# NORTHTEC
## automation technology

# SMU Auto Logs 1.0.0.0

**Software for the automated readout of
logs from the NorthTec Shadow Master Unit**

User Manual

**Revision history**

| Rev. | Date | Name | Description |
|------|------|------|-------------|
| 1.0 | 31/03/2021 | IHA | First version |
| 1.1 | 10/08/2021 | IHA | Downloaded protocol types extended |
| 1.2 | 23/08/2021 | IHA | Further information on downloadable log types |
| 1.3 | 30/09/2021 | IHA | Revised: 2.1.2 Requirements and installation |

# Preface

This document describes the tasks and functionality of the SMU Auto Logs software.

SMU Auto Logs is used to automatically download logs from the Shadow Master Unit V4 (SMU) of our system for shadow impact monitoring and species conservation and export the most important data to a CSV file.

For more information on the SMU, please refer to the latest version of the Shadow Manager 4 manual, which you can download from our website.

Since SMU Auto Logs provides a multitude of setting options, and although we have designed the user interface to be user friendly with intuitive operation, you will need to consult this manual from time to time, particularly as a beginner and maybe even as an experienced user.

Please read the information in this manual that is relevant to you carefully so that you can use SMU Auto Logs the best way possible and as intended by the manufacturer.

# Table of Contents

# 1. About the manual

This manual documents the range of functions of SMU Auto Logs, a software for the automated readout, backup and export of logs from a Shadow Master Unit (SMU).

We have designed the SMU Auto Logs user inte rface to be user friendly and intuitive to operate so that experienced users will be able to perform many tasks even without the manual.

If you are not yet familiar with SMU Auto Logs, please carefully read through the relevant information in this manual to ensure that SMU Auto Logs always operates correctly.

## 1.1 Manual conventions

The following conventions apply in this manual:

| Designation | Meaning |
|---|---|
| **Bold** | The names of menus, windows, buttons etc. are written in bold.<br>Example: Open the **Connections** window.<br>**Bold** type is also used to highlight important parts within a text block. |
| *Italics, blue* | Path names are written in blue and italics.<br>Example: *View > Connections > Schedule* |
| ➜ | This symbol identifies a cross reference. Click on the text or the number after the red arrow to jump to the target of the cross reference. |

## 1.2 Abbreviations

The following abbreviation is used in this manual:

| Fig. | Term | Meaning |
|---|---|---|
| **SMU** | Shadow Master Unit | The central unit of the system for shadow impact monitoring and species conservation. |

## 1.3 Digital navigation aids

If you read this manual in digital form on a screen, in many places you can click on a cross reference to jump directly to a section with further information. Cross references are marked with a red arrow ➜. In PDF Reader, you can also display the content at the left-hand side of the window and use it to navigate.

## 1.4 Trademarks

Windows, Microsoft, Microsoft Office and Excel are brands or registered brands of Microsoft Corporation in the USA and/or other countries.

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# 2. Introduction

SMU Auto Logs is used to automatically download and backup available logs from the Shadow Master (SMU). The following logs can be downloaded depending on the SMU version used:

| SMU version | Downloadable logs |
| --- | --- |
| V.3.5 | Shadow impact logs (plus bat and bird protection logs as far as available) |
| V.4.0 | <ul><li>Operation log</li><li>Shadow impact log</li><li>Bat protection</li><li>Bird protection</li><li>Sector shutdown</li><li>Noise protection</li><li>Special shutdown</li><li>Measurement data logging (customer-defined)</li></ul> |

## 2.1 Basic information on SMU Auto Logs

Here you will find basic information about the software, such as layout, menu structure and requirements for use.

### 2.1.1 The main window

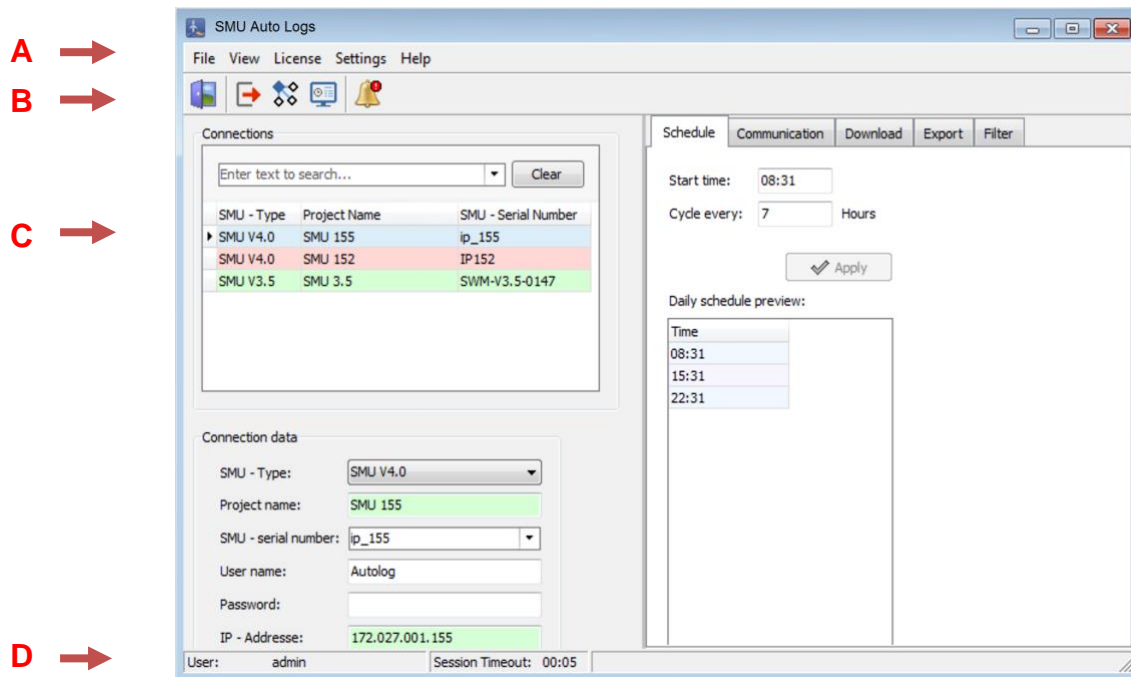SMU Auto Logs consists of a main window (see below), in which various subwindows can be loaded.



Fig.: SMU Auto Logs main window

| Element | Description |
|---|---|
| **A: Menu bar** | Access to all menus, menu items, functions and subwindows. |
| **B: Toolbar** | Access to frequently used functions and sub windows. |
| **C: Views** | Opened subwindows are displayed in this area. |
| **D: Status bar** | The status bar is always visible. It shows which user is logged on and how many minutes are left until they are automatically logged out. |

### 2.1.2  Requirements and installation

The latest version of SMU Auto Logs can be downloaded from our website (**www.northtec.de**). You can choose either the unzipped version (.exe) or the zipped version (.zip).

The software runs as a desktop version.

The following technical requirements must be fulfilled before using SMU Auto Logs:

| Requirement | Description |
| --- | --- |
| **SMU** | Shadow Master Unit 3.5 or 4.0 or later |
| **PC** | <ul><li>a minimum of 2 GB RAM</li><li>at least 100 MB free hard disk space (depending on the size of the downloaded logs)</li><li>network port/internet connection</li></ul> |
| **Operating system** | SMU Auto Logs runs on computers with Windows 7 or later Microsoft operating systems |
| **Rights** | No administrator rights required |
| **License** | To enable the SMU Auto Logs to be used to its full extent, purchase a license file from us, which we will then send to you. |

To install SMU Auto Logs, double-click the downloaded .exe file and then follow the on-screen instructions. Once the installation is complete, the program will open with the **Login** window.

Enter the credentials of the default user created automatically:

| User: | **admin** |
| --- | --- |
| Password: | **1234** |

Now you can use SMU Auto Logs as described in this manual.

### 2.1.3  Notes on the working environment

The menu structure, the assignment of the mouse keys and the design of the application are based on the standard Windows interface and the corresponding operating elements. The operator should be familiar with this structure.

If you are not familiar with using Windows, please get up to date with basic Windows operations (using a mouse, menu technique, changing sizes of windows etc.).

### 2.1.4  General software properties

If you enter an invalid value into an input field (incorrect value or incorrect input format), it will be displayed highlighted in red:

You can press the Enter key or the Tab key to complete the current entry and jump to the next input field.

Some buttons, such as **Apply** and **Add,** will not be activated in some windows until the mandatory fields of the window have been filled out correctly.

# 3. Menus, windows and tabs

The views in SMU Auto Logs are arranged in menus and can be called up through them. Some windows and functions can be opened directly by clicking the corresponding button in the toolbar of the main window. The function of individual symbols will be displayed if you hover the mouse cursor over them for a moment, see below figure.



Fig.: Symbols in the SMU Auto Logs main window (with tool tip)

The following table provides you with an overview of the content of the individual menus.

| Menu/ menu item | What you can do there |
|---|---|
| **File** | |
|     **Exit** | • Exit program |
| **View** | |
|     **Connections** | • Define download schedule<br>• Display/edit a connection to the SMU<br>• Select logs to be downloaded<br>• Set storage destination for log export<br>• Define filters for individual logs |
|     **Monitoring** | • Monitor connection status and view logged events |
|     **Change password** | • Change the password for unlocking SMU Auto Logs |
|     **User Management** | • Change, add or delete SMU Auto Logs  users, assign/delete admin rights |
| **License** | |
|     **License Management** | • Display/load/close the license file |
| **Settings** | |
|     **Program** | • Set session timeout, check for updates |
|     **Language** | • Program language |
| **Help** | |
|     **NorthTec Homepage** | • Open NorthTec Homepage |
|     **Check for New Version\*** | • Check for new version of SMU Auto Logs |
|     **Info about SMU Auto Logs** | • Information about SMU Auto Logs, NorthTec contact details, system information and information about the memory usage |

The menus are described in detail in the following sections.

## 3.1 **File** menu

| Symbol | Menu item | Purpose |
|---|---|---|
|  | **Exit** | Exit SMU Auto Logs |

## 3.2 **View** menu
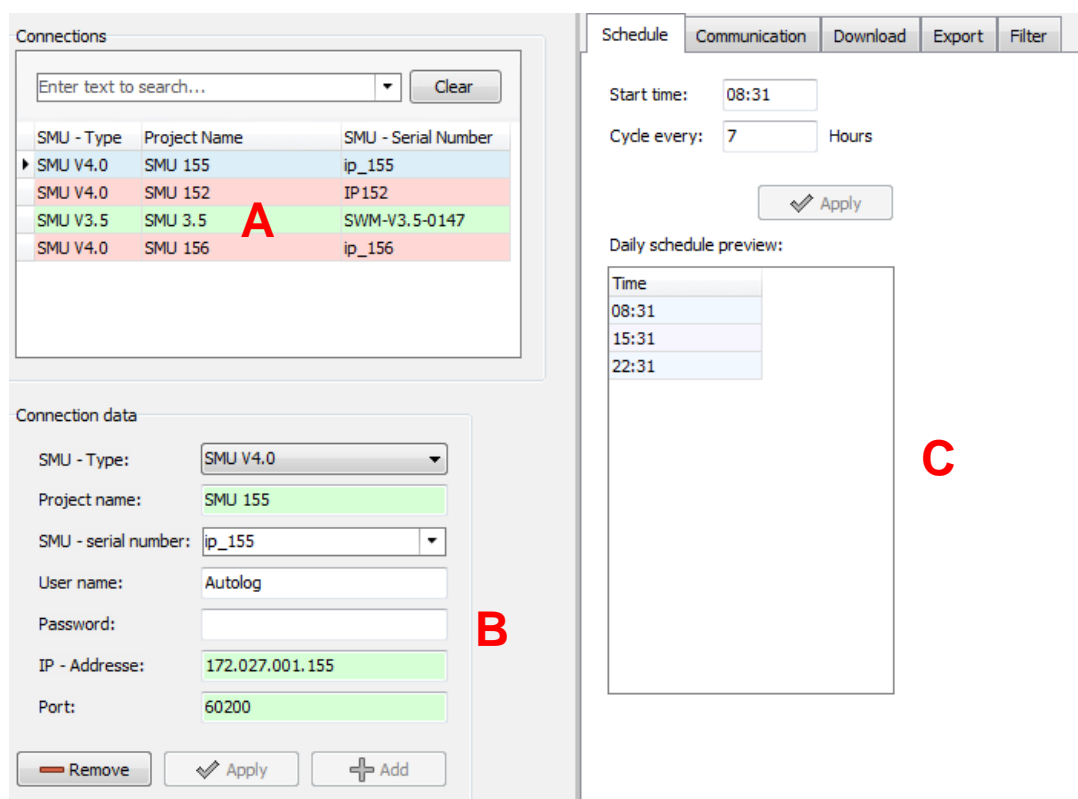
The following table provides you with an overview of the **View** menu.

| Symbol | Menu item | Purpose |
|---|---|---|
|  | **Connections** | • Define download schedule<br>• Display/edit a connection to the SMU<br>• Select logs to be downloaded<br>• Set storage destination for log export<br>• Define filters for individual logs<br><br> Further information can be found on the next page. |
|  | **Monitoring** | Monitor status of connections and logged events, see section ➜ 3.2.2. |
|  | **Change password** | Change password to unlock SMU Auto Logs , see section ➜ 3.2.3. |
|  | **User Management** | Change, add or delete SMU Auto Logs  users, assign/delete the admin right, see section ➜ 3.2.4. |

The **View** menu windows are described in detail in the following sections.

### 3.2.1  **Connections** window

| | |
|---|---|
| **Purpose** | • Define the download schedule<br>• Display/edit a connection to the SMU<br>• Select logs to be downloaded<br>• Set the storage destination for log export<br>• Define filters for individual logs |
| **Symbol** | ⁝ |
| **Path** | *View > Connections* |
| **Type of use** | Display + dialog |
| **Requirement** | Logged on user |



Fig.: **Connections** window

## Notes regarding the **Connections** window

- Connections to SMUs that have already been set up are listed in area **A**.

- The data of the connection currently selected in area **A** is displayed in area **B** (**Connection data**). Further information can be found in the table on the next page.

- In area **C**, you can select the tabs for editing the readout provisions. For more information on the individual tabs, see the subsections on the following pages.

## Information and setting options in the **Connection data** area:

In the explanation of the parameters, you will find information on default settings, input format, range, etc. as applicable (highlighted in green).

| Parameters | Explanation |
|---|---|
| **SMU type** | V3.5 and V4.0 are supported. <br><br> For SMU type V3.5, some settings are disabled (**User name** and **Password**, see below, as well as the **Download** and **Filter** tabs). |
| **Project name** | Can be entered individually, but must not be assigned twice; otherwise the field will be highlighted in red and the **Apply** button will be deactivated. <br><br> **NOTE** <br> "Project one" and "Project One" are considered to be different project names. |
| **SMU Serial Number** | Can be entered individually, but must not occur twice; otherwise the field will be highlighted in red and the **Apply** button will be deactivated. <br><br> **NOTE** <br> Serial numbers stored in a loaded license file can either be selected here or are automatically completed once the first characters have been entered. |
| **User name** | Must be stored at the SMU to be addressed. This input field is only available for SMU type V4.0. |
| **Password** | Must be stored at the SMU to be addressed. This input field is only available for SMU type V4.0. |
| **IP address** | IP address of the SMU you want to communicate with. <br><br> 4 numbers, separated by a point, example: 192.0.2.42 |
| **Port** | The port number of the SMU you want to communicate with. <br><br> number from 1 to 65535 |
| — Remove | Used to remove the connection currently selected in the **Connection** area at the top of the window. |
| ✓ Apply | In order for entries to be applied, you must click **Apply** before selecting another connection/window or before you exit SMU Auto Logs. |
| ✚ Add | This button for adding a new connection is only active if all fields described above have been filled in correctly. |

## 3.2.1.1 **Schedule** tab

| | |
|---:|:---|
| **Purpose** | Set/edit schedule for downloading and exporting logs |
| **Path** | *View > Connections > Schedule* |
| **Type of use** | Display + dialog |
| **Requirement** | Logged on user |



Fig.: **Connections** window, **Schedule** tab

## Information and setting options in the **Schedule** tab:

In the explanation of the parameters, you will find information on default settings, input format, range, etc. as applicable (highlighted in green).

| Parameters | Explanation |
|:---|:---|
| **Start time** | Here you define the time at which a procedure is to be started.<br>Input format: 24-hour format |
| **Cycle** | Here you define the cycle at which a procedure is to be repeated.<br>Value range: 4 to 23 |
| ✔ Apply | In order for entries to be applied, you must click **Apply** before selecting a different tab/connection or before you exit SMU Auto Logs. |
| **Daily schedule preview** | The result of the entries you made under **Start time** and **Cycle** is displayed here. |

### 3.2.1.2 **Communication** tab

| | |
|---|---|
| **Purpose** | View and edit data for the connection to the SMU |
| **Path** | *View > Connections > Communication* |
| **Type of use** | Display + dialog |
| **Requirement** | Logged on user, SMU type V4.0<br>(Only the parameters **Connection timeout, Connection retries** and **Read command timeout** are available for SMU type V3.5). |



Fig.: **Connections** window, **Communication** tab

The input fields available in the **Communication** tab are explained on the next page.

## Input fields in the **Communication** tab:

The parameters in this input area correspond to the connection that has been established between SMU Auto Logs and the SMU.

In the explanation of the parameters, you will find information on default settings, input format, range, etc. as applicable (highlighted in green).

| Parameters | Explanation |
|---|---|
| **Connection timeout** | This timeout is used to monitor the initial setup of a connection to a SMU. As soon as a time defined in the **Schedule** tab (*View > Connections*) has been reached, SMU Auto Logs will attempt to connect to the addressed SMU via the network, but only for as long as specified under **Connection timeout**. If a connection cannot be established during this time and the number of connect retries has been "used up", the attempt will be aborted. Factory default: 4000 ms<br><br>Changing this value will take the following effects:<br><br>**INCREASE VALUE**<br>• SMU Auto Logs will try to connect to the SMU over a longer period of time.<br><br>**DECREASE VALUE**<br>• SMU Auto Logs will abort the attempt to establish a connection sooner. |
| **Connection retries** | When establishing a connection to the SMU, the connection attempt is retried for as many times as specified here and until a connection is actually established. Factory default: 1<br><br>Changing this value will take the following effects:<br><br>**INCREASE VALUE**<br>• If a connection attempt fails, SMU Auto Logs automatically carries out the number of further attempts specified here. |
| **Time between 2 attempts** | After an attempt to connect has failed, SMU Auto Logs will wait as long as specified here before a new attempt is made (provided that more than 1 attempt has been specified under **Connection retries**). Factory default: 4000 ms<br><br>Changing this value will take the following effects:<br><br>**INCREASE VALUE**<br>• SMU Auto Logs will wait longer before a new attempt is started; this may reduce the number of unsuccessful attempts, however, it may take longer to re-establish a connection.<br><br>**DECREASE VALUE**<br>• After a connection attempt has failed, SMU Auto Logs will start a new attempt sooner; thus, the number of unsuccessful attempts may increase, but the connection may be restored faster. |

| Parameters | Explanation |
|---|---|
| **Read command timeout** | This parameter is identical to the **Connection timeout** parameter in terms of its functionality, however, it applies to all other commands (all commands except the one for establishing a connection).<br><br>This timeout monitors the time between sending a command to the SMU and receiving a response. The value should mainly depend on the commands with the longest processing times and on the transmission time of TCP packets from SMU Auto Logs to the SMU and back.<br><br>If SMU Auto Logs, after sending a command, does not receive a response for the period specified here, SMU Auto Logs will assume that the connection to the SMU has been lost.<br><br>Factory default: 16000 ms<br><br>Changing this value will take the following effects:<br><br>**INCREASE VALUE**<br>• SMU Auto Logs will wait longer, after sending a command, until it assumes that the connection to the SMU has been lost due to the absence of a response.<br><br>**DECREASE VALUE**<br>• If SMU Auto Logs, after sending a command, does not receive a response, it will be quicker to assume that the connection to the SMU has been lost. |
| **Delay between 2 commands** | This parameter determines as to how long SMU Auto Logs, after a command has been responded to, will wait until a new (different) command is sent. This will prevent the SMU from getting overloaded.<br><br>Factory default: 100 ms<br><br>Changing this value will take the following effects:<br><br>**INCREASE VALUE**<br>• After sending a command, you will have to wait longer before the next command can be executed. This way, you can avoid overloading the SMU.<br><br>**DECREASE VALUE**<br>• After sending a command, you can execute the next command sooner. However, this can lead to the SMU getting overloaded. |

| Parameters | Explanation |
|---|---|
| **Login refresh interval** | The only way for SMU Auto Logs and the SMU to reliably determine whether the connection between them still exists is on the basis of "life signs" from their connection partner.<br><br>However, if nothing has been transmitted over a certain period of time, SMU Auto Logs will start a mechanism that sends a ping command to the SMU at regular intervals and receives the corresponding ping response.<br><br>This parameter is used to control as to when and how often this mechanism is activated. As long as no data commands are sent from SMU Auto Logs to the SMU, the sending of ping commands is repeated regularly at the interval specified here.<br><br>This prevents the SMU from falsely assuming that it is still involved in a connection that has long been interrupted (e.g. termination due to a malfunction in the VPN tunnel) and that it is therefore not available for a new connection (only one connection can exist at a time).<br><br>This parameter must match the **Session timeout** parameter, which controls as to how long the SMU will wait for an "empty command": The value on the SMU side (**Session timeout**) must be higher than the value on the SMU Auto Logs side (**Login refresh interval**) to ensure that SMU Auto Logs definitely sends a command **before** the SMU assumes that the connection has been interrupted.<br><br>Factory default: 3000 ms<br><br>Changing this value will take the following effects:<br><br>**INCREASE VALUE**<br>• The monitoring mechanism starts later and the ping commands are sent at longer intervals. If a connection has been lost, the SMU will take longer to get ready for new connections.<br><br>**DECREASE VALUE**<br>• The monitoring mechanism starts earlier and the ping commands are sent at shorter intervals. |
| **Command repetitions** | This parameter determines as to how often the command is repeated. |

| Parameters | Explanation |
|---|---|
| **Read file operation timeout** | Commands that affect the SMU file system (e.g. delete file, request directory) will trigger actions on the SMU that take some time to complete, which also means that it may take some time until a response is sent back to SMU Auto Logs. Therefore, with actions like these, SMU Auto Logs has to wait a relatively long time for a response. |
| | The **Read file operation timeout** parameter is used to make sure SMU Auto Logs waits for a response as long as file operations usually take to be completed. |
| | The value should be based on the maximum period of time the SMU takes to complete a file operation. The transmission time of the channel is so short that it can be neglected. |
| | Factory default: 360000 ms |
| | Changing this value will take the following effects: |
| | **INCREASE VALUE** |
| | • SMU Auto Logs, after having sent a file command and if there is no answer from the SMU, will wait longer before it assumes that its connection to the SMU has been lost. |
| | **DECREASE VALUE** |
| | • If SMU Auto Logs, after sending a file command, does not receive a response, it will be quicker to assume that the connection to the SMU has been lost. |
| **FSP timeout** | For data transfers (FSP: File Stream Protocol; download of files) there is a separate timeout as these tasks usually take longer to be completed than others. |
| | Here, too, the value should depend on how long the SMU takes to complete the respective action. Delays due to the connection channel do not play a major role. |
| | Factory default: 120000 ms |
| | Changing this value will take the following effects: |
| | **INCREASE VALUE** |
| | • SMU Auto Logs, after having sent an upload/download command and if there is no answer from the SMU, will wait longer before it assumes that its connection to the SMU has been lost. |
| | **DECREASE VALUE** |
| | • If SMU Auto Logs, after sending a an upload/download command, does not receive a response, it will be quicker to assume that its connection to the SMU has been lost. |
| ✔ Apply | For entries to be applied, you must click **Apply** before selecting another tab/connection/window or before you exit SMU Auto Logs. |

### 3.2.1.3 Download tab

| | |
|---:|:---|
| **Purpose** | Set/edit log download schedule |
| **Path** | *View > Connections > Download* |
| **Type of use** | Display + dialog |
| **Requirement** | Logged on user, SMU type V4.0 |



Fig.: **Connections** window, **Download** tab

### Setting options in the **Download** tab:

In the explanation of the parameters, you will find information on default settings, input format, range, etc. as applicable (highlighted in green).

| Parameters | Explanation |
|:---|:---|
| **Selection behavior (months)** | Here you specify the months whose logs are to be downloaded. The drop-down list offers 3 options:<br><br>• **Current month only**<br>• **Current and additional <X> months**<br>• **All available months**<br><br>If you select the second option of the drop-down list, you must specify the value for **X** in the next input field. |
| **Number of additional months** | If you selected the second option in the drop-down list above (Current and additional <X> months), you must set the value for **X** here.<br>Value range: 1 to 999 |
| ✔ **Apply** | For entries to be applied, you must click **Apply** before selecting another tab/connection/window or before you exit SMU Auto Logs. |

### 3.2.1.4 **Export** tab

| | |
|---|---|
| **Purpose** | Set storage destination/behavior for exported logs |
| **Path** | *View > Connections > Export* |
| **Type of use** | Display + dialog |
| **Requirement** | Logged on user |
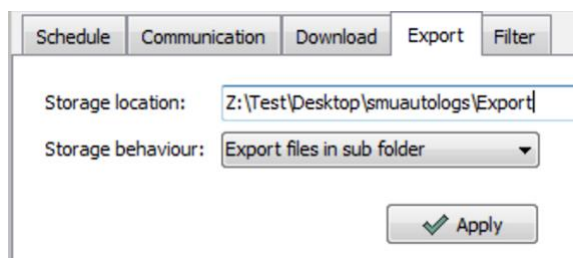


Fig.: **Connections** window, **Export** tab

Information and setting options in the **Export** tab

| Parameters | Explanation |
|---|---|
| **Storage location** | Here you specify the path for the storage destination of the export files. If the specified directory does not exist, it will be created when the files are exported.<br><br>The following default path will be selected if the directory cannot be created:<br><br>                                  \<path to SMUAutoLogs.exe file/Export/\<project name\> |
| **Storage behavior** | The drop-down list offers 2 options:<br><br>• **Export files to one folder**<br>• **Export files to subfolder**<br><br>If you choose the second option, you will have to create the **Export** folder yourself, while the subfolders will be created automatically (including the subfolders intended for each log). |
| ✔ Apply | For entries to be applied, you must click **Apply** before selecting another tab/connection/window or before you exit SMU Auto Logs. |

## 3.2.1.5 **Filter** tab

| | |
|---|---|
| **Purpose** | Define event filters for the selected log type. The filter settings only apply to the SMU currently selected. |
| **Path** | *View > Connections > Filter* |
| **Type of use** | Display + dialog |
| **Requirement** | Logged on user, SMU type V4.0 |
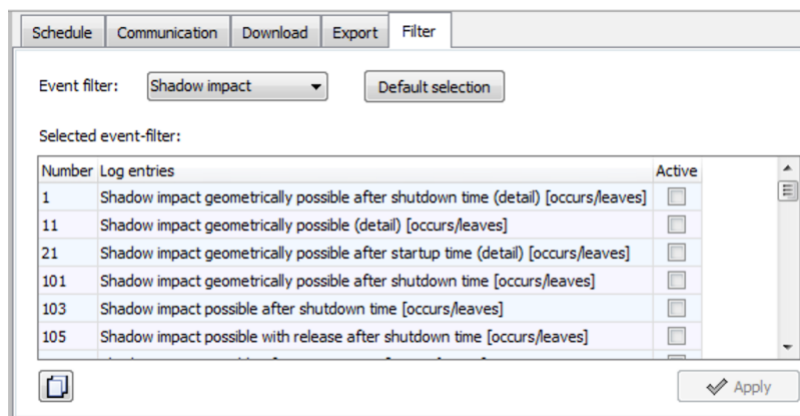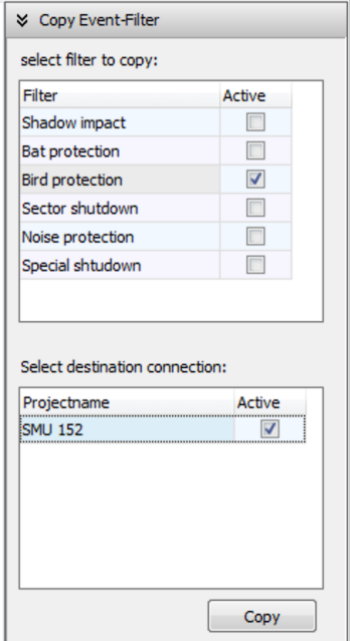


Fig.: **Connections** window, **Filter** tab

Options in the **Filter** tab:

| Parameters | Explanation |
|---|---|
| **Event filter** | Selection of the log type whose event filter is to be changed:<br>• Shadow impact log<br>• Bat protection<br>• Bird protection<br>• Sector shutdown<br>• Noise protection<br>• Special shutdown |
| **Default selection** | If you have changed one of the 6 predefined event filters, you can click this button to reset the currently selected event filter to its predefined state. |

| | |
|---|---|
|  | If you click this button, the **Copy Event Filter** subwindow opens: |
| |  Here you can select filters of the current connection and easily copy them to other connections.<br><br>To do this, place a check mark for the filters to be copied in the upper half and a check mark for the connections into which you want to copy the filters in the lower half.<br><br>Then click on **Copy**. |
|  | In order for entries to be applied, you must click **Apply** before selecting another tab/connection/window or SMU Auto Logs exit. |

### 3.2.2 **Monitoring** window

| | |
|---:|:---|
| **Purpose** | Monitor the status of connections and view logged events |
| **Symbol** | ▣ |
| **Path** | *View > Monitoring* |
| **Type of use** | Display + dialog |
| **Requirement** | none |
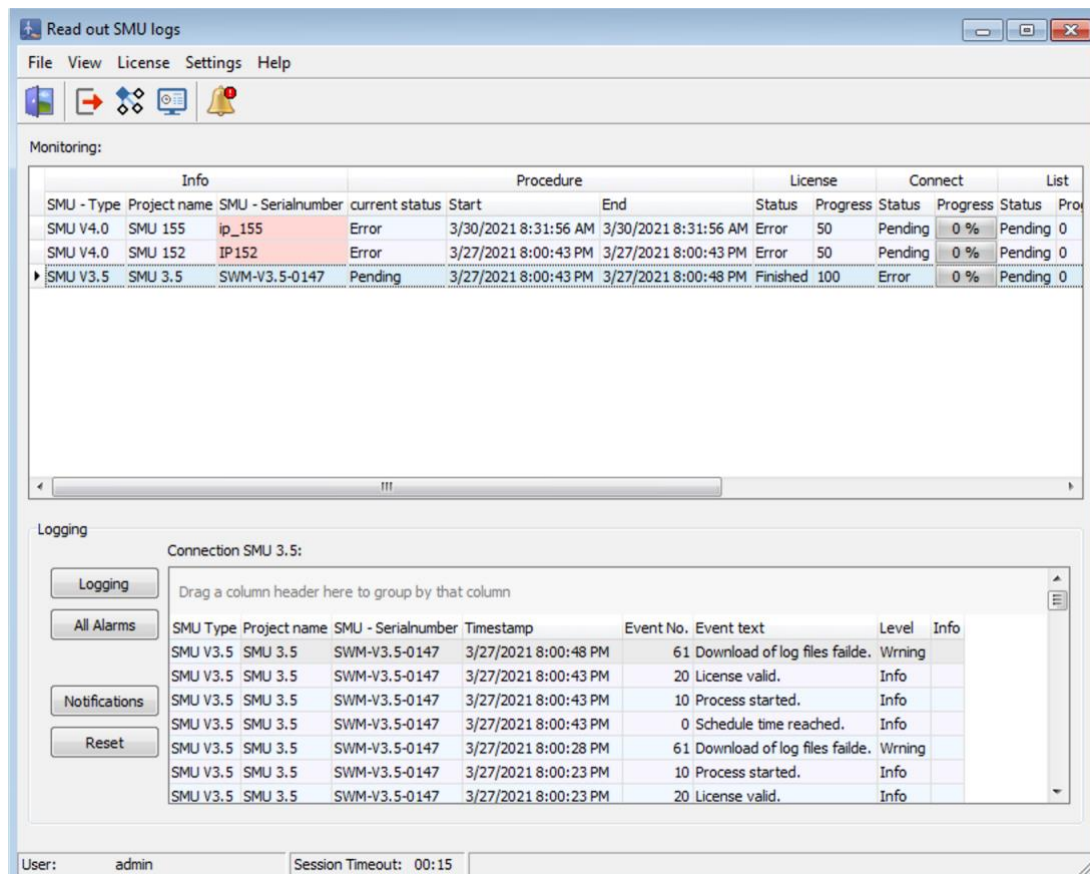


Fig.: **Monitoring** window (section)

Notes regarding the window above

- The **upper table** displays an overview of the added connections including their current status. Double-click on a connection to display the events logged for this connection in the table below.

- The **lower table** displays the following depending on the selection:

  - the logged events of **one** active connection

  OR

  - all errors and warnings of **all** connections

  OR

  - notifications for **all** connections.

The next page first explains the information in the upper table, followed by a description of the lower table and the buttons.
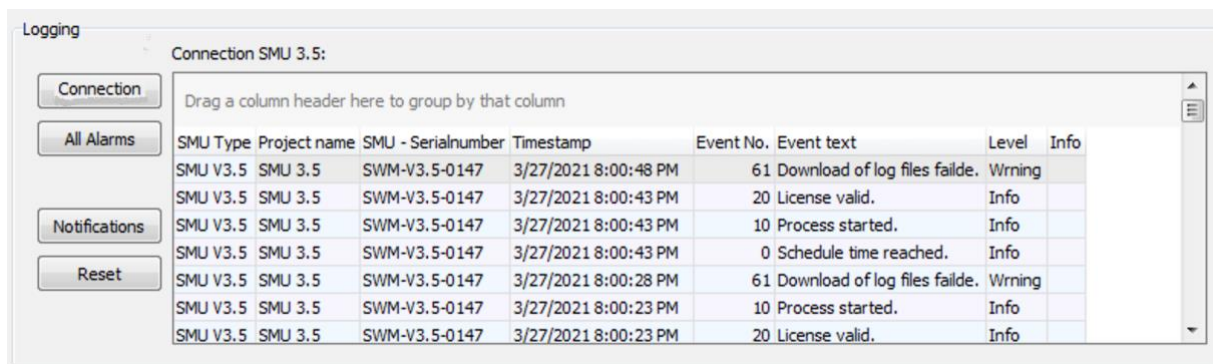
### 3.2.2.1 Upper table in the **Monitoring** window

To access the **Monitoring** window, select *View > Monitoring* or click [icon] .

The upper table displays an overview of the added connections including their current status.

Double-click on a connection to display the logged events of this connection in the lower table.

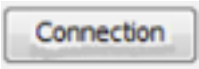The following figure showed an example of a table with four connections added.

| Info | | | | Procedure | | | License | | Connect | |
|---|---|---|---|---|---|---|---|---|---|---|
| SMU - Type | Project name | SMU - Serialnumber | current status | Start | End | | Status | Progress | Status | Progress |
| SMU V4.0 | SMU 155 | ip_155 | Error | 3/30/2021 8:31:56 AM | 3/30/2021 8:31:56 AM | Error | 50 | Pending | 0 % | |
| SMU V4.0 | SMU 152 | IP152 | Error | 3/27/2021 8:00:43 PM | 3/27/2021 8:00:43 PM | Error | 50 | Pending | 0 % | |
| SMU V3.5 | SMU 3.5 | SWM-V3.5-0147 | Pending | 3/27/2021 8:00:43 PM | 3/27/2021 8:00:48 PM | Finished | 100 | Error | 0 % | |

Fig.: Upper table in the **Monitoring** window

The individual columns of the table are explained in the following overview:

| Column | Explanation |
|---|---|
| **Info** | SMU type, project name and SMU serial number as defined in the **Connections** window. |
| **Procedure**<br><br>(includes all work steps) | **Procedure** refers to the set of steps (**License**, **Connect**, **List**, etc.) listed in the columns to the right of the **Procedure** column and explained later in this table.<br><br>A procedure is triggered whenever a point of time specified in the schedule (*View > Connections> Schedule*) has been reached.<br><br>The following can be displayed under **Current Status**:<br><br>• **Pending**: Waiting for the next start of a procedure<br><br>• **Progress**: Procedure or work step is currently active<br><br>• **Error:** An error has occurred in one of the steps of the procedure (to determine the exact step, check for another column in which **Error** is also displayed).<br><br>• **Finished**: This status is only displayed for a single work step that has been completed.<br><br>The **Start** and **End** columns indicate as to when a procedure was started (depending on the schedule) and when the corresponding data was saved to CSV files or respectively when the procedure was terminated by an error.<br><br>Once a procedure has been completed, the status messages of the work steps are retained so that you can see whether the last procedure was carried out successfully or, if not, the work step in which an error occurred. |
| The individual steps are explained from here on ... | |
| **License** | This step checks whether the license for the connection is valid or whether a license exists. |
| **Connect** | SMU Auto Logs attempts to connect to the SMU. |

| Column | Explanation |
|---|---|
| **List\*** | Downloadable log files are identified and prepared for selection. |
| **Select\*** | Log files to be downloaded are selected. |
| **Download** | Log files are being downloaded. Once all files have been downloaded, SMU Auto Logs logs out of the SMU. |
| **Evaluate** | The downloaded log files are evaluated and exported <u>month by month</u>. |
| **Export** | The most important data of an evaluated monthly log file are stored in a CSV file. |

\*With SMU type V3.5, the progress is always set to 100% immediately here.

## 3.2.2.2  Lower table in the **Monitoring** window

To access the **Monitoring** window, select *View > Monitoring* or click 🖳 .

- The **lower table** displays the following depending on the selection made:

    - the logged events of **one** active connection

  OR

    - all errors and warnings of **all** connections

  OR

    - notifications for **all** connections.


Double-click on a connection to display the logged events in the lower table.

The following figure shows an example of a table with four added connections.



Fig.: Lower table in the **Monitoring** window


The columns of the table carry self-explanatory names.

The following overview explains the available buttons.

| Button | Explanation |
|---|---|
| Connection | This button displays the logged events of a connection. In order for the logged events to be displayed, a connection must be selected from the table above. Double-clicking on a connection in the upper half of the window takes the same effect. |
| All Alarms | Displays all logged errors and warnings of **all** connections. No connection needs to be selected for this button to take effect. |
| Notifications | **Notifications** lists all errors and warnings that have been logged since the **Reset** button was last pressed. Clicking 🔔 🔔 in the menu bar takes the same effect. |

| Button | Explanation |
|---|---|
| Reset | This button is used to "reset" the accumulated notifications.<br><br>After clicking this button, the red circle with the exclamation mark display at the **Notifications** icon (🔔🔔) in the toolbar will disappear.<br><br>If you now click **Notifications** again, nothing will be displayed unless new errors or warnings have been logged since you clicked **Reset**. |

### 3.2.3 Change Password window

| | |
|---|---|
| **Purpose** | Change the password of the currently logged in user |
| **Path** | *View > Change Password* |
| **Type of use** | Dialog |
| **Requirement** | Logged on user |

In this window the currently logged in user can change their password.
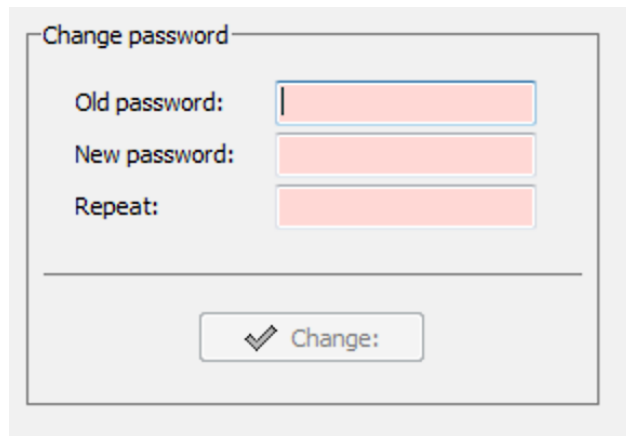


Fig.: **Change Password** window

To change the password, first enter the old password, then enter the new password twice and click on **Change**.

### 3.2.4  User Management window

| | |
|---:|:---|
| **Purpose** | Edit, add or delete SMU Auto Logs  users<br>Assign/delete user rights |
| **Path** | *View > User Management* |
| **Type of use** | Display + dialog |
| **Requirement** | Admin right |

In this window, users with admin rights can add, edit or delete other users and also assign/delete the admin right.



Fig.: **User Management** window

Users that have already been assigned are displayed in the upper half of the window while editing takes place in the lower half.

Information and setting options in the **User Management** window

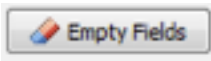| Input field/<br>button | Explanation |
|:---|:---|
| **User** | Input any character |
| **Password** | Input any character; note the following information in the window:<br><br>If the password field is empty:<br>-and you click on Apply, the old password will continue to be valid<br>-and you click on Add, the default password 1234 will be set |
| **Description** | This field has no defined function, the text can be freely selected.<br>Maximum number of characters: 80 |
| **Admin** | If you check this box when creating a user, the future user will also be allowed to open the **User Management** window (= this window) and **License Management** window. |

| Input field/ button | Explanation |
|---|---|
| Empty Fields | self-explanatory |
| Remove | Removes the user selected in the list above |
| Apply | Observe the following note in the window:<br><br>If the password field is empty:<br>-and you click on Apply, the old password will continue to be valid<br>-and you click on Add, the default password 1234 will be set |
| Add | see above |

## 3.3   License menu

The only item in the **License** menu is the **License Management** menu item. This item is explained in the following section.

### 3.3.1   License Management window

| | |
|---|---|
| **Purpose** | Display, load and close the license file |
| **Path** | *View > User Management* |
| **Type of use** | Display + dialog |
| **Requirement** | Admin right |

In this window you will find an overview of the licenses contained in the currently loaded license file. You can also close an "old" license file here and load a newly acquired one.
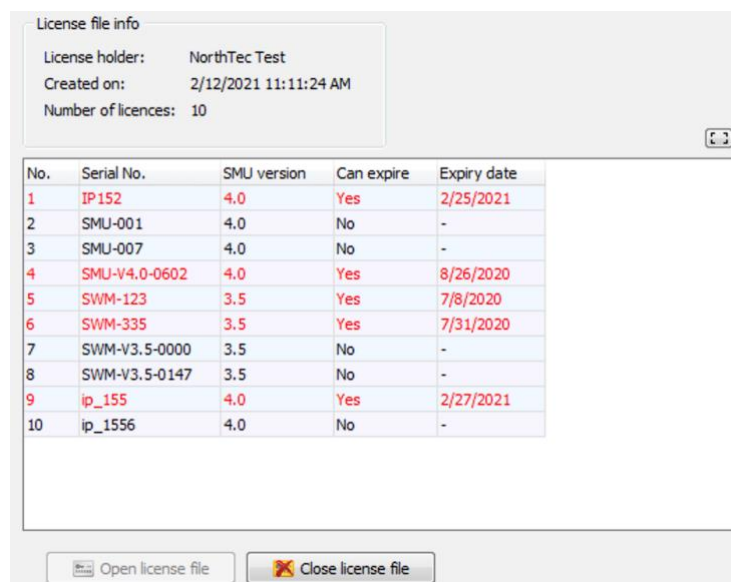


Fig.: **License Management** window

**Notes on the above example**

- Numbers 1 and 9 expire shortly and cannot be renewed but must be replaced by new licences.

- Licenses 2, 3, 7, 8 and 10 are licenses valid for an unlimited period.

- Numbers 4, 5 and 6 are displayed in red because they have already expired.

- Use the **Open License File** button to select a license file you want to load.

- Use the **Close License File** button to remove the currently loaded license file.

## 3.4  **Settings** menu

The following table provides you with an overview of the **Settings** menu.

| Menu item | Purpose |
|---|---|
| **Program** | • Set session timeout<br>• Check for updates |
| **Language** | • Select the program language |

The **Settings** menu windows are described in detail in the following sections.

### 3.4.1  **Program** window

| Purpose | Set session timeout, check for updates |
|---:|:---|
| Path | *Settings > Program* |
| Type of use | Display + dialog |
| Requirement | Logged on user |



Fig.: **Program** window

Information and setting options in the **Program** window:

In the explanation for the parameters, you will find information on default settings, input format, range, etc. as applicable (highlighted in green).

| Input field/ button | Explanation |
|:---|:---|
| **Duration** | After the time specified here has elapsed, a logged-in user is logged out. Input: 5 to 60 minutes |
| **Active** | Only if a check mark has been set here, SMU Auto Logs automatically will check (in the background) every **<x>** hours whether a new version is available. |
| **All** | At the interval **<x>** specified here, the system automatically checks whether there are any updates for SMU Auto Logs. Input: 1 to 9000 hours |

### 3.4.2 **Language** menu item

| | |
|---:|:---|
| **Purpose** | Switch between German and English user interfaces |
| **Path** | *Settings > Language* |
| **Type of use** | Dialog |
| **Requirement** | none |

## 3.5  **Help** menu

| Symbol | Window | Description |
|--------|--------|-------------|
| | **NorthTec Homepage** | Go to the NorthTec homepage. |
| | **Check for New Version** | When this menu entry is selected, the software will automatically check whether updates for SMU Auto Logs are available. |
| | **Info about SMU Auto Logs** | Display of information on the software version, NorthTec (telephone number, address etc.), the operating system used and memory usage. |