

LSM 3.5 SP3 Basic Online

Manual

08.12.2023

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1. General information

This manual describes the functions in the 3.5 SP3 Locking System Management software. The Locking System Management software, LSM software for short, was developed to manage complex locking systems with SimonsVoss locking components.

Other documents are available to supplement this manual:

■ *WaveNet manual*

Describes how to use the WaveNet radio network.

■ *SimonsVoss Smart User Guide*

Implement basic functions with the LSM software.

■ *LSM update manual*

Describes the update process for previous versions.

1.1 General safety instructions

Signal word: Possible immediate effects of non-compliance

WARNING: Death or serious injury (possible, but unlikely)

CAUTION: Minor injury

IMPORTANT: Property damage or malfunction

NOTE: Low or none



WARNING

Blocked access

Access through a door may stay blocked due to incorrectly fitted and/or incorrectly programmed components. SimonsVoss Technologies GmbH is not liable for the consequences of blocked access such as access to injured or endangered persons, material damage or other damage!

Blocked access through manipulation of the product

If you change the product on your own, malfunctions can occur and access through a door can be blocked.

- Modify the product only when needed and only in the manner described in the documentation.



NOTE

Intended use

SimonsVoss-products are designed exclusively for opening and closing doors and similar objects.

- Do not use SimonsVoss products for any other purposes.

Different times for G2 locks

The internal time unit of the G2 locks has a technical tolerance of up to ± 15 minutes per year.

Qualifications required

The installation and commissioning requires specialized knowledge.

- Only trained personnel may install and commission the product.

Modifications or further technical developments cannot be excluded and may be implemented without notice.

The German language version is the original instruction manual. Other languages (drafting in the contract language) are translations of the original instructions.

Read and follow all installation, installation, and commissioning instructions. Pass these instructions and any maintenance instructions to the user.

1.2 Product-specific safety instructions

CAUTION

Loss of locking system password

The locking system password is a central component of the security concept. The loss of the locking system password restricts the operation of the locking system and is a security risk.

1. Keep the locking system password safe (e.g. in a safe)!
2. Make the locking system password visible to authorised persons at all times!

1.3 Legal notes

The purchaser is expressly informed that use of the locking system (e.g. with access event logging and DoorMonitoring functions) may be subject to statutory permit requirements and employee rights to co-determination, especially with regard to data protection legislation. The purchaser or customer and the end user are responsible for ensuring that the product is used in compliance with the law.

Malfunctions may arise if the product is not used as agreed or is used in a non-standard way. They may also occur if the product undergoes repairs or modifications not expressly approved by SimonsVoss Technologies GmbH, or assistance with the product is obtained from a non-specialist service provider; do not use the product or have it repaired or serviced in this way. Any modifications not expressly permitted by SimonsVoss Technologies GmbH will result in the loss of the right to make liability or warranty claims or any specially agreed rights to make guarantee claims.

1.4 System requirements

SimonsVoss recommends using up-to-date, high-performance hardware which exceeds the minimum system requirements at all times to ensure that LSM functions smoothly.

SimonsVoss recommends a high-resolution 21" wide-screen monitor or larger to ensure that even large locking systems with many components can be clearly displayed.

General information

- Local administrator rights for installation
- TCP/IP
(Using the EventAgent requires NetBios.)
- LAN (min. 100 Mbit/s)
- .NET Framework 4.0 or higher
- USB port(s)
- No support for ARM processors under System 3060

Client PC

- Monitor: min. 48 cm (19")
- Monitor resolution: min. 1024x768; recommended 1280x1024 or higher
- CPU: min. 2.66 GHz with 2 or more cores (Intel/AMD)
- Main memory: min. 4 GB
- Hard disk size: depending on the system size, min. 500 MB
(approx. 1 GB during installation)
- Windows operating system:
 - Windows 11 Professional, 64-bit
 - Windows 10 Professional, 64-bit



NOTE

Read the LSM software release notes to see which version of LSM Mobile is to be used.

1.5 Information on the manual

This manual describes the functions in the LSM software. This allows the user to programme SimonsVoss locking components and manage the locking system.

**NOTE**

This manual does not describe individual SimonsVoss locking components. You must consult the quick guides and manuals for the individual components to understand individual components.

Transponder

As a basic rule, the LSM software regards all ID media, such as transponders, tags and cards, as transponders. In this manual, the term 'transponder' therefore also refers to all other ID media such as tags and cards.

1.6 Data protection in System 3060

See *Working in compliance with data protection regulations GDPR* [► 125].

1.6.1 IT basic protection**1.6.1.1 What protection requirements do the data processed in the system have?**

In general, only non-critical data with so-called normal protection requirements are processed and stored in the software. This means data whose hypothetical loss neither damages the reputation of a person nor the image of a company. A high financial loss is also not to be expected.

1.6.1.2 What IT infrastructure requirements are recommended?

According to the German Federal Office for Information Security (BSI), basic IT security is therefore sufficient as a security concept for a SimonsVoss locking system and is regarded as a recommended minimum requirement for your IT infrastructure.

1.6.2 Encryption**1.6.2.1 Is the data in System 3060 encrypted?**

Yes. Data packets are encrypted end-to-end within the system's own communication network. The latest versions of our products offer you a higher level of security since they are always state-of-the-art. Multi-level encryption methods are used (AES, 3DES).

1.6.2.2 What data is encrypted?

Within the system's own communication network, no personal data is processed. It pseudonymised instead using the identification numbers. They cannot be associated with a real person even without encryption.

1.6.2.3 Are the transmission paths via radio, for example, also encrypted?

No. Due to the end-to-end encryption type used, there is no need to also encrypt the transmission paths.

2. Intended use

LSM 3.5 SP3 stands for Locking System Management and is database-supported software. It allows you to create, manage and control locking plans.

3. Meaning of the text formatting

This documentation uses text formatting and design elements to facilitate understanding. The table explains the meaning of possible text formatting:

Example	button
<input checked="" type="checkbox"/> Example <input type="checkbox"/> Example	checkbox
<input checked="" type="radio"/> Example	Option
[Example]	Tab
"Example"	Name of a displayed window
Example	Upper programme bar
Example	Entry in the expanded upper programme bar
Example	Context menu entry
▼ Example	Name of a drop-down menu
"Example"	Selection option in a drop-down menu
"Example"	Area
Example	Field
<i>Example</i>	Name of a (Windows) service
<i>Example</i>	Commands (e.g. Windows CMD commands)
Example	Database entry
[Example]	MobileKey type selection

4. Installation

This section describes initial LSM software installation on a system which does not have a previous version of LSM installed. It is possible to update to the current LSM version 3.5 SP3 from an earlier version, but you must ensure that LSM 3.5 SP3 is not installed in parallel to older versions of LSM.

The LSM update manual documents LSM software updates.

4.1 Software



NOTE

Different access rights levels for LSM Basic Online and VN host server

If the VN host accesses the LSM database, LSM Basic Online may malfunction in its execution and may not function with the database.

- Always run LSM Basic Online as an administrator.

4.1.1 LSM Basic Online



CAUTION

Install VN host after LSM

The VN host cannot access the database if LSM has not been installed yet and a locking system has been set up. If the VN host does not find a database it can access during installation, problems may arise.

1. Install LSM before the VN host.
2. Add a locking system.
3. Install VN host

LSM Basic Online is installed on a single local computer only. *It is not possible and is not permitted to save the database via the network since the integrity of the database can no longer be guaranteed in such cases.*

1. Launch the set-up file as an administrator.
2. Follow the installation instructions.
 - You need to accept the licence conditions to carry out installation.
3. Launch LSM Basic Online (*desktop icon or Start/Programme/SimonsVoss/LSM BASIC ONLINE*)



NOTE

Save your locking system locally on the computer and generate backups on external disks or data storage devices on a regular basis.

4.1.1.1 Install Crystal Reports hotfix

Crystal Reports is used as a reporting tool in the background. The tool is automatically installed when LSM Basic Online, Business and Professional are installed. A current hotfix needs to be installed to ensure correct operation.

1. Launch the hotfix in .exe format.
2. Follow the installation instructions.
 - ↳ You need to accept the licence conditions to carry out installation.



NOTE

Installation without Java components

The Java components (JCE) of the hotfix are not required for operation with the LSM.

- Deactivate the checkbox ☐ JCE during the installation routine.

4.1.2 VN host

The VN host accesses the LSM database and provides various functions without LSM itself being executed (including gateway).



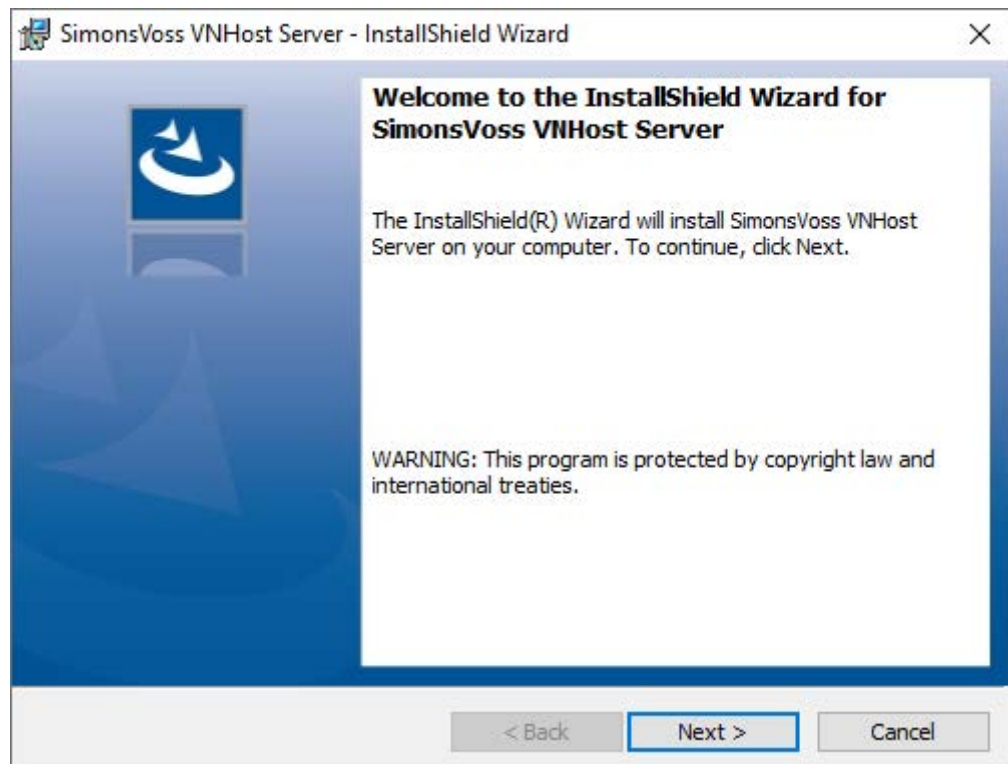
CAUTION

Install VN host after LSM

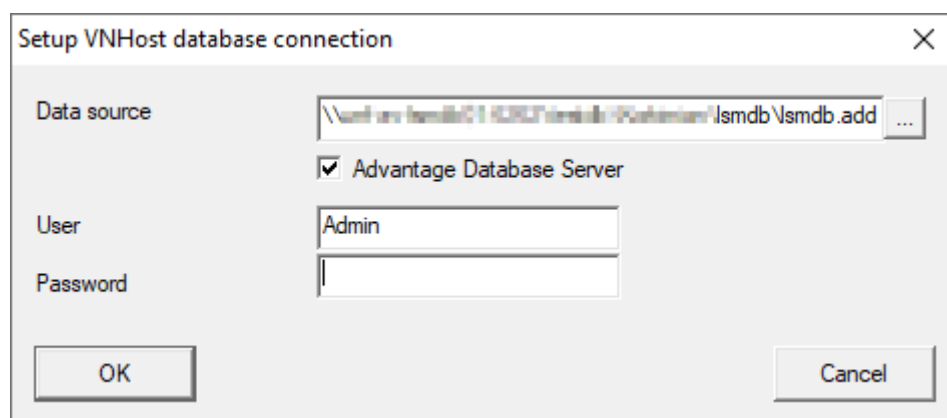
The VN host cannot access the database if LSM has not been installed yet and a locking system has been set up. If the VN host does not find a database it can access during installation, problems may arise.

1. Install LSM before the VN host.
2. Add a locking system.
3. Install VN host

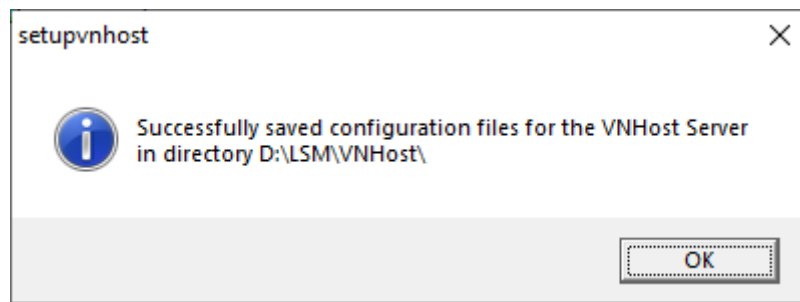
1. Execute the set-up file (vnhost_setup_3_5_sp3.exe).



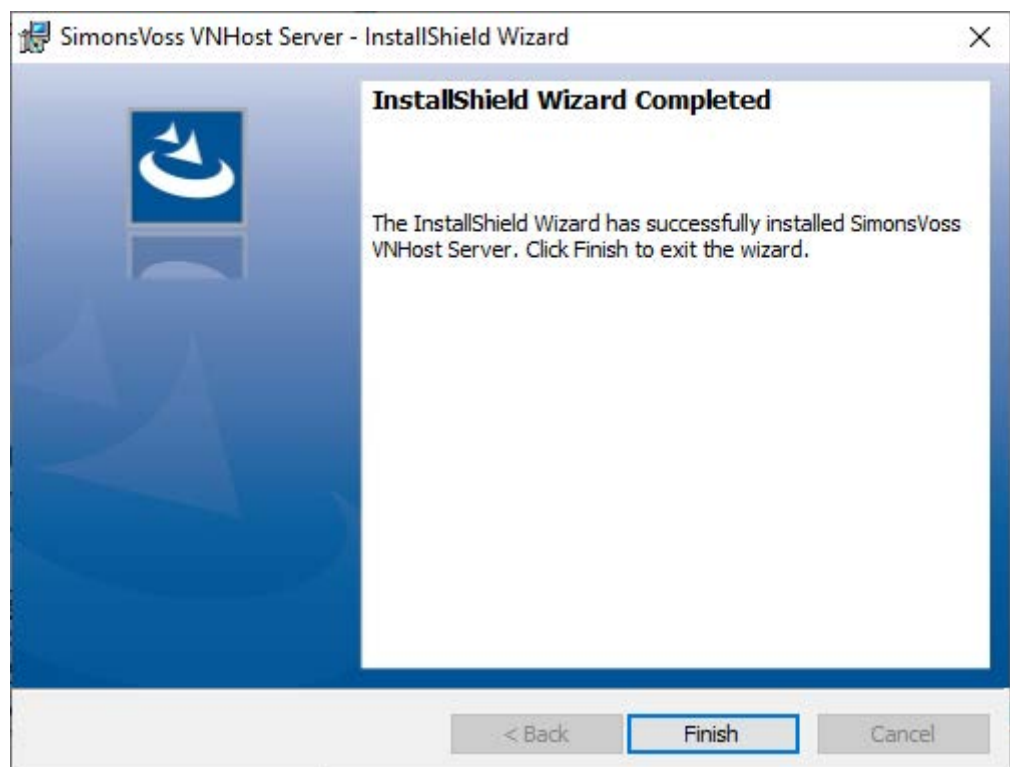
2. Follow the installation instructions and install the VN host locally.
3. Enter the UNC path to your lsmdb.add (can be copied from the LSM login window) in the "Setup VN host database connection" window.



4. Enter your LSM user name and your LSM user password.
5. If your lsmdb.add is installed locally: disable the ☐ Advantage Database Server check box.
6. Click on the **OK** button.
 - Connection is established between VN host and database.



➞ Installation complete.



4.1.3 CommNode

Install the CommNode server using the setup file. If the CommNode service is not then listed under the Windows services (SimonsVoss CommNode server), you must perform the installation with a batch file.

1. Go to the installation directory of the CommNode server (**C:\Program Files (x86)\SimonsVoss\CommNodeSvr_3_5**).
 2. Execute the batch file **install_CommNodeSvr** with administrator rights.
 - ➞ The command line opens.
 - ➞ The CommNode server is installed.
- ➞ The CommNode server is installed and listed under Windows services.

4.1.3.1 Creating communication nodes

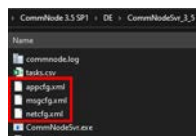
The communication node forms the interface between the CommNode server and the LSM software. You must launch the LSM software using an administrator account to add the configuration XMLs.

1. Open the LSM software.
2. Select | Network | / **Communication nodes**.
3. Add "Name", "Computer name" and "Description",

```
C:\Users\kgeiger>echo %computername%  
UNF-AL-18KJ793  
  
C:\Users\kgeiger>echo %computername%.%userdnsdomain%  
UNF-AL-18KJ793.ALLEGION.COM
```

↳ e.g. *UNF-AL-18KJ793; UNF-AL-18KJ793.ALLEGION.COM;*
communication node for the WaveNet radio network 123

4. Click on the **Config files** button.
5. Ensure that the path links to the CommNode server's installation directory and click on the **OK** button.
6. Press **No** to deny the prompt and confirm your selection by clicking on **OK**. *The three configuration XMLs (appcfg, msgcfg and netcfg) must be located directly in the CommNode server's installation directory.*



7. Click on the **Apply** button to save your settings.
8. Click on the **OK** button to close the prompt.
9. Click on the **Exit** button to close the dialogue.

5. First steps after a new installation



NOTE

Different access rights levels for LSM Basic Online and VN host server

If the VN host accesses the LSM database, LSM Basic Online may malfunction in its execution and may not function with the database.

- Always run LSM Basic Online as an administrator.

5.1 Recommended approach to handling passwords

Two types of passwords are used in LSM software:

■ User password

The user password is required to log on to the locking plan or database.

■ Locking system password

The locking system password is programmed into all SimonsVoss components. This locking system password is saved to an encrypted section in the locking plan or database and cannot be read.

Programmed SimonsVoss components can only be reprogrammed if the database knows the locking system password.

Two recommendations for managing passwords securely:

- To ensure optimum security for the whole locking system, the locking system password should be split into at least two parts, which are issued to different people on an individual basis.
- We strongly recommend writing the administrator and locking system password down and storing them securely in different places where they cannot be accessed by third persons.

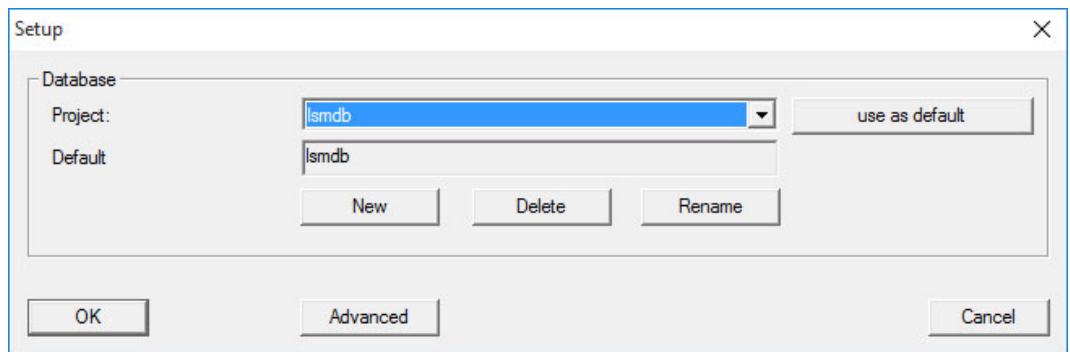
The locking system operator should always be clear about one thing: what happens if the only person who knows the locking system password (or part of it) should suddenly no longer be available.

The predefined user AdminAL is locked for security reasons. As administrator, you must first unlock the user AdminAL. Also change the default password (system3060).

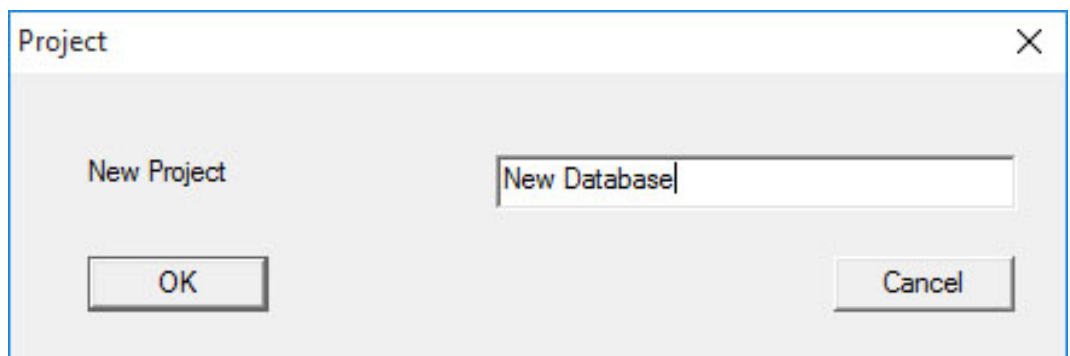
5.2 Create database

The first step in LSM software is to create a new database.

1. Launch the LSM software, e.g. using *Start/Programme/SimonsVoss/Locking System Management*.
 - ↳ The LSM software launches and the main menu appears with the items "Log on", "Log off" and "Setup".
2. Click on "Setup".



3. Click on "New" to create a new project.
 - ↳ *Advanced users can use the "Advanced" button to make advanced settings, such as establishing the database directory or backups.*



4. Enter a name for the project and confirm by pressing "OK".
Click on the "Use as default" button to select this database automatically on starting up.

**NOTE**

You can use the "Advanced" button in the "Setup" window in LSM Basic to set an alternative file path up as a database store. Locking plans should not be stored in user-specific files such as "Own files" or "Desktop", especially if several users access a copy of LSM Basic on the same computer.

**NOTE**

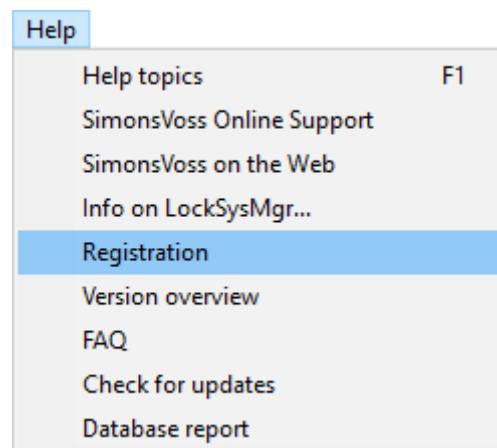
Only hide local directories as file storage locations in LSM Basic. To ensure the integrity of the locking system, it is not possible to install on network drives.

5.3 Register LSM

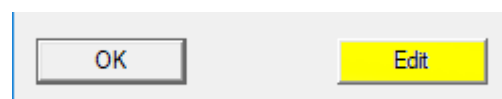
LSM needs to be registered. A registration file is created for this purpose and sent to a designated email address. You will then automatically receive a reply which contains your personal licence file. You can use this licence file to register LSM with the modules that you ordered.

Procedure

- ✓ LSM installation is implemented.
 - ✓ Delivery note with registration information is on hand.
 - ✓ Sending mails is possible.
1. In the tab | Help | click on the **Registration** button.
 - ↳ The Registration window opens.



2. Click on the **Edit** button.



- ↳ The Edit registration window opens.

3. Complete the form.

Company:	SimonsVoss		
Address:	Feringastraße 4		
Town:	Unterföhring	Postcode:	85774
Country:	Deutschland		
Contact:	[redacted]		
Tel:	[redacted]	Fax:	[redacted]
E-mail:	[redacted]		

4. Make sure the correct edition is selected (example: Business).

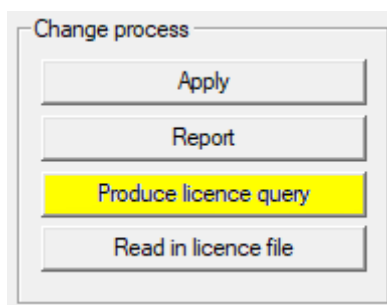
LSM Business
<input checked="" type="checkbox"/> LSM Report
<input checked="" type="checkbox"/> LSM Monitor
<input checked="" type="checkbox"/> LSM Database
<input type="checkbox"/> LSM Network 48
<input type="checkbox"/> LSM Network 128
<input checked="" type="checkbox"/> LSM Network Enterprise
<input type="checkbox"/> LSM CommNode 5
<input type="checkbox"/> LSM CommNode 10
<input checked="" type="checkbox"/> LSM CommNode Enterprise
<input checked="" type="checkbox"/> LSM Online
<input type="checkbox"/> LSM Terminal Server
<input checked="" type="checkbox"/> LSM Card
<input checked="" type="checkbox"/> LSM VN Server
<input type="checkbox"/> LSM MultiDataBase

5. Click on the **Apply** button.

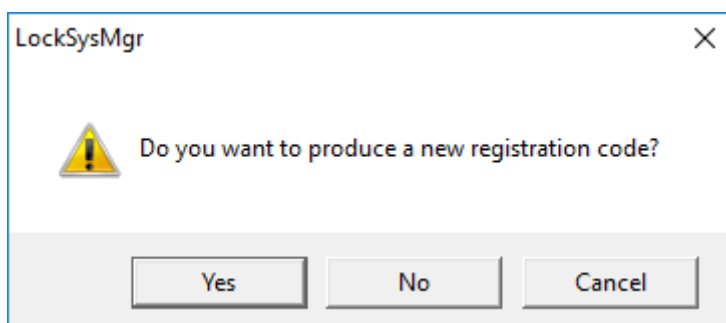
Change process
Apply
Report
Produce licence query
Read in licence file

→ The data record is saved.

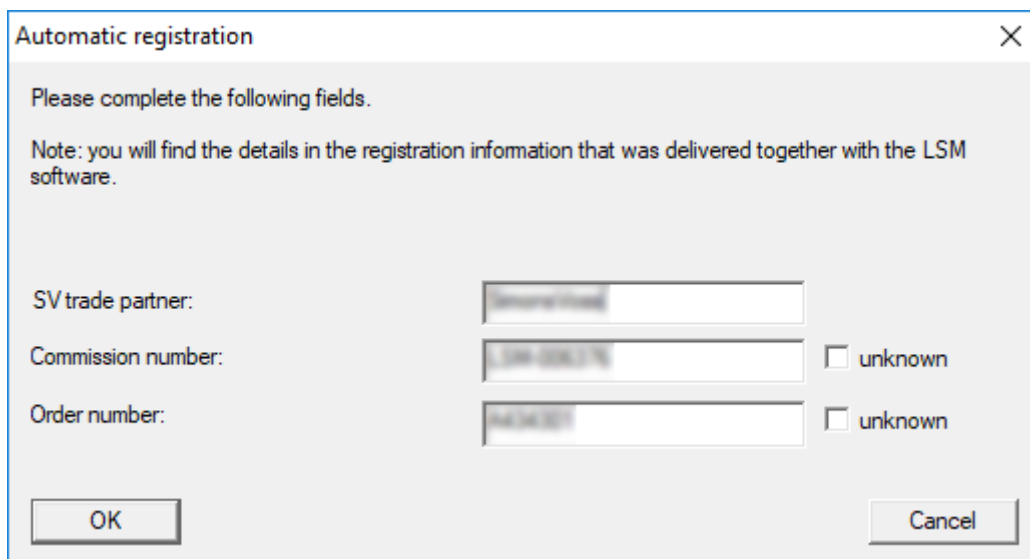
6. Click on the **Produce licence query** button.



7. Click on the **Yes** button to accept the query prompt.

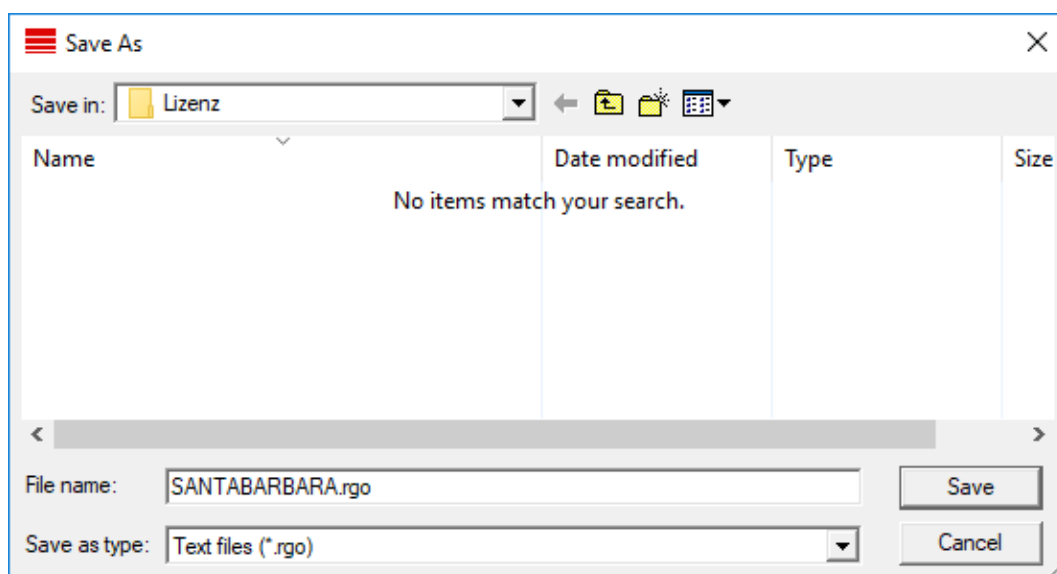


8. Complete the form (LSM consignment number in LSM-xxxxxx format; order number in Axxxxxx format).

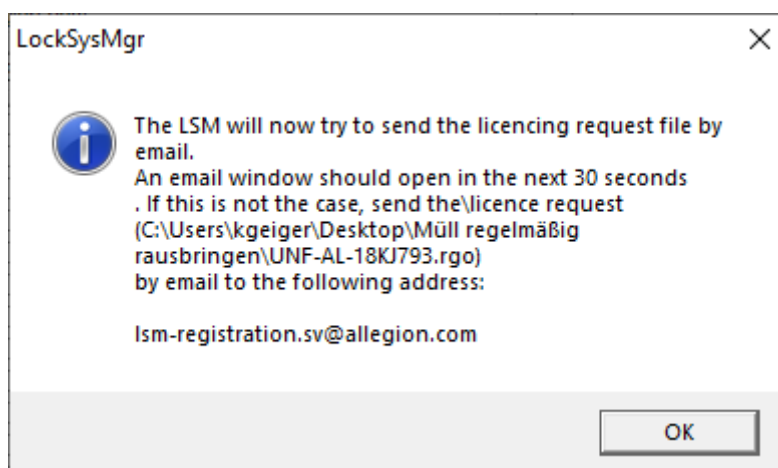
A dialog box titled "Automatic registration" with a close button (X) in the top right corner. It contains the text "Please complete the following fields." and a note: "Note: you will find the details in the registration information that was delivered together with the LSM software." Below this, there are three input fields with labels to their left: "SV trade partner:", "Commission number:", and "Order number:". Each input field has a small gray box with a question mark inside. To the right of the "Commission number:" and "Order number:" fields, there are checkboxes labeled "unknown". At the bottom, there are two buttons: "OK" and "Cancel".

9. Click on the **OK** button.
- ↳ The RGO file is created.
 - ↳ The Explorer window will open.

10. Save the RGO file to a directory of your choice.



11. Click on the **OK** button.



→ The standard email client will open. An email is automatically generated with the RGO file attached.

12. If the RGO file is not attached, then attach it manually.

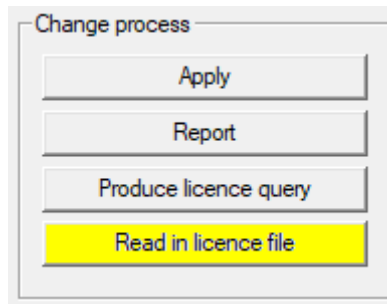
13. Send an email with the RGO file to lsm-registration.sv@allegion.com.

→ Reply is automatically sent with the LIC file attached.

14. Save the LIC file to a directory of your choice.

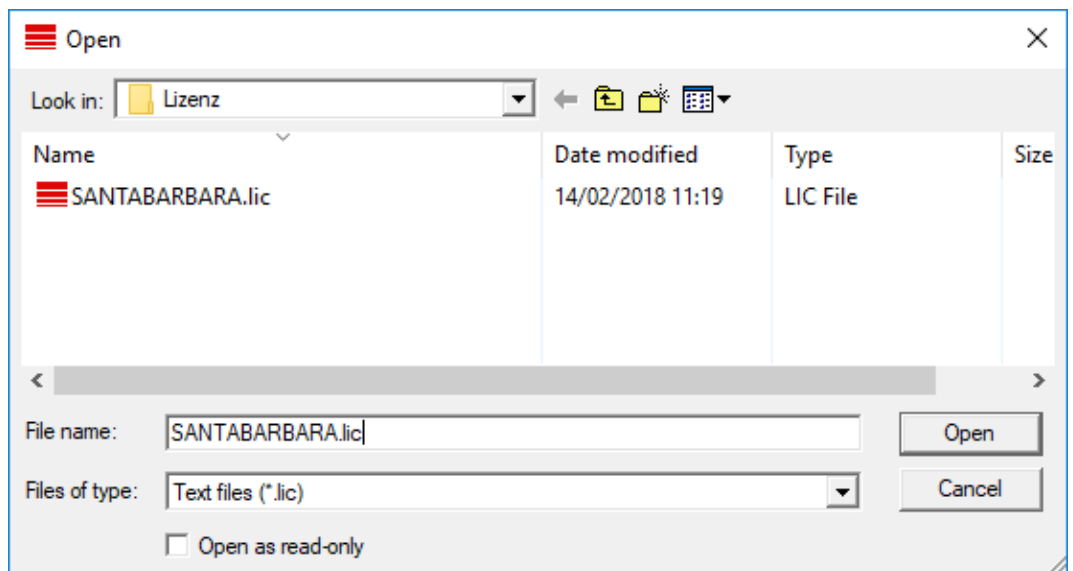
15. Switch back to LSM.

16. Click on the **Read in licence file** button.



→ The Explorer window will open.

17. Select the LIC file.



18. Click on the **Open** button.

19. Click on the **OK** button to accept the prompt notice.

20. Re-start LSM.

→ Registration is implemented.

5.4 Add locking system

Establish password

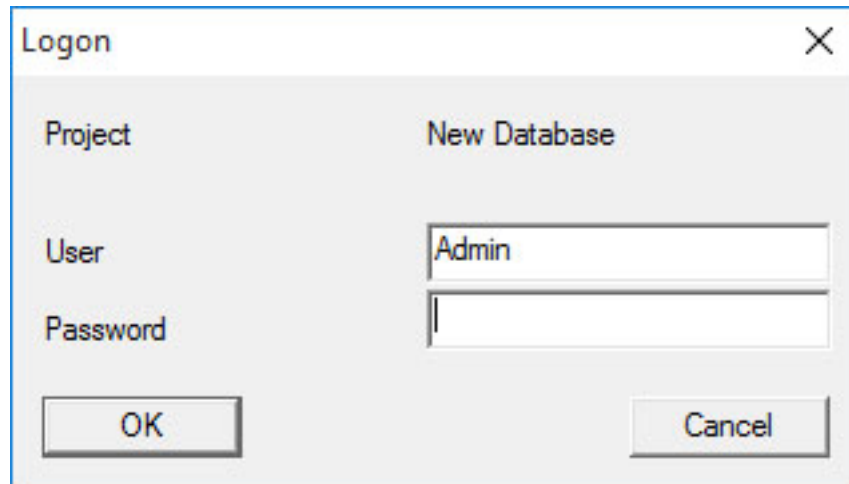
If you have already created a project, you can now create a locking system.



NOTE

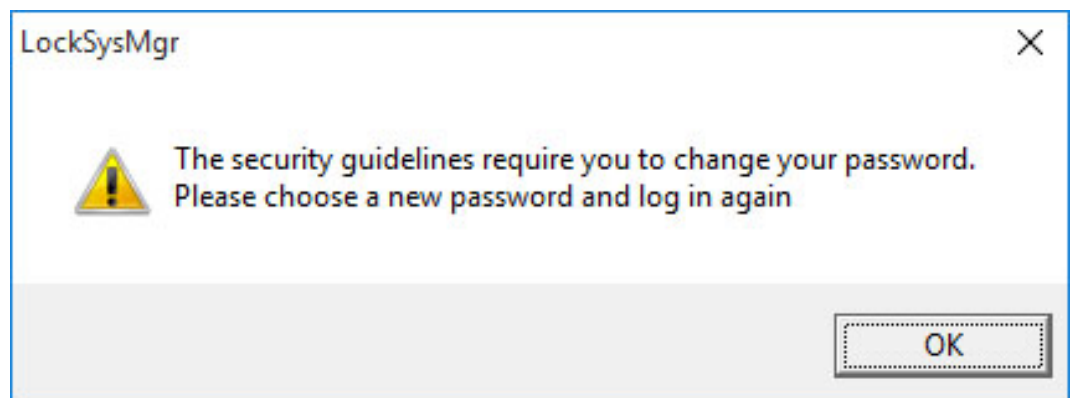
When creating the first locking plan in LSM Business or LSM Professional, licensing interrupts the process. The licensing of other modules is optional for LSM Basic.

1. Click on "Log on" in the main menu in the LSM software. Ensure that the right project is selected under "Setup" if necessary.
2. Enter the default password "system3060".



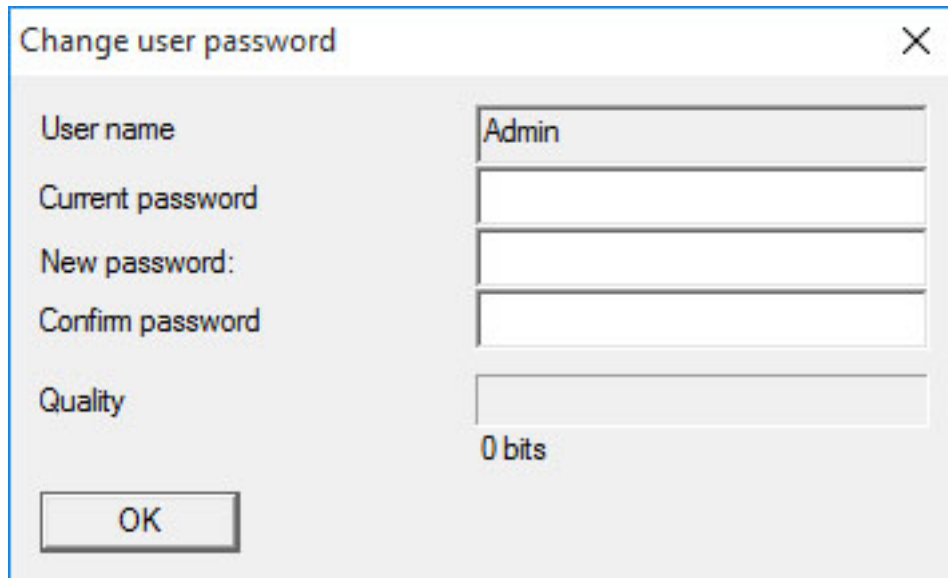
A screenshot of the "Logon" dialog box. The dialog has a title bar with "Logon" and a close button. It contains two columns: "Project" and "New Database". Under "Project", there are labels for "User" and "Password". The "User" field contains the text "Admin". The "Password" field is empty. At the bottom, there are "OK" and "Cancel" buttons.

3. Click on "OK" to acknowledge the warning.



A screenshot of the "LockSysMgr" warning dialog box. The dialog has a title bar with "LockSysMgr" and a close button. It contains a yellow warning triangle icon with an exclamation mark. To the right of the icon, the text reads: "The security guidelines require you to change your password. Please choose a new password and log in again". At the bottom right, there is an "OK" button.

4. Re-enter the default password "system3060" and then establish a new user password.



A dialog box titled "Change user password" with a close button (X) in the top right corner. It contains five input fields: "User name" (pre-filled with "Admin"), "Current password", "New password:", "Confirm password", and "Quality" (pre-filled with "0 bits"). An "OK" button is located at the bottom left.

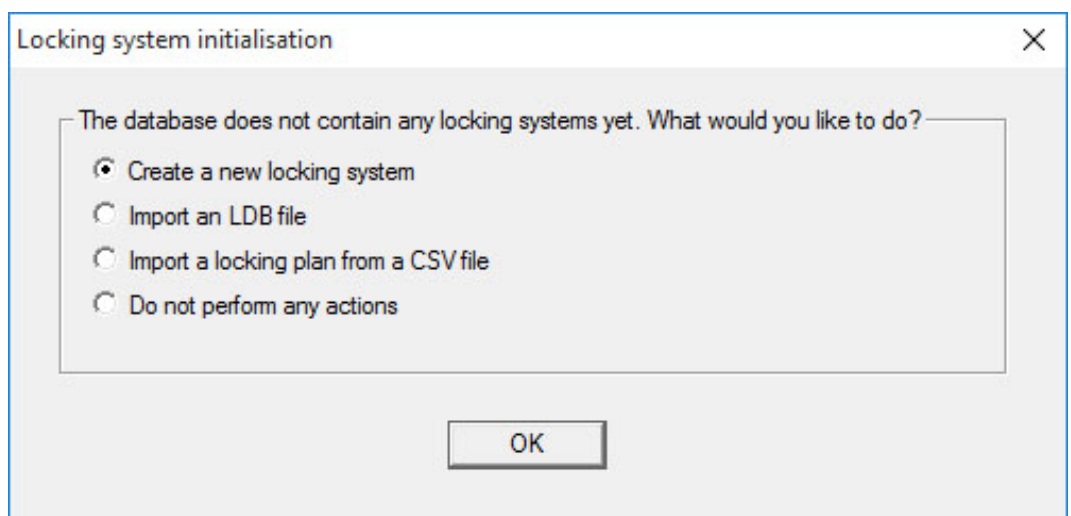


NOTE

The user password will be requested each time that you log on to the database. Several users with different passwords and rights can be created for LSM Business.

Create locking system

1. A set-up wizard opens up once you have issued a new password:



A dialog box titled "Locking system initialisation" with a close button (X) in the top right corner. It contains a text area with the message: "The database does not contain any locking systems yet. What would you like to do?". Below the text area are four radio button options: "Create a new locking system" (selected), "Import an LDB file", "Import a locking plan from a CSV file", and "Do not perform any actions". An "OK" button is located at the bottom center.

2. Select "Create a new locking system" to add a completely new locking system. Confirm by pressing "OK".

3. Define the characteristics of the new locking system and issue secure passwords. *You can make changes at a later stage any time; however, this very time consuming after initial programming of components due to the programming requirements.*

4. Click on "Apply" to create the new locking system.
5. Click on "OK" to access the new locking system directly.



NOTE

The locking system password is programmed into all SimonsVoss components and managed with LSM software. You cannot make any changes to the programmed components without this locking system password, which is also indicated in the LSM software. *Observe the section on [Recommended approach to handling passwords \[► 18\]](#) to ensure that the locking system is operated without any problems.*

If the locking system password is changed, all programmed components must be reprogrammed.

5.4.1 Overview of protocol generations

	G1	G2
Access rights administration:	Locking devices	Locking device and ID medium (only ID medium in VN)
Number of locking devices:	16,000	64,000
Number of transponders:	8,000	64,000

	G1	G2
Number of locking systems on a transponder:	3	4 x G2 + 3 x G1
Time zone groups:	5+1	100+1
Loggable access events in a locking device:	Cylinder: 1,000	Cylinder: 3,000; SmartRelay: 3,600 (200 as Gateway)
Physical access list on transponder:	No	1,000 per G2 locking plan (including date, time, locking device ID)
Procedure for group administration:	Adjustable; number is defined in the group	No pre-setting required; rights and exceptions are entered onto transponder
Replacement transponders:	7 replacement transponders using overlay mode	No pre-setting required
Network-capable:	Yes	Yes
Virtual network:	No	Yes, circulate Block IDs in VN
Engage interval:	5 or 10 sec.	1 to 25 sec.; engage time can be doubled on an individual basis for transponders – max. 25 sec.
Time-restricted authorisation:	Yes	Yes
Battery warning:	Level 1; Level 2; storage mode	Level 1; Level 2; freeze mode
Battery replacement:	SmartCD	Battery replacement transponder together with authorised transponder or SmartCD
LSM/LDB:	All versions	LSM 3.0 and higher
Active/passive:	Yes / yes	Yes / yes

5.4.2 G1 locking system

The G1 standard is the first SimonsVoss protocol generation. This standard is compatible with the predecessor to LSM software: The LDB Locking Database Software.



NOTE

Only use this now obsolete protocol if you need to manage existing locking systems in a G1 environment. We recommend using G2 protocols with current G2 components for an up-to-date locking system.

5.4.3 G2 locking system

G2 is the current protocol generation used for SimonsVoss components. The G2 protocol offers many improvements compared to the preceding G1 protocol.



NOTE

Use the G2 protocol whenever possible. Using this protocol and its associated G2 components is the only way to set up and manage a locking system in line with the latest standards.

5.4.4 Mixed G2 + G1 system

The advantages of a mixed system (*using G1 and G2 components in a locking system at the same time*) also bring small disadvantages (*poor overview of components used; not a real G2 experience*).

Mixed systems basically operate in a G1 environment. The only advantage of a mixed system is that G2 components can also be used at the same time. G2 components are limited in their use in a mixed system.

A mixed system can enable older G1 components and current G2 components to be used at the same time. The backward-compatible support for older components enables you to use existing components or components already in use efficiently. This function is specially designed for such special cases. However, you are not able to use individual, particularly convenient properties of G2 components.

5.4.5 Overlay mode

Overlay mode can only be activated in the G1" or "G2 + G1" protocol generations.

Overlay mode provides a very convenient feature for the restricted G1 protocol generation: the option of using newly programmed transponders directly without reprogramming the locking device. However, this feature only functions for up to 7 newly added transponders.

In the G2 protocol generation, such programming can be carried out using a transponder or a locking device.

7 further transponder IDs are added for each transponder ID if overlay mode is enabled:

Transponder IDs start at ID 64

- Transponder 1 with transponder ID 64: The Transponder IDs 65 - 71 are also reserved.
- Transponder 2 with transponder ID 72: The Transponder IDs 73 - 79 are also reserved.
- Transponder 3 with transponder ID 80: The Transponder IDs 81 - 87 are also reserved.
- and so on.

Example – replacement transponder: A replacement transponder needs to be programmed for Transponder 2 with Transponder ID 72 due to loss or theft. This replacement transponder is assigned the reserved Transponder ID 73. If the newly programmed replacement transponder is operated on an authorised locking device, the locking device engages and the "old" transponder 2 with Transponder ID 72 is blocked from use on the locking device. The process can be completed with a corresponding feedback signal to the LSM software.

It is possible to hold up to 1,000 transponders in reserve in this way.

6. Programming devices

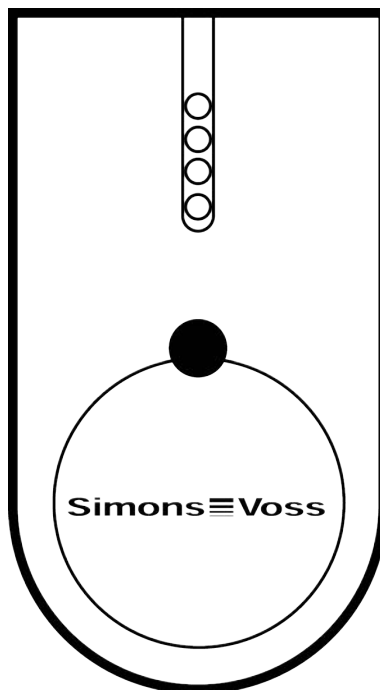
A programming device may be connected to any computer which has LSM software installed. All that is required is a USB port on the computer. The programming device is used to transfer settings and authorisations that you have made to SimonsVoss locking components. All components can also be easily read. You can also transmit settings and authorisations to components already programmed using LSM Mobile Edition or the SimonsVoss WaveNet network.

6.1 Identify programming devices and use properly

SimonsVoss programming devices are currently available in the following versions:

6.1.1 SmartCD.G2

The SmartCD.G2 is the standard programming device for active and hybrid components. You can use the SmartCD.G2 to programme all active SimonsVoss components. This programming device has a Bluetooth module and a rechargeable battery. It can also be easily used with LSM Mobile, so that it can be connected to a PDA or pocket PC. You can identify the SmartCD.G2 due to its SimonsVoss logo.



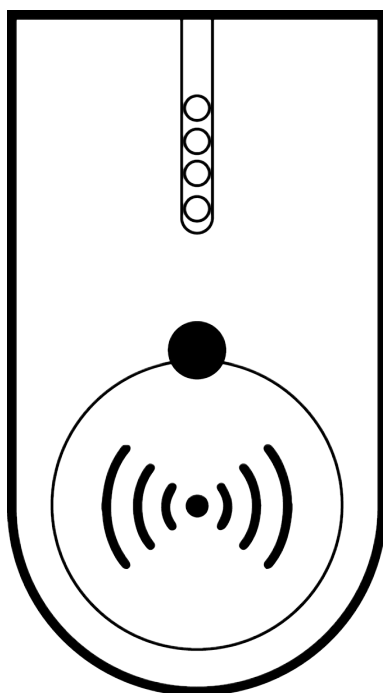
**NOTE****Initial charging of the built-in batteries.**

The built-in rechargeable batteries are discharged when delivered.

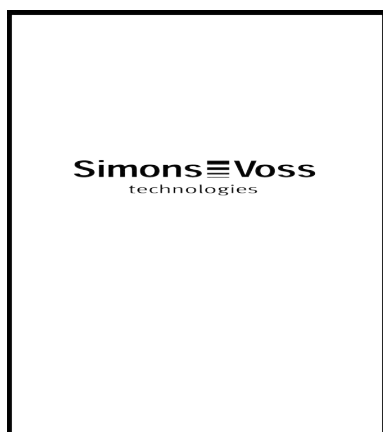
- Charge the programming device for at least three hours before using it.

6.1.2 SmartCD.MP

You can use the SmartCD.MP programming device to programme and read passive components. Unlike the active SmartCD.G2, the SmartCD.MP is identified by the radio symbol. The SmartCD.MP can only be used via a direct USB connection.

**6.1.3 SmartCD.HF**

You can also use the SmartCD.HF card programming device to programme and read passive tags and cards.



6.1.4 SmartStick AX



The SmartStick AX is the standard programming device for all components with a BLE interface. All SimonsVoss AX components can be programmed using the SmartStick AX.

This programming device is connected and supplied with power via a USB cable.

Before programming, the AX components to be programmed must first be tapped with the SmartStick AX to wake up the BLE interface. The AX components are then recognised by the SmartStick AX for around 30 seconds and can be programmed.

6.2 Programming distance

A specific distance must be kept between the programming device and the components for successful programming and read processes.

SmartStick AX

After waking up the lock, the SmartStick AX has a range of up to 300 cm.

SMARTCD.G2

- The distance between SMARTCD.G2 and active components, such as locking cylinders or transponders, should be about 20 cm.
- Ensure that no other active components are in the immediate surrounding area during the programming or read process (radius of about 1.5 m to the SMARTCD.G2).

**NOTE**

The programming distance between SMARTCD.G2 and **SmartRelay** or **biometric reader** must be exactly 40 cm!

SMARTCD.MP

- The thumb-turn on the electronics side of the locking cylinder (*black ring between the thumb-turn and the profile cylinder housing*) must be held directly against the antenna symbol on the SMARTCD.MP.
- Hold the locking cylinder against the antenna symbol for the whole process.
- You can also use the SMARTCD.MP to programme cards by holding them directly on the programming device.

**SMARTCD.HF**

- Position the card or the tag, so that it is flush with the lower, left-hand corner of the SMARTCD.HF.

6.2.1 Programme hybrid locking devices

You use the SmartCD.G2 to programme hybrid locking devices. You also need to connect (and install) a SmartCD.MP or SmartCD.HF at the same time for programming.

Exception: The SmarHandle AX can also be programmed with the SmartCD.MP

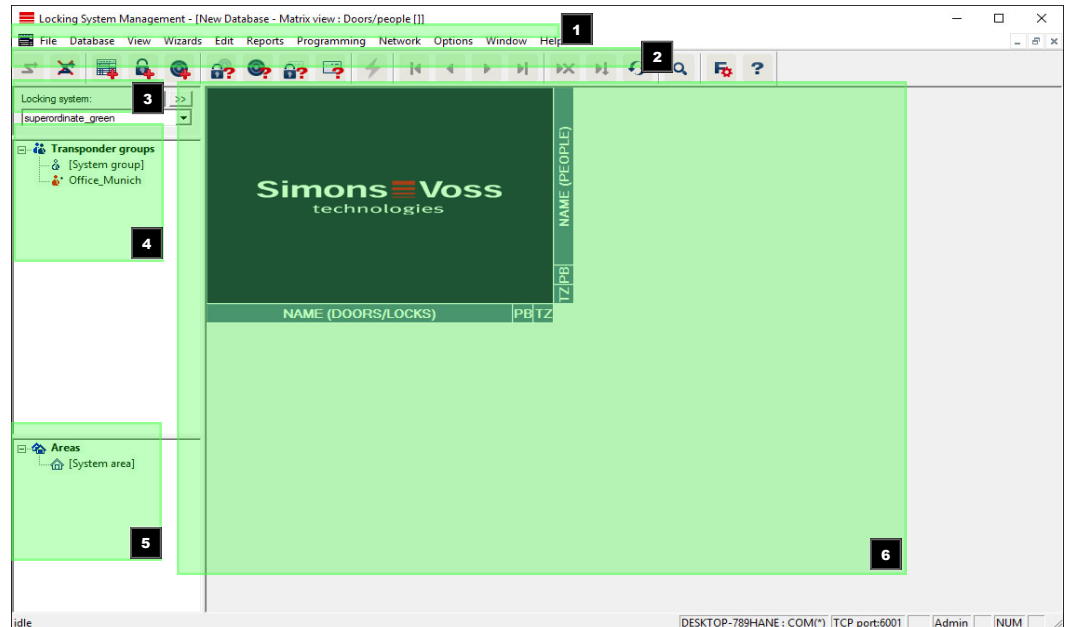
6.3 Check connection

You can use the LSM software to check that the programming device has been correctly connected and installed:

1. Select "Programming" in the menu bar.
2. Select the programming device to be checked, e.g. "Test SmartCD active" to test the SmartCD.G2.
↳ The test will start immediately.

7. User interface

The LSM software user interface is divided up into the following sections:



1. Menu bar

Use the menu bar to open basic functions.

2. Menu ribbon

You can use the menu ribbon to open important and frequently used functions directly.

3. Locking system

This is where you can switch quickly between different locking systems in the project.

4. Groups

Bring users together into groups to work more effectively.

5. Areas

Bring locking devices together into areas to work more effectively.

6. Matrix

The matrix displays an overview of the selected locking systems.



NOTE

Some functions/entries may not be available, depending on the LSM software used.

7.1 Menu bar

File Database View Wizards Edit Reports Programming Network Options Window Help

7.1.1 File

7.1.1.1 Print Matrix

Prints the selected locking system.

7.1.1.2 Page view

Shows the matrix as a preview before printing.

7.1.1.3 Printer set-up

Set advanced print options, such as page size.

7.1.1.4 Change user password

This is where you can change the password for the user currently logged in.

7.1.1.5 New

This is where you can add a new project.

7.1.1.6 Open backup

Import a backup generated previously.

7.1.1.7 Save under / Backup

Save the current locking plan as a backup.

7.1.1.8 Finish

Log off from project and exit LSM software.

7.1.2 Database

7.1.2.1 Log on

Log on to a project. *This function is only available if you are not currently logged on to a project.*

7.1.2.2 Log off

Click on "Log off" to log off from the current project.

7.1.2.3 Setup

This is where you can manage projects or databases. You have the following options open to you:

- Edit an existing project.
- Delete an existing project.
- Create a new project.
- A default project can be selected, which will load automatically.

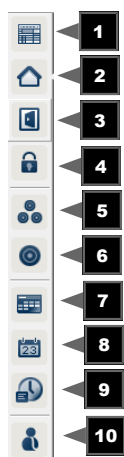
7.1.3 View

7.1.3.1 Status bar

Shows or hides a status bar on the lower edge of the screen. The status bar is shown by default. The status bar displays items such as the current locking system status, computer name and connection with the programming device.

7.1.3.2 Edit

You can use *View/Edit* to show an additional menu ribbon which provides quick access to the following functions:



1. Locking system properties
2. Area
3. Door
4. Locking device
5. Transponder group
6. Transponders
7. Public holiday list
8. Public holiday
9. Time zones

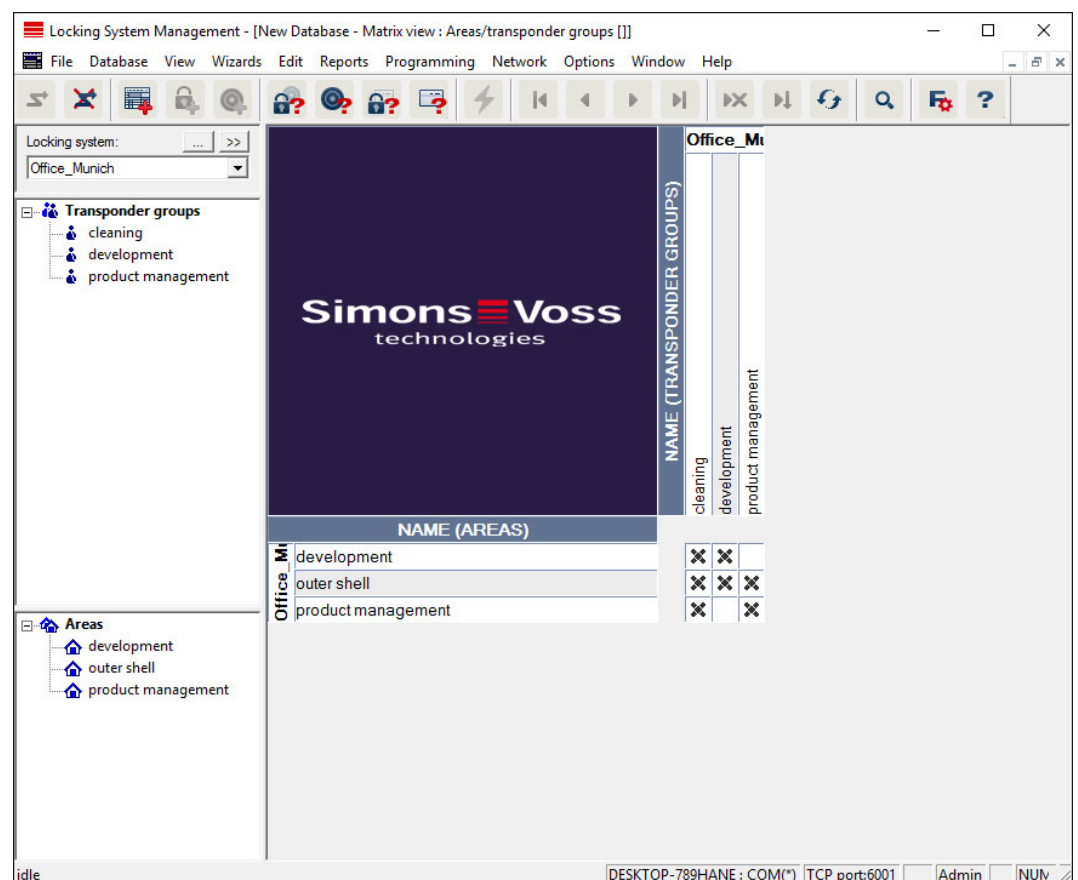
10. Person

7.1.3.3 Areas/transponder groups

This view forms a matrix which provides a visual display of hierarchical personnel and room structures. The matrix is also able to authorise transponder groups for complete areas. This makes it quick and easy to issue basic authorisations in this matrix. The Doors/Persons view allows you to issue deviating authorisations in the form of individual extensions or restrictions.

If you need to work with transponder groups and areas in the locking system, this option provides you with the following decisive advantages:

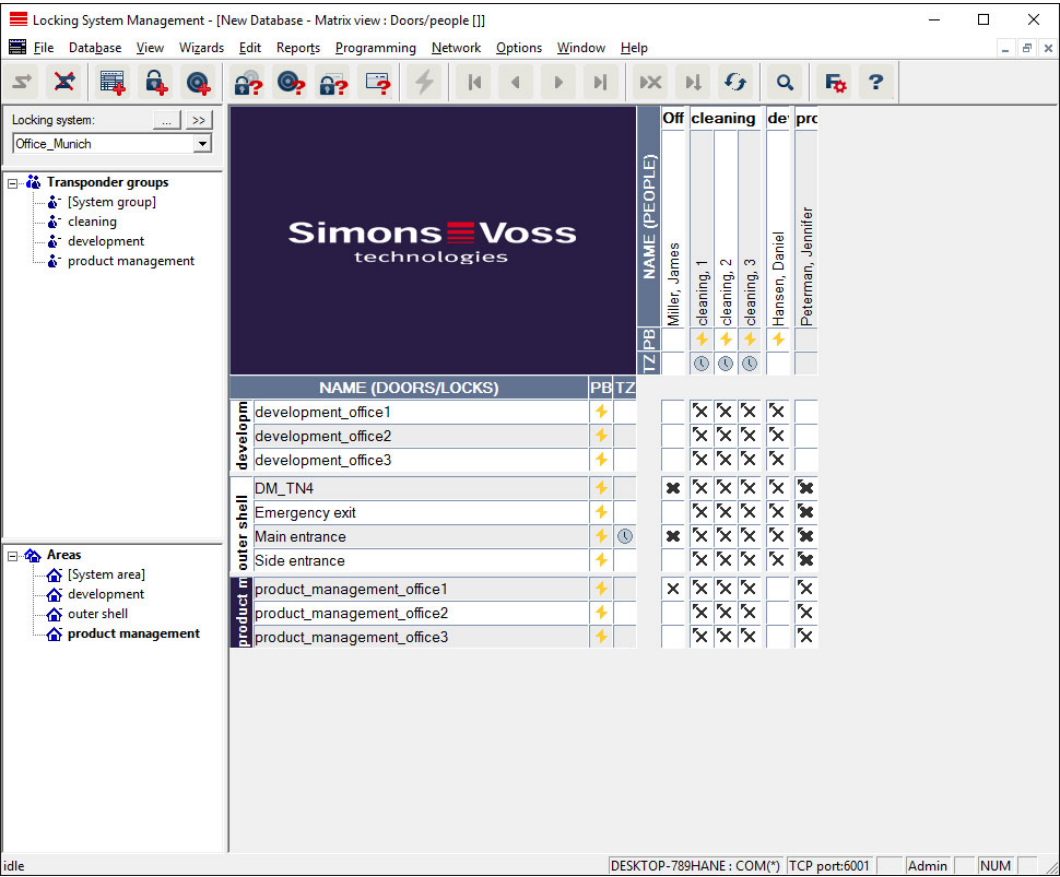
- Reduced view, where only transponder groups and areas are displayed. This makes it easier to find your way in the matrix.
- Issuing or withdrawing authorisations for entire areas from entire groups.
- Persons who are added to a group at a later stage receive all group rights automatically.



7.1.3.4 Doors/Persons

This view displays the individual authorisations for all persons for individual doors. Obviously, the matrix is extensive as a result. However, it allows precise setting of exceptional-case authorisations, enabling pre-set group

authorisations to be extended or even reduced. This view is thus suitable for implementing individual extensions or restrictions after the basic structure has been established at *Areas view/Transponder groups*.



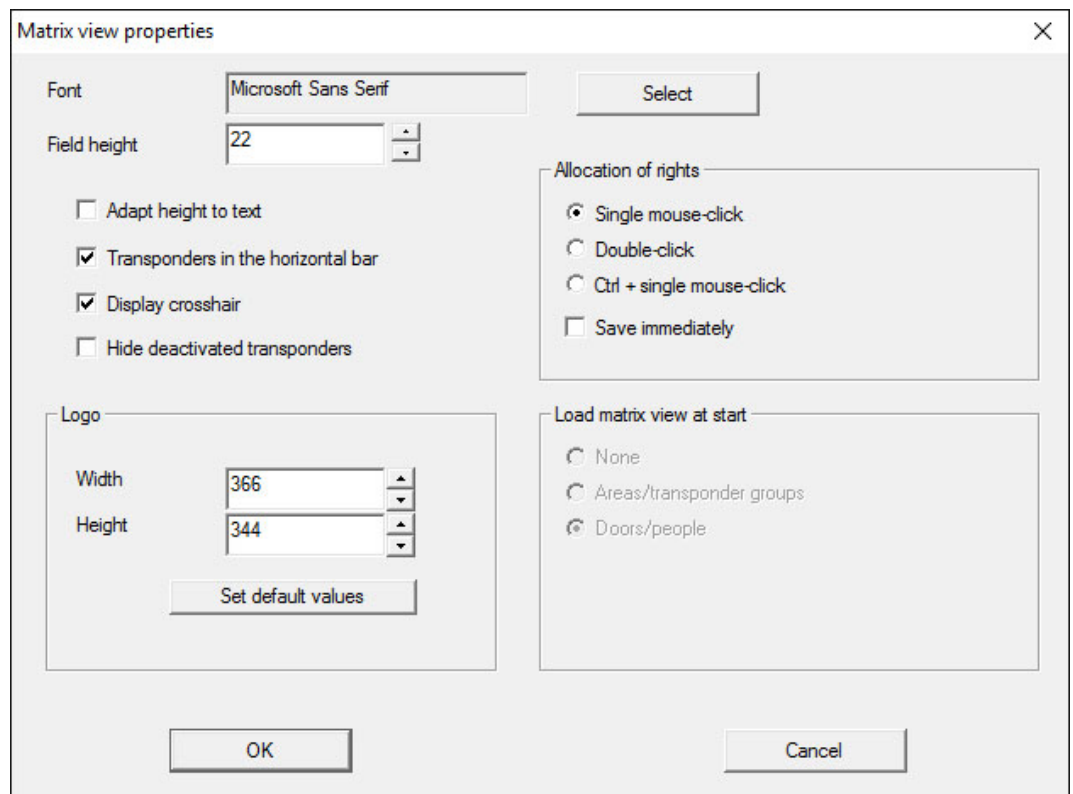
7.1.3.5 All secondary areas/Open groups

This view setting opens all areas and groups, thus displaying all locking devices, even if individual areas have been hidden beforehand.

7.1.3.6 Matrix settings

Each user has the option of setting up their preferred screen as their default screen. This screen is shown after logging on. Different basic settings can also be enabled here.

You can use the menu bar to adjust settings on the standard view at *View/Matrix view properties*.



The dialog box is titled "Matrix view properties" and has a close button (X) in the top right corner. It contains several sections:

- Font:** A text box showing "Microsoft Sans Serif" and a "Select" button.
- Field height:** A text box showing "22" and a spin button.
- Checkboxes:**
 - ☐ Adapt height to text
 - ☒ Transponders in the horizontal bar
 - ☒ Display crosshair
 - ☐ Hide deactivated transponders
- Allocation of rights:** A group box containing four radio buttons:
 - ☒ Single mouse-click
 - ☐ Double-click
 - ☐ Ctrl + single mouse-click
 - ☐ Save immediately
- Logo:** A group box containing:
 - Width:** A text box showing "366" and a spin button.
 - Height:** A text box showing "344" and a spin button.
 - A "Set default values" button.
- Load matrix view at start:** A group box containing three radio buttons:
 - ☐ None
 - ☐ Areas/transponder groups
 - ☒ Doors/people

At the bottom of the dialog are "OK" and "Cancel" buttons.

■ Font

You may select any fonts.

■ Field height

You can set the height for fields in points.

■ Adjust height to the typeface

Adjust the height automatically to the typeface.

■ Transponders in the horizontal bar

Transponders are displayed in the horizontal bar by default. You can change this setting if you wish to manage more locking devices than transponders.

■ Shows crosshair

Shows a crosshair for more precise navigation.

■ Hide deactivated transponders

Hides deactivated transponders.

■ Logo

Change the size of the logo.

■ Issuing of authorisations

Mistakes can be quickly made with a mouse click, particularly in the case of large locking systems. In such cases, we recommend changing this setting.

Activate "Save immediately" if you wish to apply changes to authorisations immediately by simply clicking the mouse.

7.1.3.7 Additional columns

Additional columns can be added to the horizontal and vertical borders in the matrix to provide additional useful information to the user. The settings made only apply to the screen view in which they were configured.

Different information is available, depending on the screen type. You can also set the sequence in which the data is displayed as you require. This is saved as a user-specific setting (Windows user).

This is how you unhide additional columns in the matrix:

1. Select the *View/Additional columns* menu bar followed by the required view, e.g. *Transponders/Persons*.
2. Highlight all other information which you wish to be displayed.
3. Sort the sequence using "Up" or "Down".
4. Click on the "OK" button to confirm your selection.

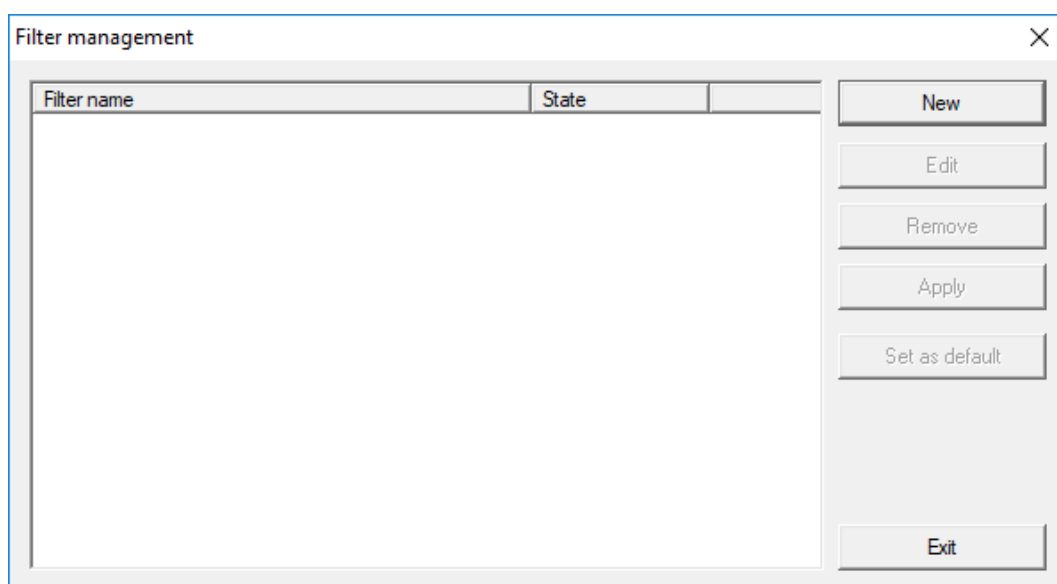
7.1.3.8 Refresh

Refreshes the matrix view.

You may need to update the matrix manually in exceptional cases, especially for extensive locking systems or special settings.

7.1.3.9 Filter

The introduction of filters has made it easier to manage a locking system. You can select a wide variety of filter options and apply these filters to an extensive variety of persons or person groups. This not only allows you to access more information by displaying optional additional columns, but the filter function also enables you to ensure that your views are clearly arranged.

**❑ New**

Creates a new filter

❑ Edit

Edits a selected filter

❑ Remove

Removes a selected filter

❑ Apply

Applies the selected filter. The button changes to "**Turn off**" if a filter is applied.

❑ Set as default

This filter will be used by default

❑ Finish

Exits from filter management and returns to the matrix

**NOTE**

A filter only remains active until it is switched off again.

You can use the "New" button to create a new filter:

Filter attributes:

Filter name:

☒ For all users
☐ For user:
☐ For user group:

Transponder type

- ☒ G1 Biometric reader user
- ☒ G1 Biometry
- ☒ G1 Card
- ☒ G1 Pin code
- ☒ G1 Smart Clip
- ☒ G1 Transponder
- ☒ G2 Card

Transponder attributes

☒ All
☐ With lapsed expiry date
☐ With validity period
☐ Programming demand
☐ Transponders without people

Department:

Transponder group list

☒ All transponder groups
☐ Transponder group list

Time group:

Lock type

- ☒ AX furniture lock
- ☒ AX Smart Handle
- ☒ Biometric reader
- ☒ G1 Control Unit
- ☒ G1 Cylinder
- ☒ G1 Electronic mortise lock
- ☒ G1 Furniture lock
- ☒ G1 Module output
- ☒ G1 Smart Relay
- ☒ G2 Cylinder
- ☒ G2 Cylinder Mifare
- ☒ G2 Door Monitoring Cylinder
- ☒ G2 Door Monitoring Smart Handle
- ☒ G2 Door Monitoring Smart Handle

Door/lock attributes

☒ All
☐ With network
☐ Without network
☐ Programming demand
☐ Unprogrammed locks (LID = 0)
☐ Doors without locks
☐ Location/Building
☐ Gateway

List of areas

☒ All zones
☐ List of areas

Time zone:

■ Filter name

Enter a meaningful name for the new filter.

■ User restriction

User or user group which can apply the filter.

■ Transponder type

Type of transponder which should be displayed.

■ Transponder properties

Restrictions which concern the properties of the transponder (e.g. validity period or programming requirement).

■ Transponder group list

Restrictions which concern the transponder's assignment to a group (e.g. "Executive management" transponder group).

■ Locking device type

Type of locking device which should be displayed.

■ Doors/Locking system properties

Restrictions which concern the properties of the locking device (e.g. with network or programming requirement).

▣ Areas list

Restrictions which concern the locking device's assignment (e.g. "Reception" area).

7.1.4 Installation wizards

The installation wizards make it easier for new users to start using the LSM software. Experienced users also benefit from these wizards, which can be used to make all settings one after another from a central point.

7.1.4.1 Wizards/Door

This wizard can be used to add a new door step by step.

7.1.4.2 Wizard/Person

This wizard can be used to add a new person step by step.

7.1.5 Edit

7.1.5.1 Properties: Locking system

Settings for the currently selected locking system.

Name

■ Name

Name of the locking system

■ Use as a common locking level

Establishes the common locking level

■ Locking system ID

Locking system number

■ Extended SID

Additional distinctive feature of the locking system

■ Description

Blank field to describe the locking system

■ Operate in overlay mode (G1 only)

Activates the overlay mode. *This function must already be enabled when the locking system is created. You cannot change it afterwards.*

■ Protocol generation

Selects the extension variant for the hardware components

■ Inheritance in the hierarchy [LSM BUSINESS]

Select the inheritance areas

❑ Dynamic time slot for G2 transponders

Advanced time settings for use with gateways:

❑ Do not change time window on the gateway

There is no time limit on the validity period for any G2 transponders able to book at the gateway.

❑ Until a specific time on the (next) day

There is a time limit on the validity period for all G2 transponders able to book at the gateway.

❑ Number of hours from the last full hour of the booking

The validity of all G2 transponders able to book at the gateway is extended by the specified number of hours.



NOTE

Virtual network not required

You do not need to configure a virtual network to use a gateway to manage time frames.

Locking devices

Locking System Management - [New Database - Locking system properties]

File Database View Wizards Edit Reports Programming Network Options Window Help

Name Locks Doors Transponder Transponder groups Areas Password Special TIDs PIN-Code Terminal Card management G1 G2 card management

Locking system: Office_Munich Level: Standard

Serial number	Lock ID	Door	Area	Type
000089H	128	Main entrance	outer shell	G2 Cylinder
1A04R8K	130	Emergency exit	outer shell	G2 Cylinder
1A053XB	129	Side entrance	outer shell	G2 Cylinder
L-00001	131	product_management_office1	product management	G2 Cylinder
L-00002	132	product_management_office2	product management	G2 Cylinder
L-00003	133	product_management_office3	product management	G2 Cylinder
L-00004	134	development_office1	development	G2 Cylinder
L-00005	135	development_office2	development	G2 Cylinder
L-00006	136	development_office3	development	G2 Cylinder

Print view Total: 9 Selected: 0

Battery replacement

Last ☐ 04/01/2016

Scheduled ☐ 04/01/2016

Apply

☐ also show Locks without door

Apply Properties Add Remove Exit Help

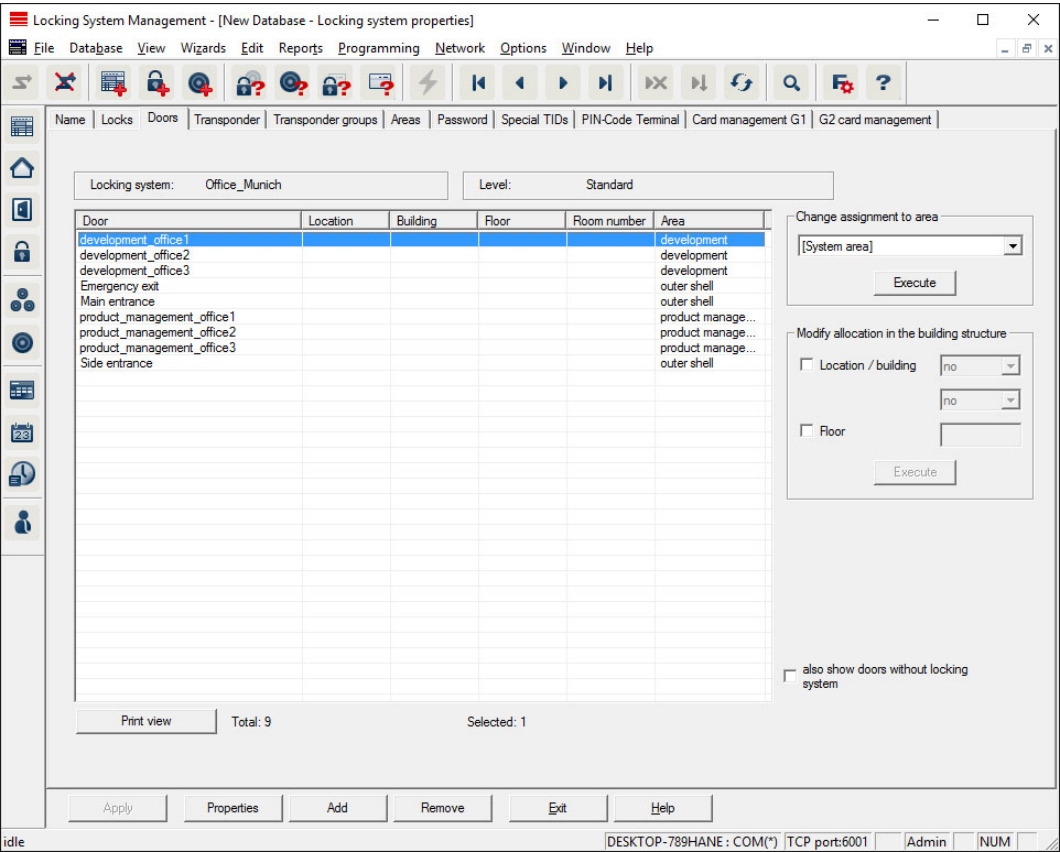
idle DESKTOP-789HANE : COM(*) TCP port:6001 Admin NUM

This tab gives you an overview of the locking devices used in the locking system. The devices are all displayed in detail in a table.

Notes on battery replacement can also be recorded:

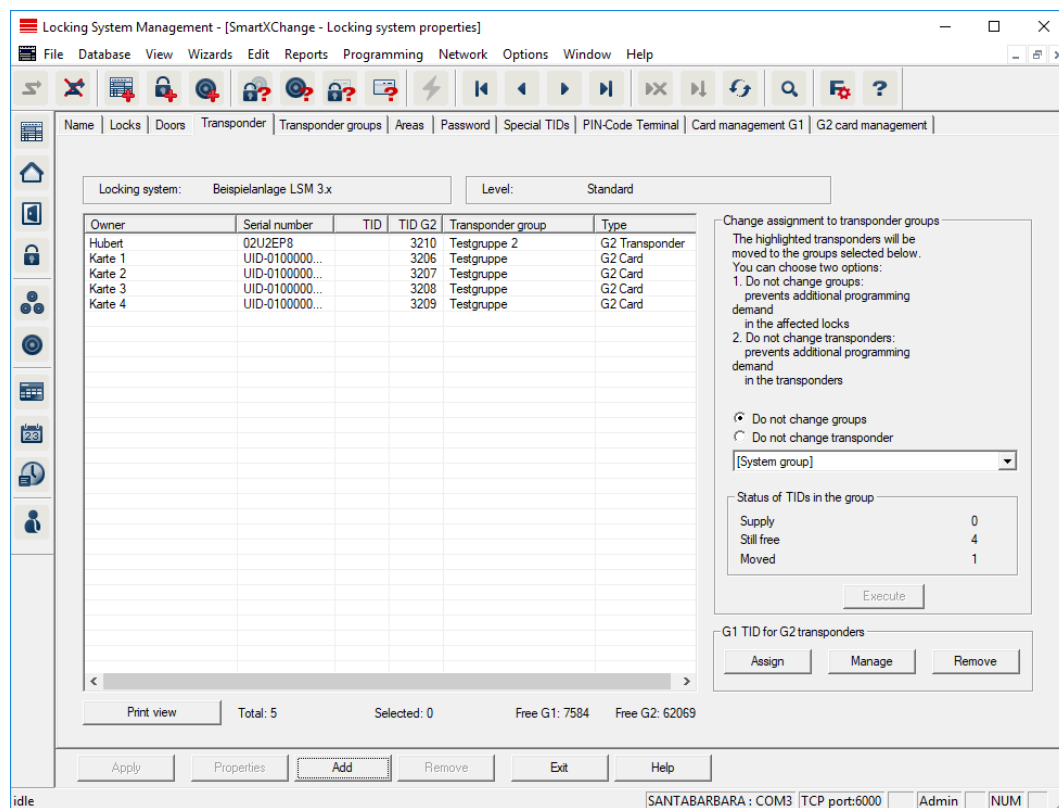
The scheduled battery replacement is displayed on the warning monitor and in the action list in the respective locking device. You also have the option of entering the scheduled battery replacement in the action list for the respective locking device in conjunction with a number of locking devices. You can enter a completed battery replacement for one or several locking devices under 'Last'.

Doors



This tab displays the correlation between the doors contained in the locking system and their assigned areas. The devices are all displayed in detail in a table. It is possible to select one or more doors and assign them to a specific area, location or floor. Ensure that the areas, locations or floors have already been added.

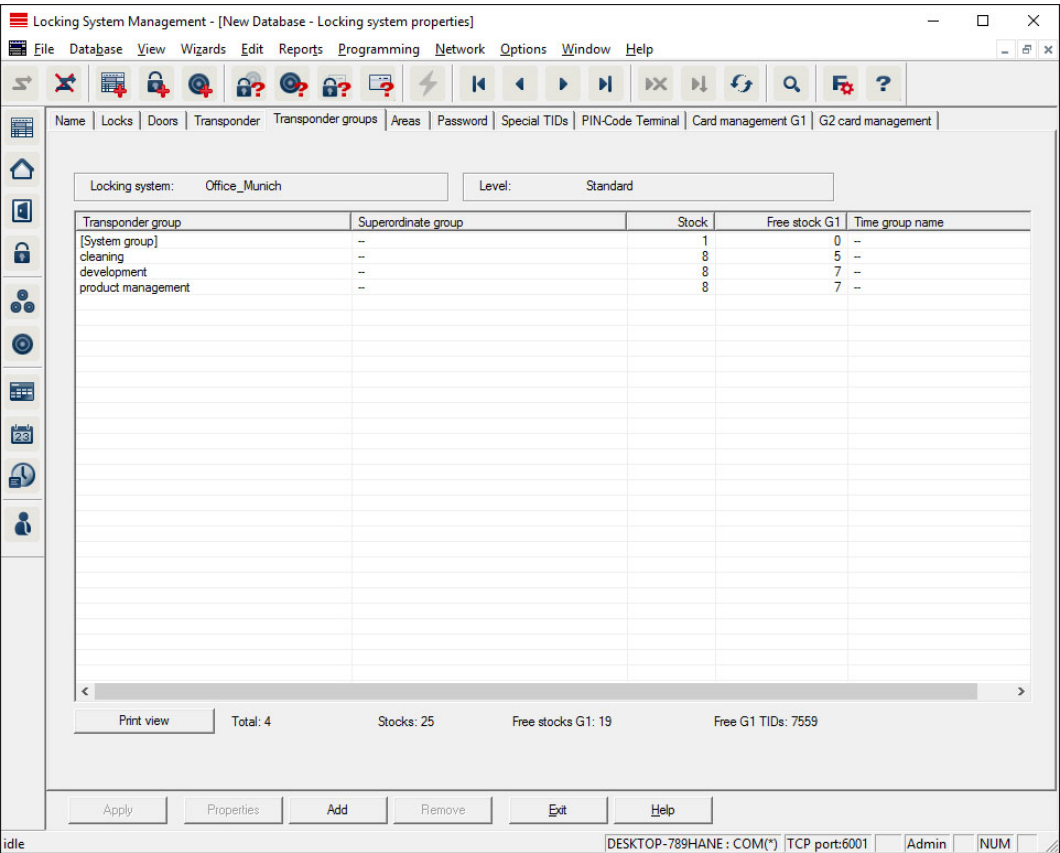
Transponders



This tab gives you an overview of the transponders contained in the locking system. The devices are all displayed in detail in a table.

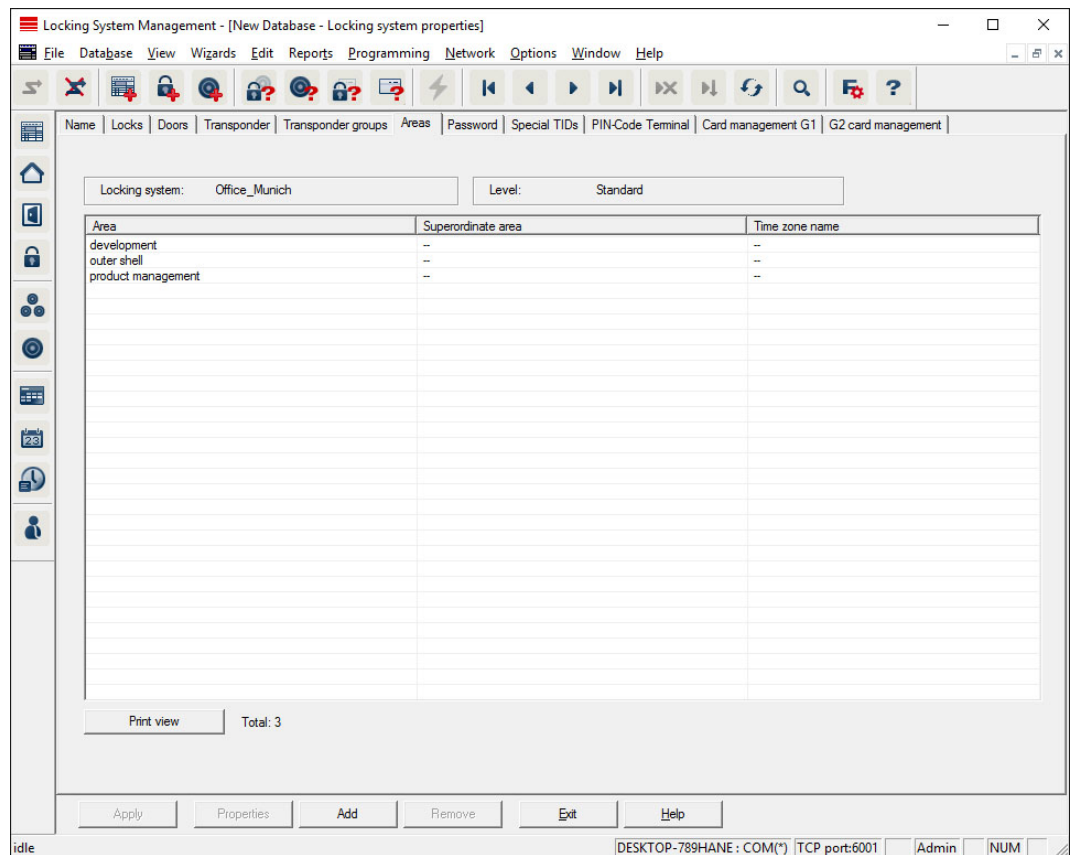
It is possible to select one or more transponders and assign them to another group. Ensure that the transponder groups have already been added.

Transponder groups



This tab gives you an overview of the transponder groups used in the locking system. The devices are all displayed in detail in a table.

Areas



This tab gives you an overview of the areas used in the locking system. The devices are all displayed in detail in a table.

Password

The screenshot shows the 'Locking System Management' software window. The title bar reads 'Locking System Management - [New Database - Locking system properties]'. The menu bar includes File, Database, View, Wizards, Edit, Reports, Programming, Network, Options, Window, and Help. The toolbar contains various icons for file operations, navigation, and system management. The main window has a tabbed interface with tabs for Name, Locks, Doors, Transponder, Transponder groups, Areas, Password (selected), Special TIDs, PIN-Code Terminal, Card management G1, and G2 card management. The 'Password' tab is active, showing fields for 'Locking system:' (Office_Munich) and 'Level:' (Standard). Below these are two sections, G1 and G2, each containing input fields for 'Old Password:', 'New Password:', 'Confirm Password:', and a 'Quality' field set to '0 bits'. A checkbox labeled 'high password security' is checked. At the bottom, there are buttons for 'Apply', 'Properties', 'Add', 'Remove', 'Exit', and 'Help'. The status bar at the very bottom shows 'idle', 'DESKTOP-789HANE : COM(*)', 'TCP port:6001', 'Admin', and 'NUM'.

This is where you can change the locking system passwords used to change component programming.

CAUTION

Loss of locking system password

The locking system password is a central component of the security concept. The loss of the locking system password restricts the operation of the locking system and is a security risk.

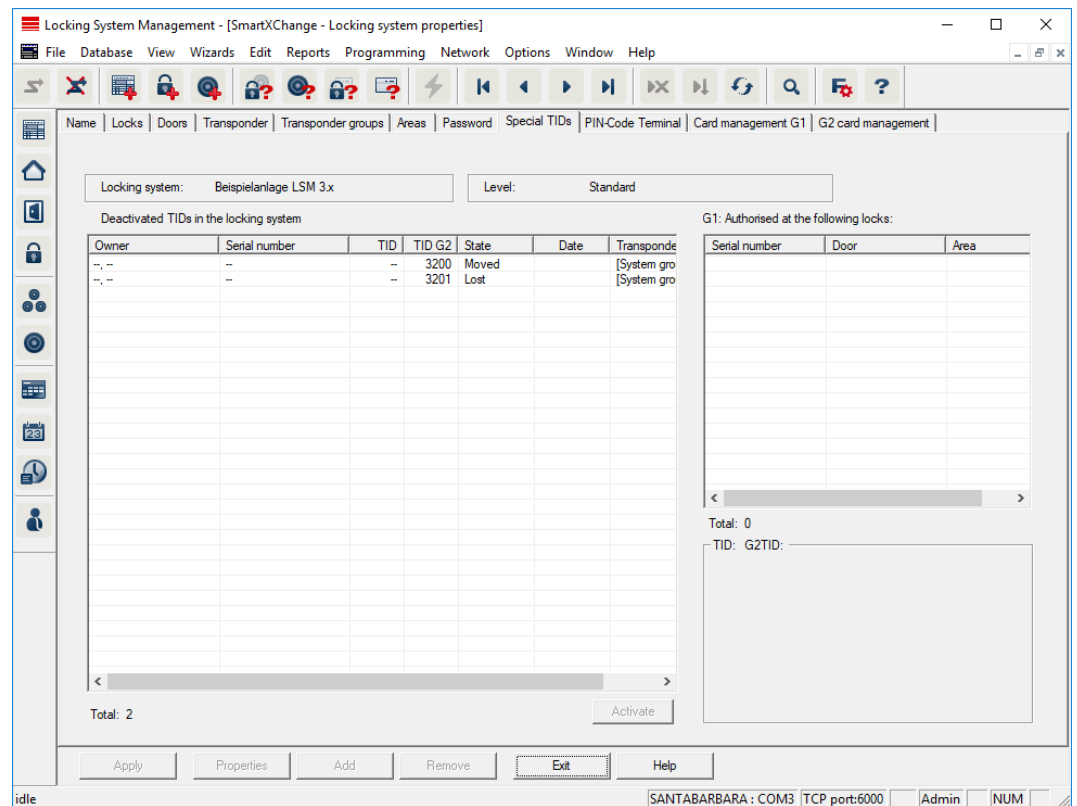
1. Keep the locking system password safe (e.g. in a safe)!
2. Make the locking system password visible to authorised persons at all times!



NOTE

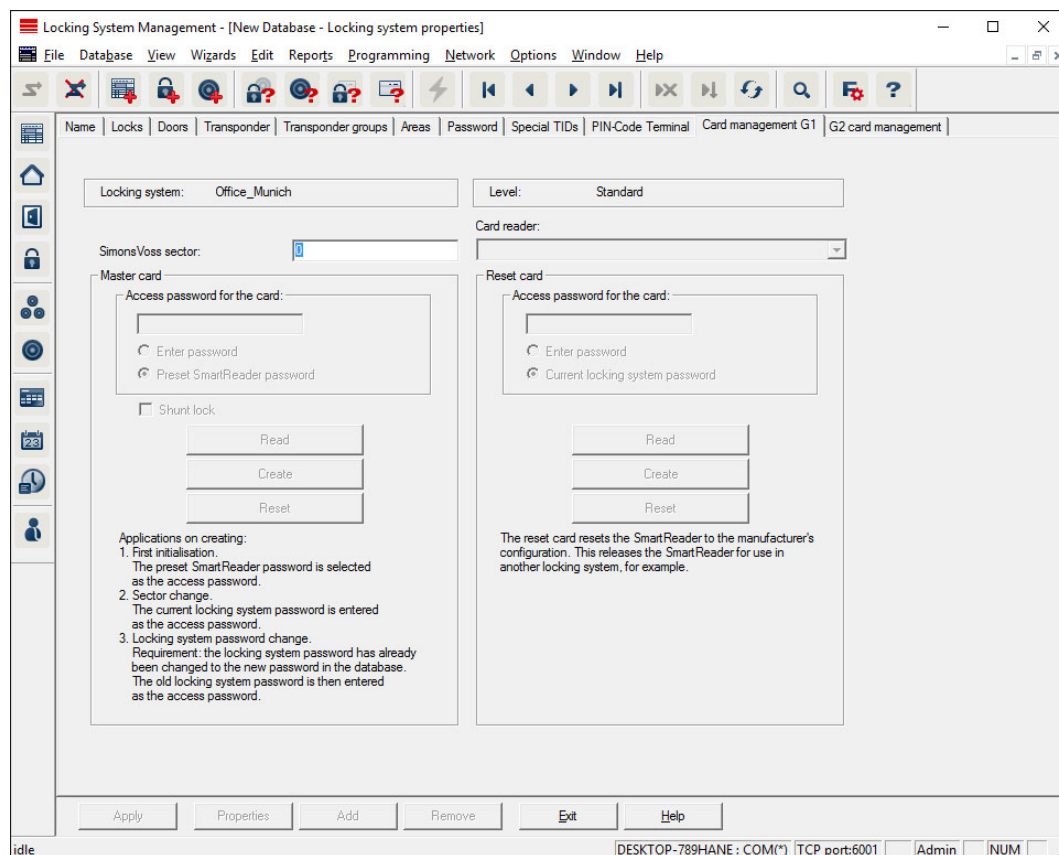
Components with different locking system passwords cannot communicate with one another.

Special TIDs



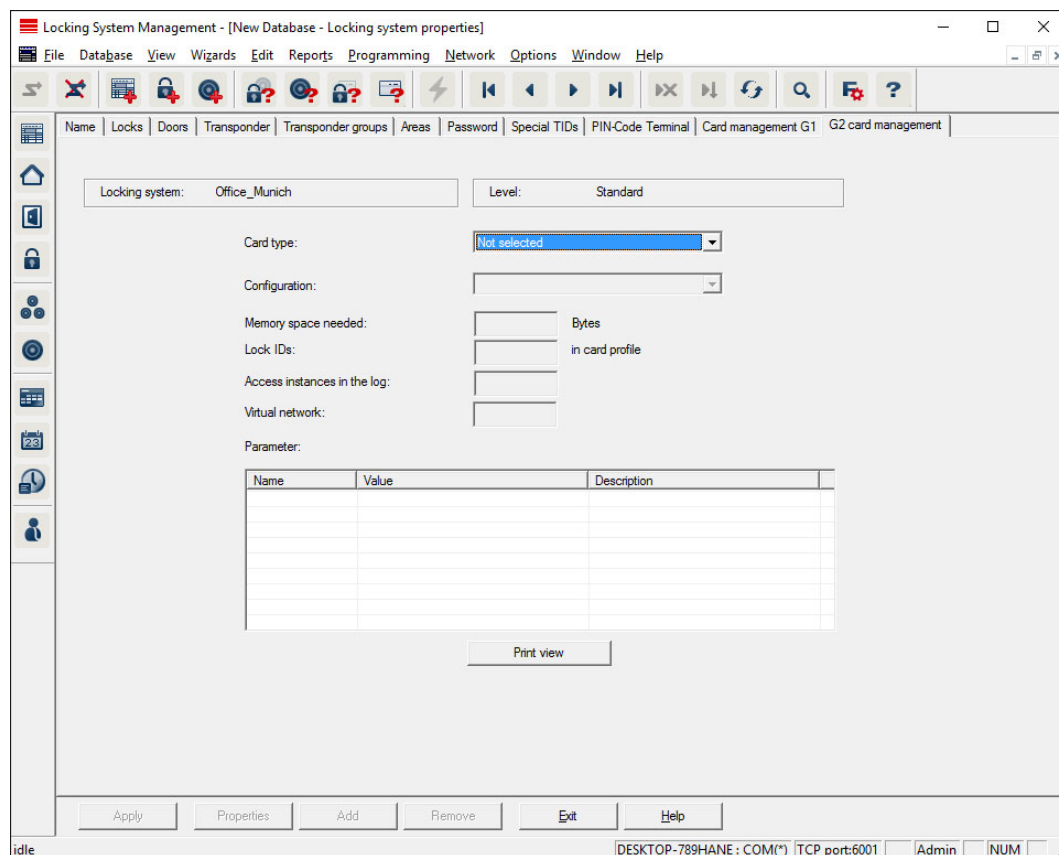
- The large, left-hand table shows an overview of the following transponders:
 - Deactivated transponders
 - Removed transponders
 - Lost transponders
 - Returned transponders
 - Temporarily deactivated transponders
- The smaller table on right-hand side shows all locking devices which the transponders selected in the left-hand table are authorised to use.
- The display pane under the small, right-hand table displays information and comments on the deactivated transponder.
- You can use the "Activate" button to re-activate a selected transponder (depending on the pre-set status). In this case, a new TID is assigned to the transponder in the G2 protocol, which can generate programming requirements for the authorised locking devices.

G1 card management



Establish advanced properties and settings for your G1 cards (See [Card management \[▶ 146\]](#)).

G2 card management



Establish advanced properties and settings for your G2 cards (See [Card management \[► 146\]](#)).

7.1.5.2 Properties: Locking device

Show and edit properties for the locking device currently highlighted.

A double click on the locking device opens the properties of the corresponding locking device directly.

Name

Locking System Management - [New Database - Lock properties]

File Database View Wizards Edit Reports Programming Network Options Window Help

Name Door Transponder Actions Mech. Features Configuration/Data State Audit Trail

Serial number: 000089H M

Door: Main entrance ...

☐ Change assignment of locking device/door

Type: G2 Cylinder

Multiple Copy

Apply Properties Add Remove Exit Help

idle DESKTOP-789HANE : COM(*) TCP port:6001 Admin NUM

Serial number

Displays the locking device's serial number. The "..." button shows the door's properties.

Door

The door assigned to the locking device can be changed if the "Locking device assignment/Change door" checkbox is enabled. The "M" button shows the locking device in the matrix.

Type

Type of locking device.

Make multiple copies

Generates as many copies of the locking device with the same properties as required. A sequential number is also added to the name of the locking device.

Door

Locking System Management - [New Database - Lock properties]

File Database View Wizards Edit Reports Programming Network Options Window Help

Name Door Transponder Actions Mech. Features Configuration/Data State Audit Trail

Lock: 000089H

Door designation: Main entrance

Location: no Floor: Room number:

Building: no

Door code: DC-00001

Description:

Locks: 000089H / G2 Cylinder

Time zone: no

The door is assigned to the following areas:

Locking system	Area	Level
Office_Munich	outer shell	Standard

Manage

Programming device

Type: SmartCD Device: Default ☒ Non-allocated devices

Door attributes for electronic mortice lock

☐ Left lock ☒ Right lock

☐ Opens inwards ☒ Opens outwards

Design: Design S&V

Color: white

Lock type: front door

Distance-H: 0

Distance-V: 0

Door attributes for cylinder

Outside dimensions: 55 mm

Inside dimensions: 55 mm

☒ Metal Door

☒ Outside

☐ 2-side lock

☐ SmartReader

☐ PIN-Code Terminal

Attributes from the lock: Use

Apply Properties Add Remove Exit Help

idle DESKTOP-789HANE : COM(*) TCP port:6001 Admin NUM

■ Door identifier

The name of the door.

■ Location

Location where the door is situated. (Locations need to have been added beforehand)

■ Building

Building where the door is situated. (Buildings need to have been added beforehand)

■ Floor

Floor on which the door is situated.

■ Room Number

The room number of the door.

■ Door code

Internal identifier for the door.

■ Description

Blank field to describe the door.

❑ Locking devices

Locking devices which are assigned to the door.

❑ Time zone

The door's time zone.

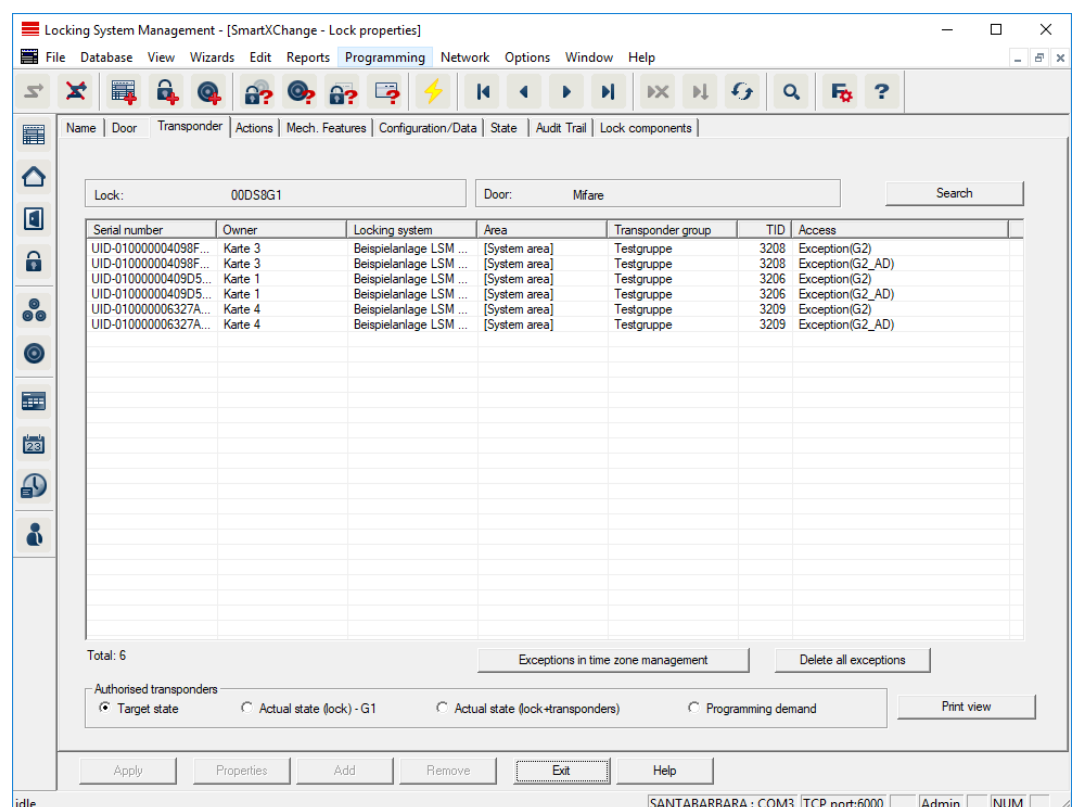
❑ Programming device

Selects a specific programming device. (Particularly necessary for LON and WaveNet. Locking devices to which LON or WaveNet is assigned can also be programmed online wirelessly without a programming device.)

❑ Door attributes

Information on the mortise lock and locking device. This allows you to see what replacement components are required if you need them.

Transponders



❑ Table

Shows all transponders authorised for the locking device in a detailed list.

❑ Authorised transponders

You can use the individual radio buttons to filter the table.

❑ Target state

Displays the target status.

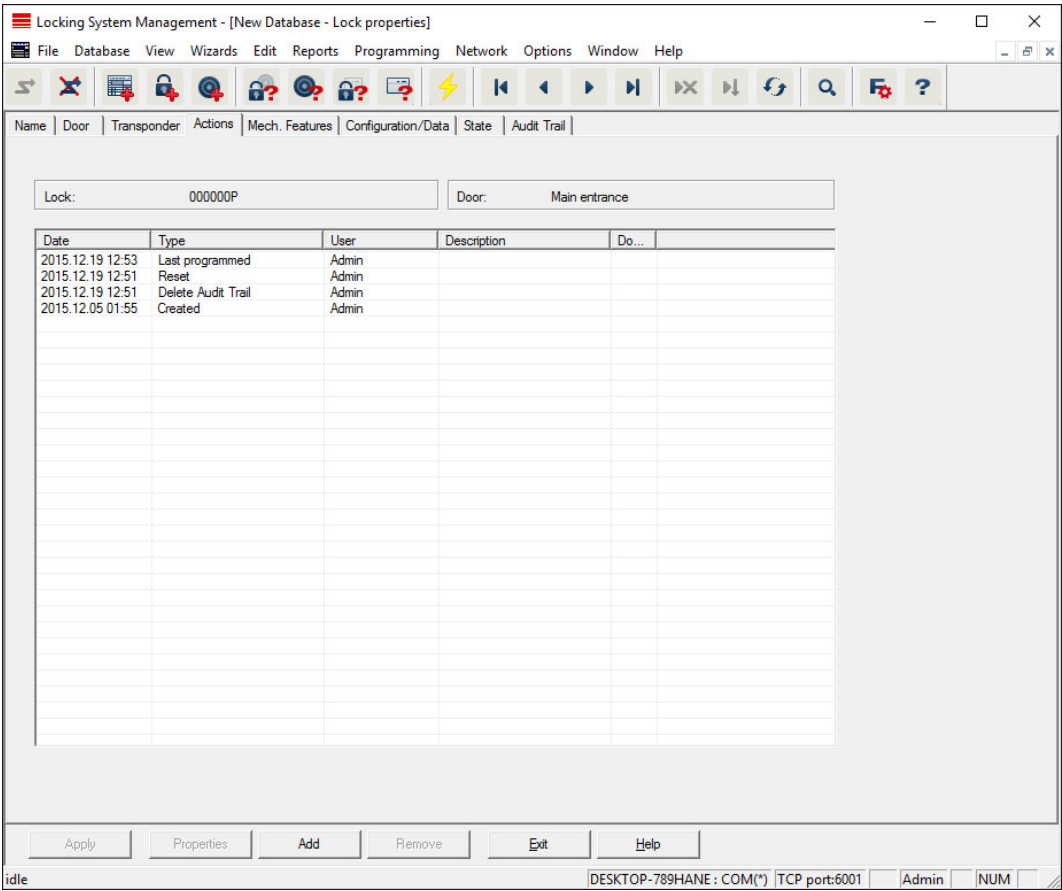
Current status (...)

Displays the current programmed status.

Programming requirement

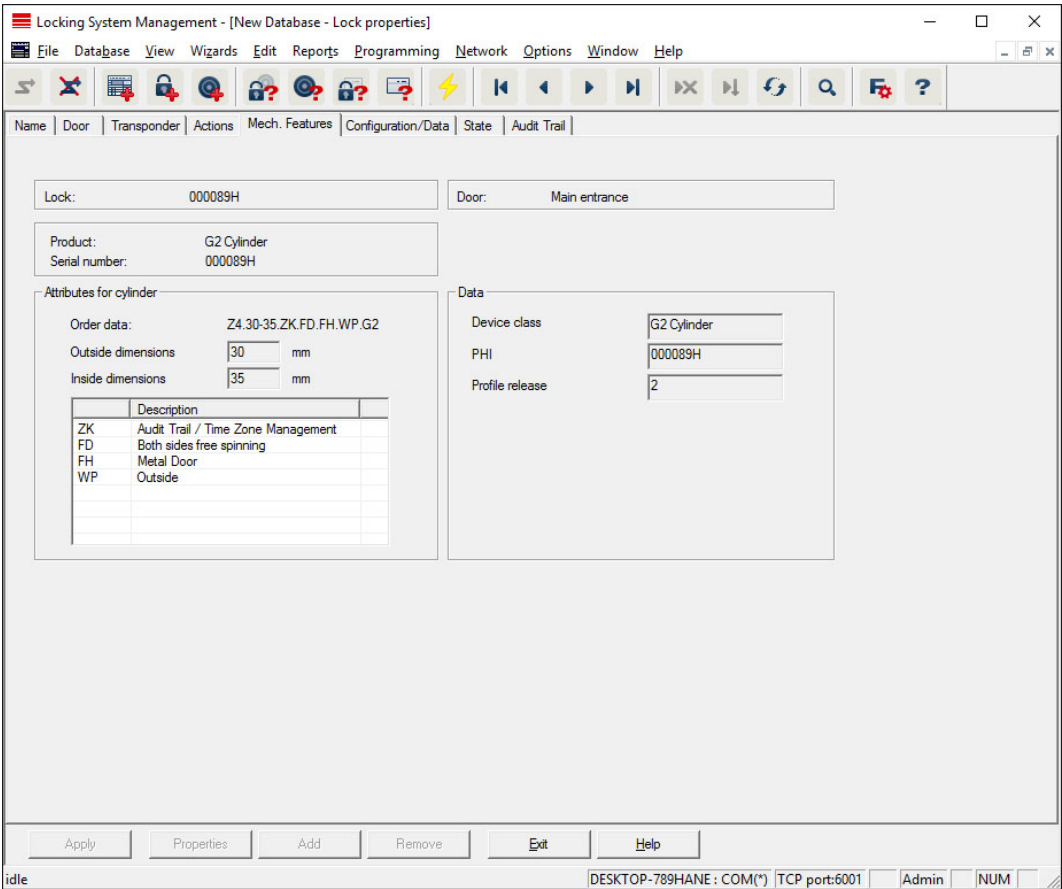
Displays all transponders with programming requirements.

Actions



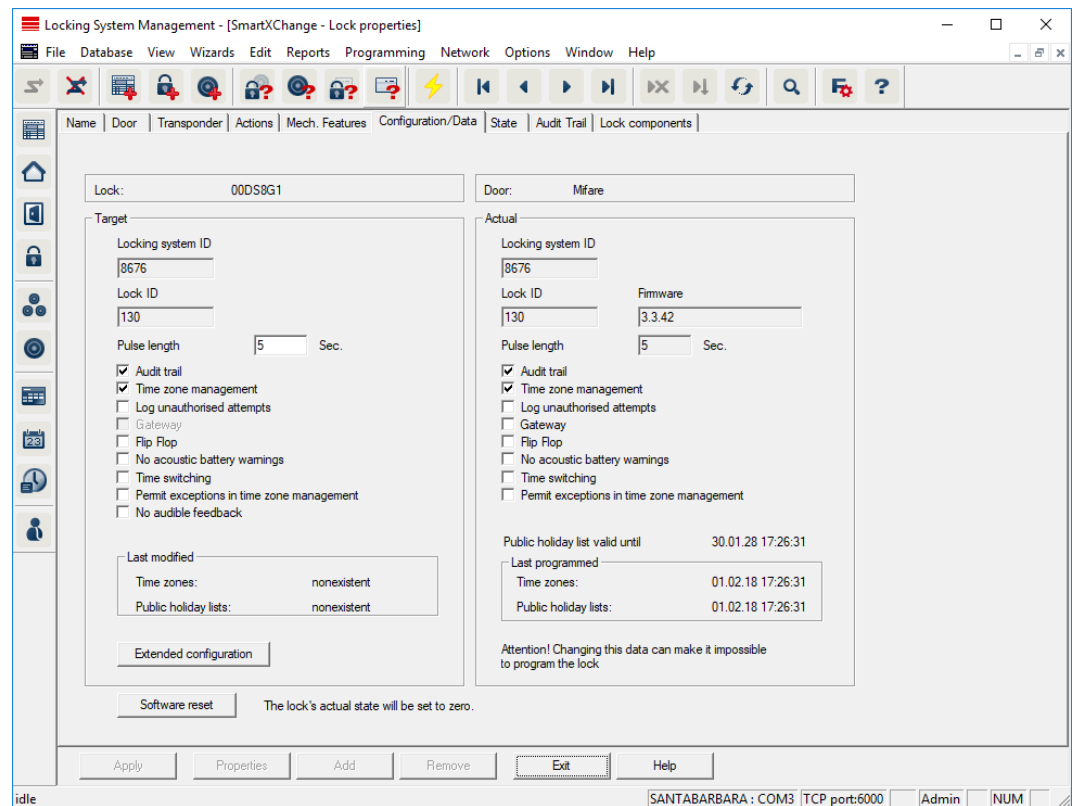
This table shows which actions (e.g. programming, authorization change, etc.) were carried out during locking. Different actions, such as "Last battery replacement", can also be added manually using the "Add" button.

Features



This tab shows the locking device's precise hardware options which are automatically entered during the initial programming.

Configuration/Data



This tab is divided into two sides:

- The left side shows the target status of the locking device – i.e. the desired status configured in the LSM software.
- The right side shows the locking device's current status – i.e. the status which was last programmed.

The following features can be enabled **depending on the locking device type**:

- **Access control**

Option to log access events. *This function only works for components with an access control function.*

Clarify whether the use of this option is allowed in your own particular environment, e.g. with the Works Council or the Data Protection Officer.

- **Logging unauthorised attempted access events**

Rejected transponder bookings are retained in the locking device. This only applies to ID media which belong to the same locking system.

- **Gateway**

Option for using gateways. *Only available with SmartRelay.*

- **Flip-flop**

When a transponder is enabled, the locking device engaged ready for use and remains engaged until a transponder activates it again.

■ **No audible battery warnings**

If this function is enabled, there are no audible warnings indicating the battery status in components.

■ **No audible programming acknowledgement signals**

The locking device does not acknowledge the process with audible signals when programming.

■ **Card interface**

Links card interface with locking device.

■ **Extended configuration**

Make advanced configuration settings, such as a time-controlled changeover of the locking device.

■ **Software reset**

Button to re-set the current status of the LSM software. This process is timed and shown on the left-hand side.

Configuration/Data: DoorMonitoring SmartHandle

You can configure the DoorMonitoring functions in the SmartHandle using the "Monitoring configuration" button on the "Configuration/Data" tab on the locking device (see also Putting DoorMonitoring locks into operation).

This function is only available if the SmartHandle features the DM function and this function was also directly added into the LSM software as "G2 SmartHandle DoorMonitoring".

The image shows a 'Door Monitoring Configuration' dialog box with two main sections: 'Target' and 'Actual'. Each section contains a 'Door open settings' area with three dropdown menus: 'Sampling interval for DoorMonitoring sensors' (set to 'off'), '"Door open too long" event after' (set to 'off'), and 'Escape & Return' (set to '0'). Below these are three event categories: 'Events', 'Transmission in the network', and 'External sensors'. Each category has a list of checkboxes for 'Door open' events, 'Lock bolt events', and 'Door handle sensor events'. The 'Transmission in the network' section also includes a checkbox for 'Logging / transmission of alarms in the network'. The 'External sensors' section includes checkboxes for 'Reverse "Door open" inputs' and 'Reverse dead bolt input'. At the bottom, there are 'OK' and 'Cancel' buttons.

Activate the required changes in the left hand "Target area".

- **Escape & return:** Prolongs the time that the SmartHandle is engaged to open after the door has been detected as closed again.

Configuration/Data: DoorMonitoring locking cylinder

You can configure the DoorMonitoring functions in the locking device using the "Monitoring configuration" button on the "Configuration/Data" tab on the locking cylinder (see also Putting DoorMonitoring locks into operation).

This function is only available if the locking cylinder features the DM function and this was also directly added into the LSM software as "G2 cylinder DoorMonitoring".

Door Monitoring Configuration

Target

Door open settings

Read interval for the fastening screw2 Sec.

"Door open too long" event after0.2 Min.

Lock bolt

Number of turns to lockoff

"Door securely locked" bolt positionoff

Events

Logging in the access list

☒ "Door open" events

☐ Lock bolt events

Transmission in the network

☒ "Door open" events

☐ Lock bolt events

☒ Logging / transmission of alarms in the network

Actual

Door open settings

Read interval for the fastening screw2 Sec.

"Door open too long" event after0.2 Min.

Lock bolt

Number of turns to lockoff

"Door securely locked" bolt positionoff

Events

Logging in the access list

☒ "Door open" events

☐ Lock bolt events

Transmission in the network

☒ "Door open" events

☐ Lock bolt events

☒ Logging / transmission of alarms in the network

OK

Cancel

Activate the required changes in the left hand "Target area".

SmartRelay (G1): SREL, SREL.ADV, SREL.W

This tab ([Configuration/Data]) is divided into two sides:

- The left side shows the target status of the locking device ("Actual") – i.e. the desired status configured in the LSM software.
- The right side shows the locking device's current status ("Target") – i.e. the status which was last programmed.

Target

Locking system ID

9215

Lock ID

1128

☐ Audit trail

☐ Time zone management

☐ Overlay

☐ Flip Flop

☐ Repeater

☐ Time switching

☐ OMRON

Actual

Locking system ID

0

Password

Lock ID

0

Firmware

0.0

☐ Audit trail

☐ Time zone management

☐ Overlay

☐ Flip Flop

☐ Repeater

☐ Time switching

☐ OMRON

The following features can be enabled **depending on the locking device type**:

<input checked="" type="checkbox"/> Audit trail	Only possible in SREL.ZK and SREL.ADV versions. The 1,024 most recent transponder transactions are logged with the date and time.
---	---

<input checked="" type="checkbox"/> Time zone management	Only possible in SREL.ZK and SREL.ADV versions. A time zone plan can be uploaded and the transponders are approved or blocked according to their time zone group.
<input checked="" type="checkbox"/> Overlay	Replacement transponders can overwrite their corresponding original transponders. The original transponder is blocked once the replacement transponder is used for the first time.
<input checked="" type="checkbox"/> Flip Flop	<p>Pulse mode (default setting) is switched off and the pulse duration no longer plays a role. When flip flop mode is activated, SmartRelay changes its status from on to off or vice versa each time it is activated using a transponder. This mode is ideal for switching lights, machines and other systems on and off.</p> <p><i>Where applicable, you should ensure that mains adapters and electric strikes are suitable for continuous current operation in such an installation.</i></p>
<input checked="" type="checkbox"/> Repeater	The SmartRelay receives a transponder signal, which it amplifies and forwards. This function allows SmartRelay to be used to bridge longer radio transmission paths. The distance to the next SmartRelay can be up to 2 m.

<input checked="" type="checkbox"/> Time switching	<p>For SREL.ZK and SREL.ADV only. A time zone plan needs to be up-loaded when the time switch-over is activated. This allows SmartRelay to remain unlocked during the indicated times (in Group 5). During the day, the door can be used freely while only a transponder will open the door at night.</p> <p><i>You should ensure that mains adapters and electric strikes are suitable for continuous current operation in such an installation.</i></p>
<input checked="" type="checkbox"/> OMRON	<p>For SREL.ADV only Many access control and time-and-attendance systems feature serial interfaces to connect card readers. A SmartRelay can also be connected via these interfaces, thus also allowing you to use SimonsVoss transponders in third-party systems.</p> <p>Select this option on both the SmartRelay and the cylinder if you wish the SmartRelay to transmit transponder data to a third-party system and a remote opening command to be sent from SmartRelay to a cylinder after clearance by the third-party system.</p> <p>Set the type of external system under "Interface". Click on the Extended configuration button to do so.</p>

Extended configuration

Target

Extended properties

Pulse length

8

Sec.

Time-controlled relay switching

☐ Manual locking

☒ Automatic locking

☒ Manual unlocking

☐ Automatic unlocking

Transponder active:

☐ always

☒ only if locked

☐ Restricted range (only for internal antenna)

☐ Log unauthorised attempts

Advanced functions

Number of expansion modules

0

Interface

☐ Extra signal: CLS

Wiegand 33-bit

☐ No audible feedback

☒ External LED

☐ External beeper

Internal/external antenna:

☒ Autodetection

☐ both active

Actual

Extended properties

Pulse length

0

Sec.

Time-controlled relay switching

☐ Manual locking

☒ Automatic locking

☒ Manual unlocking

☐ Automatic unlocking

Transponder active:

☐ always

☒ only if locked

☐ Restricted range (only for internal antenna)

☐ Log unauthorised attempts

Advanced functions

Number of expansion modules

0

Interface

☐ Extra signal: CLS

Wiegand 33-bit

☐ No audible feedback

☒ External LED

☐ External beeper

Internal/external antenna:

☒ Autodetection

☐ both active

OK

Cancel

Some settings can be specified using the **Extended configuration** button:

Pulse length	This is where you indicate the number of seconds for the duration of switch pulse. The value can be set at 0.1 to 25.5 seconds. If you enter 3 seconds, for example, an electric strike is released for 3 seconds before it locks again.
<input checked="" type="checkbox"/> Restricted range	If you select this option, the reader range from the transponder to the SmartRelay is reduced from 1.5 m to about 0.4 m. This option can be used when several SmartRelays are in close proximity to one another and individual transponders are authorised for use on several SmartRelays, for example.
<input checked="" type="checkbox"/> Log unauthorised attempts	For SREL.ZK and SREL.ADV only: Normally, only authorised transponder operations are logged. You need to select this option if you also wish to record attempts to open the door with non-authorised transponders.

Number of extension modules	This where you indicate the number of external modules connected to the SmartRelay. These modules are connected to the terminals RS-485 C OM, RS-485 A and RS-485 B.
"Interface"	<p>For SREL.ADV only: You can enter the type of card reader here which the SmartRelay is to simulate for operation as a serial interface.</p> <p>The following options are available:</p> <ul style="list-style-type: none"> ■ Wiegand, 33 bit ■ Wiegand, 26 bit ■ Primion ■ Siemens ■ Kaba Benzing ■ Gantner Legic ■ Isgus
<input checked="" type="checkbox"/> No audible feedback	For SREL.ADV only: You should check this field if you do not want audible programming confirmation signals to be emitted from a connected buzzer or beeper while you are programming SmartRelay.
<input checked="" type="radio"/> External LED/ <input checked="" type="radio"/> External beeper	For SREL.ADV only: This indicates which external component group is connected. In flip flop mode, SmartRelay emits a permanent signal when switched on if there is an external LED; in the case of a beeper, an audible signal is only emitted when there is a change of status.

<input checked="" type="radio"/> Autodetection/ <input checked="" type="radio"/> both active	<p>For SREL.ADV only</p> <p>❑ <input checked="" type="radio"/> Autodetection</p> <p>If an external antenna is connected, this is the one which is used. SmartRelay switches off the internal antenna in such cases. If no external antenna is connected (standard case), SmartRelay functions with the internal antenna.</p> <p>❑ <input checked="" type="radio"/> both active</p> <p>SmartRelay is able to use both antennas to verify transponder bookings.</p>
--	---

SmartRelay (G2): SREL.G2, SREL.W.G2, SREL2.G2

This tab ([Configuration/Data]) is divided into two sides:

- ❑ The left side shows the target status of the locking device ("Actual") – i.e. the desired status configured in the LSM software.
- ❑ The right side shows the locking device's current status ("Target") – i.e. the status which was last programmed.

Target	Actual
Locking system ID <input type="text" value="9215"/>	Locking system ID <input type="text" value="9215"/>
Lock ID <input type="text" value="197"/>	Lock ID <input type="text" value="197"/>
	Firmware <input type="text" value="3.0.14"/>
Pulse length <input type="text" value="5"/> Sec.	Pulse length <input type="text" value="5"/> Sec.
<input checked="" type="checkbox"/> Audit trail	<input checked="" type="checkbox"/> Audit trail
<input checked="" type="checkbox"/> Time zone management	<input checked="" type="checkbox"/> Time zone management
<input type="checkbox"/> Log unauthorised attempts	<input type="checkbox"/> Log unauthorised attempts
<input type="checkbox"/> Gateway	<input type="checkbox"/> Gateway
<input checked="" type="checkbox"/> Flip Flop	<input checked="" type="checkbox"/> Flip Flop
<input type="checkbox"/> Internal antenna always on	<input type="checkbox"/> Internal antenna always on
<input type="checkbox"/> Close-up range mode (with internal antenna only)	<input type="checkbox"/> Close-up range mode (with internal antenna only)
<input type="checkbox"/> Time switching	<input type="checkbox"/> Time switching
<input type="checkbox"/> Permit exceptions in time zone management	<input type="checkbox"/> Permit exceptions in time zone management
<input checked="" type="checkbox"/> Card interface	

The following features can be enabled **depending on the locking device type**:

❑ Pulse length

This where you indicate the number of seconds for the duration of switch pulse. The value can be set at 0.1 to 25.5 seconds. If you enter 3 seconds, for example, an electric strike is released for 3 seconds before it locks again.

❑ Access control

ZK and ADV possible. The most recent transponder transactions are logged with the date and time.

❑ Logging unauthorised attempted access events

For ZK and ADV only: Normally, only authorised transponder operations are logged. You need to select this option if you also wish to record attempts to open the door with non-authorised transponders.

❑ Gateway

SmartRelay can be used as a gateway.

❑ Flip-flop

Pulse mode (default setting) is switched off and the pulse duration no longer plays a role. When flip-flop mode is activated, SmartRelay changes its status from on to off or vice versa each time it is activated using a transponder. This mode is ideal for switching lights, machines and other systems on and off.

Where applicable, you should ensure that mains adapters and electric strikes are suitable for continuous current operation in such an installation.

❑ Internal antenna always on

Even if an external antenna is connected, the internal antenna is still used at the same time.

❑ Close range mode (for internal antennas only)

Close range mode is activated.

❑ Permit exceptions in time zone management

Exceptions are permitted in time zone management if this checkbox is enabled.

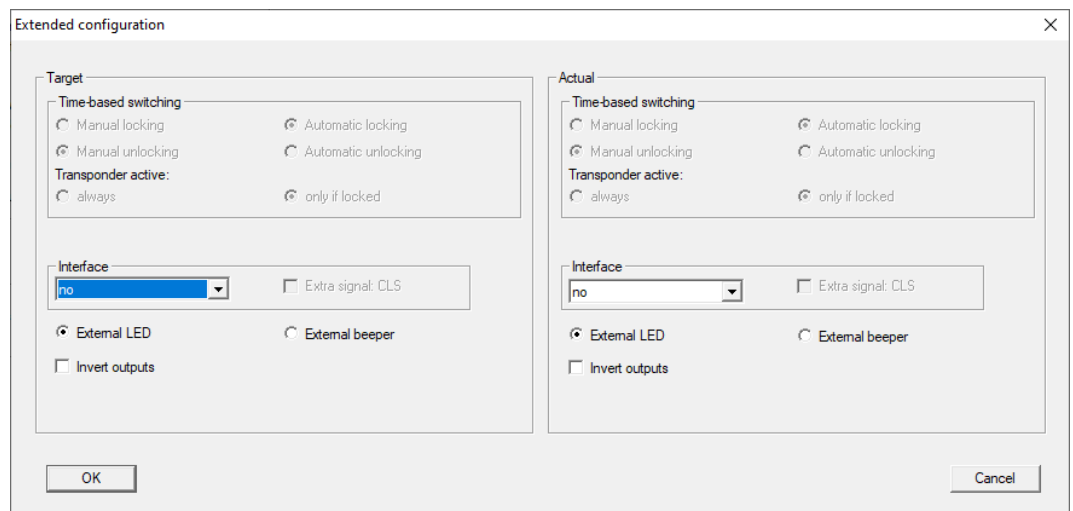
❑ Card interface

This option is enabled for all G2 SmartRelays as standard. The LSM first adds a data record for an active locking device and checks whether the locking device has an interface during programming. If no card interface is detected, LSM automatically disables the checkbox. You no longer need to indicate whether you have an active or hybrid SmartRelay G2 for LSM 3.3 or higher.



NOTE

If you change the card interface setting manually, automatic detection will no longer function and warning messages will be emitted.



Some settings can be specified using the "Extended configuration" button:

■ Interface

You can enter the type of card reader here which the SmartRelay is to simulate for operation as a serial interface.

The following options are available:

- Wiegand, 33 bit
- Wiegand, 26 bit
- Primion
- Siemens
- Kaba Benzing
- Gantner Legic
- Isgus

■ External LED/external beeper

For SREL.ADV only: This indicates which external component group is connected. In flip-flop mode, SmartRelay emits a permanent signal when switched on if there is an external LED; if there is a beeper, an audible signal is only emitted when there is a change of status.

■ Invert outputs

You can use these settings to invert the relay output.

SmartRelay 3

This tab is split in two.

- The "Actual" section shows the locking device target status. This is the status that the operator wants and which is configured in LSM but possibly may not be configured in the SREL3 ADV system yet.

- The "Target" section shows the actual locking device status. This status is the last status programmed in SREL3 ADV system.

The following features can be activated, depending on the device type:

- Pulse length

This where you indicate the number of seconds for the switch pulse duration (0 s to 25 s). If you enter three seconds, for example, an electric strike is released for three seconds before it locks again.

- ☒ Audit trail

Access control is only available in the .ZK variant. The most recent transponder transactions are logged with the date and time.

- ☒ Log unauthorised attempts

Logging of unauthorised access attempts is only available in the .ZK version. If you enable this option, unauthorised transponders activations are also logged in addition to activations with authorised transponders.

- ☒ Gateway

SmartRelay can be used as a gateway (see Gateway function).

- ☒ Flip Flop

The relay used in the controller behaves in the same way as a monostable multivibrator (pulse generation) by default. If you enable this option, the configured pulse duration is ignored and the relay remains activated until an authorised identification medium is actuated again. This option is recommended if you wish to switch lighting, machinery and similar systems on and off.

IMPORTANT

Damage due to continuous current

Devices which are designed to generate pulses may not be suitable for continuous currents. Ensure that the power supply units and devices used, such as electric strikes, are suitable for operating with a continuous current.

- ☒ Close-up range mode

Close range mode reduces the read range in the reader's B-field (see Near-field option).

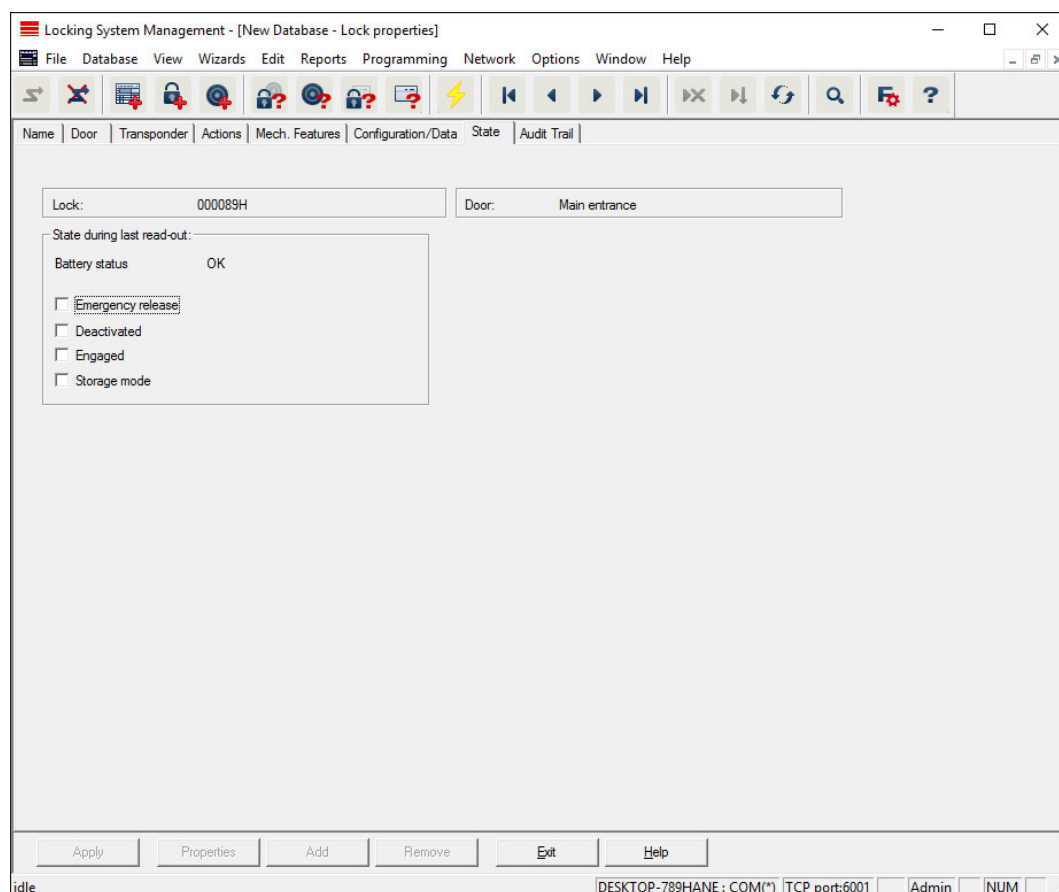
- ☒ Ignore activation or expiry date

Transponders can be given a validity date. You can enable this option if you wish the transponders to also be valid beyond this validity date.

- ☒ Card interface

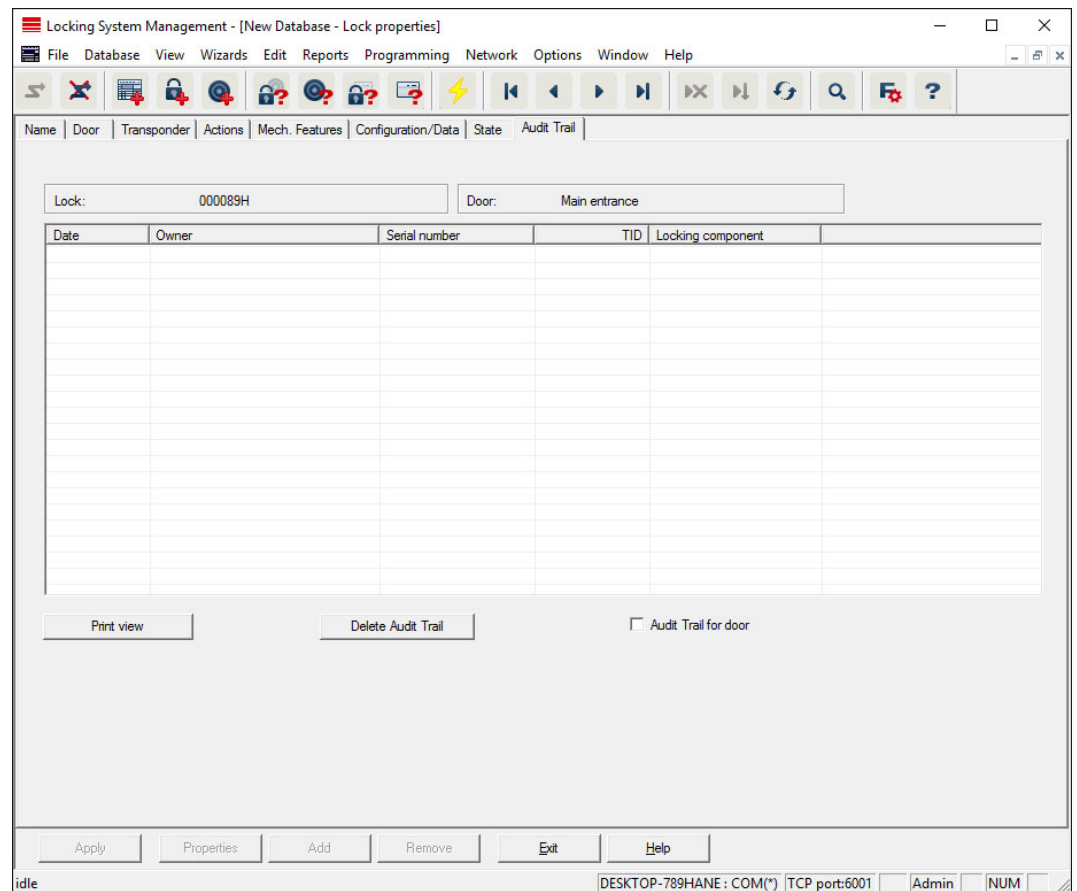
This option should not be changed. It allows LSM to automatically detect whether the connected reader is a hybrid reader or not during programming. If you change this option manually, detection will no longer function.

Status



The last uploaded status of the locking device is displayed and is updated each time the locking device is read.

Access list



This tab can display the latest version of the access list. *The locking device must support the "Access control" function, which must be enabled in the locking device properties.*

This is how you read the access list:

1. Read locking device using the *Programming/Read locking device* menu bar.
2. Click on the "Access list" button to launch the read process.
 - ➡ The access system is automatically displayed and saved. It can now be displayed in the locking list properties in the Access list tab at any time.

DoorMonitoring status

The current status of the locking device can be displayed in the "DoorMonitoring status" tab in real time (see also Possible (door) states). A configured WaveNet is required for this function.

This tab can only be selected if the locking device features the DM function and this was also directly added into the LSM software as "G2 DoorMonitoring/SmartHandle cylinder". The appearance may vary.

The screenshot displays the 'Locking System Management - [New Database - Lock properties]' window. The interface includes a menu bar (File, Database, View, Wizards, Edit, Reports, Programming, Network, Options, Window, Help) and a toolbar with various icons. Below the toolbar is a tabbed interface with tabs for Name, Door, Transponder, Actions, Mech. Features, Configuration/Data, State, Audit Trail, and Door Monitoring State. The 'Door' tab is active, showing fields for 'Lock:' (1A1267P) and 'Door:' (DM_TN4). Below these are fields for 'Current door status:', 'Last update:', 'Lock bolt position:', and 'Last error:'. A 'Reset' button is located next to the 'Last error:' field. At the bottom of the window, there is a status bar with buttons for 'Apply', 'Properties', 'Add', 'Remove', 'Exit', and 'Help'. The status bar also shows 'idle', 'DESKTOP-789HANE : COM(*)', 'TCP port:6001', 'Admin', and 'NUM'.



NOTE

If you wish to monitor several locking devices at the same time, you can also use SmartSurveil to display locking devices and their respective door status in a table where they can be clearly seen.

7.1.5.3 Properties: Transponders

Show and edit properties for the transponder currently highlighted.

Double-click on a transponder to open its properties directly.

Name

Locking System Management - [New Database - Transponder properties]

File Database View Wizards Edit Reports Programming Network Options Window Help

Name Owner Doors Actions Configuration Mech. Features Personal audit trail

Serial number: 040L922 M Firmware: 3.2.00

Owner: Peteman, Jennifer

☒ Change assignment of person/transponder

Type: G2 Transponder

Description:

Deactivate

Activate

Transponder issuance

Multiple Copy

Assigned transponder groups (target):

Locking system	Level	Transponder group	TID G1	Time group	TID G2	G2 Time group	SID Ext
Office_Munich	Standard	product management	16	--	3202	--	15862638

Assigned transponder groups (actual):

Locking system	Level	Transponder group	TID G1	Time group	TID G2	G2 Time group	SID Ext
Office_Munich	Standard	product management	16	--	3202	--	15862638

Number of resets: 0 Software reset The transponder's actual state will be set to zero.

Apply Properties Add Remove Exit Help

idle DESKTOP-789HANE : COM(*) TCP port:6001 Admin NUM

Serial number

Transponder serial number. The "..." button shows the person's properties. The G2 transponder "internal serial numbers" (PHI number *Physical Hardware Identifier; embossed on the product*) are automatically applied when they are programmed.

Holder

The person that the transponder is assigned to. The "M" button shows the transponder in the matrix.

Type

Type of transponder.

Description

Blank field to describe the transponder.

Assigned transponder groups: Target state

Target status of the transponder group to which the transponder belongs.

Transponder group

You can use this button assign the transponder to another transponder group.

▣ **Assigned transponder groups: Current status**

Current status (last programming) of the transponder groups to which the transponder belongs.

▣ **Software reset**

Button to re-set the current status of the LSM software. This process is timed and shown on the left-hand side.



NOTE

Only use this function if you are sure where the programmed components are. This action can be used if a transponder is defective. A correctly programmed, functional transponder which has only be reset in the software may still be authorised to operate locking devices. This poses a high security risk!

▣ **Disable**

Button to disable a transponder.

▣ **Activate**

Button to activate a transponder.

▣ **Issuing of transponders**

Generates a form with signature for handover. The form also contains a list of all authorised doors.

▣ **Make multiple copies**

Generates as many copies of the transponder with the same properties as required.

Holder

Locking System Management - [New Database - Transponder properties]

File Database View Wizards Edit Reports Programming Network Options Window Help

Name Owner Doors Actions Configuration Mech. Features Personal audit trail

Transponder: 040L922

First name: Jennifer

Last name: Peterman

Title:

Address:

Telephone: 089-12345

E-Mail: jennifer.peterman@simons-voss.com

Personnel number: P-00003

User name: no

Department:

Location/Building:

Entry date: 04/01/2011 ☒ not relevant

Quitting date: 05/01/2011 ☒ not relevant

Date of birth: 04/01/2011 ☒ not relevant

Cost Centre: 4711

Note:

Photo placeholder

Transponder table:

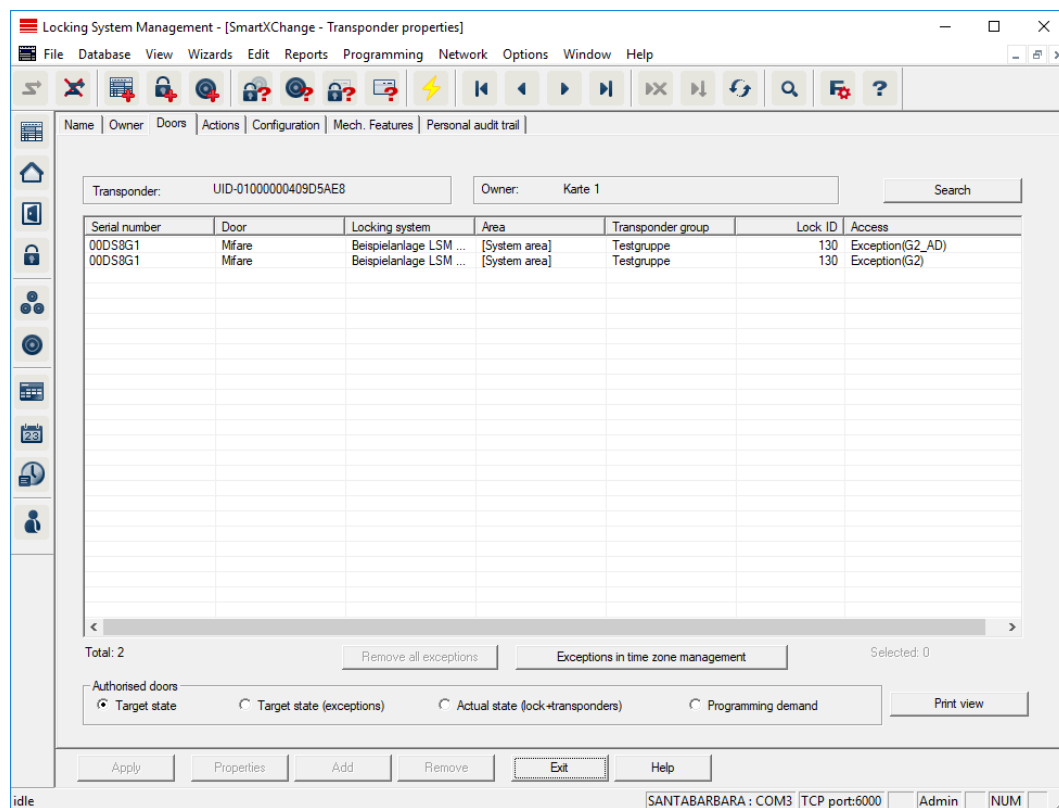
Serial number	Type
040L922	G2 Transponder

Apply Properties Add Remove Exit Help

idle DESKTOP-789HANE : COM(*) TCP port:6001 Admin NUM

You can enter all information on the transponder's holder in the "Holder" tab. The "Transponder" table indicates how many transponders and which ones are assigned to the user. You can use the "..." to add a user photo. *We recommend using JPEG images no larger than 500 kB.*

Doors



This tab gives you an overview of the selected transponder's authorisations for doors. The devices are all displayed in detail in a table.

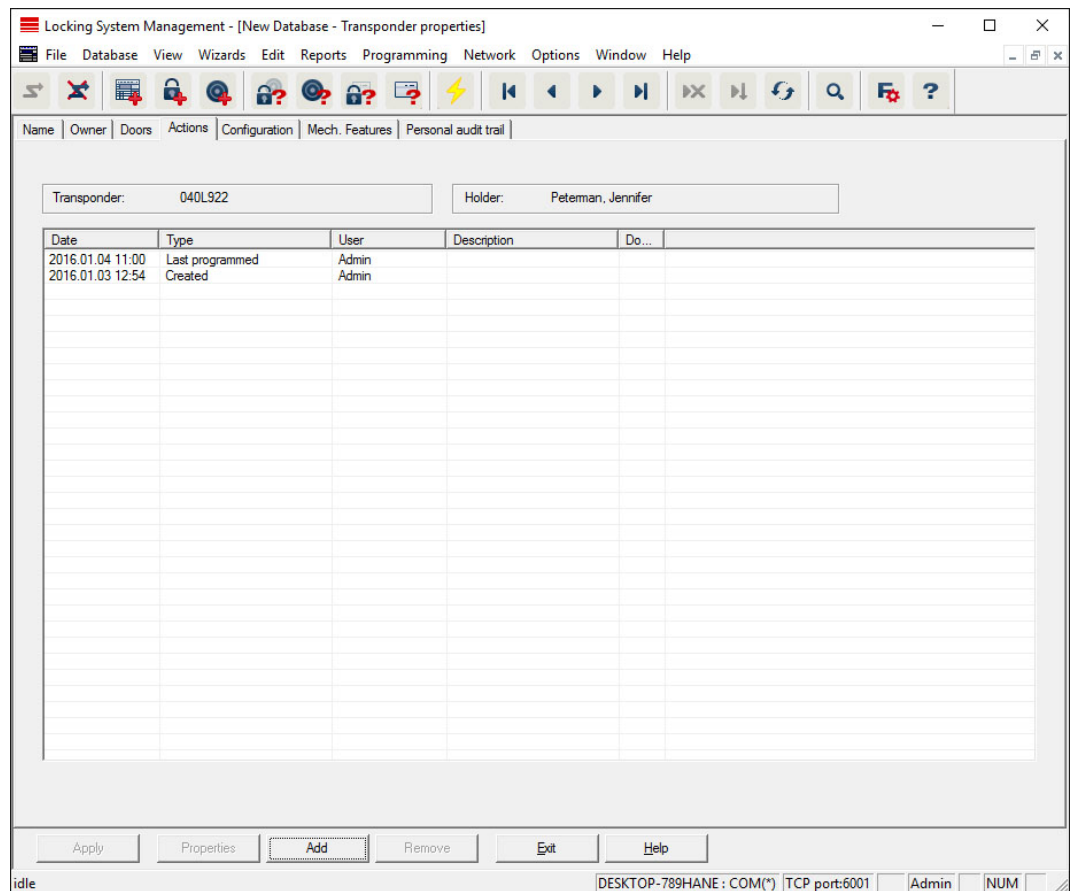
■ Table

Shows all the doors that the transponder is authorised to use in a detailed list.

■ Authorised doors

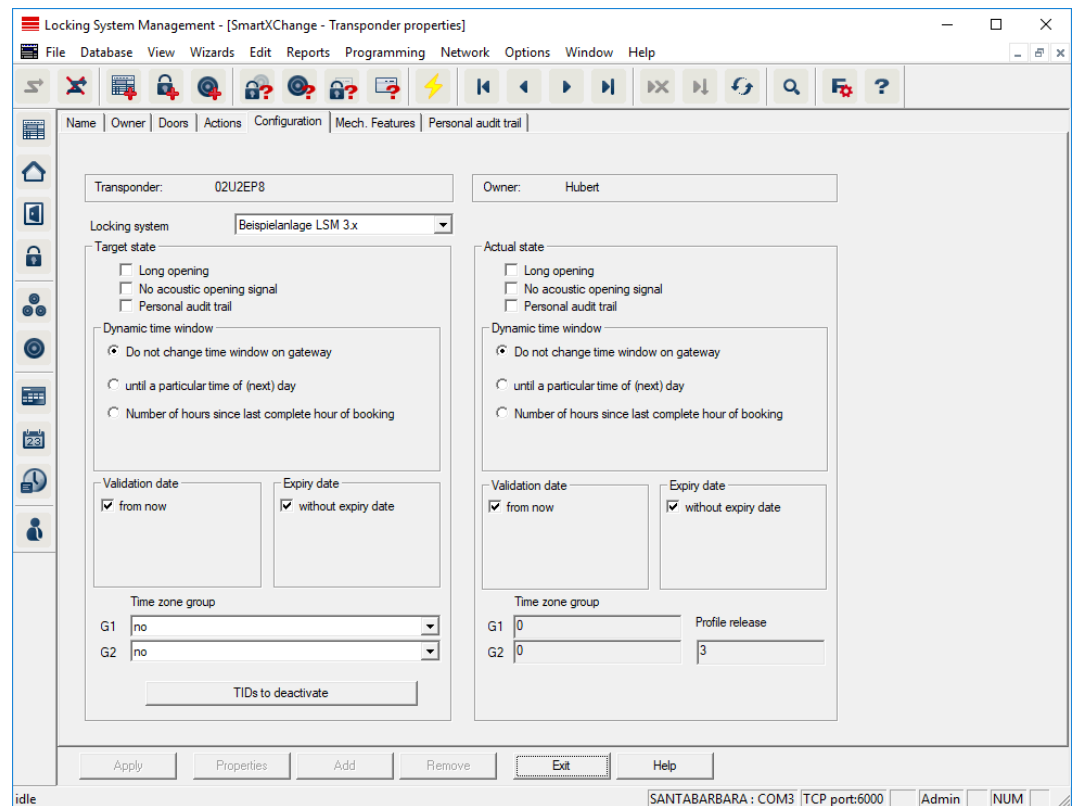
You can use the individual radio buttons to sort and filter the table.

Actions



This table shows which actions, such as programming and authorisation changes, have been implemented using the selected transponder. Certain actions, such as "Scheduled return", can also be added manually using the "Add" button.

Configuration



This tab is divided into two sides:

- The left side shows the transponder's target status – i.e. the required status configured in the LSM software.
- The right side shows the transponder's current status, i.e. the status which was last programmed.

■ Locking system

Displays the transponder's currently assigned locking system.

■ Long opening

This allows the locking device to remain engaged to open for longer. The locking device impulse length is doubled. *Example: People with disability possibly require the door to be open longer.*

■ No audible opening signal

The locking device responds to the transponder without emitting an audible signal. *Example of use: assisted living accommodation. The duty nurse can enter the room at night without making a noise.*

■ Physical access list

Saves all access events on the transponder.

■ Activation date

Date and time from which the transponder is to be valid.

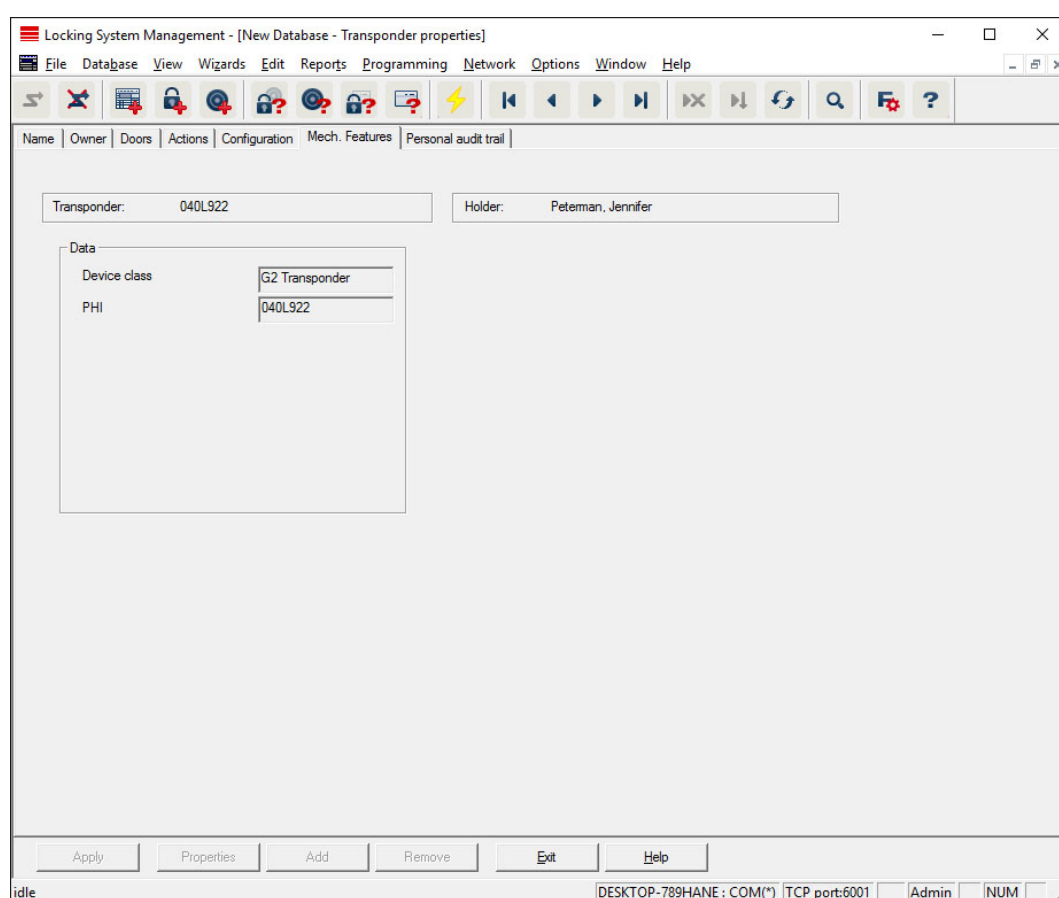
❖ Expiry date

Date and time from which the transponder is to be no longer valid.

❖ TIDs to deactivate

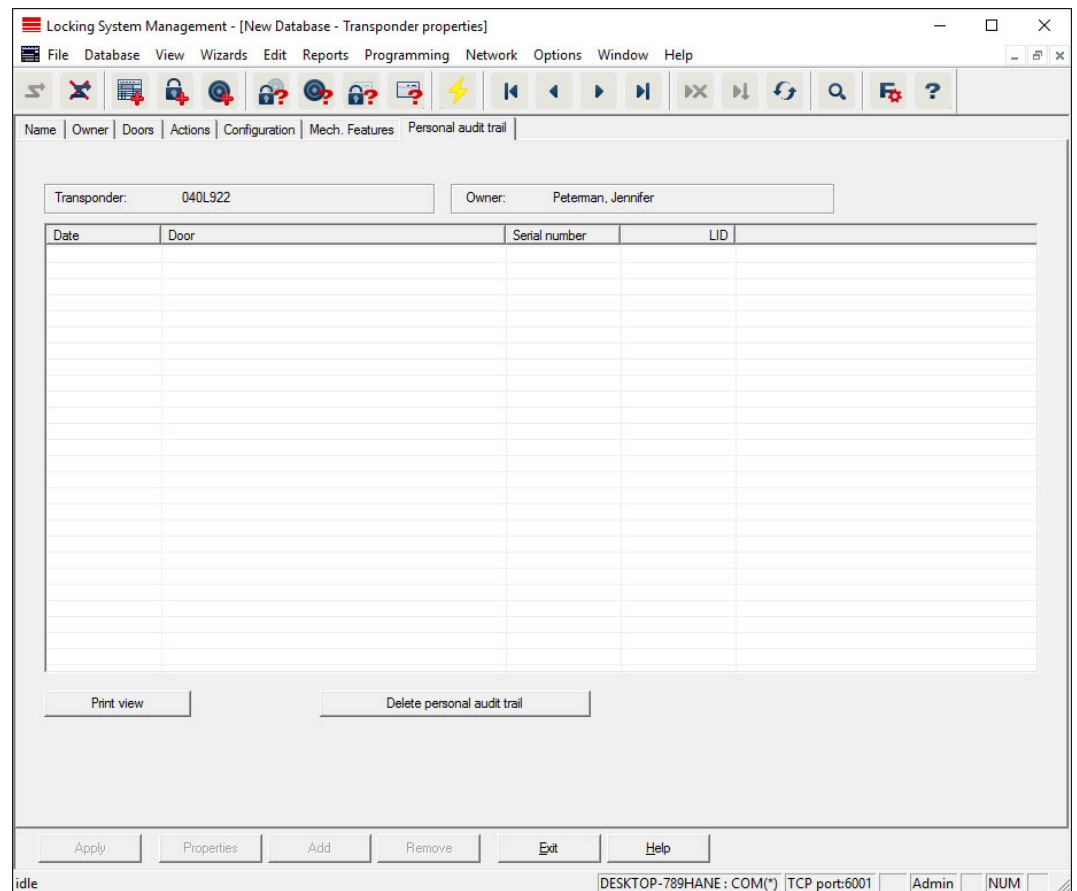
You can save to the transponder ID for other transponders which have been deactivated. As soon as the transponder registers on a locking device, the deactivations will come into effect on the locking device in question.

Features



Check the transponder's exact specifications.

Physical access list



This tab can display the latest version of the physical access list. *The "Physical access list" function must be enabled.*

How to read the physical access list:

1. Read transponder using the *Programming/Read transponder* menu bar.
2. Click on the "Physical access list" button to launch the read process.
 - ↳ The physical access list is automatically displayed and saved. It can now be displayed in the transponder properties in the Access list tab at any time.

7.1.5.4 Edit/New locking system

This is where you can add a new locking system within the project.

7.1.5.5 New locking device

New lock

×

Locking system

Beispielanlage LSM 3.x

Area

[System area]

Lock type

G2 Cylinder

Select door

☒ Display doors without Locks

Serial number

L-00003

Auto

☒

☒ Insert door

New door

Ausgang

Room number

Floor

Location

no

Building

no

Assignment to global levels

Locking system	Area	Level	

Global level

Green

Add

Locking system

Übergreifend grün

Remove

Area

[System area]

Save & next

Exit

Use this option to add a new locking device manually.

If several locking systems and common locking levels have already been created, the new locking device can be assigned to them directly. Drop-down lists provide corresponding options for this purpose.

- Optionally select a locking system and area to assign the locking device correctly immediately. Locking systems and areas must be defined beforehand. It is possible to change these settings at a later stage at any time.
- You can use the "Add door" button to create a new door. A door can contain a number of locking devices.
- You can use the "Save & next" button to add a new locking device to the locking plan. Select "Finish" to return to the matrix or add another door.

Different locking devices can be managed in the LSM software, depending on the hardware used. Select the type of locking device that you wish to add from Locking device type in the drop-down menu.

7.1.5.6 New transponder



Use this option to add a new transponder manually.

If several locking systems and transponder groups have already been created, the new transponder can be assigned to them directly. Drop-down lists provide corresponding options for this purpose.

- Optionally select a locking system and transponder group to assign the transponder correctly immediately. Locking systems and transponder groups must be defined beforehand. It is possible to change these settings at any time.
- You can use the "Configuration" button to make advanced settings such as the transponder validity.
- You can use the "Save & next" button to add the transponder to the locking plan. Select "Finish" to return to the matrix or add another transponder.

Ensure that each ID medium is basically marked as a transponder in the LSM software. Different ID media can be managed in the LSM software, depending on the hardware used:

G1 biometrics	Biometric transponder
G1 biometric reader user	Biometric reader user in G1 standard
G1 card	Card in G1 standard
G1 SmartClip	SmartClip in G1 standard
G1 transponder	Transponder in G1 standard
G2 card	Card in G2 standard
G2 PIN code user	User of a PIN code terminal
G2 transponder	Transponder in G2 standard
Undefined	Not yet determined G1 transponder



NOTE

Transponder must never be assigned to a locking system and a common level at the same time.

7.1.5.7 Transponder group

Locking system: Office_Munich

Transponder group: product management

Time zone group: no

G2 time zone group: no

Description:

Stock G1: 8

Management: Authorisations, Stock G1

Transponder:

Owner	Serial number	Type
Peteman, Jennifer	040L922	G2 Transponder

Total: 1

Transponder allocation: Automatic, Manual (G1)

Buttons: Edit, New, Apply, Exit, Help

Status bar: idle, DESKTOP-789HANE : COM(*), TCP port:6001, Admin, NUM

This menu displays the transponder groups already added. You can use the "Next dataset" and "Previous dataset" buttons on the menu ribbon to switch between individual transponder groups. You can use the "New" button to add more transponders.

■ Locking system

Selects the locking system added.

■ Transponder group

The transponder group name.

■ Description

Blank field to describe the transponder group.

■ G1 reserve

Total number of transponder IDs available in the transponder group.

■ Authorisations

Option of issuing the group authorisations.

■ Reserve (G1)

Option to manage G1 transponder IDs.

■ Automatic

Option to automatically assign a free transponder to the transponder group.

❑ Manual (G1)

Option to assign a specific transponder to a specific transponder ID manually.

7.1.5.8 Person

This menu displays the persons already added. You can use the "Next dataset" and "Previous dataset" buttons on the menu ribbon to switch between individual persons.

The menu is the same as the "Holder" tab under *Edit/Properties: Transponder*.

You can also use the "New" button to add new persons.

7.1.5.9 Area

Use this menu to display the individual transponder areas. You can use the "Next dataset" and "Previous dataset" buttons on the menu ribbon to switch between individual transponder groups.

You can also use the "New" button to add new areas.

7.1.5.10 Door

This menu displays the doors already added. You can use the "Next dataset" and "Previous dataset" buttons on the menu ribbon to switch between individual doors.

The menu is the same as the "Door" tab under *Edit/Properties: Locking device*.

You can also use the "New" button to add new doors.

7.1.5.11 Building

You can use this menu to add a new building or edit an existing building to the locking system. Buildings can only be created if their location has already been added.

7.1.5.12 Location

You can use this menu to add a new location or edit an existing location in the locking system.

7.1.5.13 Time zone plan



You can create time zone plans in this section.

■ Name

Suitable, unique name for the time zone plan.

■ Description

Apt description of the time zone plan.

■ Public holiday list

Select a relevant geographical location.

■ Display names of groups for the locking system

Selects the locking system for which the time group names changed manually are displayed.

■ Time groups table

Up to 100 time groups may be defined for each time zone plan. First select a group and then edit the weekly program.

**NOTE**

The fifth group is intended for time change-over (see Time switch-over function).

■ Small tables on right at top

If the time zone plan has already been assigned to an area, this displayed in the two small tables.



NOTE

Next, always create a time zone plan first and later assign it to an area *or* an individual locking device. You can do this at *Edit/Area*, for example.

▣ Weekly schedule

- ▣ Fields filled in blue indicate an authorisation at this time.
- ▣ You can click on fields individually or select by holding down the mouse button to make changes.

▣ Edit

This button needs to be enabled to edit the time zone plan. Changes can be saved by pressing the "Apply" button.

▣ New

The "New" button creates a new, empty time zone plan.

7.1.5.14 Time group

The time group can display all the time groups issued in the time zone plan. This view is especially suitable for giving a complete overview of the locking system, time group, transponder group and transponders.

You can use the "Assigned transponders" button to print out an overview.

7.1.5.15 Local time zone

Enter your local time zone in this window if you manage locations in different time zones. The "Import from registration" button allows you to select from standard world time zones.

If a locking device has been programmed with a local time zone, this changes automatically between daylight saving time and standard time.

7.1.6 Reports

To be able to use the comprehensive reporting system, you need at least LSM Basic Online or higher.

Each report type offers the following basic selection options:

The screenshot shows the 'Reports' window with the following components:

- 1** A grid of report categories: Lock, Network, Miscellaneous, Area, and Time group. The 'Lock' category is selected.
- 2** A section for 'Locking system' with a dropdown menu showing 'Beispielanlage LSM 3.x'.
- 3** A list of report types with radio buttons: Locks (selected), Transponder, Areas, Transponder groups, Statistics, Programming demand for locks, Programming demand for transponders, Full programming demand for transponders (all records), Time groups, and User defined.
- 4** A section for 'User defined reports' with a dropdown menu and a 'Save' button.
- 5** Buttons for 'Print view' and 'Abbrechen' at the bottom.

1. Type of report, such as a SimonsVoss component, building or transponder group.
2. First limitation which should be reported.
3. Targeted limitation on what exactly should be reported.
4. Option of selecting a user-defined report and then saving it. *Customised, user-defined reports can be ordered from SimonsVoss Technologies GmbH.*
5. The "Display" button shows the report subject to the pre-set criteria.

The page headers and footers for reports can be customised under Options/Reports.

Displayed reports can be printed out directly or exported in different formats.

- 7.1.6.1 Locking system
- 7.1.6.2 Area
- 7.1.6.3 Transponder group
- 7.1.6.4 Door
- 7.1.6.5 Locking device
- 7.1.6.6 Transponder
- 7.1.6.7 Time group
- 7.1.6.8 Time zone plan
- 7.1.6.9 Network
- 7.1.6.10 Personnel structure
- 7.1.6.11 Building structure
- 7.1.6.12 Miscellaneous

List of present persons

From LSM 3.4 SP2 upwards you can generate a report which lists everyone being present in an area.



WARNING

Non-evacuation in case of danger

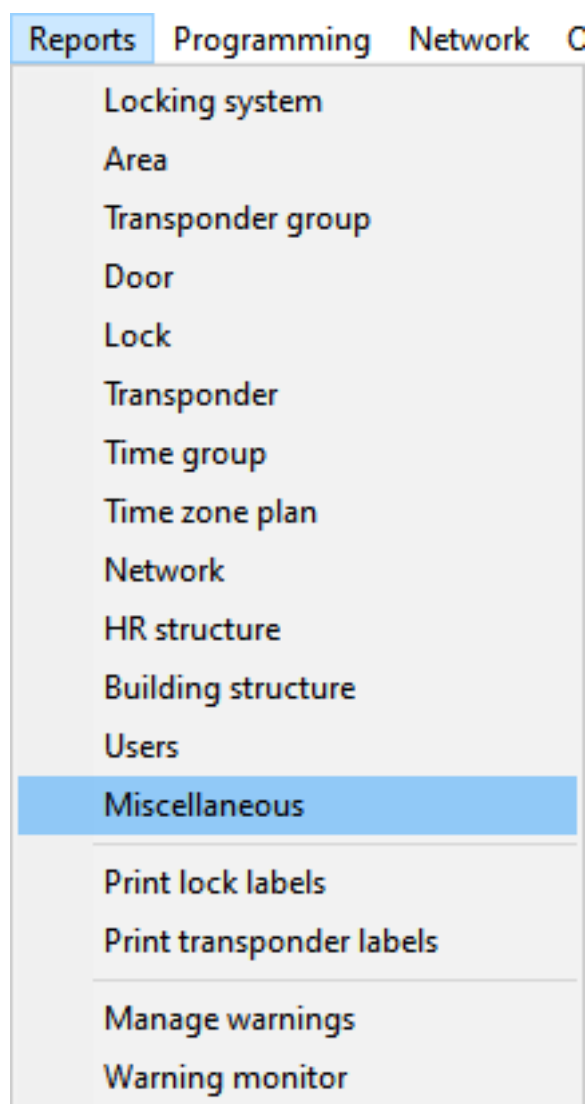
The report is based on data stored in the LSM database. This data does not necessarily display the actual conditions. For example, persons who enter through an already opened door won't be detected and thus won't be listed. Using a baffle gate like a turnstile at every entry and every exit increases the report's quality. However, it still doesn't guarantee that every person being present in the building (respectively an area) is listed in the report.

If an evacuation is based on this report, then persons, which were not listed, may not be evacuated.

- Don't use this report instead of an evacuation list.

- ✓ LSM open.
- ✓ Doors and locks grouped to areas.
- ✓ Areas' names are recognizable without naming the locking system.
- ✓ Entrances and exits for the areas defined (see *Define entrances and exits for areas* [► 95]).
- ✓ Entrances and exits in the same area.

1. Choose via | Reports | the entry **Miscellaneous**.



→ Window "Reports" opens and displays the register [Miscellaneous].

Reports

Time zone plans	Transponder group	Transponder	Users
Locking system	Building structure	HR structure	Door
Lock	Network	Miscellaneous	Area
			Time group

☐ Database statistics
☒ Employees who are present in the area
☐ User defined

Please mark an input within a range with IN and an output with OUT in the field 'room number'.
Read the access lists on these doors regularly for evaluation.

User defined reports

Save

Print view Abbrechen

2. Mark the option ☒ Employees who are present in the area.
 3. Click the button **Print view**.
- ➔ Window "Print view" opens.

The report contains the following informations:

- Area which this part of the report belongs to
 - Owner of the identification medium
 - Personal number of the owner
 - Time when the area has been entered (date and time)
 - Entered door
 - Site
 - Building
- Number of employees in the area
- Total number of employees

Define entrances and exits for areas

You may define areas. Starting with LSM 3.4 SP2 and upwards you may generate a list which shows persons being present in that area. However, you have to define which doors work as an entrance and which doors work as an exit for that area.

Defining entrances

You define an entrance with one of the following methods:

- You enter the expression */N* instead of a door's room number in the lock's properties (register [Door]).
- You enter the expression */N* instead of a name in the lock's properties (register [Lock components]).

Defining exits

You define an exit with one of the following methods:

- You enter the expression *OUT* instead of a door's room number in the lock's properties (register [Door]).
- You enter the expression *OUT* instead of a name in the lock's properties (register [Lock components]).



NOTE

Priority when interpreting definitions

You may enter any expression. The LSM first interprets the expression in the name field of the lock (register [Lock components]). If the LSM doesn't find one of the specified expressions (IN or OUT), then the LSM interprets the expression in the door's room number field (register [Door]).

7.1.6.13 Print locking device labels

A list of all locking devices is displayed first. You can select all locking devices or just individual ones.

You can use the "OK" button to select different label types for printing.

7.1.6.14 Print transponder labels

A list of all transponders is displayed first. You can select all transponders or just individual ones.

You can use the "OK" button to select different label types for printing.

7.1.7 Programming

7.1.7.1 Transponder

You can only select this function if you have selected a transponder in the matrix. The transponder which was selected in the matrix is displayed directly in the drop-down menu. Click on the "Programming" button to launch the programming process for the transponder selected in the drop-down list.

If you would like to programme a number of transponders one after the other, you can start with the first transponder and select the "Jump to the next transponder after programming" option.

7.1.7.2 Locking device

You can only select this function if you have selected a locking device in the matrix. The locking device which was selected in the matrix is displayed directly in the drop-down menu. Click on the "Programming" button to launch the programming process for the locking device selected in the drop-down list.

Select the programming device which you wish to use for programming in the "Programming device" field.

7.1.7.3 Read highlighted locking device/Set clock

Read the locking device selected in the matrix to set the clock time or read the access list.

7.1.7.4 Read locking device

You can use this command to read a locking device instantly using the standard SMARTCD.G2 programming device.



NOTE

Only one locking device may be near the programming device at any time.

7.1.7.5 Read MIFARE locking device

You can use this command to read a passive MIFARE locking device instantly using the passive SMARTCD.MP programming device.

**NOTE**

Hold the electronics side of the locking device (e.g. where the black ring between the profile cylinder housing and thumb-turn is located on the locking cylinder) directly against the antenna symbol on the programming device!

7.1.7.6 Read transponder

You can use this command to read a transponder instantly using the standard SMARTCD.G2 programming device. Observe the instructions in the LSM software.

7.1.7.7 Read G1 card

You use this command to read a G1 card instantly using the CD.MIFARE (*no longer available*). Observe the instructions in the LSM software.

7.1.7.8 Read G2 card

You can use this command to read a G2 card instantly using the standard SMARTCD.HF programming device. Observe the instructions in the LSM software.

In the case of hybrid components, the SMARTCD.G2 also needs to be connected to the computer in addition to the SMARTCD.HF.

7.1.7.9 Special functions**Special functions/Read Compact Reader**

Reads a Compact Reader.

Special functions/Activation transponder

You can use this function to create an activation transponder. You can use an activation transponder to reactivate deactivated locking devices. You also require an authorised transponder to open the locking device.

Special functions/G2 activation card

You can use this function to create a G2 activation card. You can use a G2 activation card to reactivate deactivated locking devices. You also require an authorised G2 card to open the locking device.

Special functions/G2 battery replacement transponder

If a locking device has changed to freeze mode due to a critical battery level, the locking device can only be reactivated with the aid of a battery replacement transponder. You also require an authorised transponder to open the locking device.

Special functions/G2 battery replacement card

A locking device can only be reactivated with the aid of a G2 battery replacement card after the locking device has changed to freeze mode due to a critical battery level. You also require an authorised G2 card to open the locking device.

7.1.7.10 Implement emergency opening

It is possible to open a locking device using the LSM software and the corresponding programming device. Note that you need to enter the locking system password to do so.

7.1.7.11 Test SmartCD active

You can use this function to test whether a connected SMARTCD.G2 functions correctly.

7.1.7.12 Test SmartCD Mifare

You can use this function to test whether a connected SMARTCD.MP or SMARTCD.HF functions correctly. Ensure that only one of the passive programming devices is connected when testing.

7.1.7.13 LSM Mobile

It is possible to export programming tasks from the LSM software if you have a Microsoft Windows-based laptop, netbook or PDA. You can thus programme several SimonsVoss components at the same time with mobile devices, for example.

LSM Mobile/Export to LSM Mobile

Exports the programming commands from a locking system.

LSM Mobile/Import from LSM Mobile

Exports the completed programming tasks back into the LSM software.

LSM Mobile/Exported tasks

Shows the current programming exports to LSM Mobile.

7.1.7.14 Virtual network

For further information see also here: *Managing the virtual network (VN)* [[▶ 151](#)]

Virtual network/Export to VN network

Virtual network/Import – synchronisation

Virtual network/Reset VN task

Virtual network/Exported VN tasks

7.1.8 Options

7.1.8.1 Working in compliance with data protection regulations GDPR

See *Working in compliance with data protection regulations GDPR* [[▶ 125](#)].

7.1.8.2 Print Matrix

You can only print the matrix if the matrix view is currently being displayed.

7.1.8.3 Logging

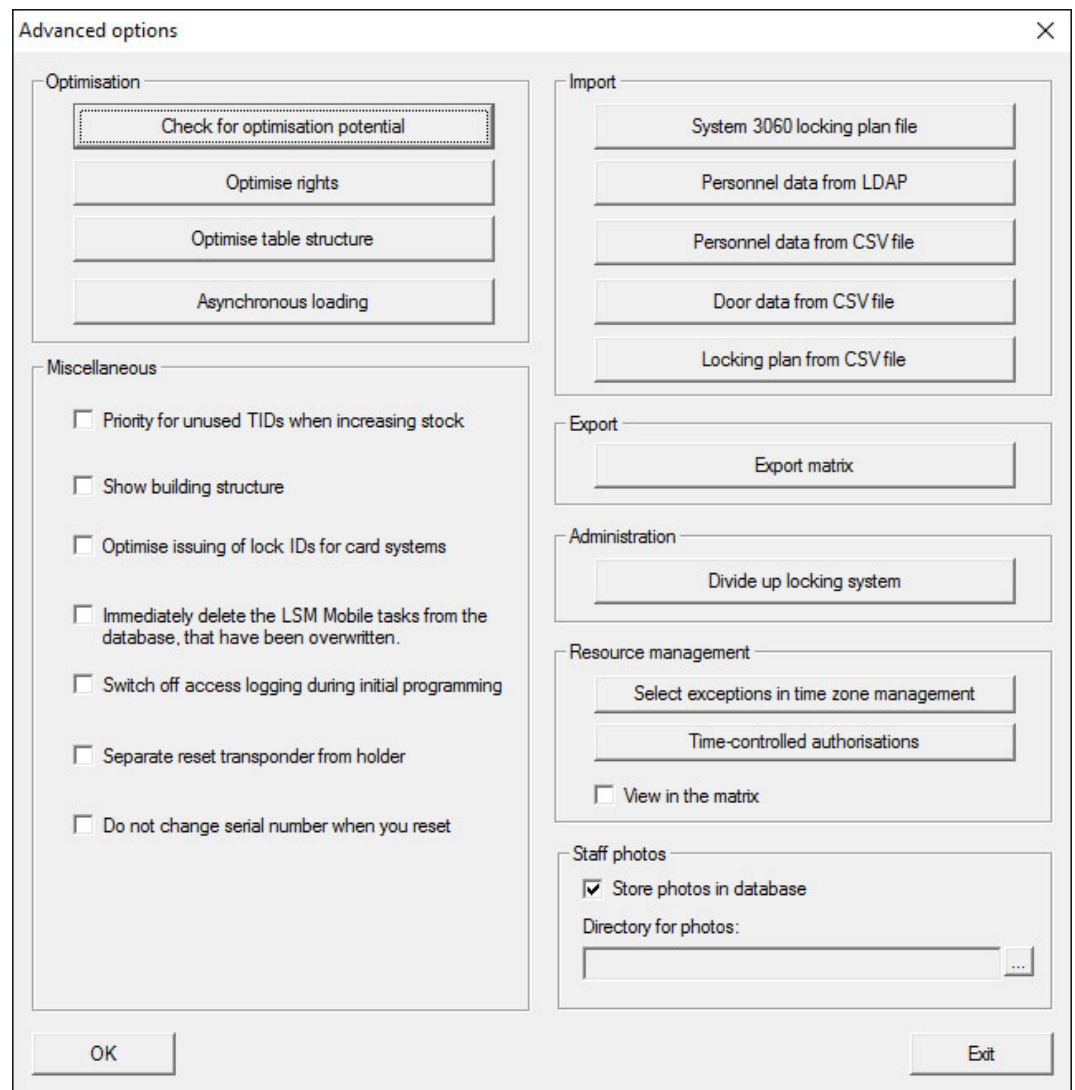
This is where you can indicate which log entries are saved and for what length of time. All log events are usually stored for 180 days. You can set time periods between 7 and 670 days.

7.1.8.4 Automatic numbering

New components are numbered sequentially by default. This option field allows you to define the syntax for different components.

7.1.8.5 Advanced

Ensure that you always have a fully functional, up-to-date data backup before optimising the database.



Check need for optimisation

Users who have been using the LSM software for some time may ask themselves whether the database application is performing correctly. Restructuring may cause more data (authorisation crosses) to overburden the database. For example, it is possible to give authorisation to a transponder group and an explicit individual authorisation to a person in this group. This just means that the person may have two existing authorisations for the same door which are separate from another. It is not just confusing but also unnecessary.

Click on the "Check need for optimisation" button to check whether the locking system needs to be optimised. Then follow the instructions in the LSM software.

Optimise authorisations

Implement this command if the check advises that you need to optimise.

Click on the "Optimise authorisations" button to check whether authorisations needs to be optimised. Then follow the instructions in the LSM software.

Optimise table structure

If a database is used for a longer period of time, this may lead to irregularities in individual tables. Optimising the structure resets the indexes in the table and removes any data inconsistencies.

Asynchronous loading

Currently not supported.

Miscellaneous

❑ Preferably hold unused TIDs in reserve if reserve stock is increased

If the reserve of a transponder group is increased, TIDs are used which have never been used within the locking system (if TIDs are still available). If the checkbox is not enabled, TIDs which have already been programmed into a locking device before, but are not being used at the moment are also used.

❑ Show building structure

If this checkbox is enabled, the abbreviations for the building and the floor of the door selected (if available) are displayed before the door name in the "Door" column in the "Manage WaveNet" mask.

❑ Optimise issuing of locking device IDs for card systems

If this checkbox is enabled and a configuration set in G2 card management with "L" or "L_AV", the LIDs must be issued as follows when new G2 locking devices are created:

- ❑ The next free LID is used in the case of hybrid and MIFARE locking devices.
- ❑ In the case of locking devices with active technology, an LID is issued which is above the LID range indicated for "Locking device IDs" in G2 card management.

❑ Immediately delete the overwritten tasks for LSM Mobile from the database

If this checkbox is enabled, the previous export task for the same GUI user is deleted in the "Exported tasks" if a new task is carried out.

**NOTE**

Export tasks for the same user which were completed before the checkbox was enabled are not automatically deleted.

■ Switch off access control during initial programming

Enable this checkbox if you do not wish to have any access control in the locking system in general, but still want to use time zone control. This function is then automatically disabled when new locking devices are created.

■ Disassociate reset transponder from holder

Enable this checkbox if the transponder needs to be disassociated from its user when it is reset and the transponder's serial number is to be replaced by the current date and time.

■ Do not change serial number when reset

Enable this checkbox if a transponder's serial number should not be reset when reset (for auditing reasons).

System 3060 locking plan file

Import any locking plan from an LDB database (*predecessor to LSM software: Locking Database Software*).

Employee data from LDAP

If employee data are provided on a server using LDAP, they can be imported using the "Employee data from LDAP" button in the LSM software.

Employee data from CSV file

You can use this button to import employee data, such as last name, first name, department and employee number, into the LSM software from a CSV file.

Door data from CSV file

You can use this button to import door data, such as the door, room number, area and inside dimension, into the LSM software from a CSV file.

Locking plan from CSV file

You can use this button to import locking plans into the LSM software from a CSV file.

Export matrix

This button allows you to export the matrix or the locking plan to a CSV file. Note that you can only export the contents of the areas and transponder groups open in the matrix.

Divide locking system

This is where you can divide an existing locking system into two systems. This is useful when a new tenant moves into a building, for example, and they would like to manage a part of the existing locking system themselves.

Employee photos

Employee photos are stored directly to the database by default. However, there is also the option to save employee photos to any directory.

7.1.8.6 Reports

Enter all data which are to be displayed with the report at this central point.

You can set the data on an individual basis or the same for all reports in LSM Business.

7.1.8.7 Access lists

You can place restrictions on access lists. It is possible to log during a specific time range in days or a maximum number of access events at a locking device.

Note how many access events can be stored on each particular locking device.

7.1.8.8 Security user password

This option provides even greater security for the whole locking system.

- **Password must be changed on a regular basis**

Enable this option to require all users to change their password after a pre-defined period of time.

- **Use password history of the last 10 passwords**

Enable this option to prohibit the use of the last 10 passwords.

- **High password security**

Only allow highly secure passwords.

7.1.9 Network

Working with networks such as WaveNet or virtual networks can be very complex. You can find information about working with networks in the WaveNet manual.

7.1.9.1 Locking device activation

This is where you can

- activate
- deactivate
- remote-open locking devices in the network

7.1.9.2 Collective tasks

The collective tasks item allows you to start a process such as programming for a larger number of locking devices at the same time.

7.1.9.3 VN service

Advanced settings for the virtual network.

7.1.9.4 Communication node

You can select this option to specify communication nodes and their connection devices, such as Router- or CentralNodes.

7.1.9.5 Local connections

This is where you can manage the local connections to the PC/server.

7.1.9.6 Manage WaveNet

You can use "Manage WaveNet" to create the WaveNet topology and make other settings.

7.1.9.7 WaveNet Manager

This action launches WaveNet Manager. WaveNet Manager must be installed separately.

7.1.9.8 Import WaveNet topology

This action opens a window to import WaveNet topologies.

7.1.9.9 Manage LON network

This is where you can manage older LON networks centrally.

7.1.10 Windows

Switch between open windows.

7.1.11 Help

7.1.11.1 Help topics

Help topics for LSM software.

7.1.11.2 SimonsVoss online support

SimonsVoss provides online support for quick help. You can use this function to launch a free TeamViewer call over the Internet. The computer must have an Internet connection to use this function. After you have authorised access, a support employee will then access your computer to help you with your problem.



NOTE

Contact SimonsVoss Technologies GmbH first before you launch online support (see *Help and other information* [[▶ 184](#)])!

7.1.11.3 SimonsVoss online

Shows the SimonsVoss homepage (See *Help and other information* [[▶ 184](#)]). You need an Internet connection to use this function.

7.1.11.4 Info about LockSysMgr...

Displays the software and driver version of the LSM software being used.

7.1.11.5 Registration

Displays the registered modules (See also Register LSM). You can also deactivate activated clients here.

7.1.11.6 Versions overview

Shows the versions of all the installations used with the LSM software.

7.1.11.7 FAQs

Displays the SimonsVoss FAQs database in the browser. You need an Internet connection to use this function.

7.1.11.8 Check for updates

Checks the currently installed LSM software for updates. You need an Internet connection to use this function.

7.1.11.9 Database report

Exports a report in CSV format.

7.2 Menu ribbon

You can use the menu ribbon to open important and frequently used functions directly.



1. Log on
2. Log off
3. New locking system
4. New locking device
5. New ID medium (*e.g. transponder or card*)
6. Read locking device
7. Read transponder
8. Read MIFARE locking device
9. Read G2 card/tag
10. Programme
11. First dataset
12. Previous dataset
13. Next dataset
14. Last dataset
15. Remove
16. Apply
17. Update
18. Browse
19. Filter
20. Help

7.3 Locking system





This section allows you to choose between different locking systems within a project. It also allows you to view the locking system properties and edit them.





7.4 Groups and areas

These sections contain a navigation aid in which the two groups (transponder groups and areas) are mapped in two tree structures.

You can change the window size by dragging the separator line between Areas and Transponder groups and between the matrix and navigation pane.

Different symbols are displayed in the tree view depending on the display status to ensure that you can move around the tree structure as efficiently and reliably as possible:

	Locking system transponder groups
	Transponder group without transponders
	Transponder group which is hidden
	Transponder group which is displayed

	Locking system area
	Area with no doors
	Area which is hidden
	Area which is displayed

Procedure:

Subdivided areas and transponder groups with up to 6 levels are only possible in LSM Business.










- Click on the plus sign next to a red symbol and the next level down in the child grouping will appear.
- You can access further lower levels by continuing to click on the new plus signs. The maximum hierarchy depth is six levels.
- You can close the child levels by clicking on the minus sign on the left next to the blue symbol.
- You can close all opened groupings by clicking on the minus sign next to the locking system.
- If you double-click on an area or a group, this will change its respective view (display of contents in the matrix on or off).
- You can also quickly gain a complete overview by opening the whole tree structure:
 - View/All secondary areas/Open groups
- The uppermost group in the tree structure must be closed to also close all open areas or groups again.

Note that more time is required to process the data to be displayed and their display on the screen as the tree structure gets larger. You may experience this when reorganising the structure or refreshing the view.

7.5 Matrix

This view forms a matrix which provides a visual display of hierarchical personnel and room structures. The matrix is also able to authorise transponder groups for complete areas. This makes it quick and easy to issue basic authorisations in the Areas/Transponder groups view. The Doors/Persons view allows you to issue deviating authorisations in the form of individual extensions or restrictions.

Doors/Persons view





	Authorisation which has been configured, but not programmed into the locking device yet.
	Authorisation which has been programmed into the locking device.
	Authorisation which has been removed but not transmitted to the locking device yet.
	Yet to be programmed authorisations which are compliant with the locking system's group structure, i.e. they are from the group view, are marked with a small, black triangle.
	Programmed authorisations which are compliant with the locking system's group structure, i.e. they are from the group view, are marked with a small, black triangle.
	Withdrawn authorisations which are compliant with the locking system's group structure and have not been programmed yet.
	Authorisations which are not compliant with the locking system's group structure are indicated by a cross only and do not feature a black triangle (individual authorisation).
	Authorisations which have been withdrawn from the locking system's group structure at a later date feature the black triangle, but no longer feature an authorisation cross.
	Chequered (greyed-out) box: No authorisations can be configured. They do not feature any write accesses or the locking plan blocks this box (e.g. for deactivated transponders or G2 cards at the active cylinder).

Areas view/Transponder groups

	A black cross with a circle inside indicates a group authorisation.
---	---












	A grey cross with a circle inside indicates an "inherited" authorisation.
---	---


Group authorisation tree view

	Set manually (black)
	Direct inheritance (green)
	Indirect inheritance – inherited from child group (blue)
	Both direct and indirect inheritance (blue/green)

Programming requirement

A programming requirement may arise for a transponder or a locking device for different reasons. The programming flashes are shown in different colours to represent the different reasons for a programming requirement.

	Programming requirement for the component (yellow)
	<ul style="list-style-type: none">  Programming requirement for the transponder (red): <ul style="list-style-type: none">  Validity expired  Deactivated  Locking device (red): <ul style="list-style-type: none">  Only common locking level assigned  Not assigned to any door  Not assigned to any locking system  Door without locking device
	Programming requirement for a locking device after creating a replacement transponder in G1 system overlay mode

-  You can double-click on a component in the matrix to switch directly to the component's properties.

8. Background knowledge on LSM

This section describes the approaches to theory which should make it easier to gain understanding on how to work with the LSM software.

8.1 Group authorisations

A group authorisation enables you to authorise an entire transponder group for a whole area. This allows you to create basic authorisations in the locking plan very quickly in a clearly arranged way. It is useful to be clear about the planned use of the building and the company's organisational structure in advance when issuing the authorisations. A clearly structured system helps significantly to establish facts about possible access events quickly and precisely during day-to-day business at a later stage, allowing the company or organisation to run smoothly on a daily basis. You can add exceptions to group authorisations at *View/Doors/Persons* at any time at a later date by removing or adding an individual authorisation cross.

Areas and transponder groups

The following use case is quite frequently: A company consists of several departments with employees which need access to one, several or all departments. Of course it is possible to assign every employee's transponder to every door in the corresponding departments. However, this has a downside: The effort for managing such a locking system rises with the number of transponders and doors.

It's much more comfortable to use areas and transponder groups instead. Doing so, you only need to assign a transponder group or a door once. Every transponder in this group has the same rights as the group. The same applies to doors: Every door in an area has the same rights like the area which the door belongs to. This means: If you assign a new door to an area, then every transponder which is assigned to this area is also able to open this door.

Example: Facility management staff shall be allowed to enter the rooms of the support department. The company is split into several departments:

- Development
- Marketing
- Sales
- Support
- Restricted area
- Manufacturing

All transponders which belong to facility management staff are grouped to a group called facility management staff. Also all the doors which belong to departments are assigned to the corresponding departments (during their creation), for example support. For example, let's say the company has ten locks in the support department and the facility management team consists of ten persons. If one wants to assign everyone of this team to every door in the support department, then one has to assign and handle a whopping hundred authorisations (Ten transponders to ten doors).

Instead, one can use our transponder group facility management staff and assign this group to the area support. Thus, the number of authorizations to be assigned shrinks down to exactly one authorization.

8.1.1 Group reserves (G1 only)

Assigning a transponder to a group means that the transponder concerned immediately receives all the authorisations that have been allocated to the group. If a new transponder is assigned to a group, there is a programming requirement for the locking devices concerned. To avoid this situation, what are known as "Reserves of transponder IDs" can be assigned to groups when they are created and even at a later stage. Such transponder IDs are not assigned to any persons at this point in time. The reserves are saved to locking devices during programming and are then ready for use.

If a transponder ID from this reserve is then allocated to a person and the transponder programmed, there is no programming requirement for the locking devices. Transponders can thus be authorised automatically and activated in locking devices without the user needing to complete further steps such as programming the locking device.

8.1.2 Inheritance

Inheritance is one way of mapping the hierarchy of a company in the locking system. If inheritance is implemented correctly, it reduces the user's workload enormously. It enables certain processes to be automated by assigning a transponder from a specific transponder group. Inheritance can be used when applying a hierarchy to areas and transponder groups. Group authorisations are taken into account during inheritance; the individual authorisations are not inherited.

8.2 Authorisations in the G2 protocol

Authorisations are stored on all components in the G2 protocol. This enables a new transponder to operate an authorised locking device without needing to reprogramme the locking device in question. Blocks (what are known as block IDs) can be transferred in the same way. When a new replacement transponder is activated on a locking device for the first time, its original authorisation is deleted from the locking device.

8.3 Time zone plans

The LSM software allows you to authorise transponders for locking devices for certain time periods only.

Example: A cleaner has a transponder which basically allows authorised access to the rooms to be cleaned. These rooms are to be cleaned between 16:00 and 20:00 hours on Mondays, Wednesdays and Fridays only.

This is where time zone plans come into play. An example is used below to give a brief explanation on how time zone plans are implemented. The example also tells you how time zone plans behave in different SimonsVoss components:

As a basic rule, time zone plans should be kept as simple as possible. In normal cases, time zone plans are created for locking devices. Individual time groups are then created in the locking device's time zone plan. These groups specify at what particular times each transponder may be authorised for use.

Entire areas are used instead of individual locking devices to keep the time zone plan as simple and general as possible. At the same time, whole transponder groups are assigned to specific time groups and not transponders on an individual basis. Such a process would look like this for the example:

Create time zone plan

- Create new time zone plan for the *Building shell* area. This area comprises all doors through which people can gain access to the building.
- A time group (e.g. Group 1) is selected in the new *Building shell* time zone plan. This group is named *Cleaning times*, for example.
- A time slot is now established in the time zone plan for the *Cleaning times* group. The relevant times can be selected from a weekly calendar as required.

Assign time zone plan to the area

- The *Building shell* time zone plan created and its defined *Cleaning times* time group are now assigned to the *Building envelope* area.
- The *Building envelope* area is then linked to the time zone plan. However, we still have not specified which transponder groups are assigned to the *Cleaning times* time group.

Assign time group to a transponder group

- The *Cleaning staff* transponder group then needs to be linked to the time zone group.

- A *Building envelope* time zone plan has now been created. Its associated *Cleaning times* time group is linked with the *Cleaning staff* transponder group.

Any number of time zone plans, complex or not, can be defined using this process. To finish off, we need to show what happens between the devices in the background:

- The time zone plan is programmed into each locking device in the *Building envelope* area that supports the access control function.
- The *Cleaning times* time zone group is saved to the transponders in the *Cleaning staff* transponder group.
- If the *Cleaning Staff 1* transponder is now activated on the *Main entrance* locking device, the transponder communicates its transponder ID and time group to the locking device.
- The *Main entrance* locking device checks in the first instance whether the transponder is actually authorised to use the locking device. In the second instance, the system checks whether the time group is authorised to use the locking device at the current time (day and time).
- If the response is positive for both queries, the locking device can be actuated. If the locking device check produces a negative response, access is denied.
- Both access events and rejected transponders can be saved in locking devices with the access control option.

8.4 Common locking level

Several locking systems may be managed within a project. Typical scenarios are shown here as an example:

- **A company with multiple locations/buildings**

A company has individual branch offices in different locations. Employees normally always work in the same branch. However, special person groups need access to a number of branches or buildings.

In this case, the individual branches or buildings are divided into separate locking systems. An employee from the main branch also needs to be authorised to use doors at other locations. This main branch employee is thus linked into the locking system at the other branch, where individual authorisations can also be configured.

- **A building with several occupants**

A building has several occupants. The individual occupants need their own locking systems. However, the occupants need to share different locking devices, such as those on cabinets, turnstiles and the main entrance.

In this case, the individual occupants are divided into separate locking systems. A common locking level is also created, where all shared locking devices are added, for example. Persons and/or areas are added to the parent locking system and their corresponding authorisations are configured at the same time.

■ **Fire service transponder for selected locking devices in all locking systems**

Special fire service transponders to place in a key tube safe contain authorisations for all doors in a building. This allows the fire service to open all locking devices with a transponder in the event of a fire.

In this case, a new common locking level is created, marked in red, where the area properties are used to add all required doors in the project. A "Fire service" transponder group is also created, which is authorised by clicking on all doors in the "red" common locking level.

General notes on comment locking levels:

- If a locking device or a transponder is linked into another locking plan, this linked object behaves in the same way as the original. If the original transponder or locking device is changed or deleted, this change in status has a direct effect on the linked object in the other locking system.
- The red level contains special characteristics, such as the opening of deactivated locking devices, which have been specially designed for the fire service. Only use this level for access in emergencies if at all possible.

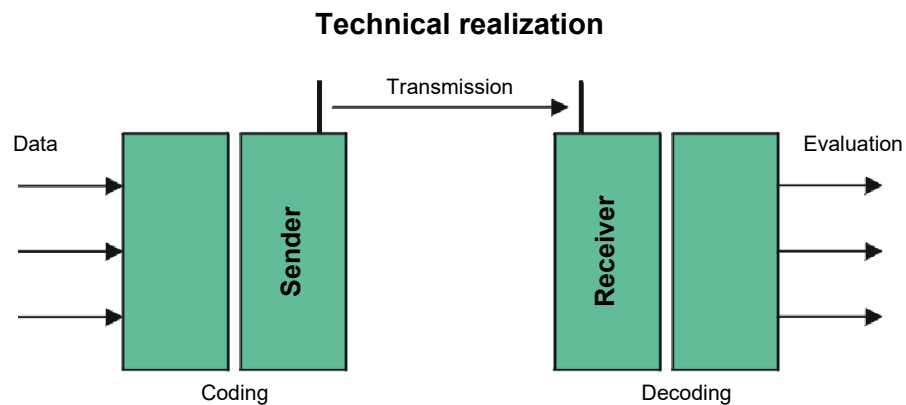


NOTE

All locking devices must be reprogrammed if pre-programmed locking devices are added to a common locking level. Look out for the newly generated programming requirement, which is indicated by a programming flash icon.

8.5 Encryption (WaveNet)

Advanced cryptography protects the data that is transported in your WaveNet.



End-to-end encryption

End-to-end means in this context: between central software and locking devices. The data is encrypted and leaves the central software. It is only decrypted again when the locking device is closed.

Communication	Encryption
End-to-end (general)	3DES (112 bit)
Access lists (against unauthorised reading)	Single DES (56 bit)
Broadcast signals	AES (128 bit)

Digitally signed data packages

The 128-bit signing of the data packets protects against manipulation on the radio link. If the signature of a data packet is not correct, the data packet is ignored.

Protection against replay attacks

Each safety-relevant data packet contains a counter. This counter is incremented for each new data packet. If a data packet with the same counter reading arrives again, the data packet is ignored. This means that if an attacker records a data packet and sends it again (replay attack), the counter of the data packet is the same as that of the original packet and the copy of the attacker is recognized and therefore ignored.

9. Basic functions

This section describes the basic processes in the LSM software. LSM software frequently offers a number of ways to access the function that you require. These basic functions mostly show you the quickest and easiest way.

The SimonsVoss Smart User Guide uses an understandable example to describe in detail how a locking system is created and managed.

9.1 Add new locking system

- ✓ Installation has been completed correctly and a backup has been created.
- 1. Select *Edit/New locking system* in the menu bar.
- 2. Define the required locking system options.
 - ➔ Select a colour from "Use as common locking level" for the common locking levels. *Common locking levels act as additional levels to existing standard locking systems. See [Common locking level](#) [▶ 113].*
- 3. Click on the "Apply" button.
- 4. Click on the "Finish" button.

9.2 Add new transponder group

- ✓ A locking system has already been added.
- 1. Right-click on transponder groups in the "Groups area" in the LSM software.
- 2. Click on "New".
- 3. Give the new transponder group a name and make other settings if necessary.
- 4. Click on the "Apply" button.
- 5. Click on the "Finish" button.

9.3 Add new transponder

- ✓ A locking system has already been added.
- 1. Select *Edit/New transponder*.
- 2. Fill out all attributes and use the "Configuration" button to make further settings if necessary.
- 3. Click on the "Save & next" button.
- 4. Click on the "Finish" button.

9.4 Assign transponder to a transponder group at later point in time

- ✓ The transponder has already been created and a transponder group has been added.
- 1. Open the locking system settings, using the *Edit/Properties* menu bar, for example: *Locking system*.
- 2. Select the "Transponder" tab.
- 3. Select the transponder from the table with which you wish to correlate a transponder group.
- 4. Select the required transponder group which is to be correlated with the transponder from the drop-down list in "Change assignment to transponder groups".
- 5. Click on the "Execute" button.
- 6. Click on the "Apply" button.
- 7. Click on the "Finish" button.

If a transponder is being newly added, it can be immediately assigned to an existing transponder group.

9.5 Add new area

- ✓ A locking system has already been added.
- 1. Right-click on areas in "Areas-area" in the LSM software.
- 2. Click on "New".
- 3. Give the new area a name and make other settings if necessary.
- 4. Click on the "Apply" button.
- 5. Click on the "Finish" button.

9.6 Add new locking device

- ✓ A locking system has already been added.
- 1. Select *Edit/New locking device*.
- 2. Fill out all attributes and use the "Configuration" button to make further settings if necessary.
- 3. Click on the "Save & next" button.
- 4. Click on the "Finish" button.

9.7 Add PIN code Keypad

A PIN code keypad cannot be operated in pure G2 locking systems. The three user PINs act in the same way as G1 transponders.

9.7.1 Configure PIN code Keypad

Changing the master PIN

You only need to carry out this step if no new master PIN has been programmed yet.

1. Enter 0 0 0 0
2. Enter old master PIN: 1 2 3 4 5 6 7 8
3. Enter new master PIN
 - ↳ The new master PIN must consist of 8 characters which must not be consecutive or identical and must not begin with 0.
4. Re-entering the new master PIN



NOTE

The master PIN is essential for using the PIN code Keypad and cannot be imported, read or regenerated. Make a note of the master PIN and keep it in a safe, secret place. *Anyone who knows the master PIN can open or block PIN code Keypad locking devices by creating new user PINs themselves.*

Programming a user PIN

You can issue up to three user PINs for a PIN code Keypad. The user PIN can consist of between 4 and 8 digits, which must not be consecutive or identical.

An aid to better understanding: Each user PIN behaves as a separate transponder. As a result, these individual user PINs must be programmed in the respective (internal) transponders (1, 2 & 3).

1. Enter 0
2. Enter master PIN
3. Enter user PIN – e.g. 1 for User PIN 1
4. Enter the user PIN length – e.g. 4 for a 4-digit user PIN
5. Enter User PIN

Repeat the process to programme other user PINs into the PIN code Keypad.

9.7.2 Add PIN code Keypad to the locking plan

You **must** make a new entry for each user PIN.

1. Select *Edit / New transponder* from the menu bar.
2. Select the "G1 PinCode" entry in Type from the drop-down list and complete the other information.
 - ↳ The entry can be edited in detail in the same way as a transponder at a later point in time.

3. Select *Save & continue*
4. Select *End*

9.7.3 Programme PIN code Keypad

1. LSM: right-click on the transponder/PIN code in the locking plan and select *Programme*.
↳ The 'Programme transponder' window opens.
2. PIN code Keypad: Enter 0 0 + master PIN
3. LSM: Select *Programme*.
↳ The programming process starts.
4. PIN code Keypad: Press user PIN, e.g. 1 for User PIN 1/ Internal Transponder 1, as soon as LSM displays the instruction 'Press the transponder button briefly once now'.
↳ The programming process is now complete.

Repeat the process to programme other user PINs into the locking plan.

9.8 Assign locking device to an area

- ✓ The locking device has already been created and an area has been added.
1. Open the locking system settings, using the *Edit/Properties* menu bar, for example: *Locking system*.
 2. Select the "Doors" tab.
 3. Select the door from the table with which you wish to correlate an area.
 4. Select the required area which is to be correlated with the door from the drop-down list in "Change assignment to area".
 5. Click on the "Execute" button.
 6. Click on the "Apply" button.
 7. Click on the "Finish" button.

If a locking device is being newly added, it can be immediately assigned to an existing transponder area.

9.9 Issue/withdraw authorisation

You can use the matrix to issue and withdraw authorisations. You only need to click on an authorisation field to change the authorisation in the default setting.

You can only issue or withdraw authorisations between a locking device and a transponder.

Observe the two views:

- View/Doors and persons

In this view, the authorisations are changed for the transponder concerned.

■ View/Areas and transponder groups

In this view, the authorisations are changed for entire groups.

9.10 Setting up DoorMonitoring components

The DoorMonitoring function is an add-on feature to display door statuses in the LSM software. SmartHandles and locking cylinders with the DoorMonitoring function are installed in the LSM software in exactly the same way as regular locking components.

- Add new DoorMonitoring locking cylinder: Select "G2 DoorMonitoring cylinder" as the locking device type from the drop-down list.
- Add new DoorMonitoring SmartHandle: Select "G2 DoorMonitoring SmartHandle" as the locking device type from the drop-down list.

Tab: Configuration/Data

Use the "Monitoring configuration" button to make further settings.

Tab: DoorMonitoring status

This tab shows the door's current status. The status is shown real time.

A direct connection is required between the LSM software and locking components (e.g. via WaveNet) to ensure that this status display is always up to date. You will find more detailed information on setting up a WaveNet wireless network in the WaveNet manual.

9.11 Common locking level

Common locking levels can only be operated with active components. You cannot use passive card technology or smart tags for common locking levels.

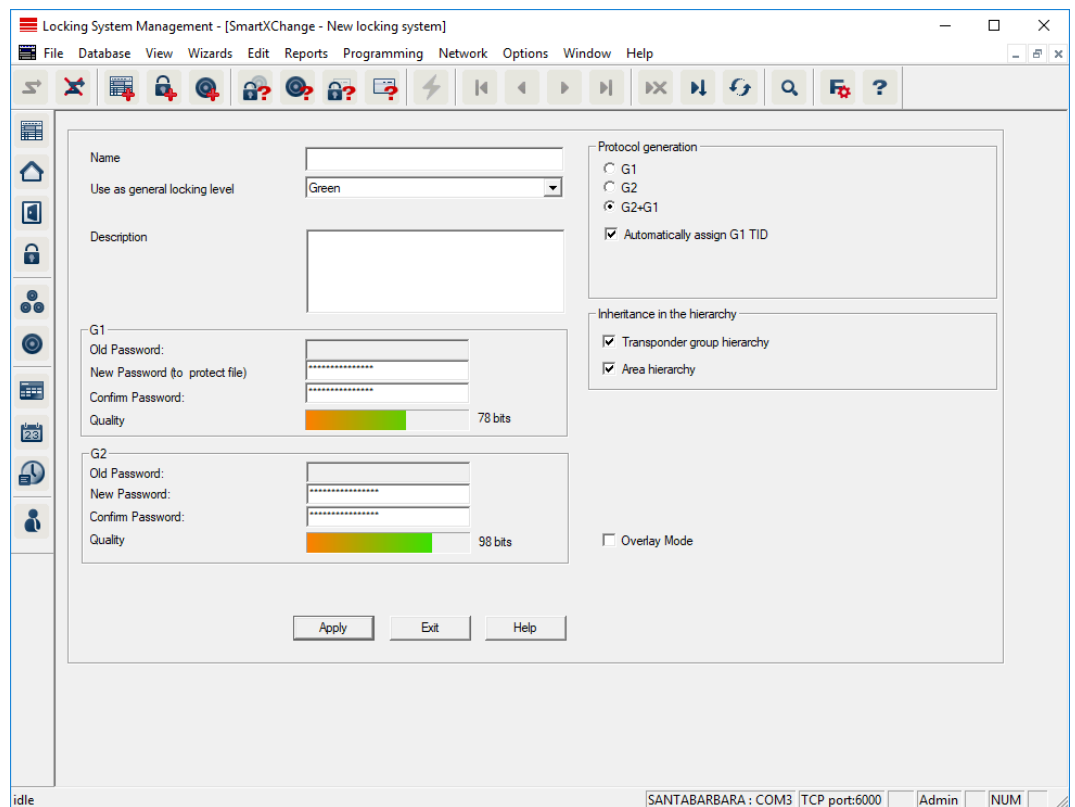
9.11.1 Add common locking level

You must take the following into account for common locking levels:

- Common locking levels must use the same protocol generations.
- The red locking level should only be used for the fire service or other emergency services since it has been specifically optimised for this particular use.

In principle, a common locking level is used in the same way as any other locking system, e.g. using the "New locking system" button in the icon bar:

- Select any colour in "Use as common locking level".



9.11.2 Link locking devices

✓ A common locking level has already been created.

1. Right-click on an area in the common locking level and select "Properties".
2. Select "Door management" button.

- ✓ Transponders or transponder groups have already been added.
- 1. Right-click on the transponder group and select "Properties".
- 2. Select the "Automatic" button in transponder allocation.

- The right-hand table shows all transponders in all other locking systems in the project. Use the "Add" button to select the transponders required.

Transponder administration

Transponder group: Office_Munich

Assigned G1 Maximum: 8

Owner	Serial number	Type	St:
Hansen, Daniel	T-00003	G2 Transponder	
Miller, James	000017N	G2 Transponder	
Peterman, Jennifer	040L922	G2 Transponder	

< - Add all

< - Add

Remove - >

Remove all - >

Free

Owner	Serial number	Type	St:
cleaning, 3	T-00001	G2 Transponder	
cleaning, 2	T-00006	G2 Transponder	
cleaning, 1	T-00007	G2 Transponder	

Total: 3 (G1: 3) Selected: 0

State: * - The assignment of a deactivated transponder cannot be changed!

OK Cancel

9.11.4 Authorise transponders

As in each common locking level, selected transponder groups can also be authorised for all locking devices in the "red level" with just a few mouse clicks. This function is particularly suitable for fire service transponders.

- ✓ You have now already added a red common locking level.
- Open red common locking system.
 - Create transponder group which should be authorised for all areas relevant for the fire service.
 - Click on the "Authorisations" button in the transponder group properties in Administration.
 - Use the checkboxes to select all the areas/locking devices required to grant access through all doors to the transponder group.


9.12 Create fire service transponders

- ✓ You have already created at least one locking system.
- Create a new "red" common locking level, using *Edit/New locking system*, for example.
 - Add a new area, such as "All locking devices", and use "Door administration" to assign all the locking devices required to this area.

3. Add a new "Fire service" transponder group to the common locking level.
4. Click on the "Authorisations" button in the properties for the "Fire service" transponder group.
5. Enable the "All systems" checkbox to authorise this transponder group for all locking devices in general.
6. Click on the "OK" button to save the settings.
7. Add a new transponder – "Fire service transponder 1", for example – to the transponder group and programme it. *All locking devices also need to be reprogrammed. Note the new programming requirement which has now appeared.*

The "Fire service transponder 1" fire service transponder created in this step is authorised for all locking devices. Even deactivated locking devices can be opened in the red level, making it markedly different from "green" and "blue" levels.

9.13 Backing up the database manually

1. Log on as the Windows user who also manages locking system management.
2. Launch LSM.
3. Click the Setup button ().
- ↳ The setup opens.
4. Click the button **Advanced**.
- ↳ Window "Setup" opens.

The 'Setup' dialog box is used for configuring the database and repository. It includes options for backing up and restoring the database, selecting a project, and setting the repository directory.

5. Use the dropdown menu ▼ **Project:** to select your project.
6. Click the button **Backup**
 - ↳ Backup is created.
7. Click on the **OK** button.
 - ↳ Window "Setup" closes.
8. Copy the created backup (.zip) to a separate data carrier.

**NOTE**

The backup is saved to C:\ProgramData\SimonsVoss\Repository by default.

9.14 Working in compliance with data protection regulations GDPR

Since 25 May 2018, the General Data Protection Regulation has been valid throughout Europe. It regulates the handling of personal data in order to ensure their protection and at the same time their free movement within the European internal market. First of all, access to the database via the graphical user interface is only possible with a password and corresponding

user rights. Additional "Exceptions in time zone management": In addition, no "special categories" of personal data pursuant to Art. 9 GDPR are stored within the LSM software. The mandatory fields used for a person are used exclusively for the unique assignment of identification media within the locking plan. The obligatory data are only required by the system for the duration of the occupation of an identification medium (e.g. company affiliation). The duration of data storage in logs can be changed at will by the locking system administrator himself (see [Logging](#) [▶ 99]).

9.14.1 Export data



NOTE

Other language texts

The same language as in the LSM software is used for texts in the exported files.

Persons

You can export the saved personal data of people in the locking system as CSV files. Three files are generated during this process:

Person	This file contains personal data which can be used to identify the person (for example, surname, address or photo).
PersonHistory	This file contains the dates that the data record was created and erased.
PersonLog	This file contains different processing steps which have been performed on the person in question's data record, such as changes to authorisations and programming processes.

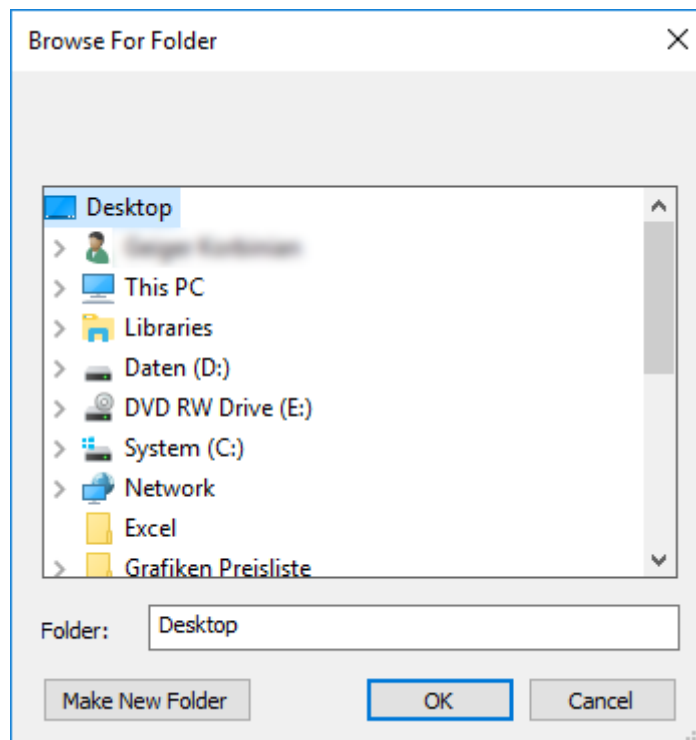


NOTE

The GDPR functions access HR Management for this purpose. As a result, the functions need to be assigned to a user group which is authorised to access HR Management.

✓ LSM open.

1. Use | Options | to select the **GDPR functions** item.
↳ The "GDPR functions" window will open.
2. Highlight the entry for the person whose data needs to be exported in the "People" section.
3. Click on the **Export personal data** button in the "People" section.
↳ The "Search Folder" window will open.



4. Indicate the folder where the files are to be exported.
5. Click on the **OK** button.
- ➔ Data is exported.

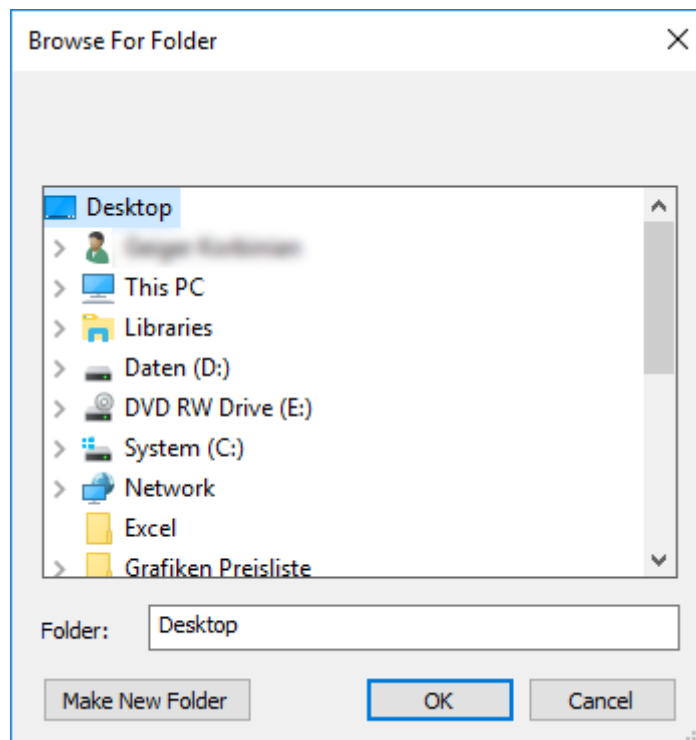
Users

You can export the users' saved personal data as CSV files in the LSM software. Two files are generated during this process:

User	This file contains the data which refers to the user, such as user name and user group.
UserLog	This file contains different processing steps which the user has carried out, such as creating a new locking device.

The GDPR functions access administration functions for this purpose. As a result, they need to be assigned to a user group which is authorised to access Administration.

-
- ✓ LSM open.
 1. Use | Options | to select the **GDPR functions** item.
➔ The "GDPR functions" window will open.
 2. Highlight the entry for the user whose data needs to be exported in the "Users" section.
 3. Click on the **Export personal data** button in the "Users" section.
➔ The "Search Folder" window will open.



4. Indicate the folder where the files are to be exported.
5. Click on the **OK** button.
- ➔ Data is exported.

9.14.2 Deleting Data

You can also use the GDPR module to easily erase personal data.

Persons

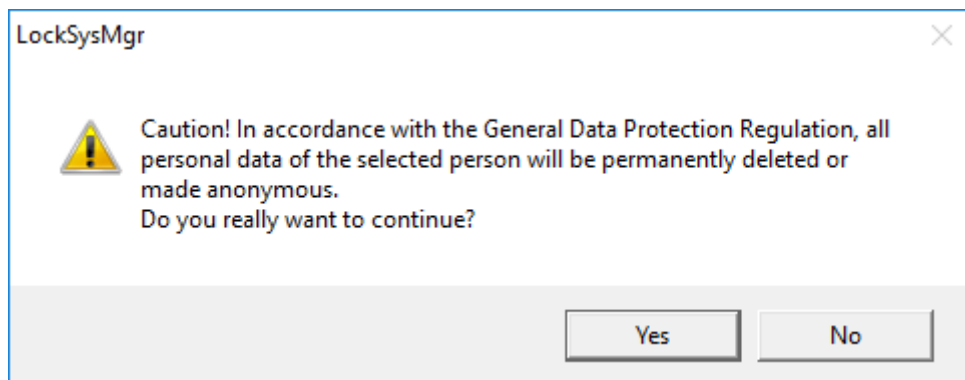


NOTE

The GDPR functions access HR Management for this purpose. As a result, the functions need to be assigned to a user group which is authorised to access HR Management.

✓ LSM open.

1. Use | Options | to select the **GDPR functions** item.
➔ The "GDPR functions" window will open.
2. Highlight the entry for the person whose data needs to be erased in the "People" section.
3. Click on the **Permanently delete personal data** button in the "People" section.
➔ The "LockSysMgr" window will open.



4. Click on the **Yes** button.

↳ The highlighted person's personal data is erased or anonymised.



NOTE

Erasure of remaining data from previous deletions

You can also use the **✕** button in the [Name] tab in the assigned identification media to erase personal data. Unlike erasure using the GDPR module, this button does not delete logs, which will remain in the system. This means that only a part of personal data is erased. People who are deleted in this way are no longer displayed in the GDPR module. Please use the **Delete** button in the "Database" section to meet GDPR requirements and also remove such files.

Users

The GDPR functions access administration functions for this purpose. As a result, they need to be assigned to a user group which is authorised to access Administration.

✓ LSM open.

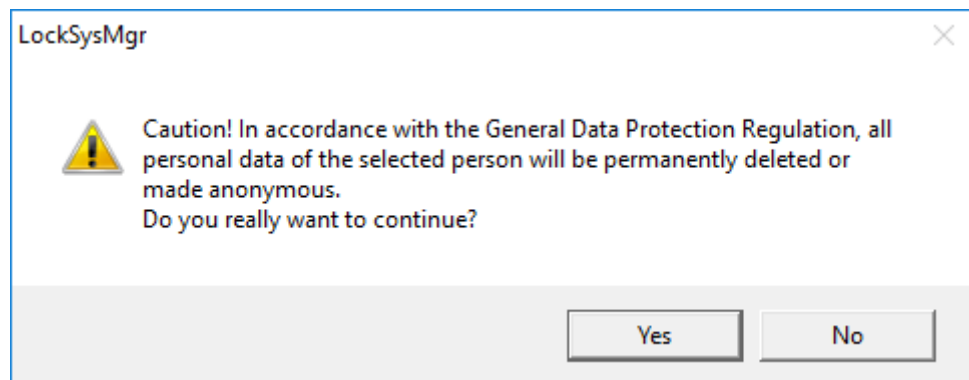
1. Use | Options | to select the **GDPR functions** item.

↳ The "GDPR functions" window will open.

2. Highlight the entry for the user whose data needs to be erased in the "Users" section.

3. Click on the **Permanently delete personal data** button in the "Users" section.

↳ The "LockSysMgr" window will open.



4. Click on the **Yes** button.

↳ The highlighted user's personal data is erased or anonymised.

9.14.3 What personal data is stored in the software?

It is possible to store the following data of a person in the software:

- First name
- Last name*
- Title
- Address
- Phone
- E-Mail
- Personnel number*
- User name
- Department
- City/Building
- Set From/To
- Date of birth
- Cost center
- Photo

Only the last name and personnel number (*mandatory fields) are required when using the software. Special categories of personal data according to Art. 9 GDPR are not stored.

9.14.4 For what purpose is personal data stored in the software?

In order to be able to make full use of the functions of an electronic locking system, it is necessary to be able to assign the identification media used (e.g. transponder) to a specific user (e.g. employee).

9.14.5 How long is personal data stored in the software?

The data is stored within the locking system for at least the duration of the occupation of an identification medium (e.g. company affiliation).

The duration of data storage, e.g. in logs and access lists, can be changed at will by the locking system administrator.

9.14.6 Is personal data in the software protected against access by third parties?

In principle, the user (end customer) of the locking system and the software is responsible for managing and securing access rights.

In the locking system itself, all data is secured using a multi-level encryption process. Opening the graphical user interface to access the data is not possible without a password and appropriate user rights.

There shall be no automatic transmission to third parties, use or processing by SimonsVoss.

9.14.7 Can the stored data be made available as a copy?

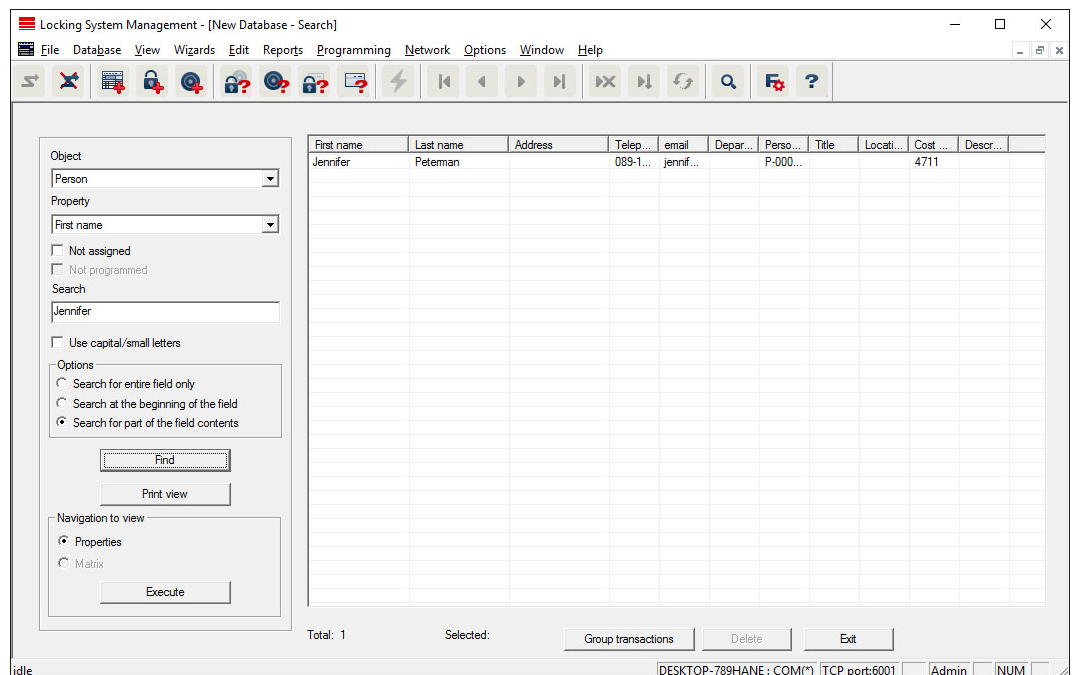
All collected data on a data subject can be made available as a copy by means of an export function (Art. 15 GDPR).

9.14.8 Can personal data be deleted from the software?

Personal data can be validly deleted from the software (from version 3.4 SP1) and the associated database at the request of a data subject in accordance with Art. 17 GDPR.

9.15 Search matrix

The search enables you to search easily for different items, such as a specific door or a specific transponder.



✓ Elements have already been added to the locking system, which you can search for.

1. Click on the magnifier icon in the icon bar.
2. Select the object that you wish to look for, such as persons, transponders, doors or locking devices.
3. Select a characteristic of the object that you are looking for, such as a last name or first name.
4. Enter a search term into the search field.
5. Click on the "Search" button to start the search process.

9.16 Execute group actions

Settings for a number of components can be made in just one single step. In this example, the properties of several G2 locking devices (*e.g. enable access control*) are to be changed all at once.

1. Click on the magnifier icon in the icon bar.
2. Search for all "Locking device"-type objects, for example.
 - ↳ No details need to be added in the "Search" field when searching for all locking devices.
3. Select a number of locking devices by filtering by type or area.
4. Click on the "Group actions" button.
 - ↳ If only G2 locking devices were selected in the preceding step, the correct parameters ("*Configuration changes to G2 locking devices*" and "*G2 locking cylinders active/hybrid*") have already been selected.

5. Press on "Execute" button to start the changes to the selected locking devices.
6. Make the changes as you wish.
7. Click on the "Finish" button to save the new settings.

**NOTE**

This process allows you to change many settings quickly and easily. Take into account that each changed component must be reprogrammed.

9.17 Programme transponder

- ✓ A transponder has been added to the locking system and is visible in the matrix.

1. Right-click on the transponder concerned.
2. Click on Programme.
3. Follow the instructions in the LSM software.

Ensure that you select the right programming device.

You can use the "TIDs to deactivate" button to open a list from which you can select one or two transponder IDs which are to be deactivated (see *Block transponder permanently and create replacement transponder* [▶ 138]).

**NOTE****Automatically recognise G2 cards**

It is not always possible to distinguish between cards as ID media. If there are a number of cards, the card which is to be programmed now needs to be read first to select the right card to be programmed in LSM. This step is omitted if the "Automatically recognise G2 card" box is checked. If LSM already knows the card, its data record is selected and programmed automatically.

9.18 Programme locking device

- ✓ A locking device has been added to the locking system and is visible in the matrix.

1. Right-click on the locking device concerned.
2. Click on Programme.
3. Follow the instructions in the LSM software.

Ensure that you select the right programming device.

**NOTE**

Only one locking device may be near the programming device at any time.

First transponder activation rejected after initial programming of AX products

If a transponder is the first identification medium to be activated after initial programming, the transponder is rejected once and synchronised with the locking device in the background. Transponders will then function as normal.

9.19 Programme using LSM Mobile

You can use LSM Mobile to carry out programming tasks directly on a locking device using mobile devices. This programming takes place as follows:

1. A list with components which indicate a programming requirement is exported to the LSM Mobile device from the LSM software, *either directly on the pocket PC or as a file for a notebook, netbook or tablet units*
2. LSM Mobile is launched on the mobile device. You can start the programming of components with the export from the LSM software.
3. The LSM software must then be informed which components have been programmed using LSM Mobile. This achieved using an import or synchronisation from LSM Mobile to the LSM software.

9.19.1 With laptop, netbook or tablet PC

This how you programme with the help of LSM Mobile:

- ✓ There are components in the LSM software which require programming.
 - ✓ Initial programming has already been completed on the components requiring programming.
 - ✓ LSM Mobile has been correctly installed on the mobile device. The version numbers are identical.
 - ✓ The drivers have been correctly installed in the SMARTCD.G2 and SMARTCD.MP programming devices (depending on requirements).
1. Select *Programming/LSM Mobile/Export to LSM Mobile/LSM Mobile PC*.
 2. Follow the instructions in the LSM software and export the programming tasks in a file.
 3. Launch LSM Mobile on the mobile PC and import the file with the programming tasks into LSM Mobile.
 4. Follow the instructions in LSM Mobile.

5. Use the programming device to carry out the programming processes on the components concerned.
6. Export the status of the programming tasks.
7. Select *Programming/LSM Mobile/Import from LSM Mobile/LSM Mobile PC*.
8. Follow the instructions in the LSM software and import the file from LSM Mobile.

The programming tasks have been completed using the external device. The import in the last step ensures that the programming flash icons indicating a programming requirement disappear from the LSM software.

9.20 Define time zone plan (with public holidays and company holidays)




NOTE

Different times for G2 locks

The internal time unit of the G2 locks has a technical tolerance of up to ± 15 minutes per year.

It is recommended to apply time zone plans to entire areas and transponder groups. However, it is also possible to link time zone plans directly with locking devices and transponders.

- ✓ Locking devices (or areas) and transponders (or transponder groups) have already been created.
1. Click on *Edit/Time zone plan* in the menu bar.
 - ↳ An "empty time zone plan" will open up. If an existing time zone plan is displayed, click on the "New" button to create a new, empty time zone plan.
 2. Fill out the "Name" and "Description" fields.
 3. Select a public holiday list for your region if required. This is how to proceed if you wish to define one-time company holidays:
 - ↳ Click on the "... field" next to the holiday day drop-down selection.
 - ↳ Click on the "New holiday day" button.
 - ↳ Assign a name: e.g. "Company holiday 2017"
 - ↳ Newly defined holidays may contain a time period. The "Leave" field must be activated for this purpose. You can then enter a time period (From - To).
 - ↳ Select how the new holiday day should be treated: e.g. as "Sunday".
 - ↳ Click on the "Apply" button and then on the "Finish" button.
 - ↳ Click on the "Holiday administration" button.
 - ↳ Use the "Add" button in the holidays list (*in the right-hand column*) to add the newly created holiday (*in the left-hand column*).

- ↳ Click on the "OK" button and then on the "Finish" button to return to the main time zone plan menu.
- 4. Select a group in the table and edit the weekly schedule for the group.
 - ↳ A blue bar indicates an authorisation for this time period.
 - ↳ You can click on fields individually or select them together.
 - ↳ Each time that you click on a field or area, you reverse the authorisation status.
 - ↳ 
- 5. Click on the "Apply" button.
- 6. Click on the "Finish" button.

Assign the time zone plan to an area:

1. Right-click on the area to which you wish to assign the time plan.
2. Select "Properties".
3. Select the corresponding time zone plan from the drop-down list in "Time zone".
4. Click on the "Apply" button.
5. Click on the "Finish" button.

It is also possible to assign the time zone plan to a locking device directly.

Assign a transponder group to the time group:

1. Right-click on the transponder group which is to be assigned to the time group.
2. Select "Properties".
3. Select the corresponding time group from the drop-down list in "Time zone group".
4. Click on the "Apply" button.
5. Click on the "Finish" button.

It is also possible to assign the time group directly to a transponder.

9.21 Resetting components

All SimonsVoss components can be reset at any time. You can even reset SimonsVoss components which do not belong to the locking system. In such a case, you need the corresponding locking system password.

Resetting components is an effective solution in many scenarios. It is advisable to reset and reprogramme the components in question particularly if they may not be functioning correctly.

1. Use *Programming/Read components* to read the components concerned.

2. Select the "Reset" button to start the reset process.
3. Follow the instructions in the LSM software.
 - ↳ If necessary, you will be requested to enter the locking system password or select the dataset to be deleted.

9.22 Replace defective locking device

Locking devices may become damaged or contain a defect.

Proceed as follows to replace a defective locking device with a new one:

1. Remove the defective locking device from the door.
 - ↳ It may be difficult to remove a cylinder from a closed door. If necessary, ask the specialist who installed the SimonsVoss products for advice.
2. Acquire a replacement locking device.
 - ↳ Double-click on the defective locking device in the LSM software to find all details on the locking device in the "Features" tab.
3. Carry out a software reset on the locking device in the LSM software.
 - ↳ Double-click on the defective locking device to open the "Configuration/Data" button, where you will see the "Software reset" button.
 - ↳ Once the software reset is complete, the software indicates a programming requirement for the defective locking device.
4. Carry out a programming process on the replacement locking device.
5. Fit the replacement locking device into the door and check that it functions correctly.



NOTE

If a fault or error occurs, first try to reset the locking device itself by implementing a readout. After resetting the locking device, you can then possibly reprogramme it.



NOTE

You must reset defective locking devices if at all possible before sending them to a retailer or SimonsVoss Technologies GmbH.

9.23 Block transponders

Transponders may get lost, stolen or damaged at some point.

- *Block transponder permanently and create replacement transponder*
[▶ 138]

❑ *Block transponder temporarily [▶ 141]*



NOTE

Transfer of the lock IDs with cards to double-sided locks

Cards can only transfer individual lock IDs, not a complete programming protocol.

- ❑ Always hold the card that transmits the lock IDs to both readers.

9.23.1 Block transponder permanently and create replacement transponder



NOTE

For security reasons, the deleted transponder's authorisations must be removed from all locking devices.

- ❑ You can do this by reprogramming all locking devices.

Proceed as follows to replace an "old" transponder with a new, non-programmed transponder.

1. Acquire a replacement transponder.
 - ↳ Double-click on the defective transponder in the LSM software to find all details on the transponder in the "Features" tab.
2. Right-click on the defective, lost or stolen transponder and select "Lost transponder".
 - ↳ The transponder concerned is prepared for blocking.
 - ↳ Indicate the reason why blocking is necessary. *When you select "Transponder lost/stolen", you can then programme a new transponder with the same authorisations directly afterwards. With the G2 protocol, this transponder blocks the lost transponder each time an authorised locking device is activated. However, all locking devices concerned still need to be reprogrammed.*
3. Implement all the newly appeared programming requirements on all components.

Avoiding the need to reprogramme locking devices

Creating a new replacement transponder also entails a programming requirement for all locking devices. However, these special programming tasks can also be implemented directly with the new replacement transponder:

- ✓ The replacement transponder has been programmed correctly.

1. Activate the new replacement transponder on each locking device.

2. Programme the new replacement transponder again. Activate the checkbox "Read deactivation acknowledgement/Battery warnings" in the "Programme transponder" window.
3. Update the matrix. The programming requirement has now disappeared.

With LSM 3.5 SP3 and higher, it is possible to "inform" any number of transponders one or two other transponder IDs which need to be deactivated.

Programme the TIDs to be disabled directly

The IDs to be disabled are saved on the transponder during the programming process.

- ✓ The transponder is physically available.
- ✓ The transponder's programming window is open.

1. Click on the **TIDs to deactivate** button.

Transponder programmieren

Besitzer / Transponder: Aldrin, Lily / 005MBA8

Programmiergerät: UNF-AL-18KJ793 : COM(*)

☐ Nach der Programmierung zum nächsten Transponder springen

☐ Deaktivierungsquittungen / Batteriewarnungen auslesen

☒ G1 Datensätze aus fremden Schließanlagen beibehalten

Programmieren TIDs zum Deaktivieren Beenden

→ The list will open.

TIDs zum Deaktivieren

Schließanlage HIMYM

☒ G2 TIDs ☒ G1 TIDs

Transponder: Aldrin, Lily / 005MBA8

TID	Typ	Besitzer	Seriennummer	Zustand
<input type="checkbox"/> 3228	G2	Zinman, Stella	00XDESA	verloren

Es können für einen Transponder nur zwei deaktivierte TIDs ausgewählt werden

Achtung! Diese Änderungen erzeugen keinen Programmierbedarf. Vergessen Sie nicht den Transponder zu programmieren oder an einem Smart Relais 3 - Gateway zu buchen

OK Übernehmen Abbrechen

2. Activate one or two check marks in the TID column to save the TIDs to be deleted on the transponder.
 3. Click on the **OK** button to confirm your input.
 4. Continue with the programming.
- ↳ The checked TIDs will be saved to the transponder as TIDs to delete. When the transponder is authenticated on one of the locking devices concerned, the TIDs to be deleted are deactivated at the locking device.

Add the TIDs to be blocked to the properties

The IDs to be deactivated are saved on the transponder either during the next programming process or the next booking on a gateway.

- ✓ The transponder's properties window is open.

1. Change to the "[Configuration]" tab.

Soll-Zustand

☐ Langes Öffnen

☐ Kein akustisches Öffnungssignal

☐ Begehungsliste

Dynamisches Zeitfenster

☒ Zeitfenster am Gateway nicht verändern

☐ bis zu einer bestimmten Uhrzeit des (nächsten) Tages

☐ Stundenanzahl ab der letzten vollen Std. der Buchung

Aktivierungsdatum

☒ ab sofort

Verfallsdatum

☒ ohne Verfallsdatum

Zeitzonengruppe

G1 Gruppe 2

G2 Gruppe 3

TIDs zum Deaktivieren

2. Click on the **TIDs to deactivate** button.
- ↳ The list will open.

The dialog box is titled 'TIDs zum Deaktivieren'. It features a dropdown menu for 'Schließanlage' set to 'HIMYM'. Below this are two checked checkboxes: 'G2 TIDs' and 'G1 TIDs'. The text 'Transponder: Aldrin, Lily / 005MBA8' is displayed. A table with the following data is shown:

TID	Typ	Besitzer	Seriennummer	Zustand
<input type="checkbox"/> 3228	G2	Zinman, Stella	00XDESA	verloren

Below the table, a note states: 'Es können für einen Transponder nur zwei deaktivierte TIDs ausgewählt werden'. A warning message follows: 'Achtung! Diese Änderungen erzeugen keinen Programmierbedarf. Vergessen Sie nicht den Transponder zu programmieren oder an einem Smart Relais 3 - Gateway zu buchen'. At the bottom are three buttons: 'OK', 'Übernehmen', and 'Abbrechen'.

3. Activate one or two check marks in the TID column to save the TIDs to be deleted on the transponder.
 4. Click on the **OK** button to confirm your input.
- The checked TIDs are saved on the transponder either during the next programming process or the next booking on a gateway.

9.23.2 Block transponder temporarily

Permanent blocking of an identification medium leads to the loss of a TID. Therefore LSM 3.5 brings a new function, which enables the temporary blocking of transponders and cards: "Temporary blocking".

The dialog box is titled 'The reason'. It contains the text: 'Do you really want to block the transponder? If 'yes', please specify the reason, e.g. whether the transponder has been lost or is defect'. Below this is a dropdown menu with 'Temporary blocking' selected. A text area labeled 'Note:' is provided for additional input. At the bottom are two buttons: 'Yes' and 'No'.

1. Take a transponder which is authorised for use on all locking devices. Activate this transponder on each locking device.
2. Re-programme the transponder. Activate the checkbox "Read deactivation acknowledgement/Battery warnings" in the "Programme transponder" window.

Importing battery levels by reading the locking device

Select "Programme/read locking device" to read the required locking devices separately.

Transmitting battery levels to the LSM software using LSM Mobile

You can use LSM Mobile to read battery levels directly or transmit them to the LSM software. Follow the instructions in the LSM Mobile manual. You will find it under Documents in the Support section on the SimonsVoss website (www.simons-voss.com/en).

Displaying battery levels

Basic procedure for all LSM versions:

- ✓ The current battery warnings in the locking devices concerned have been transmitted to the LSM software.
- 1. Double-click on a locking device to display the locking device properties.
- 2. Select the "Status" tab.
- 3. The battery level will be displayed in the "Status at last readout".

Displaying battery warnings collectively in LSM BASIC Online and LSM BUSINESS:

Generate a list which displays all locking devices with battery warnings.

- ✓ The current battery warnings in the locking devices concerned have been transmitted to the LSM software.
- 1. Select from the "Reports/Building structure" menu bar.
- 2. Select the "Locking devices with battery warnings".
- 3. Click on the "Display" button.

Displaying battery warnings automatically in LSM Business

Create a warning which displays battery warnings directly.

- ✓ The current battery warnings in the locking devices concerned have been transmitted to the LSM software.
- 1. Selecting from the "Reports/Warnings" menu bar
- 2. Create a new warning using the "New" button.
- 3. Create the warning as you wish. Select "Locking device battery warning" as the type.

4. Do not forget to assign the locking devices concerned to this warning.
The "Locking devices" field should not be empty.
5. Click on the "OK" button to confirm the new warning.
6. Click on the "Exit" button to close the dialogue.

9.25 Reset storage mode in G1 locking devices

If battery warnings are ignored in G1 locking devices, the locking devices concerned switch to storage mode. This prevents the batteries from being fully discharged. Storage mode can be terminated by reprogramming the locking device. The locking device must then be opened with an authorised transponder and the batteries replaced immediately.

9.26 Reset freeze mode in G2 locking devices

Emergency opening of a locking device and elimination of emergency retention mode (freeze mode) has been made easier in G2 than in G1 generation systems.

- ✓ Battery replacement identification medium added (see *Special functions/G2 battery replacement transponder* [► 98]).
 - ✓ Battery replacement identification medium programmed.
1. Activate the Battery replacement identification medium on the locking device.
 - ↳ Freeze mode is deactivated.
 2. Activate any authorised identification medium.
 - ↳ Locking device opens.
 3. Change the battery.
 4. Activate the Battery replacement identification medium on the locking device.
 - ↳ Freeze mode is deactivated.
 5. Use any authorised identification medium to verify whether the locking device functions correctly.
 - ↳ Freeze mode is reset.

IMPORTANT

Locking device failure due to misuse

The battery change identification medium is intended exclusively for cancelling the freeze mode before a battery change. If it is misused, the batteries can be completely discharged. The result is a total failure of the locking device.

9.27 Access administration

The reading of access and physical access lists can be greatly restricted to protect privacy. In LSM Basic, the "AdminAL" (Admin Access List) user is added as standard for this purpose. In LSM BUSINESS, you can add a suitable user manually; see Administer users.

The following scenario is described in this section: Only an authorised person (e.g. Works Council logged on as the AdminAL) should be able to read access lists and physical access lists. The general locking system administrator is not given this right.

Configure AdminAL and permit reading of access lists

1. Use the "Admin" user name and your password to log on to your project.
2. Select "Edit/User group" to open user group administration.
3. Use the navigation arrow to scroll to the "Access lists administration" user group (or to any previously added user group in LSM Business).
4. Ensure that the "Access lists administration" and "Manage access lists" rights are activated in the "Role" section.
5. Click on the "Edit" field beneath "Role" section.
6. Activate the required locking systems in transponder groups and areas. If you have added areas or transponder groups, you must activate all required areas and transponder groups separately.
7. Click on the "OK" button to close the mask.
8. Confirm the settings that you made by pressing on the "Apply" and "Finish" buttons.
9. Select "Database/Log off" to log off from your current project.

Remove rights to read access lists from Admin



NOTE

The "Access lists administration" right must always be assigned to a user/user group and must not be withdrawn from both.

1. Use the "AdminAL" user name to log on to the project.
 - ↳ The default password in LSM BASIC is "system3060".
 - ↳ Change this password immediately.
2. Select "Edit/User group" to open user group administration.
3. Use the navigation arrow to scroll to the "Admin" user group.
4. Deactivate the "Access lists administration" and "Administer access lists" roles.

5. Confirm the settings that you made by pressing on the "Apply" and "Finish" buttons.

→ Configuration is now complete. Only the "AdminAL" user account may read or view access lists and physical access lists from now on.

9.27.1 Access lists

Locking devices with ZK function log the accesses in an access list:

- Date
- Time
- ID of the identification medium
- Name of the user

You can read and display the access list with the LSM software. The number of entries in the access list depends on the locking device and the configuration.

	Standard	Gateway
Cylinder	Up to 3000	
SmartHandle	Up to 3000	
SmartRelay	Up to 3600	Up to 200

You can also automate the read-out in a networked locking system (see [Read locking device \[▶ 176\]](#)).

9.28 Card management

Below you can see the different card types and the distribution of memory in connection with the SimonsVoss locking system.

IMPORTANT

MIFARE DESFire recommended

Compared to MIFARE Classic, MIFARE DESFire uses microcontroller-based encryption based on AES-128, which has been further developed to meet increased security requirements.

- SimonsVoss recommends the use of transponders or MIFARE DESFire products.

**NOTE****Different templates for AX products**

If you want to use MIFARE products for SimonsVoss AX products, the templates used for writing and reading must be identical.

9.28.1 Change configuration


You have two options for using cards.

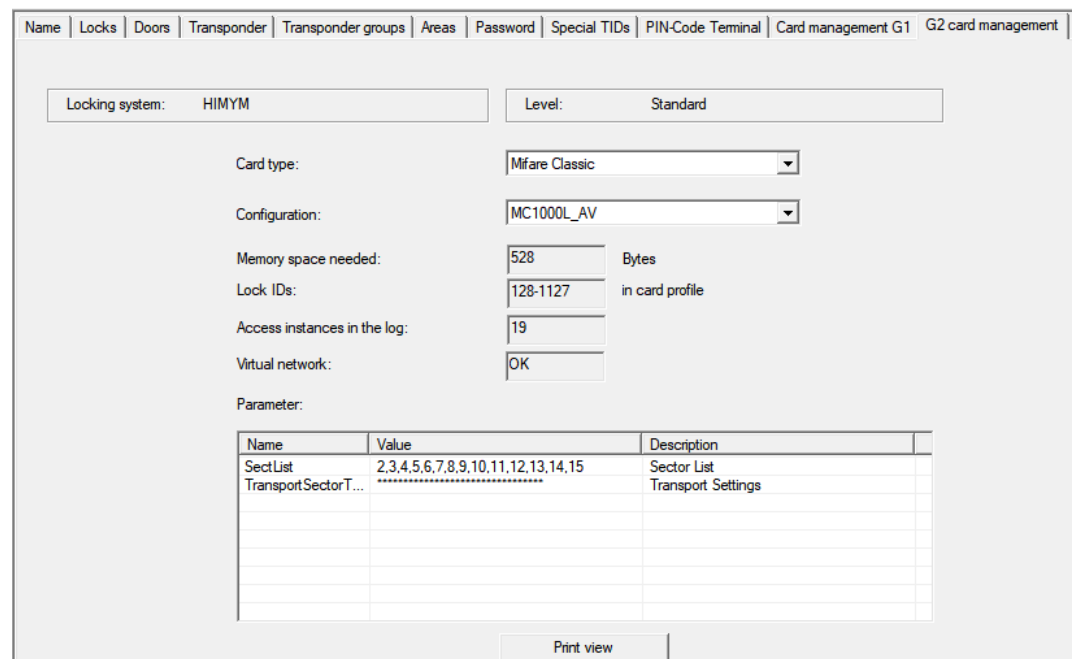
- You can use cards that have already been used.
- You can use new cards.

In both cases, enter the card type, the configuration and, if necessary, the sectors to be described (see [Overview](#) [▶ 148]).

Configuring the card

✓ LSM open.

1. Switch to the locking system whose card management you want to change.
2. Click on the button to open the properties of the locking system .
3. Change to the tab [G2 card management].




Name	Value	Description
SectList	2,3,4,5,6,7,8,9,10,11,12,13,14,15	Sector List
TransportSectorT...	*****	Transport Settings

4. In the dropdown menu ▼ **Card type** select your card type.
5. In the dropdown menu ▼ **Configuration** select your configuration.

6. If necessary, enter further parameters such as sectors (e.g: 2,3,4,5,6,7,8,9,10,11,12,13,14,15).

Name	Value	Description	
SectList	2,3,4,5,6,7,8,9,10,11,12,13,14,15	Sector List	
TransportSectorT...	*****	Transport Settings	

7. Click on the **Apply** button.
 You have changed the configuration.

9.28.2 Overview

	MIFARE DESFire	MIFARE DESFire Predefined	MIFARE DESFire Predefined DB1
MDBasic	✓	✓	✗
MD1200L	✓	✓	✗
MD3800L	✓	✓	✗
MD2500L_AV	✓	✓	✗
MD4000L_AV	✓	✓	✗
MD10000L_AV	✓	✓	✗
MD32000L_AV	✓	✓	✗
MD2400L_AV	✗	✗	✓
MD3650L_AV	✗	✗	✓

	MIFARE Classic	MIFARE Classic Pre- defined A	MIFARE Classic Pre- defined B	MIFARE Classic + DESFire	MIFARE Plus S/X
MCBasic	✓	✓	✓	✗	✓
MC1200L	✓	✓	✓	✗	✓
MC3800L	✓	✓	✓	✗	✓
MC1000L_A V	✗	✓	✓	✗	✓
MC2400L_A V	✗	✓	✓	✗	✓

	MIFARE Classic	MIFARE Classic Pre-defined A	MIFARE Classic Pre-defined B	MIFARE Classic + DESFire	MIFARE Plus S/X
MC8000L_AV	✗	✓	✓	✗	✓
MBasic	✗	✗	✗	✓	✗
M1200L	✗	✗	✗	✓	✗
M3800L	✗	✗	✗	✓	✗
M1000L_AV	✗	✗	✗	✓	✗
M4000L_AV	✗	✗	✗	✓	✗
M8000L_AV	✗	✗	✗	✓	✗
M10000L_AV	✗	✗	✗	✓	✗

	G1/G2	Lock-IDs	Number of locks	Access list	Sectors	Required storage space	Virtual network
MCBasic	G1	✗	✗	✗	2-15	48	✗
MC1200L	G2	128-1327	1200	✗	2-15	192	✗
MC3800L	G2	128-3927	3800	✗	2-15	528	✗
MC1000L_AV	G2	128-1127	1000	19	2-15	528	✓
MC2400L_AV	G2	128-2527	2400	70	2-15 + 31-39	900	✓
MC8000L_AV	G2	128-8127	8000	125	2-15 + 31-39	2048	✓
MBasic	G1	✗	✗	✗	2-15	48	✗
M1200L	G2	128-1327	1200	✗	2-15	192	✗
M3800L	G2	128-3927	3800	✗	2-15	528	✗
M1000L_AV	G2	128-1127	1000	16	2-15	528	✓
M4000L_AV	G2	128-4127	4000	100	2-15 + 31-39	1600	✓
M8000L_AV	G2	128-8127	8000	124	2-15 + 31-39	2048	✓

	G1/G2	Lock-IDs	Number of locks	Access list	Sectors	Required storage space	Virtual network
M10000 L_AV	G2	128-10127	10000	225	2-15 + 31-39	3048	✓
MDBasic	G1	✗	✗	✗	2-15	48	✗
MD1200L	G2	128-1327	1200	✗	2-15	192	✗
MD3800 L	G2	128-3927	3800	✗	n.a. (DES-Fire)	528	✗
MD2500 L_AV	G2	128-2627	2500	58	n.a. (DES-Fire)	1024	✓
MD4000 L_AV	G2	128-4127	4000	100	n.a. (DES-Fire)	1600	✓
MD1000 L_AV	G2	128-10127	10000	225	n.a. (DES-Fire)	3048	✓
MD3200 L_AV	G2	128-32127	32000	470	n.a. (DES-Fire)	7000	✓
MD2400 L_AV	G2	128-2527	2400	34	n.a. (DES-Fire)	830	✓
MD3650 L_AV	G2	128-3777	3650	2	n.a. (DES-Fire)	830	✓

10. Performing standard WaveNet-based tasks in LSM

This example shows the key steps in setting up and administrating a WaveNet radio network in LSM Business. The examples are based on specific installations and are meant to help you become familiar with topics related to WaveNet.

10.1 Managing the virtual network (VN)

Authorisations can be networked and quickly changed and adjusted via a virtual network (VN network), even without full networking. Authorisation for locks (and block IDs of blocked identification media) is stored directly in the identification medium and forwarded to a locking device when actuated. It is therefore important to book all identification media at a gateway at regular intervals in virtual networks.

This example shows the basic set-up of a virtual network.

All types of virtual networks require an AV card template when using cards (AV = **A**udit trail / **V**irtual network).



NOTE

LSM Business/Professional for permanent use of the virtual network

LSM Basic Online only supports the virtual network to a limited extent: It must be launched as an administrator and run continuously to ensure that all functions are guaranteed.

- Use LSM Business or Professional to use the virtual network permanently.

10.1.1 Virtual network with SmartRelay 3 Advanced

10.1.1.1 Functional principle

It is possible to use the system as a gateway in the virtual network. The controller establishes a connection to the VN host server to do so. The VN host server forwards changed authorisations (programming requirement) and data from the LSM database to the controller. This means that complete, time-consuming loading of the database is no longer required; instead, the controller collects the provided data when an identification medium is detected (pull principle). The entire system is programmed via a single interface – the controller.

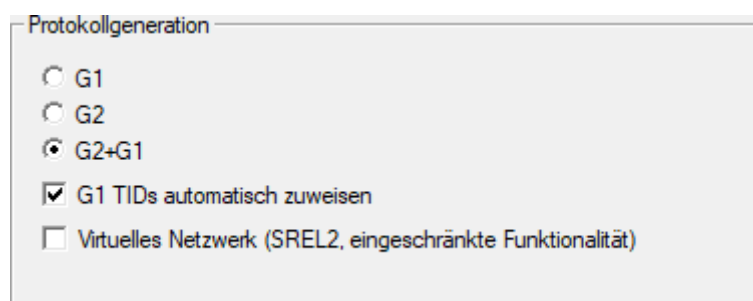
The VN host server regularly checks whether there are changes to the LSM database that are to be distributed via the gateway. It also does the reverse and checks whether there is information at the gateway that should be written to the database (see *Check virtual network status* [▶ 156]).

10.1.1.2 Setting up a locking system

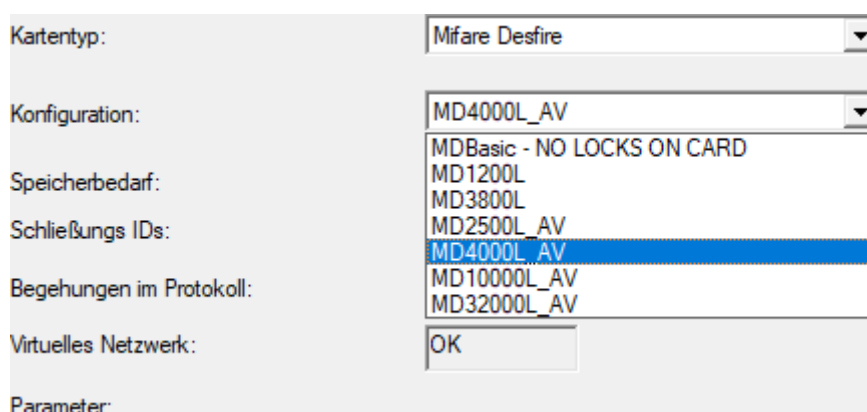
No special preparation is required for a virtual network with SmartRelay 3 Advanced.

The ☐ Virtual network (SREL2, limited functions) checkbox must not be activated in the locking system properties.

1. Open the properties of your locking system using | Edit | - [Locking system properties](#).
2. Change to the "[Name]" tab.
3. Make sure that the ☐ Virtual network (SREL2, limited functions) checkbox is not activated.



4. Click on the [Apply](#) button.
5. If you use cards: select an AV card template from the [G2 card management] tab.



6. Click on the [Apply](#) button.

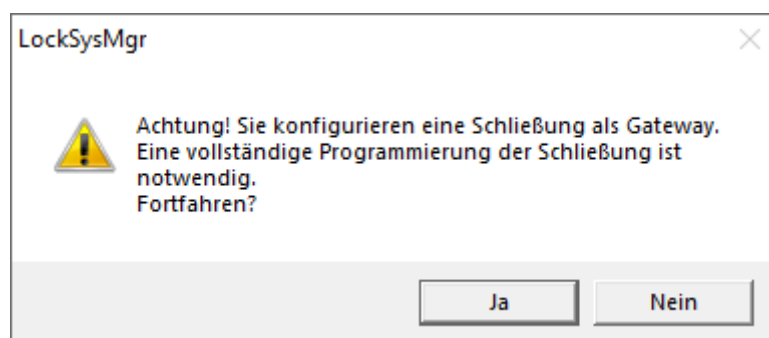
10.1.1.3 Setting up the gateway and VN host server

- ✓ Locking system created (see [Setting up a locking system \[► 152\]](#)).
- ✓ SmartRelais 3 Advanced configured and networked (see system manual for SmartRelais 3 Advanced).
- ✓ VN host installed (see [VN host \[► 14\]](#)).

1. Use | Edit | - [Lock properties](#) to open the SmartRelais 3 Advanced's properties (alternatively, double click).

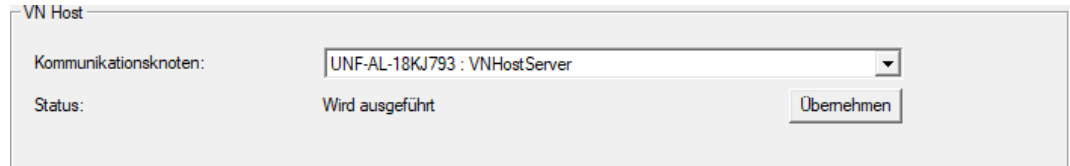
2. Change to the "[Configuration/Data]" tab.

3. Activate the ☒ Time zone management and ☒ Audit trail checkboxes.
4. Activate the ☒ Gateway check box.
↳ Warning about pending programming will open.



5. Click on the **OK** button.
↳ Warning closes.
6. Click on the **Yes** button.
↳ Programming requirement (flash) is displayed.
7. Authorise all identification media which are to receive new authorisations at the gateway at a later point.
8. Programme the SmartRelais 3 Advanced.
↳ Programming requirement disappears.

9. Use | Network | to select the **Virtual network** input.
↳ The "VN host server" window will open.



10. Make sure that the "VN host server" entry is selected from the ▼ **Communication nodes** drop-down menu in the "VNHost" section.



NOTE

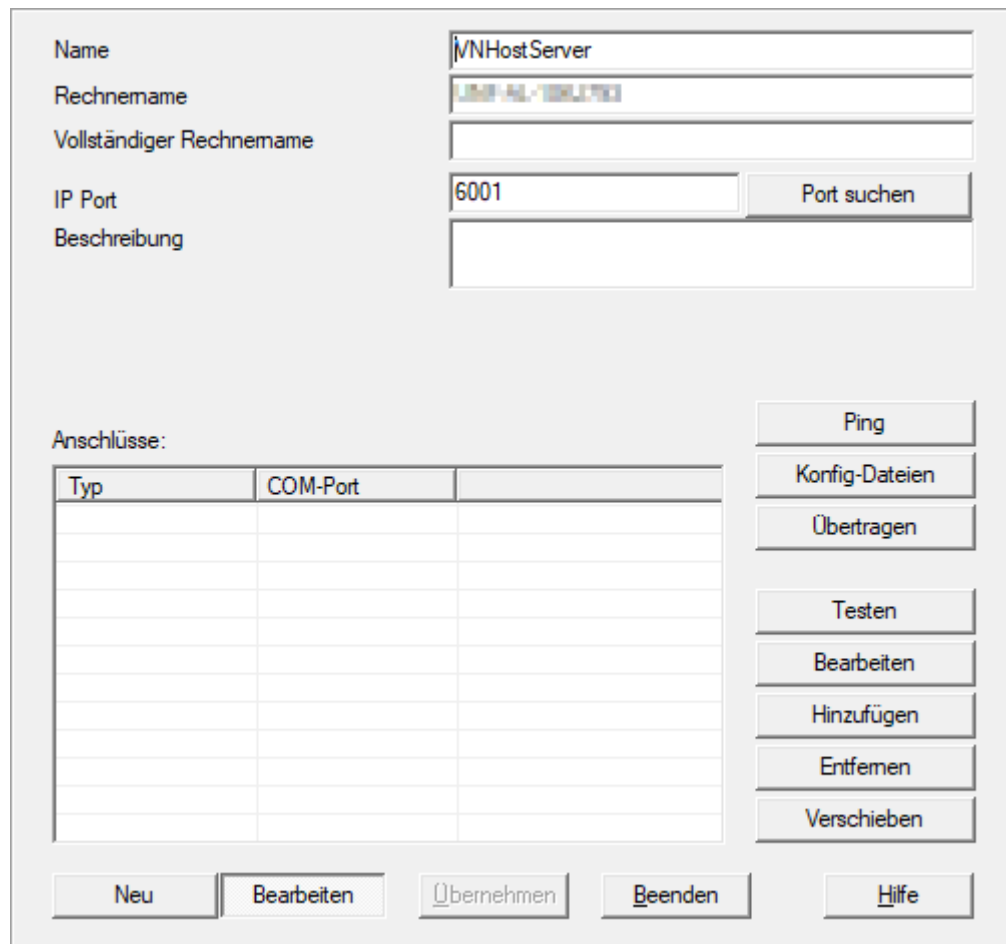
Different communication nodes on the SmartRelais 3 Advanced

The VN host server is always used for the virtual network on the SmartRelais 3 Advanced. However, another communication node can also be used for programming, remote opening and similar.

- ❏ Select the "VN host server" entry for the virtual network even if your SmartRelais 3 Advanced is using another communication node.

11. Click on the **Apply** button.
12. Click on the **OK** button.
↳ "VN host server" window closes.
13. Use | Network | to select the **Communication nodes** input.

14. Switch to the VN host server communication node using the  and  buttons.



Name: VNHostServer

Rechnername: [REDACTED]

Vollständiger Rechnername: [REDACTED]

IP Port: 6001 Port suchen


Beschreibung: [REDACTED]

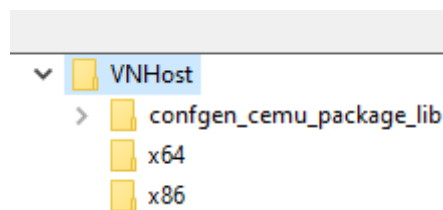
Anschlüsse:



Typ	COM-Port	

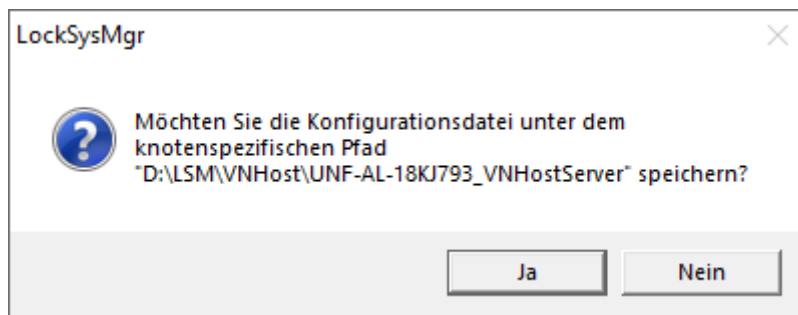
Ping Konfig-Dateien Übertragen Testen Bearbeiten Hinzufügen Entfernen Verschieben

Neu Bearbeiten Übernehmen Beenden Hilfe

15. Click on the **Config files** button.
 The Explorer window will open.
16. Select the VN host server's installation folder.

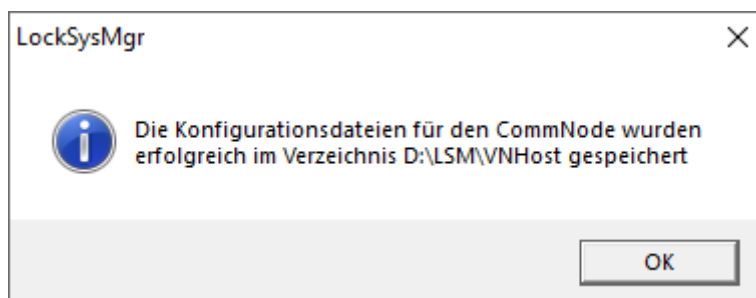


17. Click on the **OK** button.
 Explorer window closes.
 The "LockSysMgr" window will open.



18. Click on the **No** button.

↳ Config files are saved.



19. Click on the **Transmit** button.

↳ Config files are forwarded to the VN host server communication node.

20. If your SmartRelais 3 Advanced is connected via another communication node: Also save and transfer the config files for this communication node.

↳ Virtual network ready for use.

You can now monitor the status of your virtual network (see [Check virtual network status \[▶ 156\]](#)).

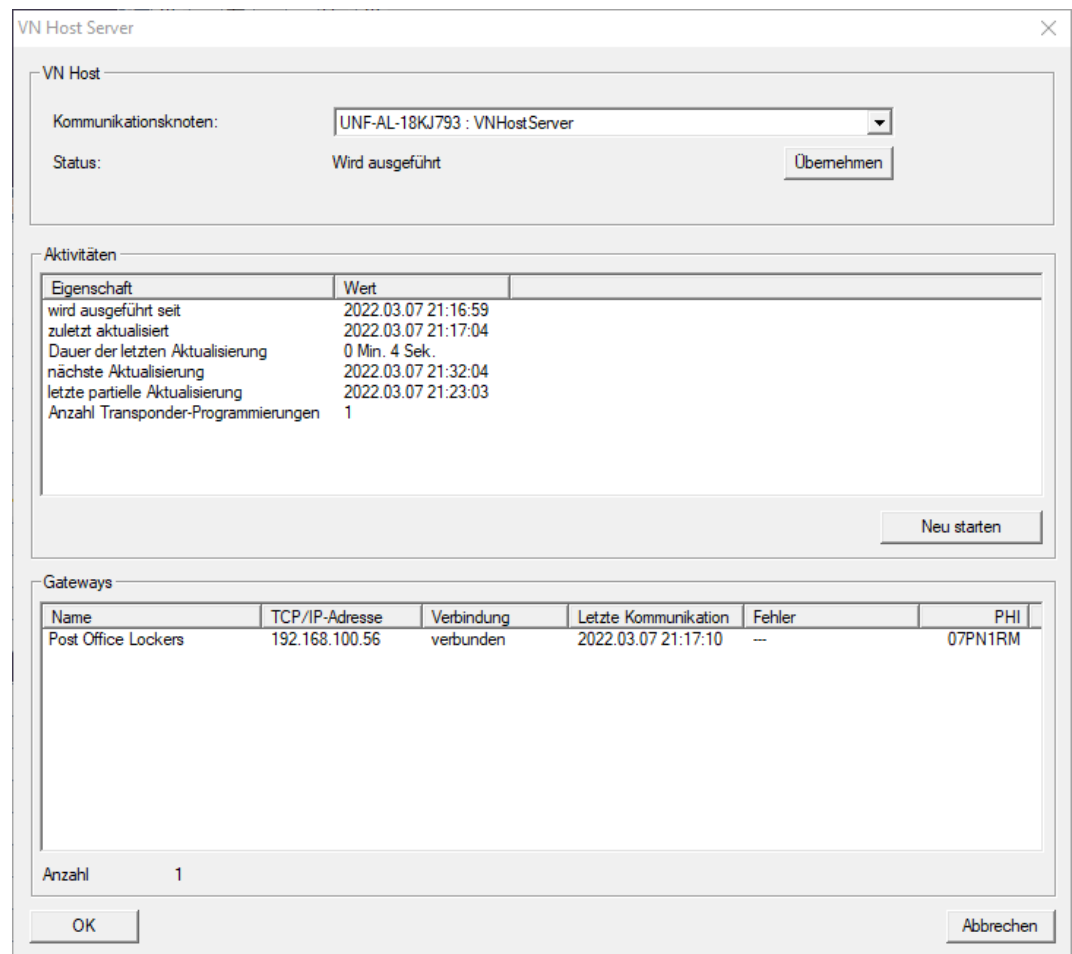
10.1.1.4 Check virtual network status

Once you have set up your virtual network, you can monitor its status.

✓ Virtual network configured (see [Setting up a locking system \[▶ 152\]](#) and [Setting up the gateway and VN host server \[▶ 152\]](#)).

■ Use | Network | to select the **Virtual network** input.

↳ "VN host server" window shows the current status.



You can see the communication node currently being used (for virtual network in the "VNHost"section: "VN host server").

In the "Activities" section, you will see:

- Launch of the VN host server
- Time of the last update
- Time of the next scheduled update
- Number of pending programmings

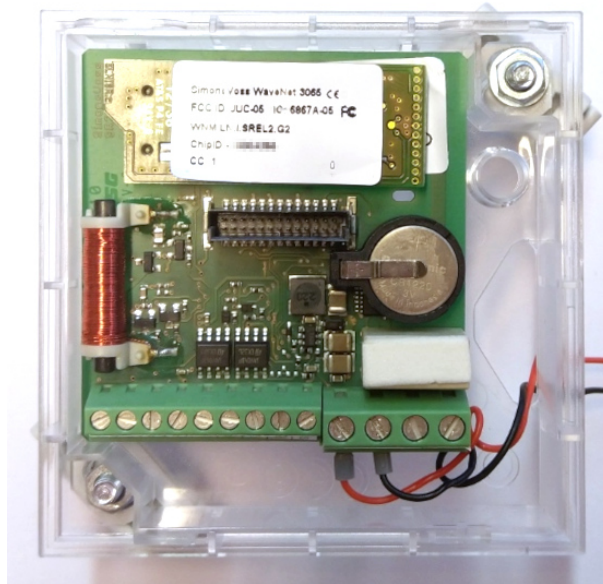
You will find a list of all SmartRelais 3 Advanced configured as ☒ Gateway and their statuses in the section.

10.1.2 Virtual network with SmartRelay 2 G2

10.1.2.1 Functional principle

Unlike SmartRelay 3, SmartRelay 2 G2 (SREL2.G2) is not connected via a network cable, but via WaveNet instead. This is why an integrated LockNode and a RouterNode are required to operate a virtual network with SmartRelay 2 G2, ideally a RouterNode 2 (see [Creating components and setting up LSM \[▶ 163\]](#)).

LSM then forwards the data to be distributed in the virtual network to RouterNode 2 via a network cable and then to SmartRelay 2 G2 via WaveNet. This then acts as a gateway.

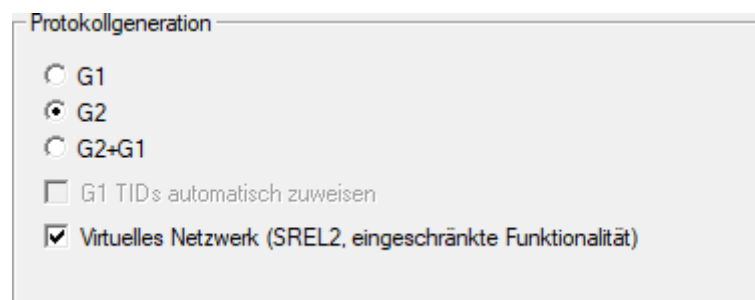


Identification media which are actuated on the gateway then distribute the data to the locking devices.

10.1.2.2 Setting up a locking system

The ☒ Virtual network (SREL2, limited functions) checkbox must be activated in the (exclusively) G2 locking system.

1. Open the properties of your locking system using | Edit | - [Locking system properties](#).
2. Change to the "[Name]" tab.
3. Activate the checkbox in "Protocol generation" the area ☒ Virtual network (SREL2, limited functions).

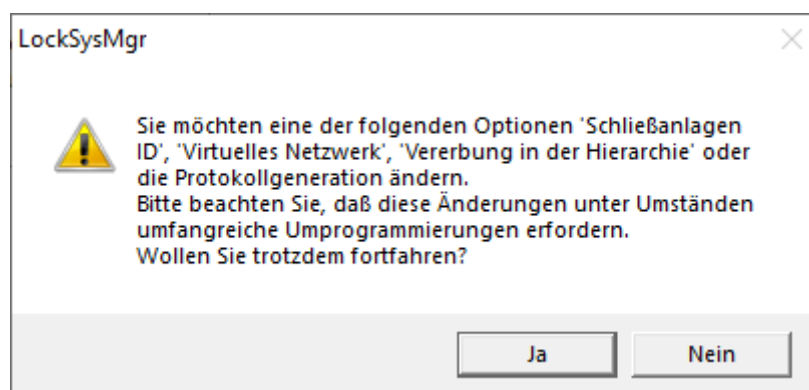


4. If you use cards: select an AV card template from the [G2 card management] tab.

Kartentyp:	Mifare Desfire
Konfiguration:	MD4000L_AV
Speicherbedarf:	MDBasic - NO LOCKS ON CARD
Schließungs IDs:	MD1200L
	MD3800L
	MD2500L_AV
	MD4000L_AV
	MD10000L_AV
	MD32000L_AV
Begehungen im Protokoll:	
Virtuelles Netzwerk:	OK
Parameter:	

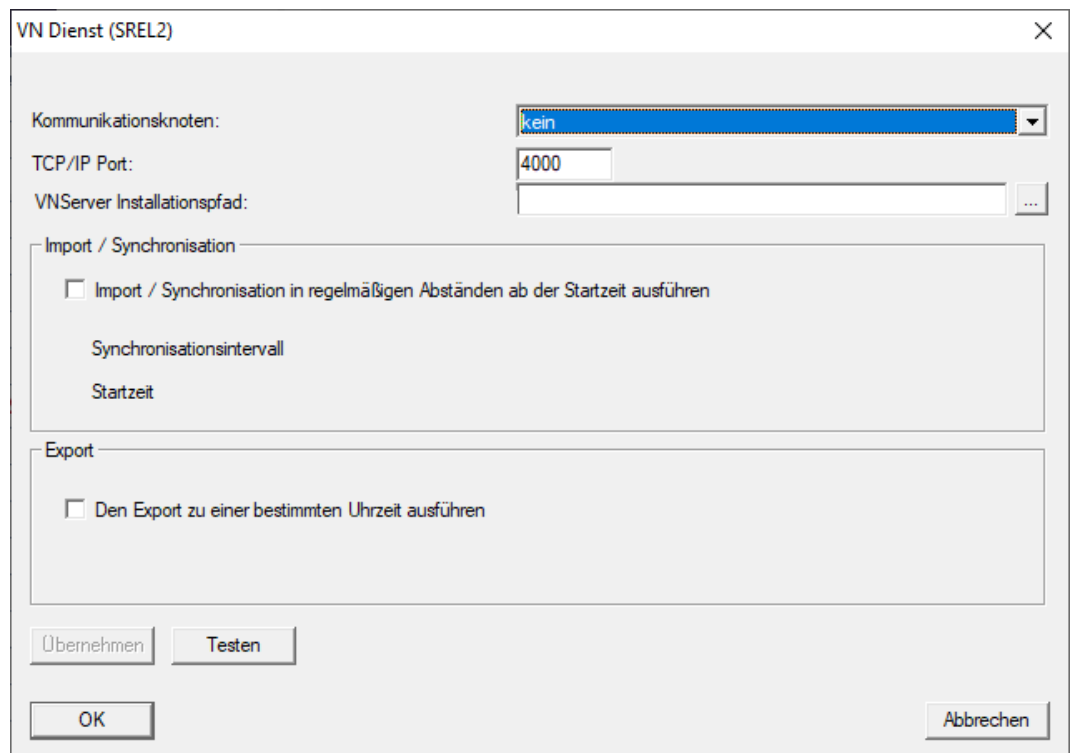
- ↳ Locking system is designed for use with a virtual network with SmartRelay 2 G2.

If this setting is applied to an existing locking system, considerable programming may be required.



10.1.2.3 Setting up a VN service

- ✓ Locking system configured (see *Add new locking system* [▶ 116], *Add new transponder* [▶ 116] and *Add new locking device* [▶ 117]).
 - ✓ ☒ Virtual network (SREL2, limited functions) checkbox activated.
 - ✓ All components programmed (see *Programme transponder* [▶ 133] and *Programme locking device* [▶ 133]).
 - ✓ SmartRelay 2 G2 networked (see WaveNet manual).
1. Use | Network | to select the **VN service (SREL2)** input.
 - ↳ The "VN service (SREL2)" window will open.



VN Dienst (SREL2)

Kommunikationsknoten: kein

TCP/IP Port: 4000

VNServer Installationspfad: ...

Import / Synchronisation

☐ Import / Synchronisation in regelmäßigen Abständen ab der Startzeit ausführen

Synchronisationsintervall

Startzeit

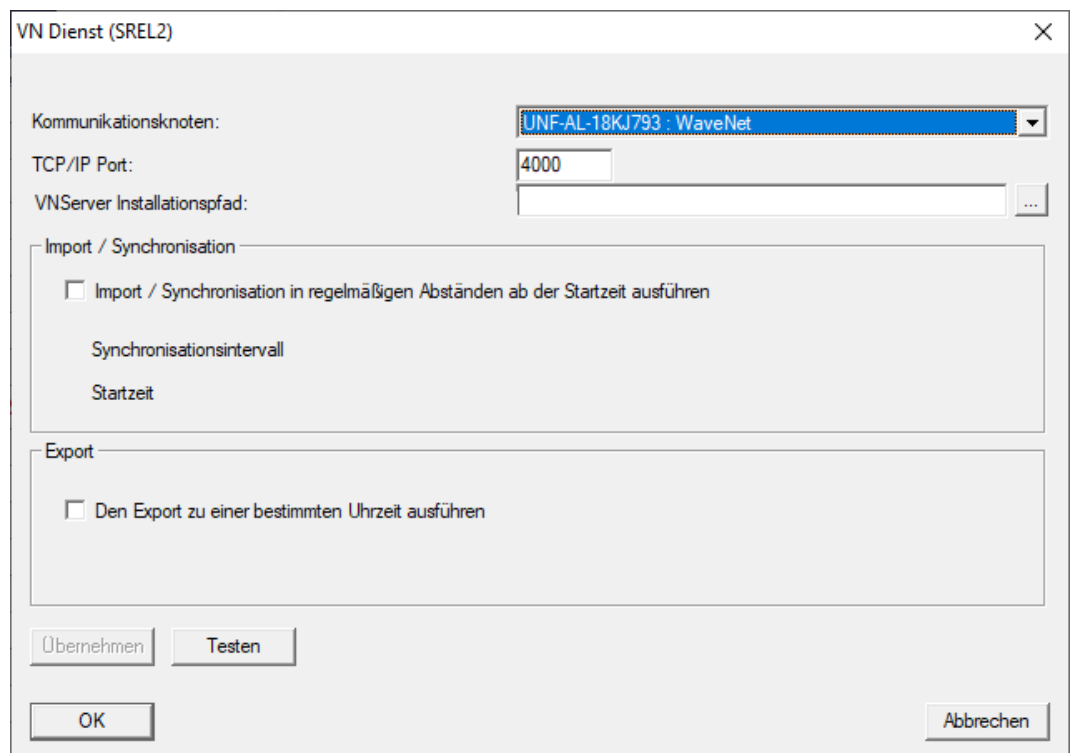
Export

☐ Den Export zu einer bestimmten Uhrzeit ausführen

Übernehmen Testen

OK Abbrechen

2. Select from the ▼ **Communication nodes** drop-down menu the communication node to which WaveNet with RouterNode 2 and SmartRelay 2 G2 is connected.



VN Dienst (SREL2)

Kommunikationsknoten: UNF-AL-18KJ793 : WaveNet

TCP/IP Port: 4000

VNServer Installationspfad: ...

Import / Synchronisation

☐ Import / Synchronisation in regelmäßigen Abständen ab der Startzeit ausführen

Synchronisationsintervall

Startzeit

Export

☐ Den Export zu einer bestimmten Uhrzeit ausführen

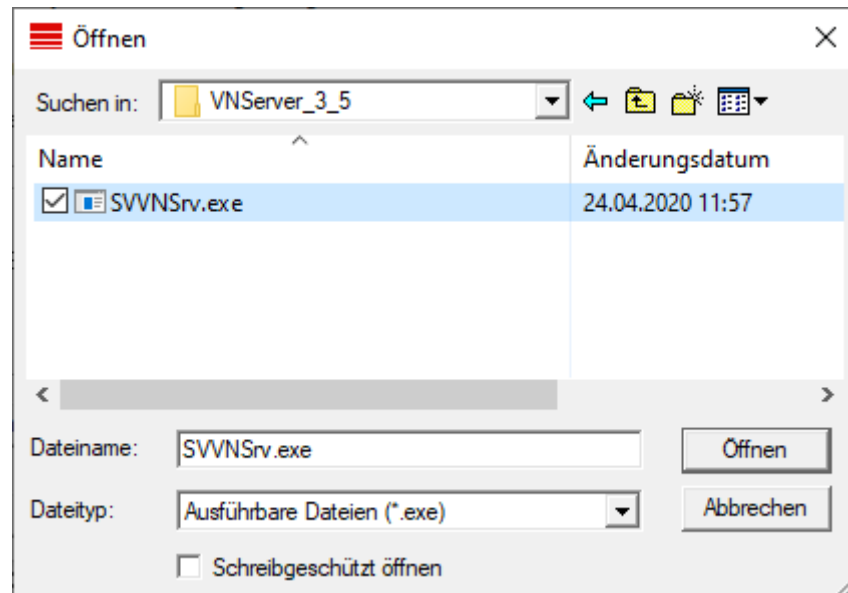
Übernehmen Testen

OK Abbrechen

3. Ensure that the TCP/IP port is set to 4000.
4. Click on the ... button to open Explorer.

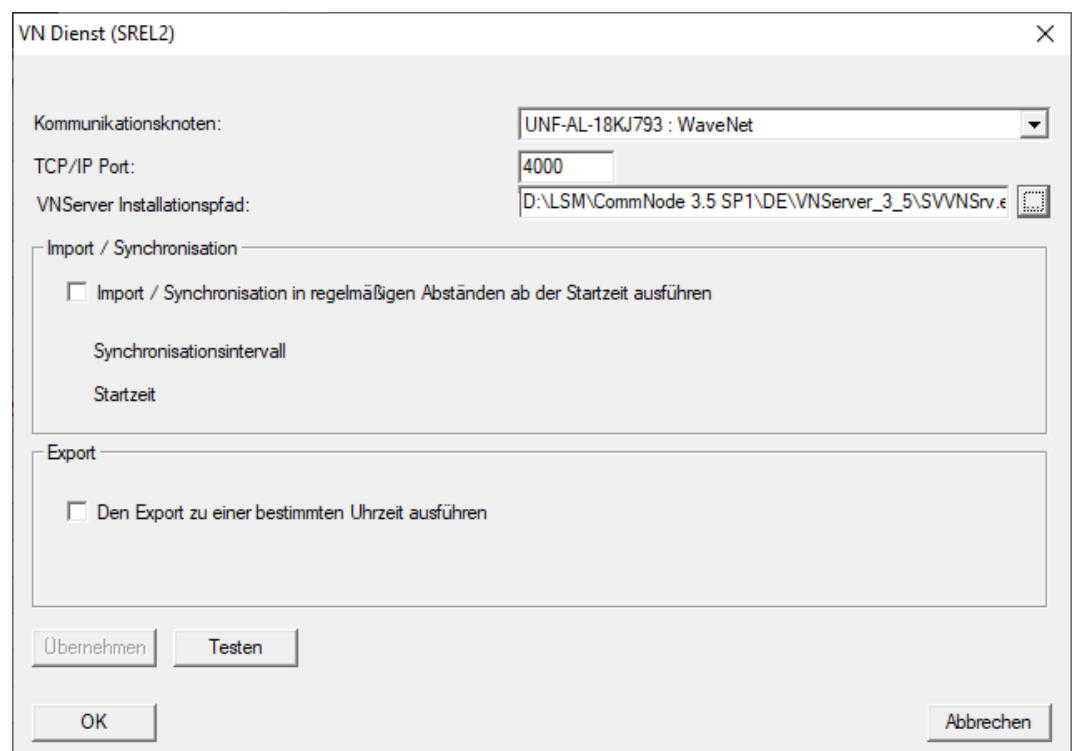
5. Select SVVNSrv.exe.

SVVNSrv.exe is installed together with the CommNode server. Default directory: (C:\Programs(x86)\SimonsVoss\VNServer_x_x)

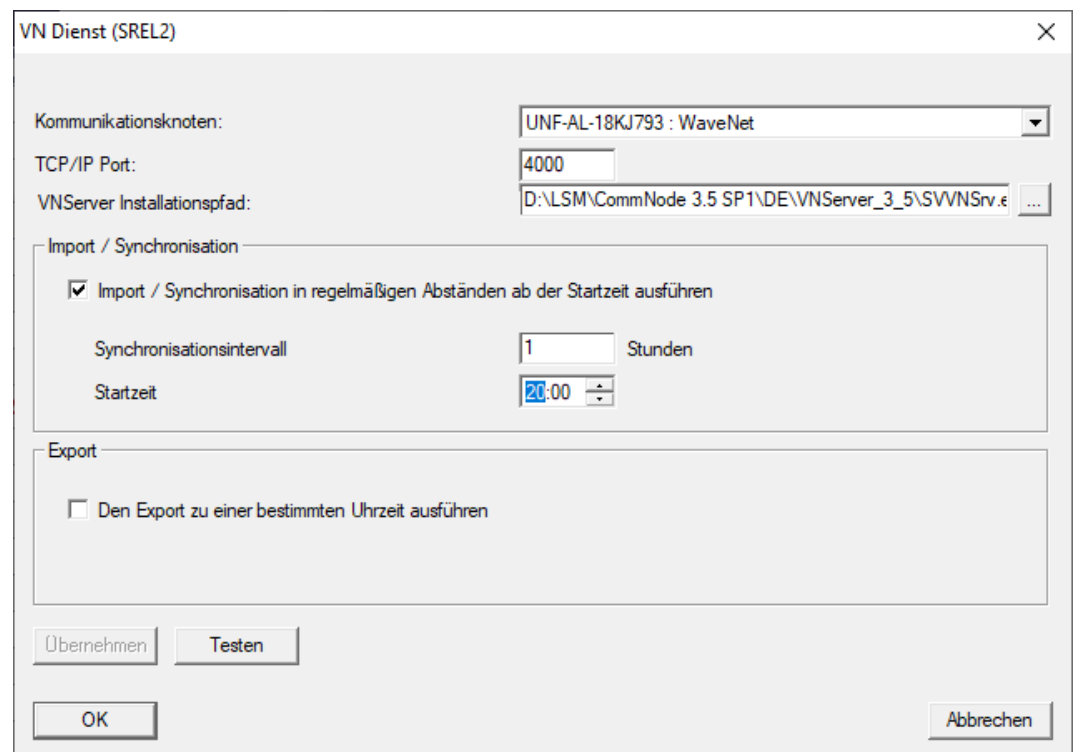


6. Click on the **Open** button.

→ Explorer window closes.

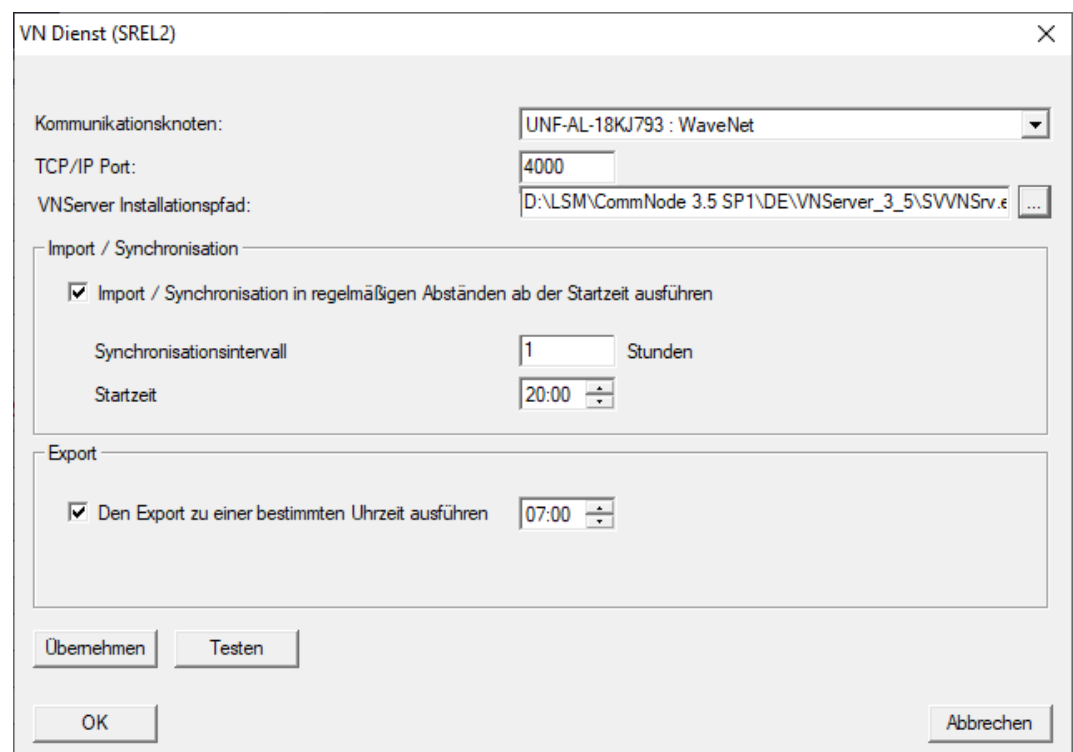


7. Optional: Go to the "Import/synchronisation" section and configure when the data from SmartRelay 2 G2 should be automatically imported back into LSM.



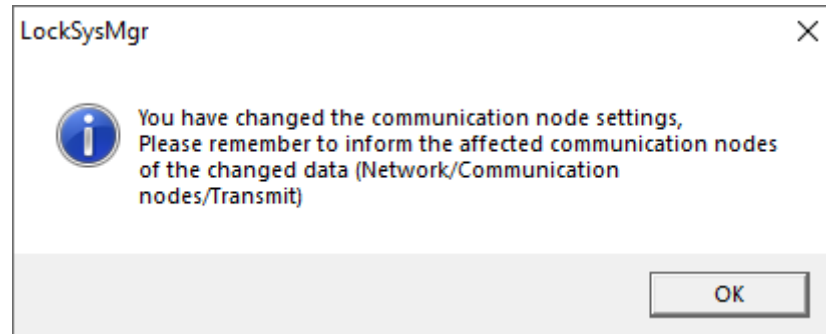
The screenshot shows the 'VN Dienst (SREL2)' dialog box. The 'Import / Synchronisation' section is active, with the checkbox 'Import / Synchronisation in regelmäßigen Abständen ab der Startzeit ausführen' checked. The 'Synchronisationsintervall' is set to 1 hour, and the 'Startzeit' is set to 20:00. The 'Export' section is inactive, with the checkbox 'Den Export zu einer bestimmten Uhrzeit ausführen' unchecked. The 'Übernehmen' and 'Testen' buttons are visible, along with 'OK' and 'Abbrechen' at the bottom.

8. Optional: Go to the "Export" section and configure when the data should be automatically transferred from LSM to SmartRelay 2 G2.



The screenshot shows the 'VN Dienst (SREL2)' dialog box. The 'Export' section is active, with the checkbox 'Den Export zu einer bestimmten Uhrzeit ausführen' checked. The 'Startzeit' is set to 07:00. The 'Import / Synchronisation' section is inactive, with the checkbox 'Import / Synchronisation in regelmäßigen Abständen ab der Startzeit ausführen' unchecked. The 'Übernehmen' and 'Testen' buttons are visible, along with 'OK' and 'Abbrechen' at the bottom.

9. Click on the **OK** button.
↳ The "LockSysMgr" window will open.



10. Click on the **OK** button.
↳ "LockSysMgr" window closes.
↳ "VN service (SREL2)" window closes.
11. Transfer the settings to the CommNode (see Transmitting the WaveNet configuration).

10.1.2.4 Creating components and setting up LSM

Before you start setting up LSM, the most important settings for operating a network must be configured in the LSM software and the RouterNode 2 must be ready for use.

- Preparing the LSM software
 - Preparing hardware
 - *Creating communication nodes* [▶ 17]
 - Setting up Task services
1. Create different identification media (e.g. *Add new transponder* [▶ 116]) and locking devices (e.g. *Add new locking device* [▶ 117]).
 2. Perform initial programming of the components created (*Programme transponder* [▶ 133] and *Programme locking device* [▶ 133]).
 3. Create a SmartRelay 2 G2 (▼ **Type** "G2_SmartRelay active/hybrid").
 4. Open the locking device properties.
 5. Change to the "[Configuration/Data]" tab.

6. Activate the ☒ Gateway check box.

Soll

Schließanlagen ID
9215

Schließungs ID
172

Pulslänge 5 Sek.

☒ Zugangskontrolle

☒ Zeitzonesteuerung

☐ Unberechtigte Zutrittsversuche protokollieren

☒ Gateway

☐ Flip Flop

☐ Interne Antenne immer an

☐ Nahbereichsmodus (nur bei interner Antenne)

☐ Zeitzumschaltung

☐ Ausnahmen im Zeitzone management zulassen

☐ Karteninterface

letzte Veränderung	
Zeitzone:	nicht vorhanden
Feiertagslisten:	nicht vorhanden

Erweiterte Konfiguration

7. Switch back to the matrix view.
 8. Authorise all identification media on SmartRelay 2 G2 which are to receive new authorisations there at a later point in time.
 9. Carry out initial programming of the SmartRelay 2 G2.
 10. Ensure that a LockNode is installed in the SmartRelay 2 G2.
 11. Set up RouterNode 2 using WaveNet Manager (see Setting up the network and importing into LSM).
 12. Assign the gateway (or SmartRelay 2 G2) to it.
- The virtual network is now ready for use.

10.1.2.5 Exporting authorisation changes

Exporting authorisation changes only works if there is at least one change. To perform the test, remove authorisation for locking cylinder 1 from transponder 1, for example.

1. Perform a reset before the first export (see *Resetting tasks in the virtual network* [► 171]).
 2. Use | Programming | - Virtual Network to select the Export to VNet-work entry.
- The "Export to virtual network (SREL2)" window will open.

[illegible]

3. Select all SmartRelay 2 G2s to which you need to send/export the changes.

[illegible]

4. Check whether you have selected the correct locking system in the **Locking system** drop-down menu.
5. Click on the **Prepare** button.
↳ All exportable changes are listed in the "Persons" section.
6. Select all changes that you wish to export to the previously selected SmartRelay 2 G2.


Personen	Transpondergruppe	Alle/Alt	Alle/Max.
<input checked="" type="checkbox"/> Eriksen, Marshall / 004U1F2	Buero	11/00	00011/30

- Click on the **Export** button.
➡ The export process will start. The changes are sent to the gateway.

VNServer Meldungen ✕

VN Befehl: VN Export Stoppen

Ausgegeben am: 2022.03.07 16:32:07

Zustand/Ergebnis: wird bearbeitet 

Gateway

Letzte Meldung: 2022.03.07 16:32:09

Aktuelle Aktion 1: Gateways aktualisieren

Aktuelle Aktion 2:

Name	Ergebnis
------	----------

Sonstige Aktivitäten

VN Befehl:

Ausgegeben am:

Zustand/Ergebnis:

Letzte Meldung am:

Wechseln

Beenden

→ A summary of the export is displayed.

VN Ergebnis

VN Befehl: VN Export

Ausgegeben am: 2022.03.07 16:32:07

Zustand/Ergebnis: erfolgreich durchgeführt

Zusammenfassungen:

Beschreibung	Uhrzeit	Name	Wert	Name	Wert
Geräteabgleich läuft	2022.03.07 16:3...				
Aufgaben für Transponder vorbereitet	2022.03.07 16:3...	Insgesamt		Ausgeführt	
Vorverarbeitung beendet	2022.03.07 16:3...				
Aktualisierung Gateways abgeschlossen	2022.03.07 16:3...	Insgesamt	1	Fehlerhaft	0
Datenblock erfolgreich übertragen	2022.03.07 16:3...	phi	7859...	phi extension	0
Aktualisierung Gateways abgeschlossen	2022.03.07 16:3...	Insgesamt	1	Fehlerhaft	0

Parameter:

Name	Wert
Insgesamt	1
Fehlerhaft	0

Fehler:

Beschreibung	Uhrzeit	Name	Wert	Name	Wert
--------------	---------	------	------	------	------

Beenden

You can now track the exported tasks in the overview (*Status of the tasks in the virtual network (SREL2.G2)* [▶ 170]).

The authorisation change is now available at the gateway. There are now two scenarios:

- Transponder 1 books at the gateway. Locking device 1 will later recognise that transponder 1 is no longer authorised and refuse access.
- Another transponder (not transponder 1) first makes a booking at the gateway and authorises locking device 1. Transponder 1's locking ID is communicated to locking cylinder 1.

With LSM 3.5 SP3 and higher, it is possible to "inform" any number of transponders one or two other transponder IDs which need to be deactivated.

Programme the TIDs to be disabled directly

The IDs to be disabled are saved on the transponder during the programming process.

- ✓ The transponder is physically available.
- ✓ The transponder's programming window is open.

1. Click on the **TIDs to deactivate** button.

→ The list will open.

TID	Typ	Besitzer	Seriennummer	Zustand
<input checked="" type="checkbox"/> 3228	G2	Zinman, Stella	00XDESA	verloren

2. Activate one or two check marks in the TID column to save the TIDs to be deleted on the transponder.
 3. Click on the **OK** button to confirm your input.
 4. Continue with the programming.
- The checked TIDs will be saved to the transponder as TIDs to delete. When the transponder is authenticated on one of the locking devices concerned, the TIDs to be deleted are deactivated at the locking device.

Add the TIDs to be blocked to the properties

The IDs to be deactivated are saved on the transponder either during the next programming process or the next booking on a gateway.

✓ The transponder's properties window is open.

1. Change to the "[Configuration]" tab.

2. Click on the **TIDs to deactivate** button.

→ The list will open.

TID	Typ	Besitzer	Seriennummer	Zustand	
<input type="checkbox"/> 3228	G2	Zinman, Stella	00XDESA	verloren	

3. Activate one or two check marks in the TID column to save the TIDs to be deleted on the transponder.

4. Click on the **OK** button to confirm your input.
- ➡ The checked TIDs are saved on the transponder either during the next programming process or the next booking on a gateway.

10.1.2.6 Status of the tasks in the virtual network (SREL2.G2)

After exporting to the virtual network, you can see the tasks in an overview:

- ✓ Tasks exported to the virtual network (see *Exporting authorisation changes* [▶ 164]).
1. Select | Programming | - Virtual Network to open the Exported VN tasks entry.
 - ↳ The "Exported VN tasks" window will open.

[illegible]

2. Select a user to view their exported tasks.

Exportierte VN Aufgaben

Aufgaben

Benutzer	Exportdatum	Ausführen von	Ausführen bis	Gateway
Admin	2022.03.07 16:32	2022.03.07 16:32	2022.03.07 16:32	Post Office Illumination/00CP17B

Schließanlage	Schließung	Transponder	G1/G2	Aktion	Status	Befauftragt	Transporttyp
HIMYM	Alle Schließungen	Zinman, Stella/0...	G2	deaktivieren	angenommen	0	unmittelbar
HIMYM	Goliath National Bank/00D...	Erksen, Marshal...	G2	verbieten	übertragen	Erksen, Marshal...	unmittelbar
HIMYM	Goliath National Bank/00D...	Erksen, Marshal...	G2	verbieten	übertragen	Erksen, Marshal...	unmittelbar
HIMYM	Post Office Lockers/07PN...	Erksen, Marshal...	G2	erlauben	übertragen	Erksen, Marshal...	unmittelbar

Status auswählen

☒ exportiert
☒ angenommen
☒ übertragen
☒ durchgeführt
☒ gespeichert
☒ abgelehnt

Befehle in Bearbeitung

Beenden

- ↳ Exported tasks are displayed.

10.1.2.7 Resetting tasks in the virtual network

You can also reset tasks that you have exported to the virtual network.

1. Use | Programming | - Virtual Network to select the Reset VN tasks entry.

- Reset prompt will open.



LockSysGUI

Alle VN Aufgaben und Befehle werden zurückgesetzt! Führen Sie bitte anschließend den VN Export erneut aus.
Fortfahren?

Ja Nein


2. Click on the **Yes** button.

- ↳ Gateways are programmed to reset the exported tasks.

VNServer Meldungen ✕

VN Befehl: Stoppen

Ausgegeben am:

Zustand/Ergebnis: 

Gateway

Letzte Meldung

Aktuelle Aktion 1

Aktuelle Aktion 2

Name	Ergebnis
------	----------

Sonstige Aktivitäten

VN Befehl: Wechseln

Ausgegeben am:

Zustand/Ergebnis:

Letzte Meldung am:

Beenden

↳ Exported tasks are reset.

VN Ergebnis

VN Befehl:

Ausgegeben am:

Zustand/Ergebnis:

Zusammenfassungen:

Beschreibung	Uhrzeit	Name	Wert	Name	Wert
Gateways ausgelesen	2022.03.07 16:2...	Insgesamt	0	Fehlerhaft	0
VN Quittungen wurden verarbeitet	2022.03.07 16:2...	Insgesamt		Quittungen von ...	
Geräteabgleich läuft	2022.03.07 16:2...				
Geräteabgleich läuft	2022.03.07 16:2...				
Aktualisierung Gateways abgeschlossen	2022.03.07 16:2...	Insgesamt	1	Fehlerhaft	0

Parameter:

Name	Wert
Insgesamt	1
Fehlerhaft	0

Fehler:

Beschreibung	Uhrzeit	Name	Wert	Name	Wert
--------------	---------	------	------	------	------

Beenden

You can export the required tasks to the virtual network again (see *Exporting authorisation changes* [▶ 164]).

10.1.2.8 Importing authorisation changes

Once the changes have been exported to the gateway, you will not be able to see which changes have already been retrieved from the gateway in the LSM software. To do this, you will first need to import the changes again:

1. Use | Programming | - **Virtual Network** to select the **Import / synchronisation** entry.
 ↳ The import process will start immediately.

VNServer Meldungen

VN Befehl: VN Import

Ausgegeben am: 2022.03.07 16:41:16

Zustand/Ergebnis: wird bearbeitet

Gateway

Letzte Meldung: 2022.03.07 16:41:17

Aktuelle Aktion 1: Gateways auslesen

Aktuelle Aktion 2: Übertragung der Datenpakete

Name	Ergebnis
Post Office Illumination / 00CP17B	

Sonstige Aktivitäten

VN Befehl:

Ausgegeben am:

Zustand/Ergebnis:

Letzte Meldung am:

Wechseln

Beenden

→ Import report is now displayed.

VN Ergebnis

VN Befehl: VN Import

Ausgegeben am: 2022.03.07 16:40:19

Zustand/Ergebnis: erfolgreich durchgeführt

Zusammenfassungen:

Beschreibung	Uhrzeit	Name	Wert	Name	Wert
Datenblock erfolgreich übertragen	2022.03.07 16:4...	phi	7859...	phi extension	0
Datenblock erfolgreich übertragen	2022.03.07 16:4...	phi	7859...	phi extension	0
Gateways ausgelesen	2022.03.07 16:4...	Insgesamt	1	Fehlerhaft	0
VN Quittungen wurden verarbeitet	2022.03.07 16:4...	Insgesamt		Quittungen von ...	
Geräteabgleich läuft	2022.03.07 16:4...	Insgesamt		Ausgeführt	
Aufgaben für Transponder vorbereitet	2022.03.07 16:4...	Insgesamt			
Vorverarbeitung beendet	2022.03.07 16:4...	Insgesamt	1	Fehlerhaft	0
Aktualisierung Gateways abgeschlossen	2022.03.07 16:4...	phi	7859...	phi extension	0
Aktualisierung Gateways abgeschlossen	2022.03.07 16:4...	Insgesamt	1	Fehlerhaft	0

Parameter:

Name	Wert
Insgesamt	1
Fehlerhaft	0

Fehler:

Beschreibung	Uhrzeit	Name	Wert	Name	Wert
--------------	---------	------	------	------	------

Beenden

2. Click on the **Exit** button.

You can now check the status of the tasks (see *Status of the tasks in the virtual network (SREL2.G2)* [► 170]).

10.1.2.9 Tips on VN

Time budgets

It is important to have all transponders book at short, regular intervals so that changes are quickly distributed offline in the locking system. Time budgets can be used for this purpose.

The "Dynamic time window for G2 transponder" section in the locking system properties offers you the option of imposing a time budget on transponders. This means that a person can be required to load the identification medium regularly at the gateway. If they do not, the identification medium is blocked for this locking system.

Dynamisches Zeitfenster für Transponder G2

☒ Zeitfenster am Gateway nicht verändern

☐ bis zu einer bestimmten Uhrzeit des (nächsten) Tages

☐ Stundenanzahl ab der letzten vollen Std. der Buchung

Automatic import/export

You can automate the import and export of changes to a gateway here: | Network | - **VN service (SREL2)** .

IMPORTANT**WaveNet capacity utilisation due to import and export**

If many changes are imported and exported at the same time, full use is made of the WaveNet's capacity. This may affect other functions which also use the WaveNet.

10.2 Read locking device

One of the great advantages of networked locking devices is that you can conveniently check the status from your workstation.

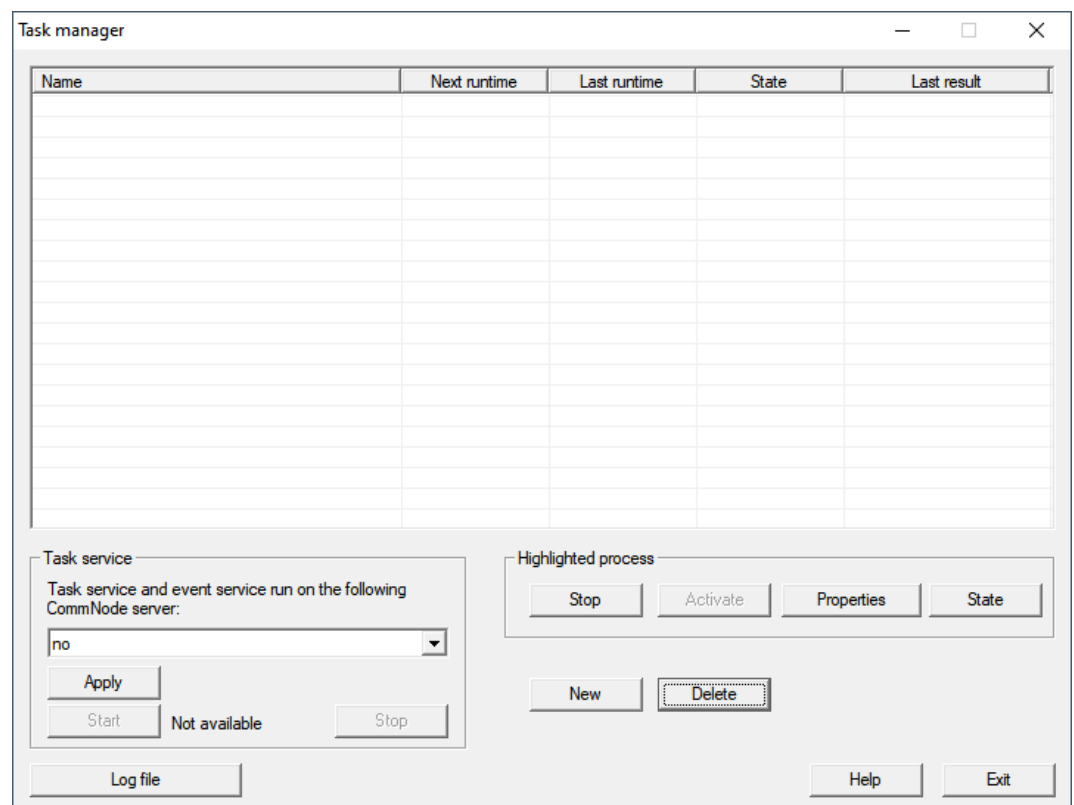
You can even automate this with the Task Manager.

You can then further process the information in LSM, for example by means of warnings and messages (see Warning monitor and Manage warnings).

- ✓ LSM open.
- ✓ Locking devices to be read out programmed and networked (see Creating a WaveNet radio network and incorporating a locking device).

1. Select via | Network | the entry **Task manager**.

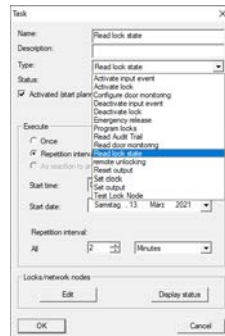
↳ Windows "Task manager" launches.



2. Click on the button **New** to create a new task.

↳ Windows "Task" launches.

3. Enter a name for the task.
4. From the drop-down menu, select ▼ **Type** the entry "Read lock state" off.



5. Select in the area "Execute" the option ☒ Repeat interval off.
6. Set the desired interval.



NOTE

Effect of the repeat interval on the battery run time

The more often you read the locking device, the more often the locking device is woken up from the energy-saving standby mode. Battery life may therefore be shorter.

Task

Name: Read lock state

Description:

Type: Read lock state

Status:

☒ Activated (start planned task as stated)

Execute

☐ Once

☒ Repetition interval

☐ As reaction to an event

Start time: 00:28

Start date: Samstag, 13. März 2021

Repetition interval:

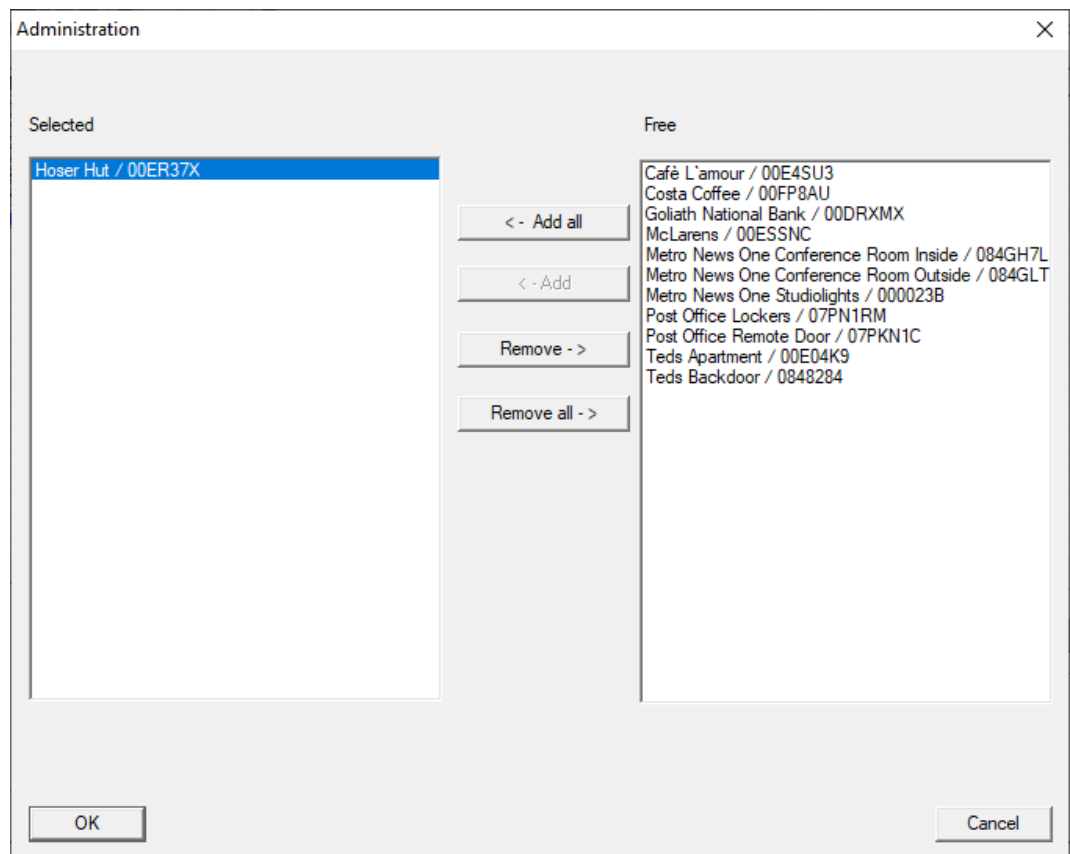
All 2 Minutes

Locks/network nodes

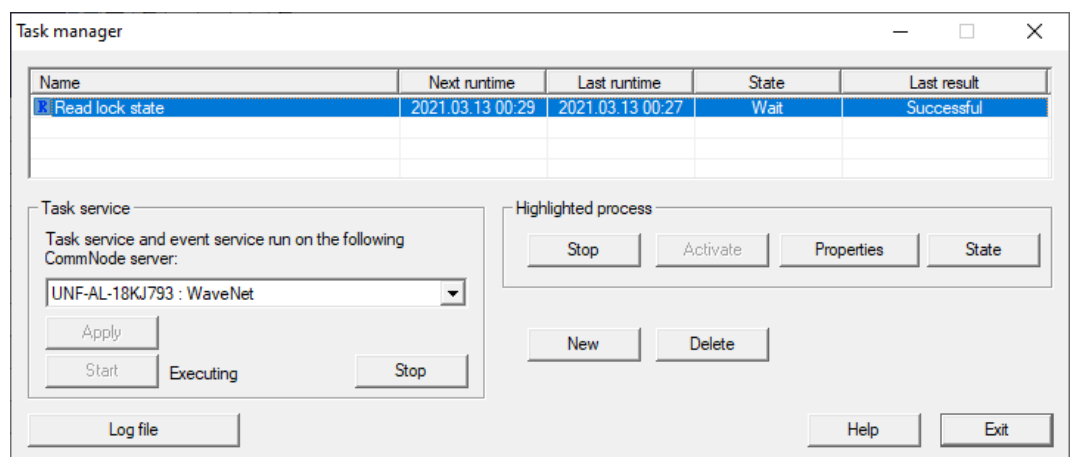
Edit Display status

OK Cancel

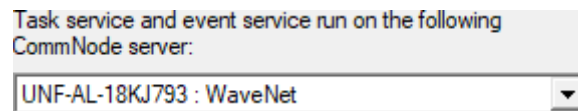
7. Click in the area "Locks/network nodes" on the button **Edit**.
↳ Windows "Administration" launches.



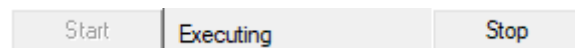
8. Select the locking devices you want to read.
9. Then move the locking devices using the button **Add** into the left column.
10. Click on the **OK** button.
 - ↳ Windows "Administration" closes.
11. Click on the **OK** button.
 - ↳ Windows "Task" closes.
 - ↳ Task is listed in the Task Manager.



12. Ensure that in the field: "Task service" in the drop down menu ▼ **Task service and event service run on the following CommNode server** of the appropriate CommNode is selected.



13. Make sure that the task service is also running.



14. Click on the **Exit** button.

- ↳ Windows "Task manager" closes.
- ↳ Locking status of the set locking devices is queried automatically.

11. Glossary & abbreviations

Individual terms are explained in more detail below. The explanations are easy to understand, but may not contain all details.

Term	Abbreviation	Explanation
Advantage Database Server	ADS server	Essential server service required to operate LSM Business and Professional.
CSV file		Standard file format for importing and exporting data, such as employee lists and locking systems.
DoorMonitoring	DM	Option for locking components which reports key door status properties, such as 'door closed' and 'double locked', to the LSM software.
Freeze mode		When batteries reach a critical level, locking devices switch to freeze mode to allow the door to be opened one more time.
Protocol generation G1	G1	First protocol generation allowing locking devices and ID media to communicate.
Protocol generation G2	G2	Second protocol generation, which adds a number of convenience functions.
Lightweight Directory Access Protocol	LDAP	Network protocol to access and change information. LDAP can be used to upload employee data directly into the LSM software, for example.
Locking Data Base Software	LDB	The preceding version of the LSM software.
Lock ID	LID	Identifies the locking device within the locking system. (Can be compared to a car registration)
Local Operating Network	LON network	Local Operating Network (LON) is an older standard, which is/was mainly used for building automation.

Term	Abbreviation	Explanation
Locking System Management	LSM	Current software allowing flexible management of SimonsVoss locking components.
Matrix		The matrix offers a clearly arranged view, showing which particular ID media are entitled to use specific locking devices.
MIFARE		MIFARE is a world standard for one of the most widely used card systems. (Locking device is activated with 'passive cards')
Personal Digital Assistant	PDA	Small computer roughly the size of a smartphone. A PDA can be used as a portable device to programme active G1 locking components.
Physical Hardware Identifier	PHI	The PHI number is imprinted on SimonsVoss components and stored in its internal memory. This number is fixed and cannot be changed.
Profile cylinder	PC	A profile cylinder is the most widely used variety of security lock and a type of locking cylinder.
Router (Central-Node)		Special routers are used to address suitably equipped locking devices over the network.
SMART.SURVEIL		SMART.SURVEIL is an independent monitoring program. It can be run on computers without LSM software and requires a free user client. (From LSM 3.4 SP1)
Transponder ID	TID	Identifies the transponder within the locking system. (Can be compared to a car registration)
Virtual network	VN	A 'virtual network' can be used to enjoy a variety of advantages offered by networks without special routers.

Term	Abbreviation	Explanation
Access Control	ZK	SimonsVoss components with an AC function log all accesses (or 'bookings') in the locking system.

12. Help and other information

Information material/documents

You will find detailed information on operation and configuration and other documents on the website:

<https://www.simons-voss.com/en/documents.html>

Software and drivers

Software and drivers can be found on the website:

<https://www.simons-voss.com/en/service/software-downloads.html>

Declarations of conformity

You will find declarations of conformity and other certificates on the website:

<https://www.simons-voss.com/en/certificates.html>

Technical support

Our technical support will be happy to help you (landline, costs depend on provider):

+49 (0) 89 / 99 228 333

Email

You may prefer to send us an email.

support-simonsvoss@allegion.com

FAQs

You will find information and help in the FAQ section:

<https://faq.simons-voss.com/otrs/public.pl>

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This is SimonsVoss

SimonsVoss, the pioneer in remote-controlled, cable-free locking technology provides system solutions with a wide range of products for SOHOs, SMEs, major companies and public institutions. SimonsVoss locking systems combine intelligent functionality, high quality and award-winning design Made in Germany.

As an innovative system provider, SimonsVoss focuses on scalable systems, high security, reliable components, powerful software and simple operation. As such, SimonsVoss is regarded as a technology leader in digital locking systems.

Our commercial success lies in the courage to innovate, sustainable thinking and action, and heartfelt appreciation of employees and partners.

SimonsVoss is a company in the ALLEGION Group, a globally active network in the security sector. Allegion is represented in around 130 countries worldwide (www.allegion.com).

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