **Complete time range:** All measurement data is downloaded.

- **Set time range:** Only the measurement data for the selected time range is downloaded. If you activate this option, the default setting is one month (i.e. the measurement data for the past month up to today is downloaded). You can enter the dates for your desired time range in the **From** and **To** fields or select the dates from the calendar.

Step 3:

The data is downloaded. Wait until the process is fully completed.

CAUTION**Cancelling the process prematurely may result in the loss of data!**

If you cancel the process, all the saved measurement data and trends may be damaged.

Conversion of the measurement data into another format and calculation of the trends can take some time, depending on the configuration. Always wait until the process is finished. If you cancel the process prematurely, all the measurement data collected until that point may be damaged. This measurement data can then no longer be analysed in the SmartUtility Viewer.

Result:

As soon as the action is completed, you will receive a corresponding status message. The dialogue looks like this:

Schaeffler SmartUtility Light

Download data

1. Select devices
2. Configure downloading
3. **Download data**

Downloading the data.
You will receive a status message as soon as the action is completed.

	Device name	IP address	Serial number	Result
✓	FAG SmartCheck 60	172.28.205.60	f4:3d:80:00:07:55	Successful
✓	FAG SmartCheck 13	172.28.205.13	f4:3d:80:00:01:3c	Successful
✓	FAG SmartCheck 23	172.28.205.23	f4:3d:80:00:0d:ce	Successful

Help Back Next **Finish** Cancel

The downloaded measurement data is transferred to the database in which the data of all devices is stored. This database is specified in the **Settings** ²⁶.



If the data from the SmartCheck or ProLink device is secured with a data encryption password via the SmartWeb software, you must enter this password when you import or download data. You can enter and change the password under **Settings > Security > Data encryption password**. In the SmartWeb software, you determine the data encryption password in the menu under **Edit > Device settings > Edit security settings**.

If you want to copy the downloaded measurement data onto a data carrier, you may need to compress the data first.

5.2 Edit device settings

With this wizard, you can specify the DHCP mode and associated settings for the SmartCheck or ProLink device. Proceed as follows:

Step 1:

Select the required device for which you want to specify the settings.

Step 2:

In the second step, you can specify the required settings and send them to the SmartCheck or ProLink device.

Here you have the following options:

No DHCP

With this option, you can specify the IP address or continue to use the SmartCheck or ProLink device's default IP address.

If **No DHCP** is activated, you must also specify the other settings in this step, e.g. **IP address**, **netmask** or **host name**.

DHCP client mode

(load host name from server)

With this option, the SmartCheck or ProLink device automatically receives an IP address within your network. The device name is specified via the network's DNS server (reverse DNS).

DHCP client mode

(send host name to server)

With this option, the SmartCheck or ProLink device automatically receives an IP address within your network. The device name is registered by the SmartCheck or ProLink device in the network's DNS server.

Device name

Here you can alter the **device name** of the SmartCheck or ProLink device. Give each device a unique name, so that you can find it again straight away in the list boxes.



- If the IP address is allocated automatically via DHCP, the SmartCheck or ProLink device can only be accessed via the automatically allocated IP address. You can no longer use the default IP address.
- The default name of the SmartCheck devices is "**Schaeffler SmartCheck**" and the name of the ProLink devices is "**Schaeffler ProLink**". If you want to integrate multiple SmartCheck or ProLink devices into your plant, it is important that you give each device a unique name. Otherwise, you can only identify the devices in the wizard lists via the IP address or the serial number.
- If user management is activated on the SmartCheck or ProLink device, you must also enter a username and password in SmartUtility. If these are not entered, the device settings will not be transferred.

Result:

In the third step, you can check the result of the action.

5.3 Downloading the configuration

With this wizard, you can download the configuration of the measurement jobs of one or multiple SmartCheck or ProLink devices as files, for example to send them to other SmartCheck or ProLink devices or to back them up before a firmware update. Proceed as follows:

Step 1:

Select the required SmartCheck or ProLink device or devices.

Step 2:

The second step is to specify the directory and file name under which the configuration files, i.e. the files with the measurement jobs, are saved:

Schaeffler SmartUtility Light

Download configurations

1. Select devices

2. Configure storage location

3. Download configurations

Configure storage location

Directory for configurations:
C:\configuration

File name:
NewConfiguration

The configurations are saved in this format:
C:\configuration\TIME STAMP\NewConfiguration_SERIAL NUMBER.sc*

Select the storage location and enter the file name under which the configuration file will be saved.

Help

Back

Next



Finish

Cancel

Here you have the following options:

Directory for configurations

Here you determine the directory in which the configurations are to be saved. You have the following options:

- The list shows the default directory for configurations by default. This directory is specified either when you first launch the software or subsequently under **More actions > Settings > General** .
- Click  to select another directory and specify this as the save location.

File name

Using valid characters, you can determine the file name here, which is to receive the downloaded configurations. The names of the individual files will then be supplemented with the serial number of the appropriate device.

Invalid characters for the file name are:

< > ? " : | / \ *

If you use these characters, they will be replaced by an underscore.

The path generated from your settings for **Directory** and **File name** is indicated to you beneath the settings as an example. This is automatically amended with each additional change.

Step 3:

The file or, in the case of several selected devices, the files, is/are downloaded. Wait until the process is completed.

Result:

The downloaded configurations are located in the directory you specified in **Step 2**. The file name specified by you is supplemented by the serial number of the appropriate SmartCheck or ProLink devices.



If you download configurations from a SmartCheck device with firmware version 1.4 (or older), the configurations are automatically converted into the new file format for SmartUtility software 1.6. You can then no longer send these converted configurations to SmartCheck devices with the old firmware version!

5.4 Sending the configuration

With this wizard, you can send the configuration of the measurement jobs as a file to one SmartCheck or ProLink device or several devices. Proceed as follows:

Step 1:

Select the required SmartCheck or ProLink device or devices to which you want to send the configuration file with the measurement jobs.

Step 2:

The second step is to select the file (file ending SC3 or SC4) you want to send.

Schaeffler SmartUtility Light

Send configurations

1. Select devices

2. Select configuration file

3. Send configurations

Select the configuration file with measurement jobs you wish to send to the selected SmartCheck or ProLink devices. You can also send communication channels with their outputs.

Select configuration file

Schaeffler SmartCheck or ProLink configuration file:

C:\Users\Downloads\20230711_135045_f4_3d_80_10_01_16.sc4

If sending the configured outputs of controllers to multiple SmartCheck or ProLink devices, all devices will write to the same controller register!

Other settings

The configuration contains outputs for communication channels. Select what you wish to send in the configuration:

☐ Send configured outputs of controllers

☐ Send configured outputs of emails

Password:

Help

Back Next Cancel

Here you have the following options:

Configuration file

Determine the configuration file you want to send. If the selection list is empty, click to browse and select a file.

Other settings

Enter other settings here:

- **Send configured outputs of controllers:** If the configuration file contains outputs for controllers, you can determine here whether they are also configured.
All devices to which you send these outputs will write to the same controller register. For this reason, the option is disabled by default.
The communication channel, i.e. the controller settings, is always sent.
- **Send configured outputs of emails:** If the configuration file contains outputs for emails, you can determine whether these are also sent.
By default, this option is enabled and configured email outputs are sent.
The communication channel, i.e. the settings of the email server, is always sent.
- **Reset and do not send saved classification data (recommended):**
Classification data is similar to learned values and refers to a specific application. For this reason, the option is enabled by default:
Classification data is reset and not sent with the configuration file.
- **Password:** If the configuration of the SmartCheck or ProLink device has been backed up using the SmartWeb software with a data encryption password set, you must enter the password here. In the SmartWeb software, you determine the data encryption password in the menu under **Edit > Device settings > Edit security settings**. If you do not know the password, contact the administrator of the device.

Step 3:

The file with the measurement jobs and communication channels is sent to the selected SmartCheck or ProLink devices. Wait until the process is completed.

Result:

The measurement jobs and communication channels saved in the selected file are now on all SmartCheck or ProLink devices to which you sent the file.



- After you have sent the new measurement job configuration to the SmartCheck or ProLink device, it takes a while before the new alarm status for the devices is displayed in the device overview.
- If you had already downloaded data for analysis for the old configuration, the new measurement job configuration also has an effect on the analysis in the Viewer: As soon as you download data from the new configuration and open it for analysis, Schaeffler SmartUtility Viewer creates a new measurement job. The old and new measurement jobs are displayed one underneath the other for the respective SmartCheck or ProLink device.
- If a downloaded configuration contains an alarm status configuration for communication channels (e.g. a controller), this alarm status configuration is not included in the transfer by default. This prevents multiple Schaeffler SmartCheck or ProLink devices from writing to the same registers for the external controller. You can ensure that the alarm status configuration is sent by ticking the box by "Send communication channels to SmartCheck or ProLink device".
- If a downloaded configuration contains learning mode data, this is also sent by default. If necessary, restart the learning mode, otherwise the stored characteristic values are used.
- If you are using an older version of SmartWeb, you should first back up its configurations with the **Download configuration** wizard. You can then update SmartWeb to the SmartUtility Light version. The backed-up configurations can subsequently be installed again using the **Send configuration** wizard.
- If you want to send a configuration (from version 1.6.10 onwards) to an SmartCheck device with an older or the same version (e.g. 1.6.6), you may need to change the basic measurement job used in the newer version to a standard measurement job so that the configuration can be sent.
- If a downloaded configuration contains external sensors that are connected via both of the analogue inputs or via the digital input, the name of the input channel is extended with the code "_ext" and a number if necessary. This naming format ensures that the external input channels are clearly marked.

5.5 Update firmware

With this wizard, you can send a file with a firmware update to one or more SmartCheck or ProLink devices. More detailed information on firmware updates and the corresponding notifications is set out in your service or maintenance contract.

CAUTION



Measurement data and configurations may be irretrievably deleted!

If you update the firmware of a SmartCheck or ProLink device, depending on the update version, you may lose all the measurement data and configurations saved on the device. Note the following when updating the firmware of SmartCheck devices:

- When changing from version 1.2 to a higher version, all measurement data and configurations are lost.
- When changing from version 1.4 or 1.6 to a higher version, all measurement data is lost.
- From versions 1.4.27 and 1.6.6, configurations are usually retained.
- Measurement data and configurations are not retained until version 1.10

Before updating the SmartCheck or ProLink firmware, download the measurement data with the SmartUtility Light software if required. In addition, you can download the configuration (with the taught alarm limits) for the SmartCheck or ProLink device via the SmartUtility software and install it again after the firmware update.

If the configurations and alarm limits do not have to be deleted during a firmware update, the SmartUtility Light software will tell you this.

CAUTION**Values in alarm maps with a completed learning mode may be lost!**

If you have started the learning mode for the SmartCheck or ProLink device in conjunction with one or two other signals, the associated alarm maps are populated gradually during the learning process. A firmware update has the following effects:

- All alarm maps are reset to the **Use learning mode** status, regardless of whether the learning mode was already completed in a map.
- Learning mode is deactivated and the outstanding maps remain unchanged.
- If you re-activate learning mode, it restarts for all maps. You also lose the values that have already been taught-in.

To back up the values in the alarm maps with a completed learning mode, proceed as follows:

1. Manually deactivate the **Use learning mode** option for each completed alarm map. You can find this option in the configuration wizards for the SmartWeb software.
2. Activate the learning mode only at this point.

For more information about the learning mode, please see the section entitled **Learning mode and alarm maps** in the manual for the SmartWeb software.

**Only SmartCheck systems:**

The update to SmartUtility Light version 1.10 is also associated with a migration. You therefore cannot downgrade from 1.10 to a previous version. All future firmware versions will also be based on this update with migration. This means, for example, that you can no longer update from version 1.6.20 directly to a future version 1.12. You must always install version 1.10 first.

To send a firmware update, proceed as follows:

Step 1:

Select the required SmartCheck or ProLink device or devices whose firmware you want to update.

Step 2:

Specify the file with the firmware update; the file has the ending **SF2**. Once you have selected a file, you will find the version number and the device type for this firmware file in the **Information** section.

Schaeffler SmartUtility Light

Update firmware

1. Select devices
- 2. Select firmware file**
3. Check compatibility
4. Send firmware

Select the file containing the SmartCheck firmware update.

Select firmware file

Firmware:

N:\IU-HZR-IJD\Software\Test\SmartCheck\Firmware\1.7.x\Aktuelle version\smartcheck-at91.sf1

Information

Firmware version: 1.7.5.smc-at91-1.7.5.389258-20150126110421
Device type: SmartCheck

Help Back Next Cancel

Step 3:

This step checks which firmware is present on the selected devices. You are then presented with an overview of the verification result:

Schaeffler SmartUtility Light

Update firmware

1. Select devices
2. Select firmware file
- 3. Check compatibility**
4. Send firmware




The test overview provides information about which devices the firmware can be updated on and on which devices this is not possible. Always observe the messages under "Result": here you can find details about the test such as the current firmware version number.

Check compatibility

Compatibility	Device name	IP address	Serial number	Result	
<input checked="" type="checkbox"/>	✓	FAG SmartCheck	172.28.205.60	f4:3d:80:00:06:46	Update possible.
<input checked="" type="checkbox"/>	✓	FAG SmartCheck	172.28.205.17	f4:3d:80:00:04:1e	Update possible.
<input type="checkbox"/>	!	FAG SmartCheck	172.28.205.96	f4:3d:80:00:08:84	Update possible. Note: firmware version 1.6.6.6051 is already installed on the device.

Help Back Next Cancel

You can find the following information here:

	<p>This symbol indicates devices whose firmware can be updated with the selected firmware version. These devices are already ticked.</p> <p>The following requirement is needed for this status:</p> <ul style="list-style-type: none"> • The firmware version of the device is lower than the selected firmware version. <p>Details on this can be found in the Result column.</p>
	<p>This symbol indicates devices whose firmware can be updated with the selected firmware version. The checkmark is not yet activated for this status as the update could have undesired effects under certain circumstances.</p> <p>For this status you will receive a detailed explanation of the verification result. You should not activate the checkmark until you have read this explanation and have been notified of the possible effects of the update.</p> <ul style="list-style-type: none"> • The firmware version of the device is identical to the selected firmware version. • The firmware version of the device could not be read and it is not certain whether it is compatible with the selected firmware version. If you perform the update, it is possible that the device will reset to the factory firmware version. • For updates prior to version 1.10: The firmware version of the device could not be read but the device version is compatible with the selected firmware version. It is possible that you may not be able to re-use the device configurations following the update. • The firmware version of the device is higher than the selected firmware version. The update will downgrade the device firmware version to the lower version. The configurations will be lost in this case, as only upwards compatibility is guaranteed. <p>Details on this can be found in the Result column.</p>
	<p>This symbol indicates devices whose firmware cannot be updated with the selected firmware version. You cannot tick these devices.</p> <p>The update may be blocked for the following reasons:</p> <ul style="list-style-type: none"> • The selected firmware version is lower than the factory firmware for the device. • The selected firmware version is not compatible with the device version. • The selected firmware version is unknown. • The version of SmartUtility Light is too low. • The firmware version of the device is too low and cannot be updated in a single step. You must first update the device with a lower firmware version. • The firmware version of the device is version 1.10 or above. In this case, it is no longer possible to import a lower version. • A communication error occurred. • Device login failed. You may have activated user management in SmartWeb. <p>Details on this can be found in the Result column.</p>
Device name, IP address, Serial number	This information identifies the SmartCheck or ProLink device for the line in question.
Result	Here you can find detailed information on the verification result. This information tells you why the firmware can - or cannot - be updated.

Step 4:

Click **Next** to send the firmware to the selected SmartCheck or ProLink devices and wait until the process is fully completed.



The factory firmware is the firmware originally supplied with the device. The version of the new firmware cannot be lower than the factory firmware version; updating in this case will not be possible. The system reverts to the factory firmware if required, e.g. if the update fails.

Result:

After the firmware is updated, the Schaeffler SmartCheck or ProLink device is unavailable for a time, as a safety mechanism is being run. This mechanism ensures that your device is functioning properly again after the firmware update. The duration of unavailability depends on the result of this check:

- If your device with the new firmware is functioning properly, the SmartCheck or ProLink device will be available again after approx. 6–7 minutes.
- If this is not the case, the old firmware will automatically be reinstalled. It will then take approx. 20 minutes until the device is available again.



For updates to SmartCheck firmware versions before version 1.10, please clear the browser cache after the update. This is necessary to ensure that the latest version of the Schaeffler SmartWeb software is loaded in your browser.

Checking the firmware version on the SmartCheck or ProLink device

You can see which version of the firmware is set up on your Schaeffler SmartWeb device in the SmartCheck or ProLink software. To do this, proceed as follows:


1. Enter the IP address of the SmartCheck or ProLink device in a browser. The SmartWeb software is started.
2. In the SmartWeb software menu bar, click on **Help**.
3. Select **Version**.

Here you can find detailed information on the version of the SmartCheck or ProLink device, including the device ID and serial number.

5.6 Open directory for database

Click **More actions > Open directory for database** to open the directory in which SmartUtility Light stores the database with the data of all the devices. Depending on the Windows version installed on your system, this directory is located by default under:

- C:\data

You can change the directory for the database **Settings > Database** .

5.7 Open log file directory

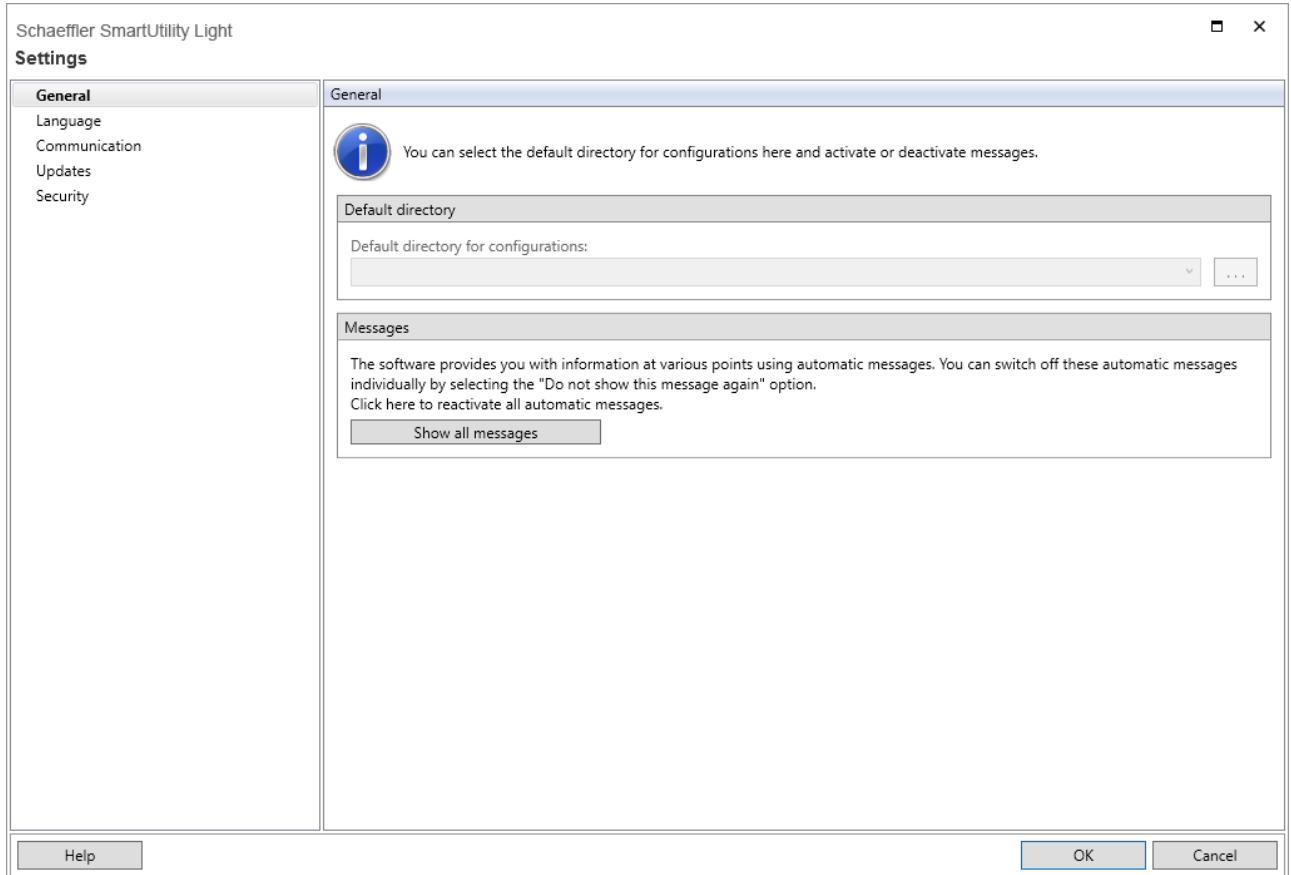
Click on **More actions > Open log file directory** to open the directory in which SmartUtility deposits the log files. Depending on the Windows version installed on your system, this directory is located by default under:

- C:\Users\[User name]\AppData\Roaming\Condition Monitoring

All software system messages and information on processes are recorded in the log files. You can open a log file with a text editor or word processor.

6 Settings

Default settings can be found under **More actions > Settings**. You can use these settings to adapt the SmartUtility Light software to suit your requirements. Click on a term on the left in order to specify the settings in the area on the right. You must confirm all changes by clicking **OK**:



Here you have the following options:

General

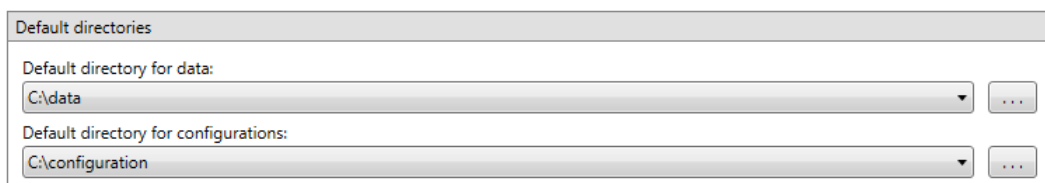
Default directory

Here you can change the directory used by the SmartUtility software for configuration files (applies only to the full version).

The directory is automatically created at the following path during installation:

- C:\configuration

Click on (...) to search for a new directory and set it as a default directory. You can now find directories that you have previously selected in the list box.

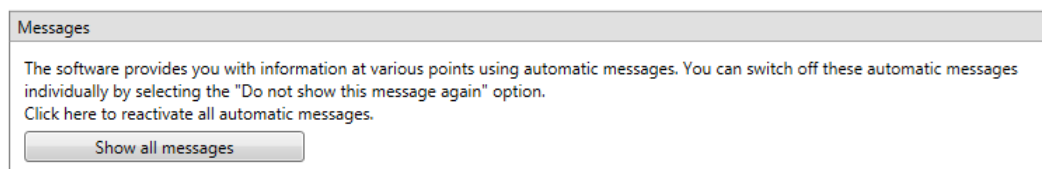


Make sure that the downloaded configuration is always saved to the default directory. If you want to specify your own directory, make sure that all the data is available in this directory.

Messages

The SmartUtility Light software recognises various types of messages, e.g. warnings, general information and regular messages regarding updates. You can usually activate the **Do not show this message again** option in these messages so that the message no longer appears.

You can revert this change in the **Settings > Messages** section. Click **Show all messages** to view all warnings, information and other messages again.



Language

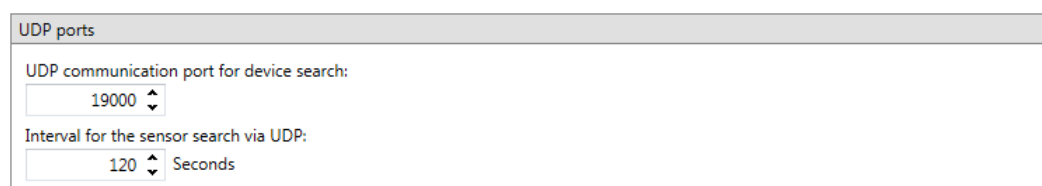
Here you can set the language in which the SmartUtility Light software interface is displayed. Click on an available language:



Communication

UDP ports

Here you can set the UDP port that is used to search for your devices and for configuration. In addition, with the option **Interval for the sensor search via UDP** you can determine the frequency at which the SmartUtility Light software is to search for devices and update the corresponding list with SmartCheck or ProLink devices in the wizards.



By default, the UDP port is set to 19000 for the device search. The search interval is set to 120 seconds.



The following basic prerequisites apply for connecting to the computer:

- The UDP communication protocol must be enabled on the used port 19000 in existing firewalls.
- If the SmartCheck or ProLink device has not been assigned an address via DHCP, it will have the IP address 192.168.1.100 by default. In this case, the IP address of your computer must be within the 192.168.1.x range.
- During the initial installation of the SmartUtility Light software, the setting for the UDP port is made automatically. These automatic settings are generally correct.

If there are any problems, please contact your system administrator.

Maximum number of selected devices

If you have selected multiple devices for a task in SmartUtility Light, some tasks may be processed in parallel on multiple devices. For some jobs, there are a maximum number of parallel device connections with preset standard values. You can change the standard values here and adjust the performance of your network environment:

- **Download data:** By default, you can download data from one device.
- **Update firmware:** By default, you can update the firmware of 20 devices at the same time. You can increase this value to a maximum of 30 devices.

Maximum number of selected devices

"Download data" wizard:
1

"Update firmware" wizard:
20

Updates

You can set the SmartUtility Light software to automatically search for updates for the SmartUtility Light software and the SmartCheck or ProLink device. To do so, set the intervals at which you want the system to search for new updates. If you want to deactivate the update test, select **Never**:

Updates

Check for updates on starting software:
Weekly

☐ Use proxy server

IP/server name:
[Empty field]

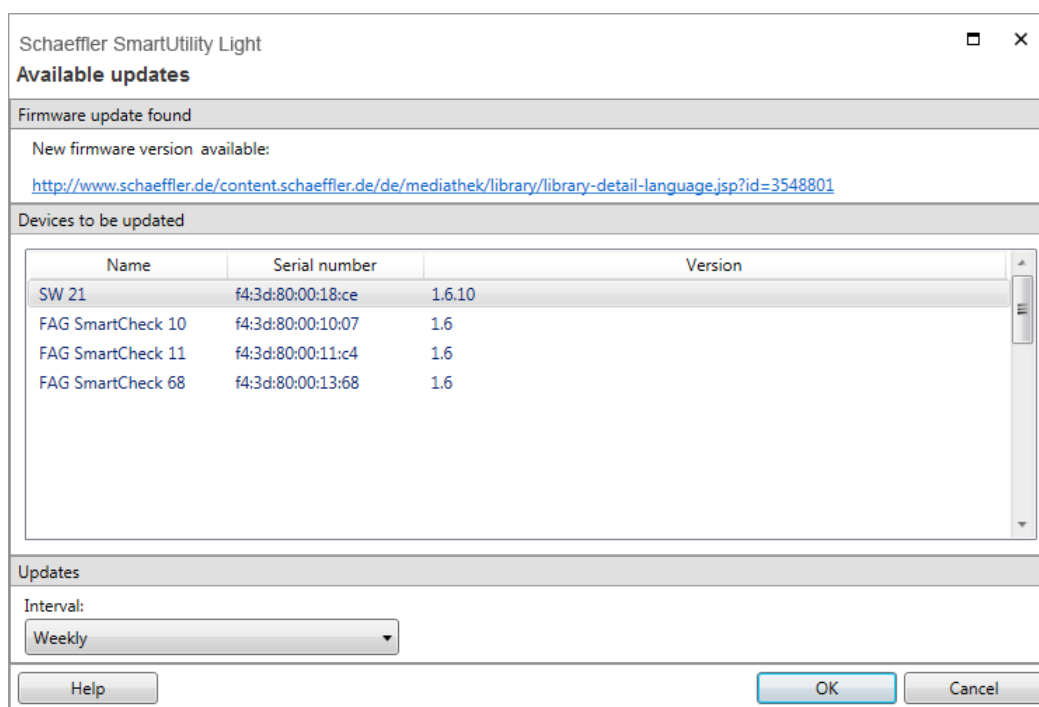
Port:
8080

☒ Show message if connection to page with version information is not possible.

Check for updates now

You can also set a message to display if the SmartUtility Light software fails to access the website with the update information.

The **Check for updates now** button allows you to search for updates outside of a regular check. The following dialogue appears:



The following information and functions are to be found here:

- The first section of the dialogue contains information on whether any updates were found and where you can download them.
- The **Updates** section provides you once again with the selection list in which you can determine the frequency at which the system should search for updates.



If you are using a proxy server between the browser and the Internet in your company network, please activate **Use proxy server** and enter the address and port number of the proxy server. Please contact your system administrator for more detailed information about proxy settings.

Security

Here you can change the user name and password for every SmartCheck or ProLink device that the SmartUtility Light software finds, and enter a password for data encryption. Select the required device in the **Select devices** list. This list contains all the SmartCheck or ProLink devices that have ever been detected. The IP address is displayed if the device is available or has been added manually. You can then find the following options:

- **User name/password:** Enter the user name and password, and then repeat the password to confirm.
- **Data encryption password:** Enter the password with which encrypted device data from the SmartCheck or ProLink device is secured. The password is required for two wizards: **SmartWeb data import** and **data download**.

Select device:

ProLink 36	10.179.6.228 *	f4:3d:80:10:01:16	▼	
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User name/password

If you have activated user administration on a device, you must also specify a user name and password for each device in order to access it.

User name:

Password:
 ☐ Show password as plain text

Repeat password:

Password for data encryption

If you wish to import encrypted device data that is password protected, you can enter and modify this password here.

Password:
 ☐ Show password as plain text



You can log in automatically to a SmartCheck or ProLink device or the integrated SmartWeb software using the user name and password. To do so, your details here must match the user name and password stored in the SmartWeb software user management. If this is not the case, you will not be logged in automatically. You will have to log in using the user name and password stored in the SmartWeb software.

The following requirements must be met for the **password for data encryption**:

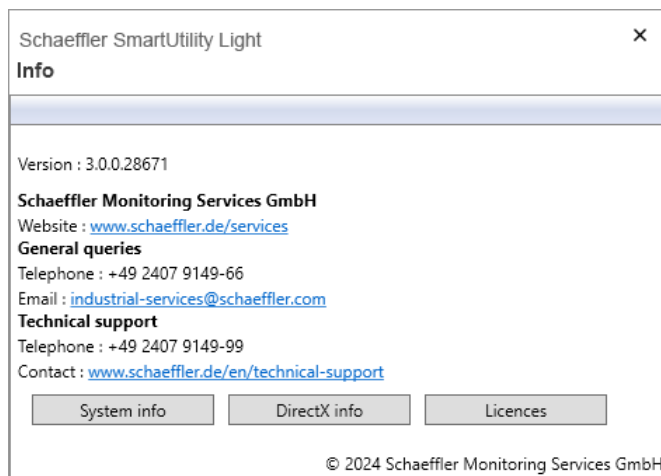
- The password must be set in both the SmartUtility software and in the SmartWeb software. To do this, in the SmartWeb software, open the menu option **Edit > Device settings > Edit security settings**.
- The password in the SmartUtility software must match the password in the SmartWeb software.

Deleting devices

Manually entered devices remain stored in the SmartUtility Light software. If you no longer need to use a device, you can remove it from the device list. Select the required device from the **Select device** list and click on .

7 Further information

Information on support and the current program version can be found under **More actions > Info**:



Here you have the following options:

- **Version:** Here you can view the current version of your SmartUtility Light software
- **Website:** Click this link to switch to the Schaeffler Technologies website.
- **Email:** Click this link to email a general query to Schaeffler Monitoring Services GmbH.
- **System info:** Click this button to switch directly to the **System information** page of your Windows system.
- **DirectX info:** Click this button to switch directly to the DirectX diagnostic program.
- **Licences:** Click this button to view detailed information about the third-party libraries used by the SmartUtility software.



Use the copy function in Windows to copy important information such as the version number: Place the mouse over the version number and double-click. The version number is copied to the clipboard.

Information and services for our vibration monitoring systems

We offer a unique range of services for Schaeffler SmartCheck or ProLink – from training courses, technical mentoring during the induction phase and expert support with diagnostic issues, right through to customised service agreements including remote monitoring and reporting.

A look at the extensive range of products and services relating to Schaeffler SmartCheck or ProLink can be found online:

- SmartCheck: www.schaeffler.de/en/condition-monitoring/smartcheck
- ProLink: www.schaeffler.de/en/condition-monitoring/prolink

8 Manufacturer/support

Manufacturer

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Germany

Tel.: +49 2407 9149-66
Fax: +49 2407 9149-59

Internet: www.schaeffler.com/en/services

Further information:

- www.schaeffler.de/en/condition-monitoring/smartcheck
- www.schaeffler.de/en/condition-monitoring/prolink

Contact: industrial-services@schaeffler.com

Please send all correspondence directly to Schaeffler Monitoring Services GmbH!

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Support

For information on technical support, go to www.schaeffler.de/en/technical-support.

We provide support services for the device and related software products. For a detailed description of the nature and scope of our support services, go to:

- www.schaeffler.de/en/condition-monitoring/smartcheck
- www.schaeffler.de/en/condition-monitoring/prolink

You can find the support definition in the "Technical documents" > "Software, Licences, Manuals" section.