LSM Starter

Manual

04.07.2022

SimonsVoss technologies

Content

1 General safety instructions

Signal word (ANSI Z535.6)	Possible immediate effects of non-compliance
DANGER	Death or serious injury (likely)
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.

2 General information

2.1 Description

Locking System Management (LSM) is a database-driven software program which SimonsVoss has developed and which you can use to create, manage and control locking plans efficiently. This documentation should serve as a guideline and help in structuring and setting up your locking plan and also help you with further practical control and administrative tasks, thus providing easier Lock System Management.
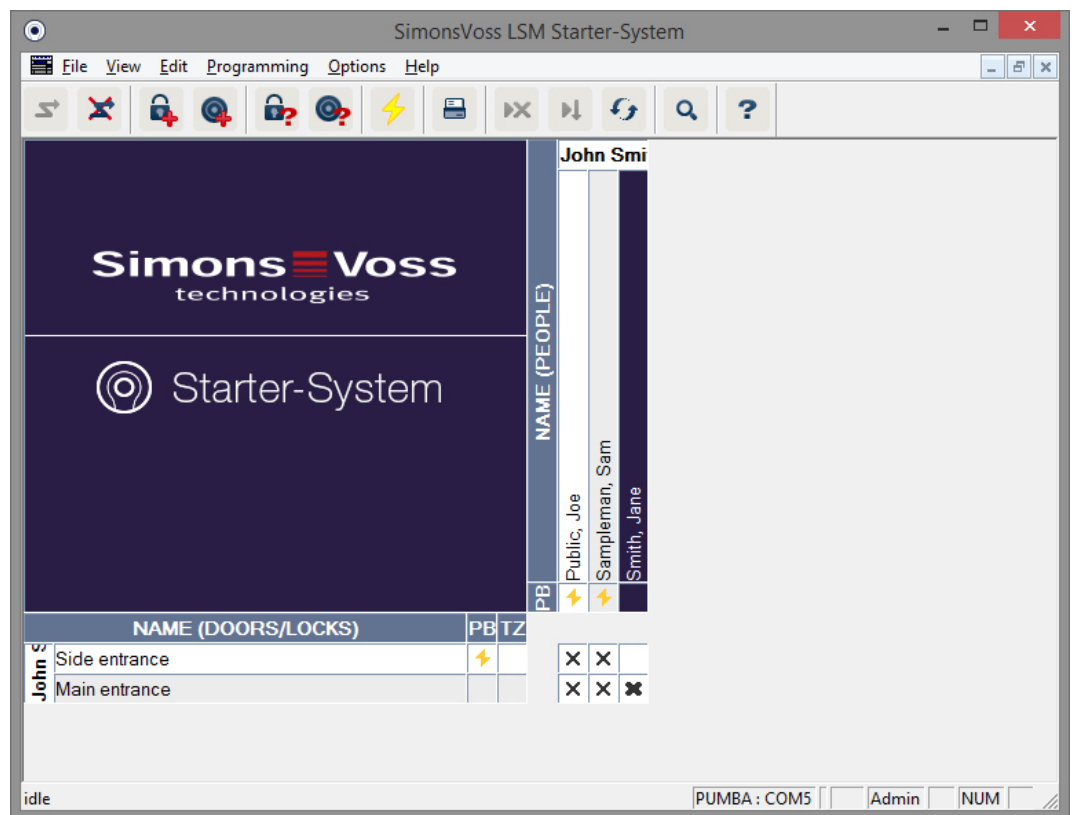
2.2 Components

You require the following components to operate the locking system:

1. Locking System Management (LSM) Starter DVD
2. USB programming device
3. Locking cylinders, depending on the number of doors/furniture locks
4. Transponders, depending on the number of users
5. PINCode Keypad

2.3 Specifications

Starter System consists of software and hardware components.

LSM Starter software

- One locking system per installation
- Locking systems with up to 20 doors and 100 transponders
- G2 locking devices and G2 transponders
- PIN Code Keypad (G1); max. three different PINs possible per PINCode keypad.
- Upgrade to LSM Basic possible

Programming device

- USB 2.0 type A
- Read range of 10-30cm
- Programming of active G2 locking devices and G2 transponders (via the 25 kHz radio interface).

2.4 Icons

Icons in the toolbar

	Log on to a database
	Log off from a database
	Add new locking device
	Add new transponder
	Read locking device
	Read transponder
	Programme
	Print matrix
	Delete record
	Apply changes (LSM Basic and higher)
	Update view
	Search database
	Help

Icons in the matrix

	Simple programming requirements
	Deactivated transponders
	Time zone plan active

2.5 Safety instructions

Access through a door may be blocked due to incorrectly fitted or incorrectly programmed components. SimonsVoss Technologies GmbH is not liable for consequences of incorrect installation, such as blocked access to injured persons or those at risk, physical damage or any other losses.

SimonsVoss Technologies GmbH reserves the right to make changes to the product without prior notification. For this reason, descriptions and illustrations in these documents may differ from the respective latest product and software versions. The original German version should be taken as a reference in cases of doubt. Errors and spelling mistakes excepted. You can find more information about SimonsVoss products at:

www.simons-voss.com/en

- Always pay special attention to warnings on batteries and the instructions for use of devices. Only use the recommended battery types

- Keep batteries well away from children. Call a doctor immediately if batteries are swallowed

- Do not position the battery positive and negative terminals incorrectly; always check the + and - markings on batteries and the device in question. Batteries can become hot very quickly if they are inserted incorrectly. This may lead to gas or battery fluid leaking out and/or the battery bursting

- Do not heat batteries. If a battery is heated, it can cause battery fluid to leak out and the battery to burst

- Do not deform batteries. If batteries should not be squashed, drilled or damaged in any other way. This may lead to gas or battery fluid leaking out and/or the battery bursting

- Do not short-circuit batteries. A battery is short-circuited if the positive (+) and (-) terminals on a battery are directly connected to one another. Batteries may short-circuit if you have them loose in your pocket together with keys or coins. This may lead to gas or battery fluid leaking out and/or the battery bursting

- When you replace batteries, you should replace them all at the same time. You should insert new batteries which are all the same brand and type. If different types of batteries or new and old batteries are used together, some batteries may over-discharge due to the different voltages or capacities. This may lead to gas or battery fluid leaking out and/or the battery bursting

- Do not solder directly onto batteries. They can be damaged by heat if soldered directly. This may lead to a short circuit inside and cause gas or battery fluid to leak out and the battery may burst

- Do not throw batteries into fire. The heat may cause batteries to burst if they are thrown into a fire

- Limit the charging current and charging interval as recommended by the manufacturer (rechargeable batteries only)

- Do not leave loose, unpacked batteries lying around. Batteries can easily short-circuit one another if you leave them lying around without their packaging. This may also be dangerous in some cases, because the batteries can become hot. This may cause the batteries to burst

- Lithium batteries must never be stored or transported as loose bulk goods to prevent short circuits and heating. Suitable measures to protect against short circuits include placing the batteries in the original packaging or masking the terminals

- Batteries should be disposed of in compliance with local and national regulations

3 Intended use

LSM 3.3 stands for Locking System Management and is database-supported software. It allows you to create, manage and control locking plans.

4 Initial operation

4.1 Prerequisites

General information

- Windows-based portable computer with installed .NET-Framework (Version 3.5 or higher)
- Local administrator rights for installation
- USB port
- Screen resolution at least 1,024 x 768; recommended: 1,280 x 1,024
- Processor: at least 2.66 GHz (or faster, Intel/AMD)
- At least 2 GB RAM (or more)
- Hard disk size: around 500 MB (about 1 GB during installation)
- Operating systems:
  Microsoft Windows 7 (Professional, Ultimate), 32 or 64 bit
  Microsoft Windows 8, 32 or 64 bit

NOTE

We recommend installing the software on a portable computer.

In most cases, locking cylinders only need to be programmed once before they are fitted into the door. Changes to authorisations at a later date can be transmitted via the transponders. You may need to programme a cylinder at a later stage in individual cases. You will need to take the computer and the programming device to the doors in such a case.

One locking plan per software installation may be created in LSM Starter.

The first locking plan is permanently saved to the software.

Even if the database is wiped from the hard disk, the software will always refer to the first locking plan.

4.2 Selection of components

There are different requirements regarding how a person should be granted access, depending on the door or entrance. You can thus select different components to create an optimum solution for your needs in Starter System. Contact your locking system dealer if you have any questions about selecting components.
Components are categorised as locking devices, ID media and software.

Locking devices

A locking device determines how a person is granted access to an area and how the area should be secured.

The simplest case comprises doors to rooms such as a laboratory. Only certain users should have access to such a room. Other people are not supposed to enter this area. A third group should only be able to open the door at certain times.

The following users may be authorised:

- Laboratory assistants
- Laboratory heads
- Technicians

The following should not be able to enter the laboratory:

- Visitors
- Trainees
- Suppliers
- Employees from a different laboratory

The third group can enter the laboratory at specific times:

- Cleaning employees
- Doctorate students
- Interns

When choosing a locking device, you should take into consideration whether the door needs to be locked or if it is simply enough for the door to catch into the lock.

What about accesses which are closed using barriers or roller gates? There are suitable solutions for all such areas. (see SmartRelay)

Cylinder

A cylinder is the locking device which is most frequently installed. Cylinders are fitted into doors which need to be locked. These are mostly entrance doors, office doors or doors which secure special areas.

The appropriate cylinder size is based on the thickness of the door and the escutcheon/fitting.

The cylinder size always comprises an external dimension and an inside dimension with the external dimension always coming first. Measurement is taken from the fastening screw to the escutcheon/fitting.

NOTE

If the escutcheon is not taken into account during dimensioning, the door thickness will not be correct and a cylinder which is too short will be ordered.

A cylinder which is too short cannot be fitted
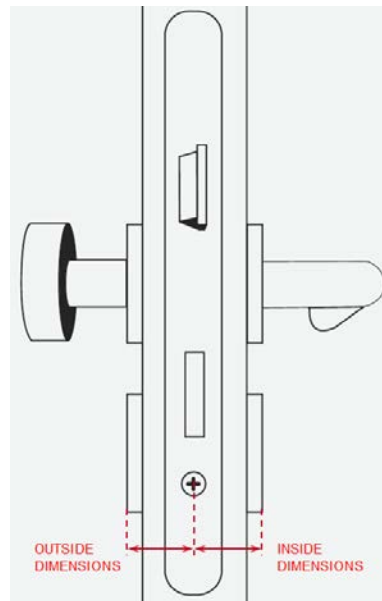
NOTE

The door measurements and cylinder length must match

If the cylinder is too short, the handles cannot be fitted.

If the cylinder is too long, it may be ripped out of the lock.

⸬ The cylinder should protrude less than 3 mm.

SmartHandle

The digital version of a fitting. The most important factor here is convenience. Inside buildings, you will find many doors which not everyone should be able to open, but which do not have any special security requirements either. Such doors may lead to meeting rooms or small storerooms.

SmartRelay

Would you like to determine who exactly may use your car park or garage? SmartRelay is the ideal solution for barriers, garage doors or any equipment which can be activated using an isolated contact.

You can thus activate components which are not SimonsVoss products, but need to form part of your locking plan. You obtain authorisation with a transponder as you do with a cylinder or with SmartHandle. They send a signal to any device with an isolated contact via a line connection.

You can use the SREL.AV to connect a separate antenna to the SREL.G2. This ensures better reception between transponders and the SREL.G2. The maximum line length is 5 m. The read range between a transponder and the SREL.AV can be up to 1.2 m

Models with a black housing can be fitted in a flush-mount switch box. Use the white housing for a surface-mount.

You will find a list of the different locking device types in the section on *Variants section [▶ 57]*

Identification media

A transponder is available in different models. You will find a list in the section on *Variants section [▶ 57]*

Software

Every locking system has its own requirements. In the simplest case, a tiny system may require changes to be made quickly and intuitively.

4.3 The first steps
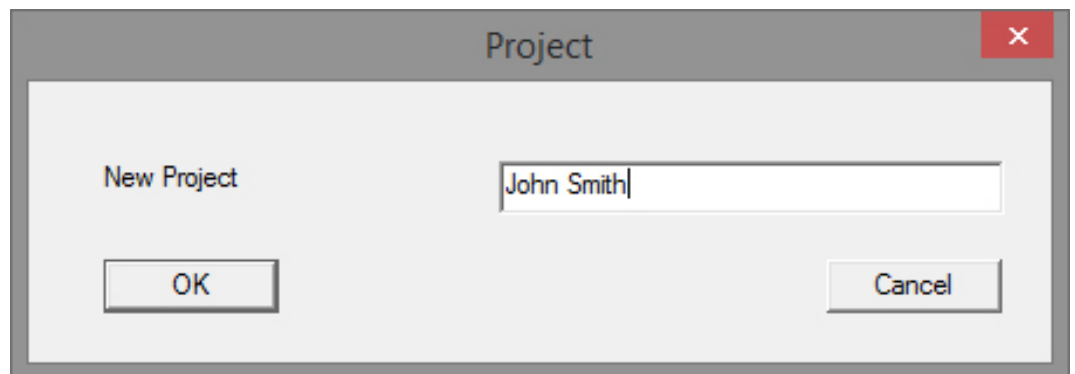
Installation

1. Insert the installation DVD into your DVD drive
2. Execute 'LSM_setup_starter_XX.exe.'
3. Follow the instructions in the installation wizard
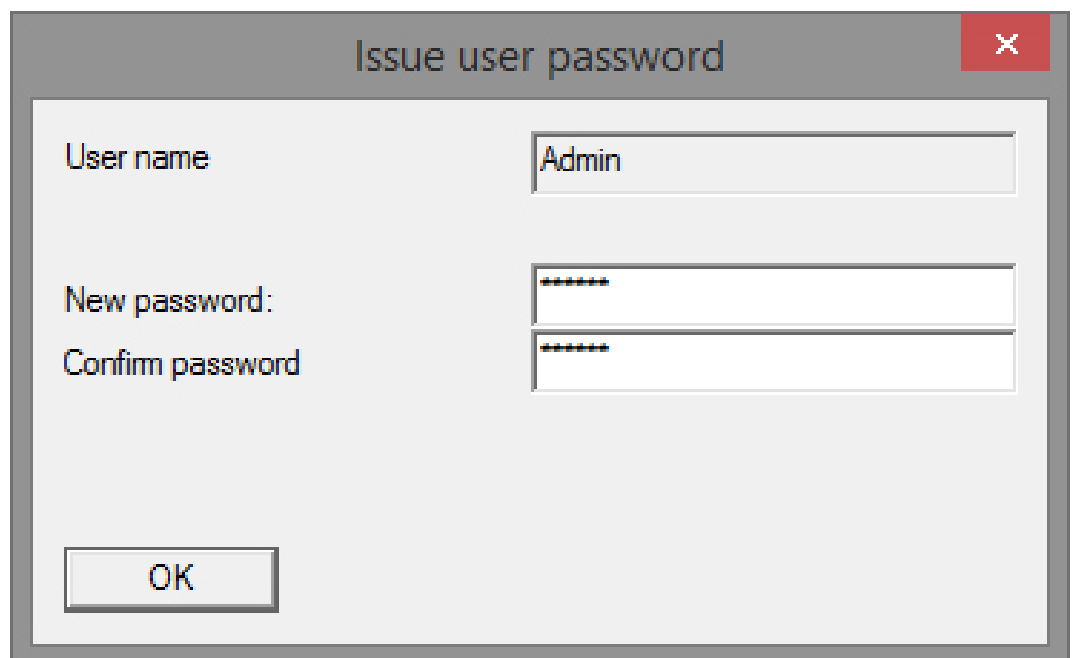
Initial launch of the software

1. Double-click on the 'Locking System Management Starter 3.2' icon on your desktop
2. Alternatively, you can also open the 'SimonsVoss' folder in the program menu and click on the 'Locking System Management Starter 3.2' file
   ↳ The software will launch

3. Click on 'Log on'
   ↳ The mask to create a new project will now appear
4. Enter a project name

5. Enter a login name and confirm.

NOTE
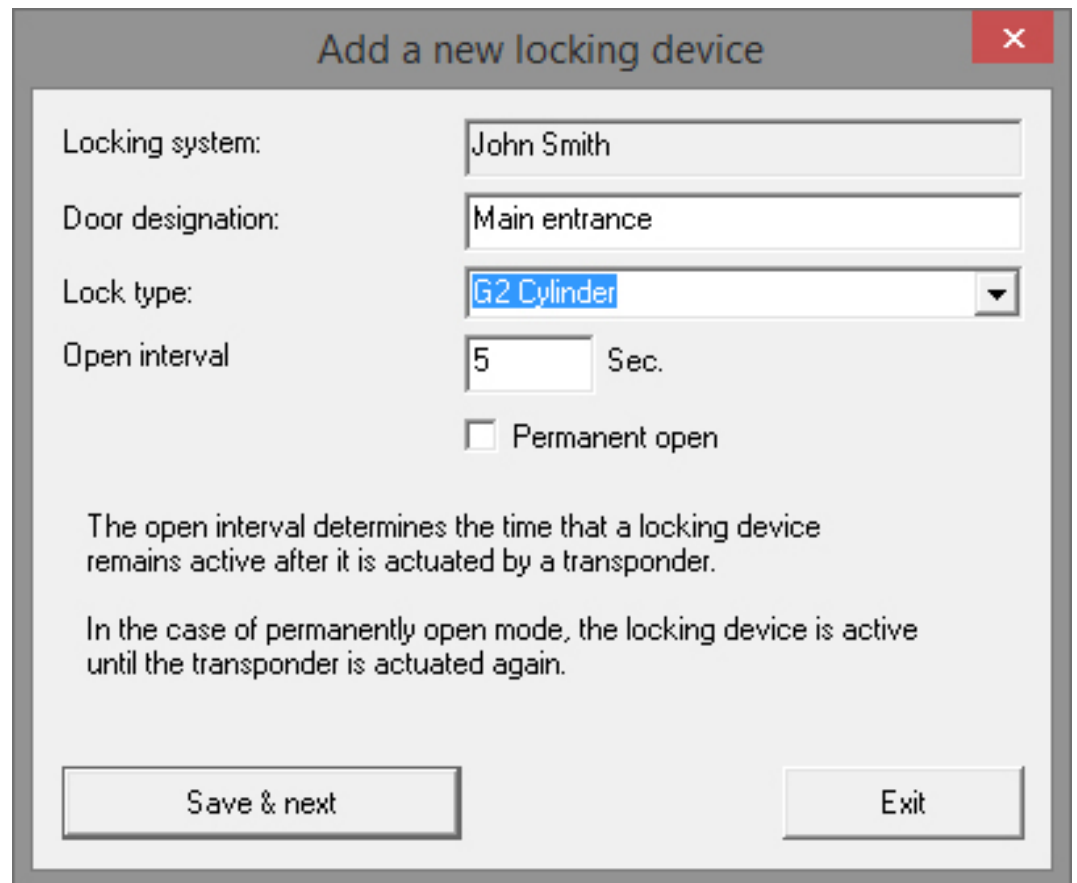
Keep this log-on information in a safe place, so that you can find it if you need it.

↳ The wizard to create a new locking device will appear

Add locking devices

1. Enter the name of the door
2. Select the locking device type: G2 locking cylinder, G2 SmartHandle or G2 SmartRelay

3. Use 'Save & next' to accept your input and you can then add another door or furniture lock
4. Press 'Finish' to exit the wizard

↳ The wizard to add a transponder will appear

Add transponder

1. Enter the name of the user
2. Use 'Save & next' to accept your input

3. Add another user or press 'Finish' to exit the wizard
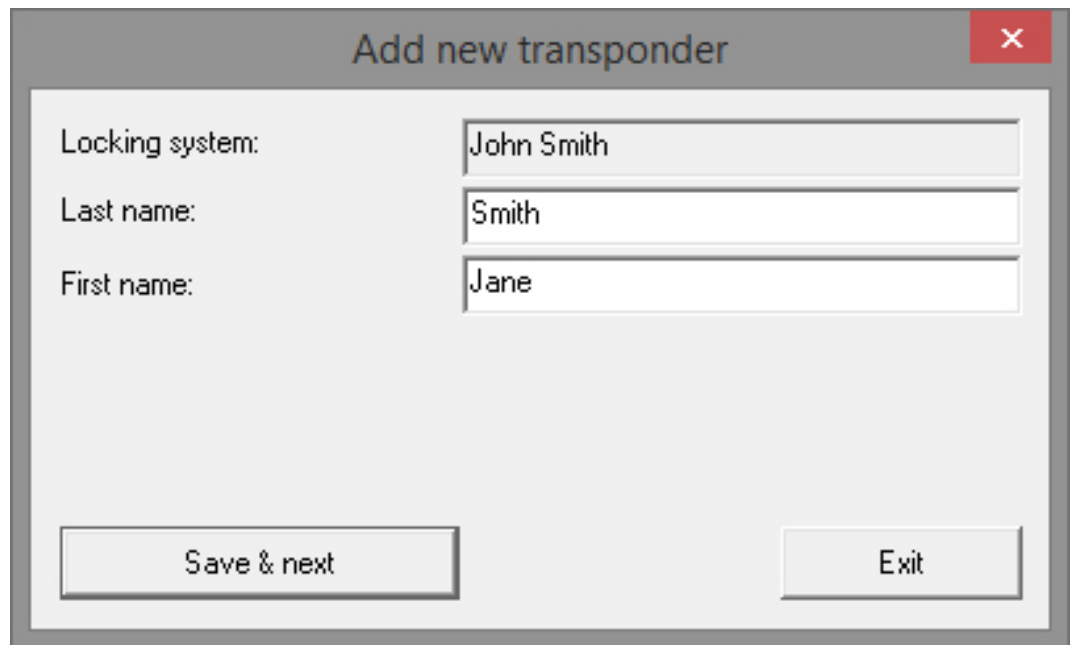
Issue authorisations

Authorise users to gain access through doors by clicking on the locking plan to add a cross to the doors concerned.
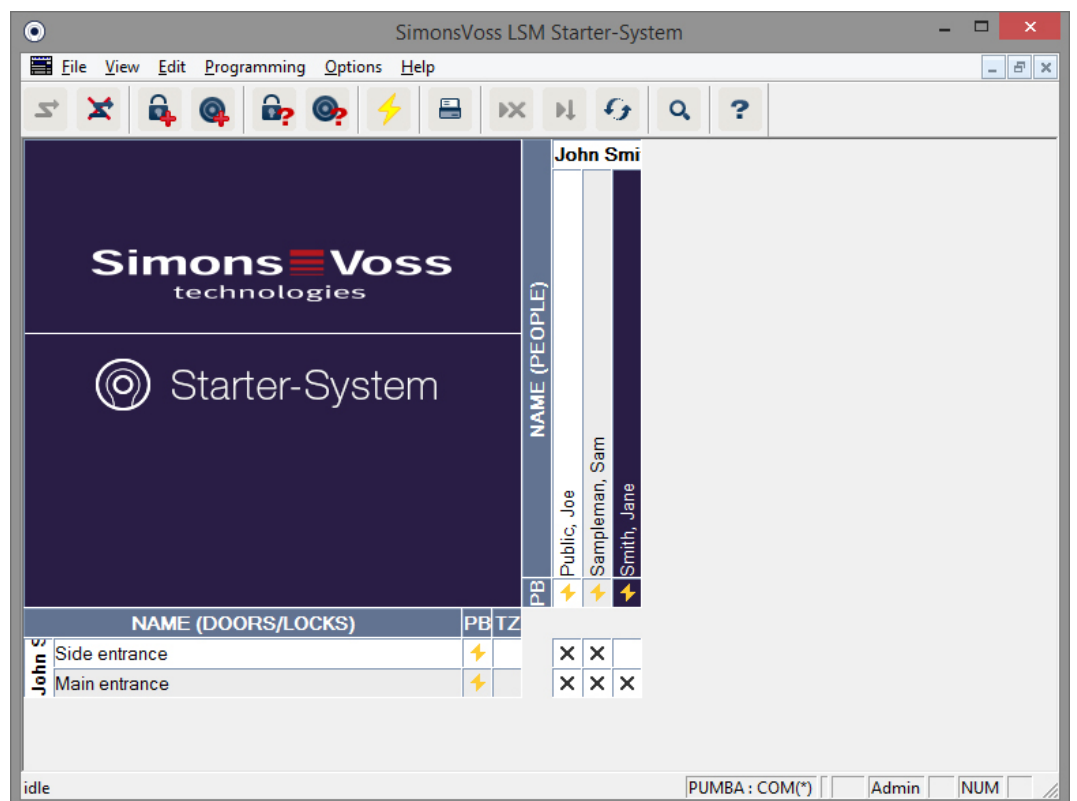
Programme cylinder

1. Connect the programming device to the computer.
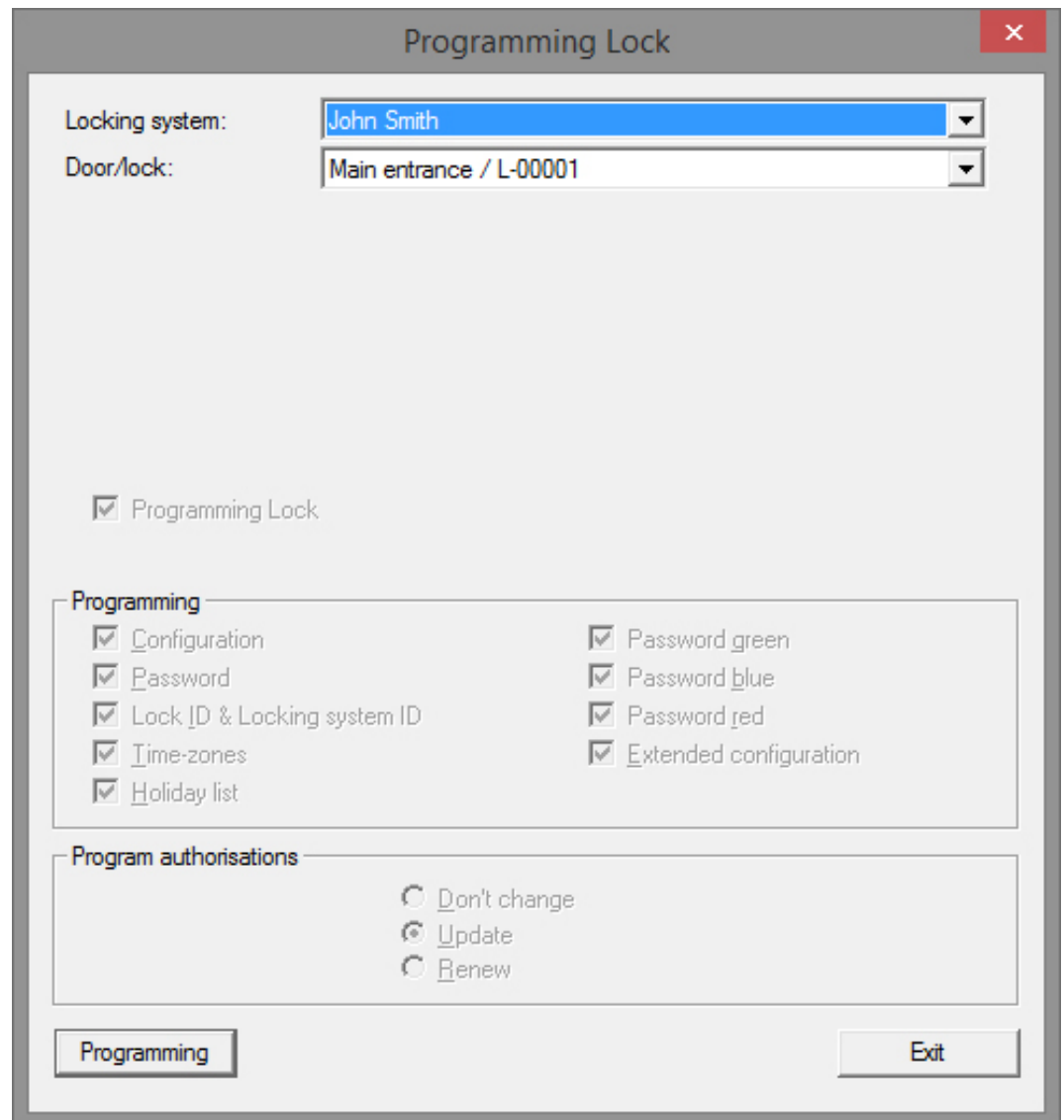
> **NOTE**
>
> If you connect the programming device to a USB hub, it must feature sufficient capacity to operate. You can also connect the programming device directly to your computer.

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2. Place the cylinder 15 cm away from the programming device
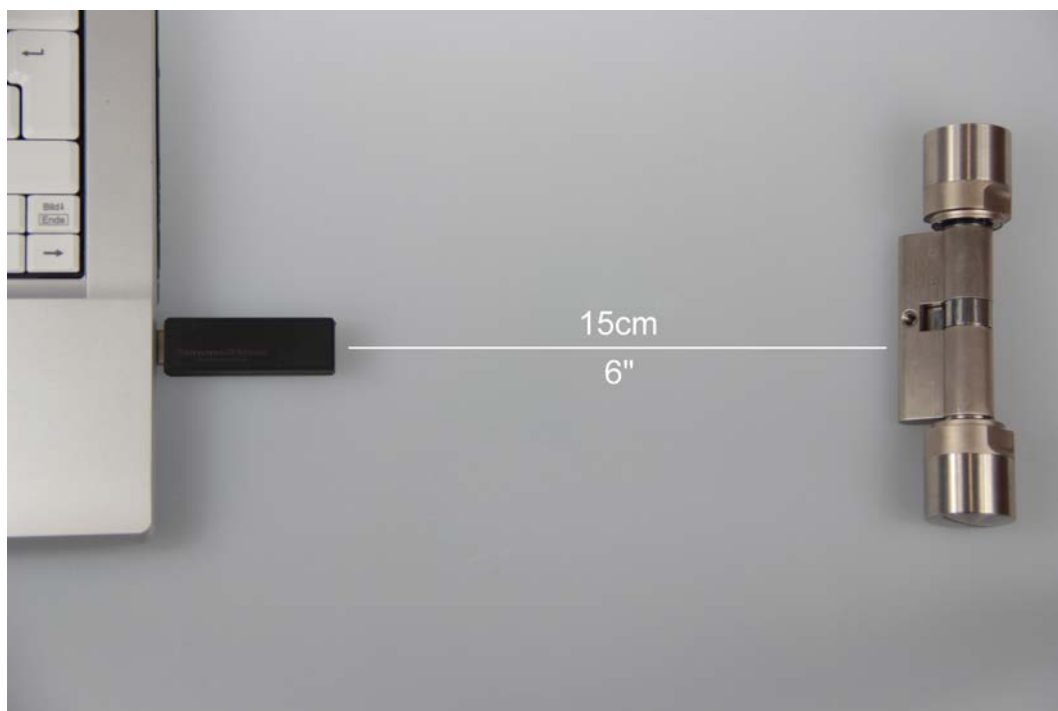
3. Highlight the cylinder in the locking plan
4. Press the programming flash ⚡ in Quick Launch
   ↳ The mask to programme a locking device will open

5. Check that the right cylinder has been selected in the mask

6. Click on 'Programme' to launch programming

NOTE

Ensure that you maintain the same distance between the programming device and the cylinder while programming.

Programming will be interrupted if the cylinder is no longer within the programming device's range.

---

7. Wait until programming is complete
   ↳ A 'Programming successful' message confirms that programming has been successfully completed.

Programme transponder

1. Place a non-programmed transponder 15 cm away from the programming device for initial programming

2. Highlight the transponder in the locking plan
3. Press the programming flash ⚡ in Quick Launch
    ↳ The mask to programme a transponder will open
4. Check that the right transponder has been selected in the mask

Transponder Programming	✕
Owner/transponder:	Smith, Jane / T-00001 ▼
☐ Jump to next transponder after programming	
Programming	Exit
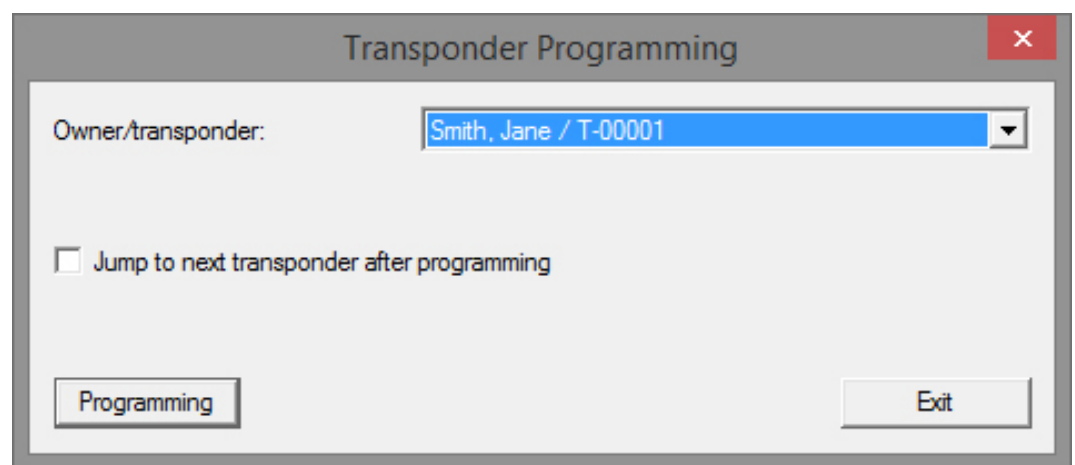
5. Click on 'Programme' to launch programming
6. Activate the transponder once within 10 seconds when prompted.

NOTE

Ensure that you maintain the same distance between the programming device and the transponder while programming.

Programming will be interrupted if the transponder is no longer within the programming device's range.

7. Wait until programming is complete
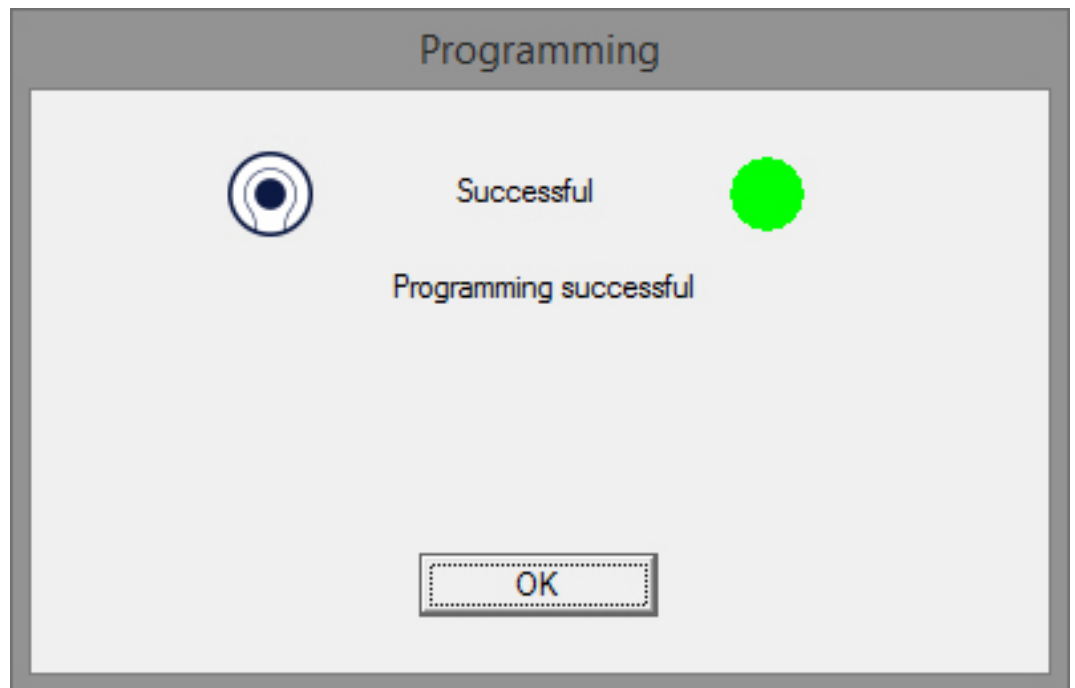
   ↳ The transponder is now programmed.
   ↳ The authorisation cross is now highlighted in the locking plan and the programming flashes next to the cylinder and transponder have disappeared.
   ↳ The transponder can now be used on the cylinder.

8. Activate the transponder at a distance of about 20 cm from the cylinder
   ↳ The cylinder will beep twice and engage. A door can now be opened if the cylinder is installed

4.4 Configuration

The behaviour of digital cylinders can be very precisely configured to the requirements of the doors and users in question. It is thus possible to grant a person unlimited access through a door. They can limit another user's authorisation for the same door, so that the door can only be opened between the hours of 9 a.m. and 4 p.m. during the day, for example.

The different options available for you to configure your locking system are described in the following section.

4.4.1 Locking devices

4.4.1.1 Cylinder
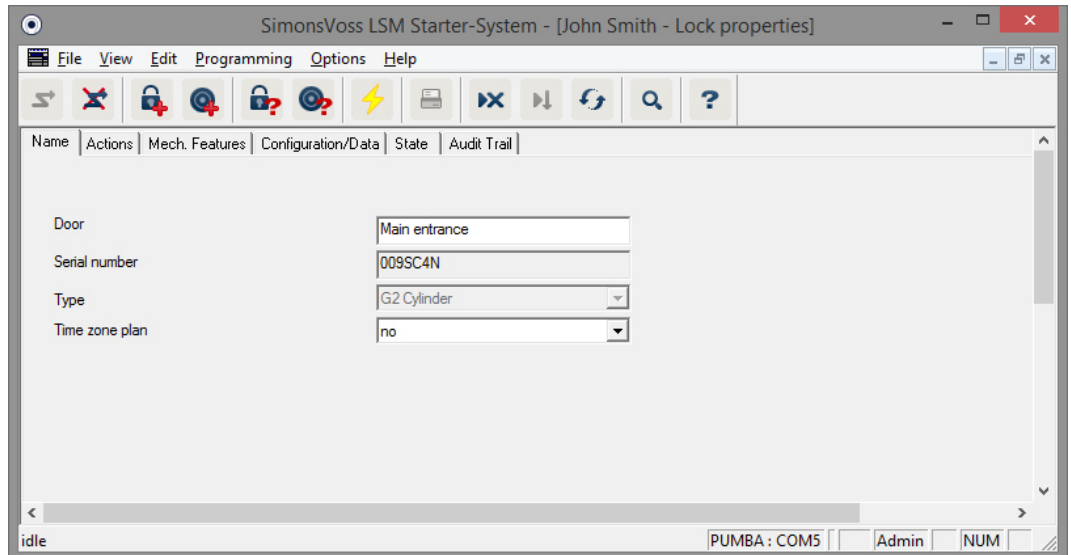
A cylinder's properties can be configured precisely, so that the door behaves exactly as you wish.

Prerequisites

- The LSM software needs to be open
- At least one cylinder has been added to the locking plan
- You can see the locking plan matrix on the monitor screen

Double-click on the cylinder on the locking plan screen.

The cylinder properties are opened. You will see the 'Name' tab

- You will see the name of the door. Click on the name field to change the name if required

- You can use the serial number to refer to the cylinder with a distinct identifier. The number is stored in the electronics and engraved into the cylinder body

- The type shows which locking device type it is. The different locking device models are explained in the section *Selection of components [▸ 11]*

- 'Time zone plan' allows you to choose whether certain persons are to be authorised to use a door at certain times

Actions
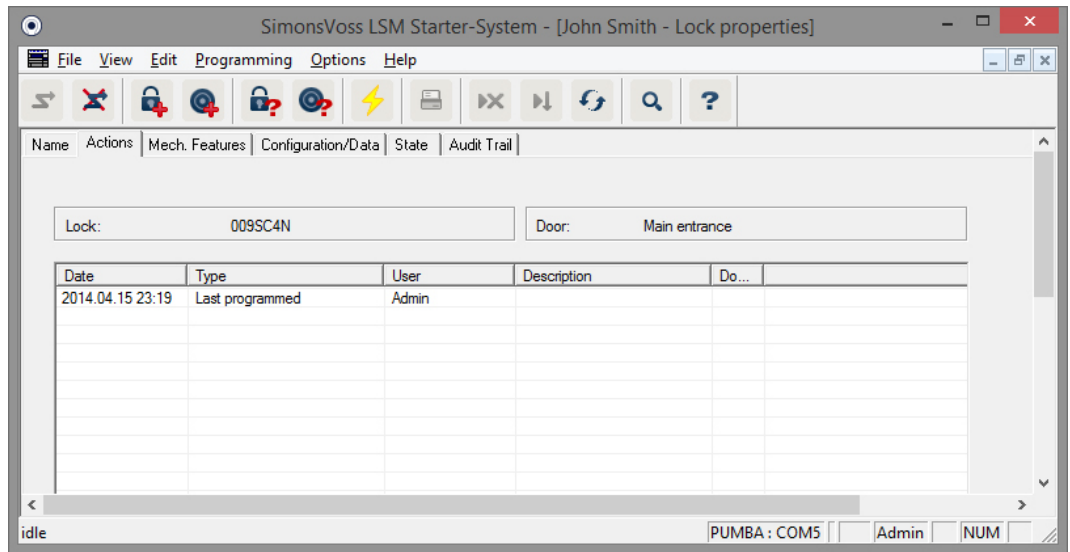
Open the 'Actions' tab

- You can now see which programming processes have been carried out on the cylinder

Features
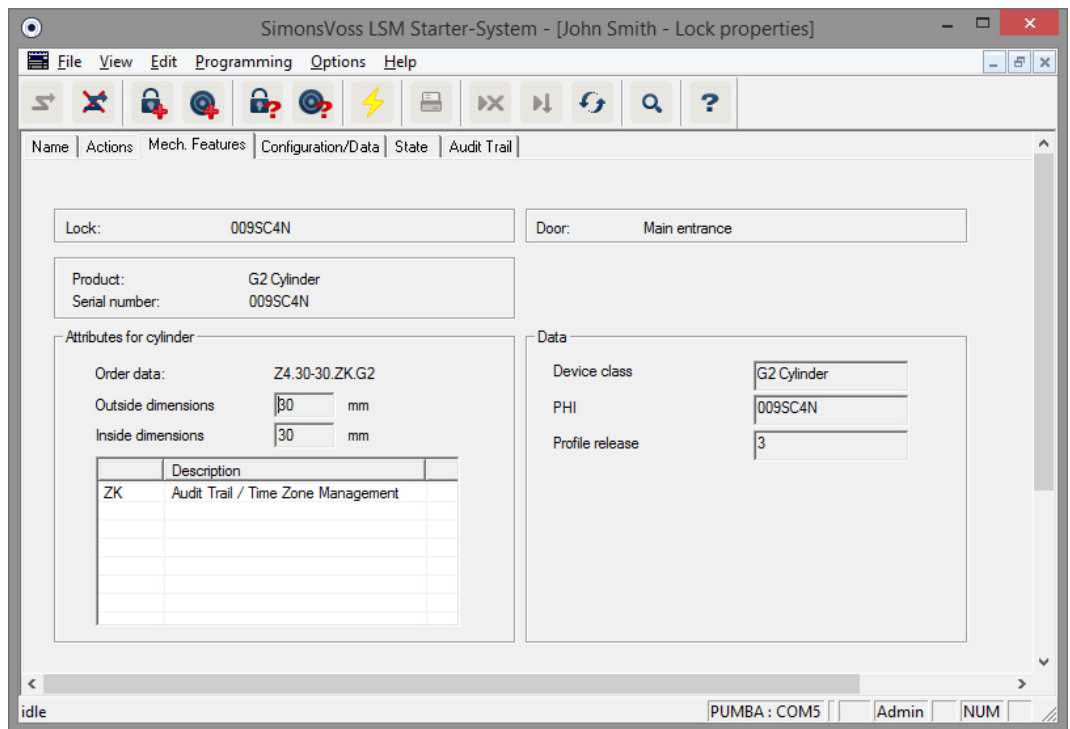
Open the 'Features' tab

- This tab lists the cylinder's features
- You will see the order details
- You can also see the cylinder size with the outer and inside dimension

▦ Further information is also available on the cylinder, depending on the cylinder type

Configuration/data
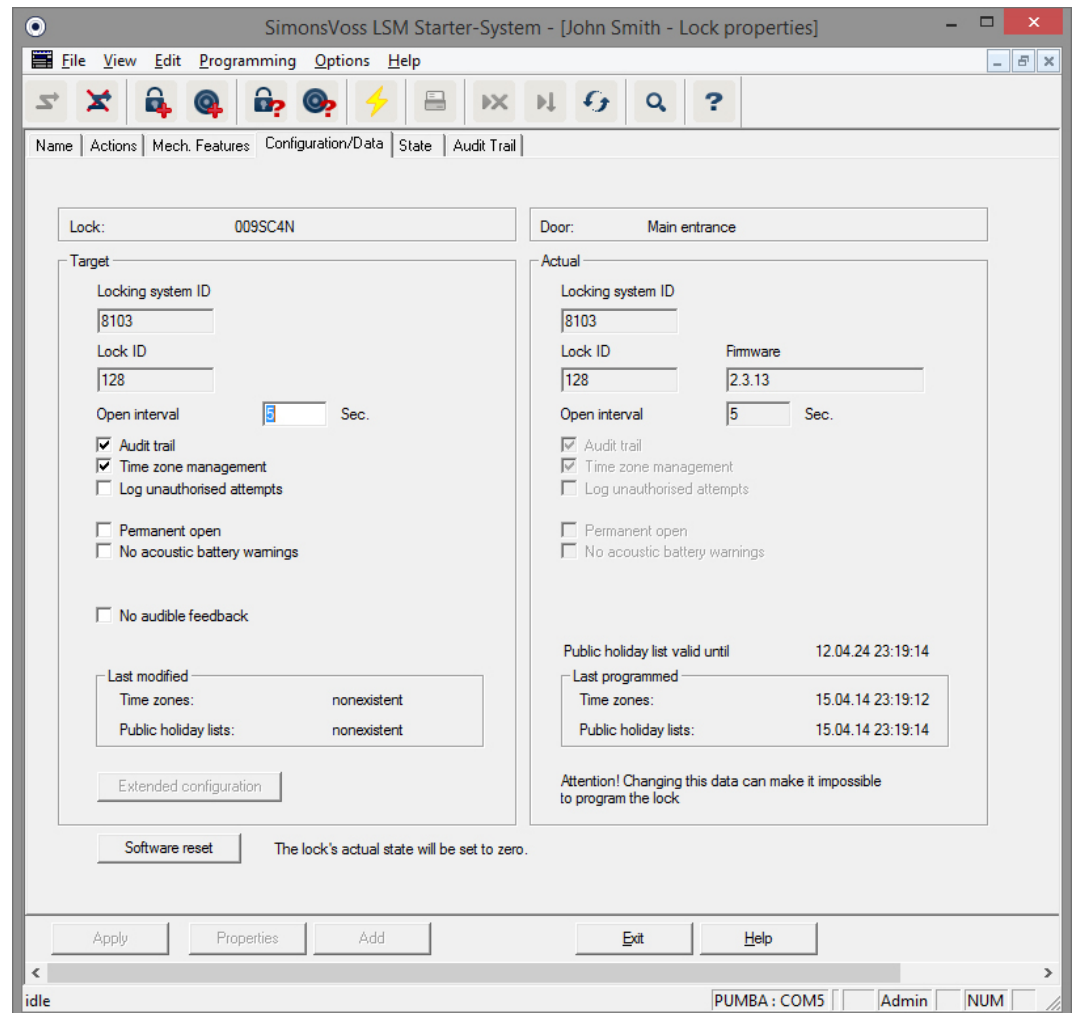
Open the 'Configuration/Data' tab

▦ You will see two sections: a target value and a current value section. The target value section allows you to configure how components should behave. The two sections will be identical once you have programmed the changes

▦ The configuration allows you to determine how the door is to behave

▦ Open interval: how long should the cylinder engage to open? 1-25 sec

▦ Access control: the cylinder records which particular transponder is used at a particular time

▦ Time zone control: certain people can open the door at specific times only. Note that no time zones can be issued for PINCode Keypads.

▦ Logging unauthorised attempted access events: the cylinder logs when someone tries to open doors which they are not authorised to use

∷ Permanent opening: The cylinder engages permanently open when activated by a transponder and remains in this mode until activated by another transponder

∷ No audible battery warnings: the cylinder does not emit an audible signal when the battery needs changing

∷ No audible programming feedback signals: the locking cylinder does not emit audible signals during programming process

∷ Software reset: the current status is re-set in the software. You will find more information on this function in the section on *Software reset section [▶ 54]*

State

Open the 'Status' tab

∷ You will see the cylinder's status here when the cylinder has been read with the programming device

∷ Battery status: indicates whether the batteries need to be replaced

∷ Emergency release: the Starter software engages the cylinder using an emergency release

∷ Deactivated: the cylinder is deactivated. The cylinder will not engage even if an authorised transponder is used

∷ Engaged: the cylinder is engaged

∷ Storage mode: the batteries have discharged beyond the second warning level and the cylinder is in storage mode. This mode can be deactivated for 30 seconds using a G2 battery replacement transponder. The cylinder can then be opened with an authorised transponder during this time
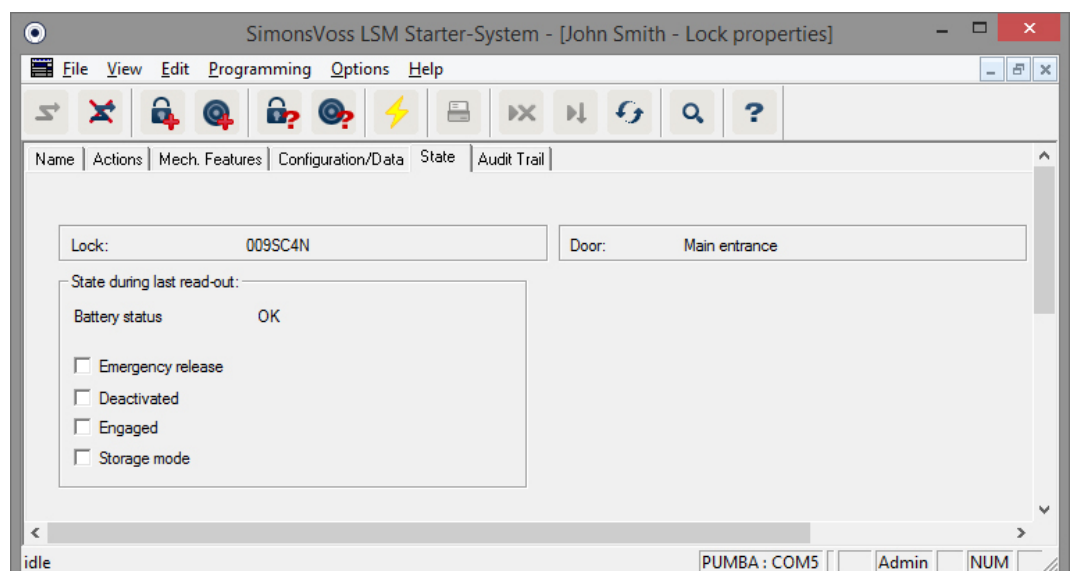
Access list

Open the 'Access list' tab

▪▪ If the cylinder's access list has been uploaded, you will be able to see which transponders have been activated at the cylinder at particular times
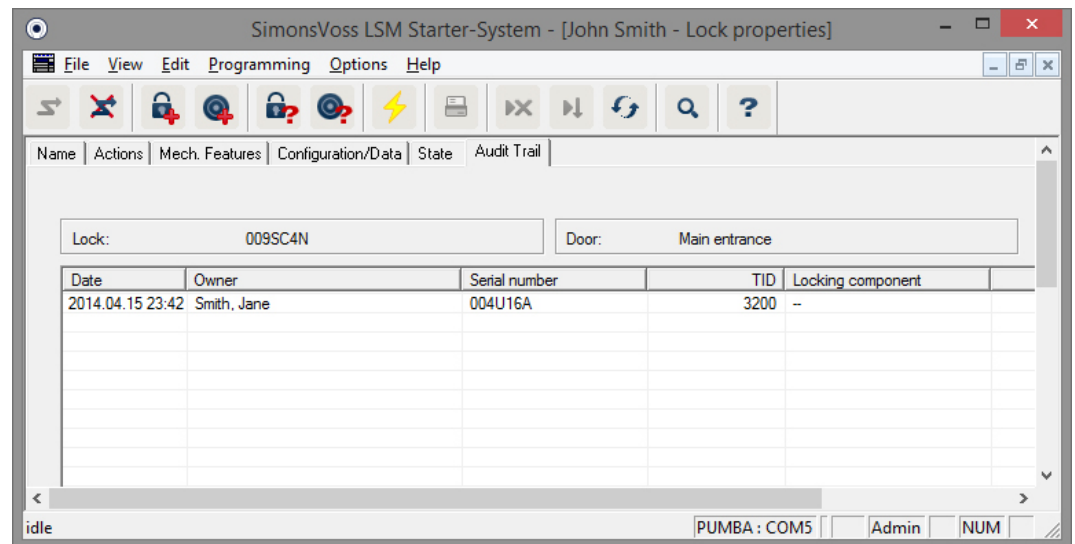
4.4.1.2 SmartHandle

Time switch-over function

The settings that you can make to SmartHandle are largely the same as those for the cylinder. You will also find the 'Time changeover' option in the 'Configuration/Data' tab You can make settings in this option if:

▪▪ the SmartHandle is able to administer time zones (order option .ZK)

▪▪ Time zone control is activated

You will find more information on the time switch-over function in the *Time switch-over function [▸ 38]*

4.4.1.3 SmartRelay

Other configurations in SmartRelay are related to the antennas and other interfaces
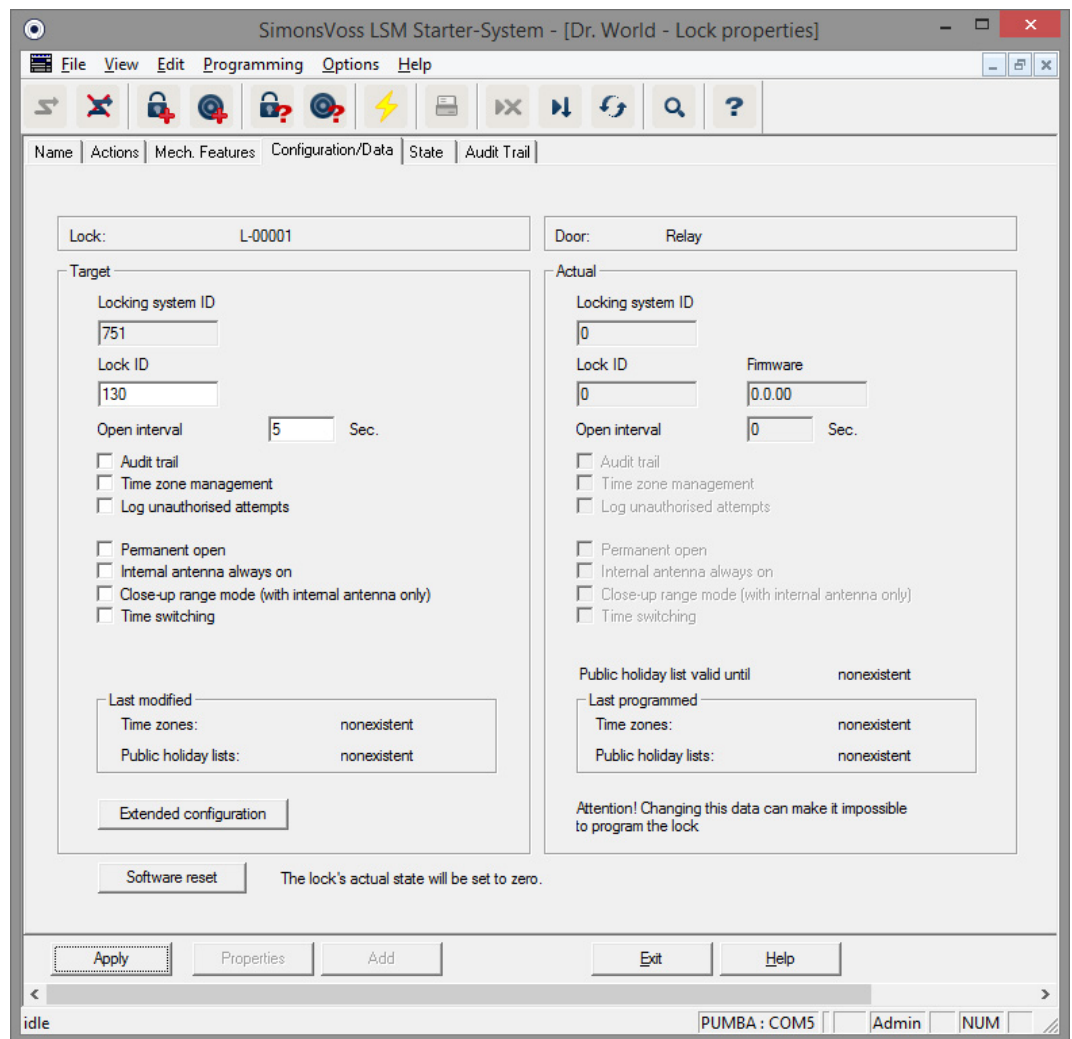
Internal antenna always on

If an external antenna is connected, the internal antenna is no longer active. Check this box if you want both the internal and external antenna to authorise entry.

Close range mode

If you are close to two locking devices next to one another and activate a transponder, communication is established with one of the two locking devices. You should ensure that you are at a correct distance from the locking device to ensure that the transponder authorises the right locking device. The respective ranges are listed in the *Technical specifications [▸ 56]* section.

SmartRelay has a extremely wide read range. If two or more SmartRelays are installed next to one another, you can use the 'Close range mode' option to reduce the range to about 30 cm.

Interfaces

A Starter System locking system cannot be linked to an existing time logging system. You need to change to a LSM BASIC or LSM BUSINESS version to do so.

External LED/beeper

In most cases, SmartRelay is installed indoors, where it is protected against vandalism, but it can still be actuated with a transponder from the outside. If you connect a LED or an external beeper to the SmartRelay, the user will receive an optical or audible feedback signal, providing that they have an authorised transponder

Invert outputs

This function only works in conjunction with a SREL.G2. A changeover contact is available in the SREL.G2 only.

The outputs operate as normally open contacts when supplied to the customer. Check this box if you need a break contact
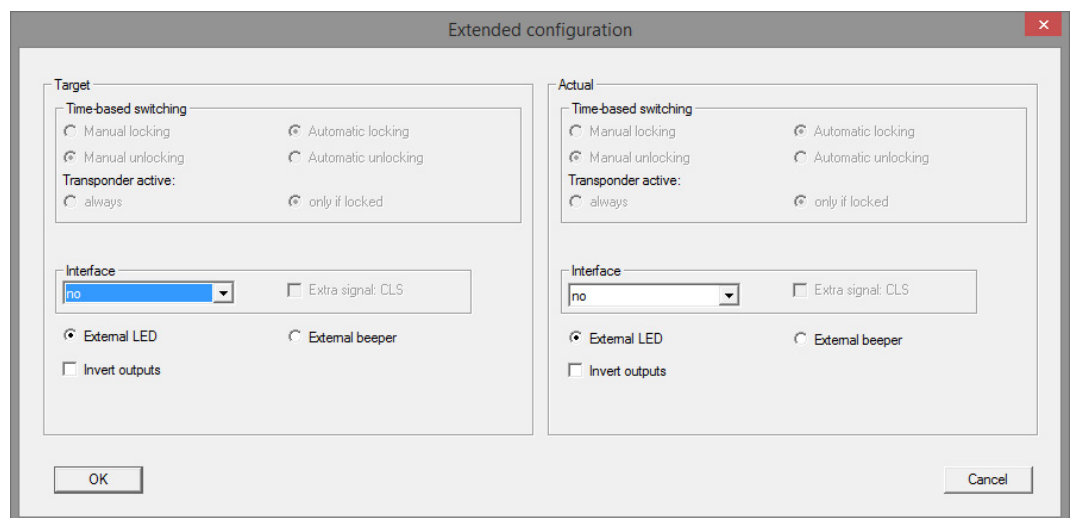
4.4.1.4 Furniture lock

G2 furniture locks can also be used in the LSM Starter System.

Create a new locking device and select *G2 Furniture Lock* as the locking device type.

4.4.2 Transponder

Transponders can be configured to behave differently for each person.
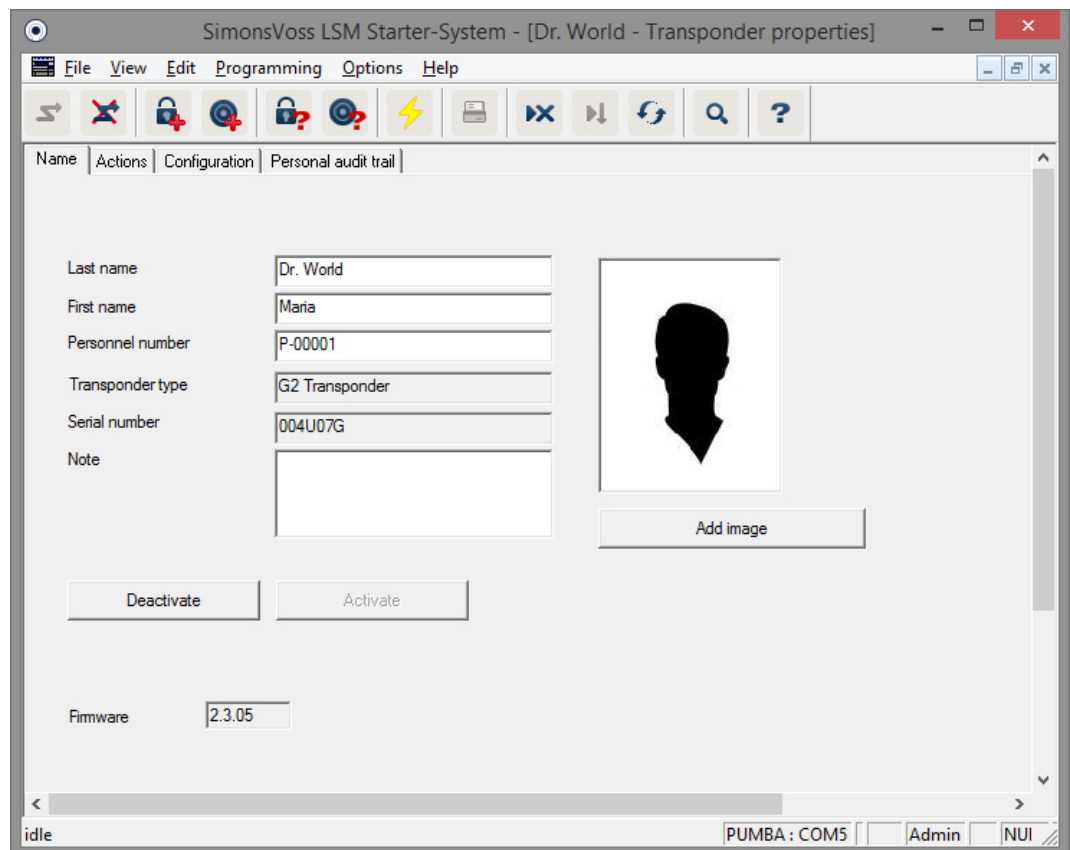
Prerequisites

⚏ The LSM software needs to be open

⚏ At least one transponder has been added to the locking plan

⚏ You can see the locking plan matrix on the monitor screen

Double-click on a transponder on the locking plan screen

⚏ The transponder properties are opened. You will see the 'Name' tab

⚏ The user's name is displayed. Click on the name fields to change the name if required

⚏ The personnel number is automatically issued when the transponder is added. You can issue your own numbers if required

⚏ The transponder type row shows that it is a G2 transponder

⚏ You can use the serial number to refer to the transponder with a distinct identifier. The number is stored in the electronics and engraved into the transponder casing

⚏ Use the 'Deactivate' button to disable the transponder for all locking devices. This function generates the programming required in the locking devices concerned The individual steps to deactivate a transponder are described in the *Replacement transponder [▸ 43]* section

■ You can use the 'Add photo' button to upload a photo of the person in *.bmp, *.gif, *.jpeg or *.jpg) format.

Actions
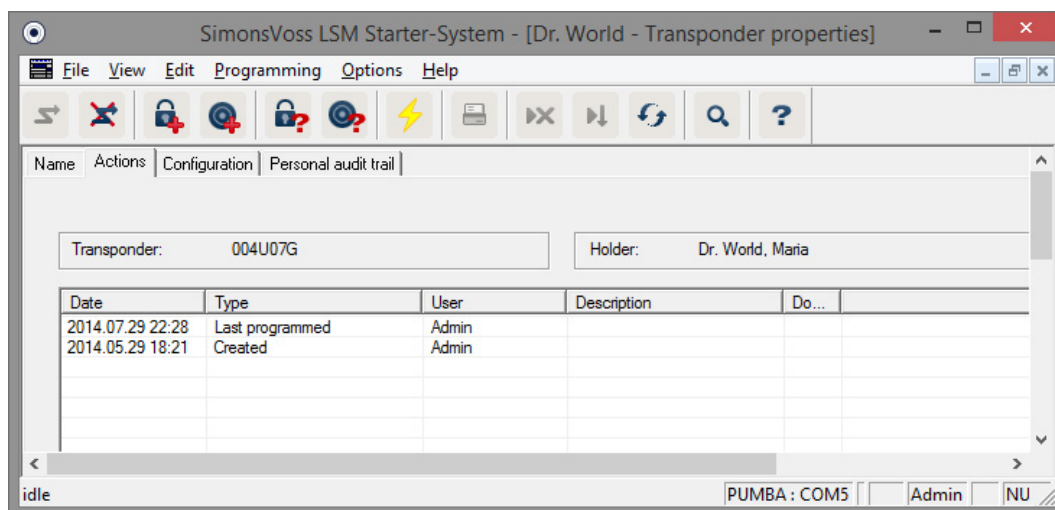
Open the 'Actions' tab

■ You can now see which programming processes have been carried out on the transponder

Configuration
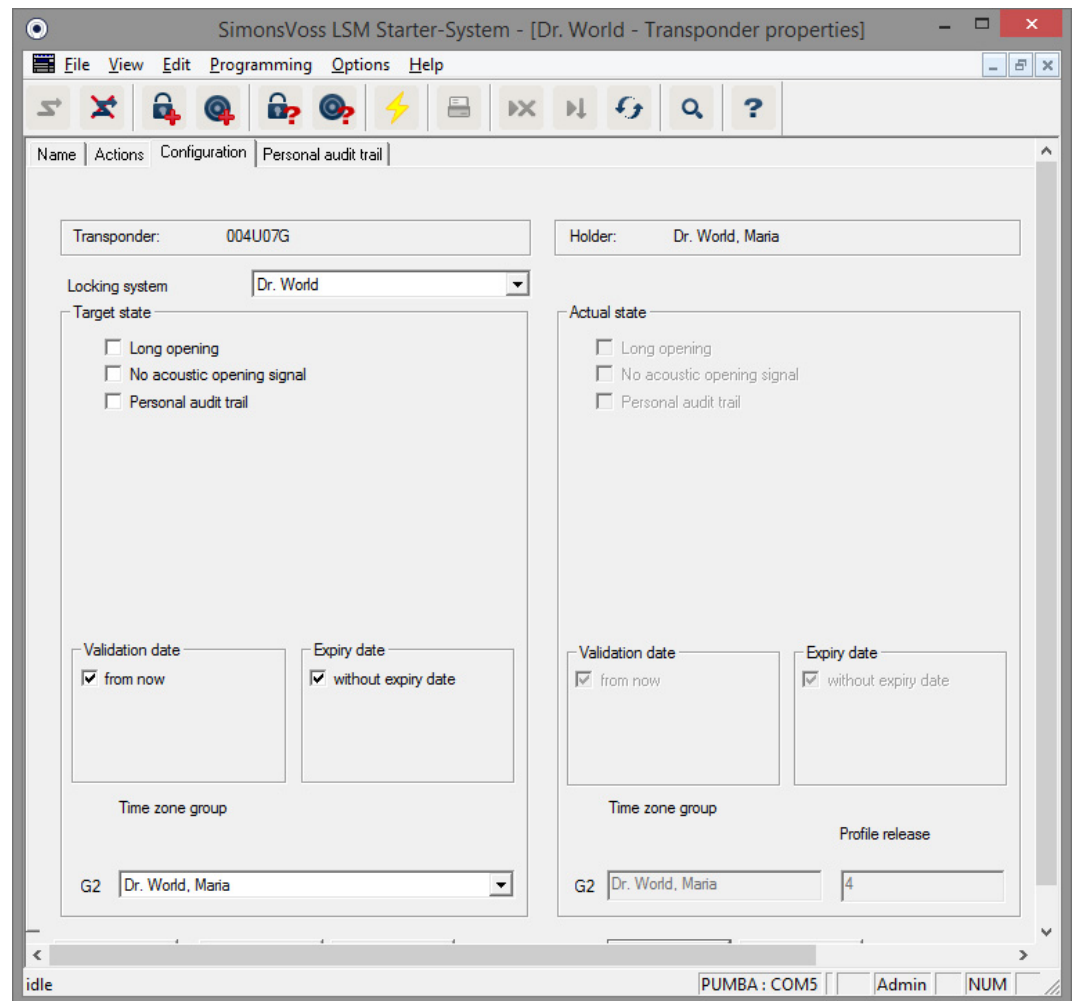
Open the 'Configuration' tab

⚏ This is where you can configure transponder behaviour

⚏ Long opening: the opening interval configured on the cylinder is doubled
  >> The user has more time to open the door

⚏ No audible opening signal: cylinders engage without emitting an audible signal

⚏ Physical access list: the transponder contains a log, which records when it is used and which doors it is used on

⚏ Activation date: what date and at what time should the transponder be activated?
  Immediately: the transponder can be used as soon as it has been programmed.
  From a date: the transponder can be programmed and then used after a certain pre-set date

▪▪ Expiry date: is the transponder to be deactivated automatically?
No expiry date: the transponder can open doors with no time limit on its use
With expiry date: the transponder can no longer be used after the pre-set point in time. This depends on whether it is authorised for use on a door or not.

▪▪ Time zone group: a time zone group allows you to configure the times when a person may open a door. For example, you may want a supplier's transponder to be able to open a door during the day. It is preferable that they are not authorised to use the same door at night and on weekends.
You can see how to produce a time zone plane in the *Time zone plan section [▸ 35]*

Physical access list
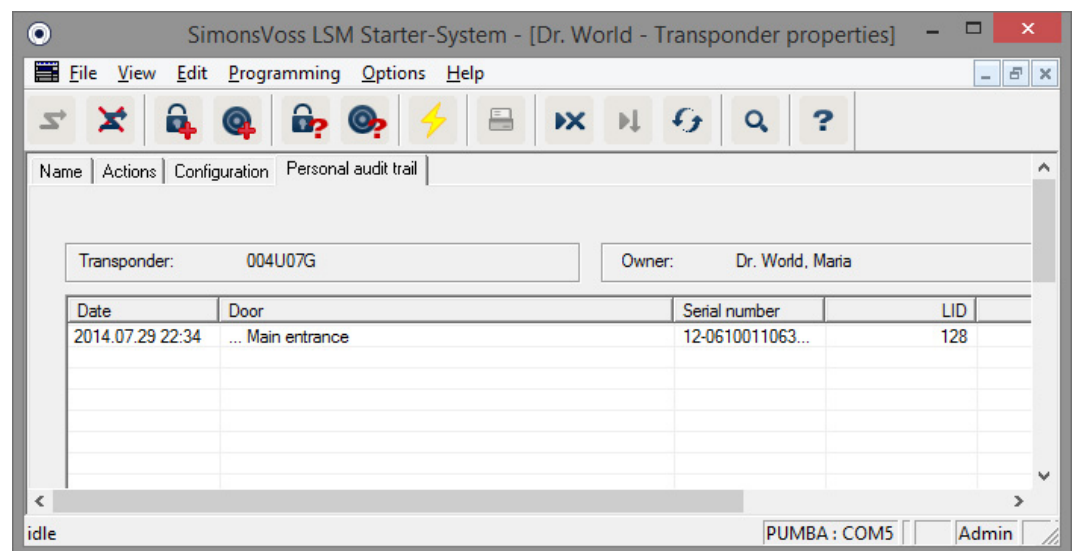
Open the 'Physical access list' tab

▪▪ You will now see what time the transponder was used to open a door.

▪▪ The 'Physical access list' box needs to be checked in the 'Configuration' tab and the transponder needs to be programmed with this configuration, so that this information can be displayed. The access events will not be displayed unless this is the case.

4.4.3 Add PinCode Keypad

> **NOTE**
>
> You cannot use the PinCode Keypad to configure any time zone schedules or any time-dependent use PINs. You need to work with transponders if users need to be subject to a time zone schedule.

4.4.3.1 Configure PinCode Keypad

> **NOTE**
>
> Use a non-programmed G1 PINCode Keypad to use in the LSM Starter System.

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 PINCode 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 PinCode Keypad locking devices by creating new user PINs themselves.*
>
> The master pin can be changed at any time.

Programming a user PIN

You can issue up to three user PINs for a PinCode Keypad. The user PIN may 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 PinCode Keypad.

4.4.3.2   Add PinCode Keypad to the locking plan

You need to make a new entry for each user PIN.

1.   Select *Edit / Add PIN code*
2.   Assign name – e.g. *JoeBloggs_PCT01_UP1* for Joe Bloggs on PINCode Keypad 1 with User Pin 1
     ↳   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*

4.4.3.3   Programme PinCode Keypad

1.   LSM: right-click on the transponder/PIN code in the locking plan and select *Programme*.
     ↳   The 'Programme transponder' window opens.
2.   PINCode Keypad: Enter 0 0 + master PIN
3.   LSM: Select *Programme*.
     ↳   The programming process starts.
4.   PINCode Keypad: Press user PIN, e.g. 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.

4.4.4   Time zone plan section

In most cases, you will authorise people to use a door without any time restrictions. This is practical for permanent employees or for family members.
You may prefer to issue authorisations for specific days or specific times of day only in the case of some individuals,. Such users include cleaning staff, suppliers, interns or neighbours.
You cannot use the PinCode Keypad to configure any time zone schedules or any time-dependent use PINs. You need to work with transponders if users need to be subject to a time zone schedule.

Authorisation without time zone plan

The diagram shows you how a cylinder behaves when a transponder activates it. The transponder can engage the cylinder at any time. The cylinder automatically disengages after the pre-set opening interval.

STANDARD.
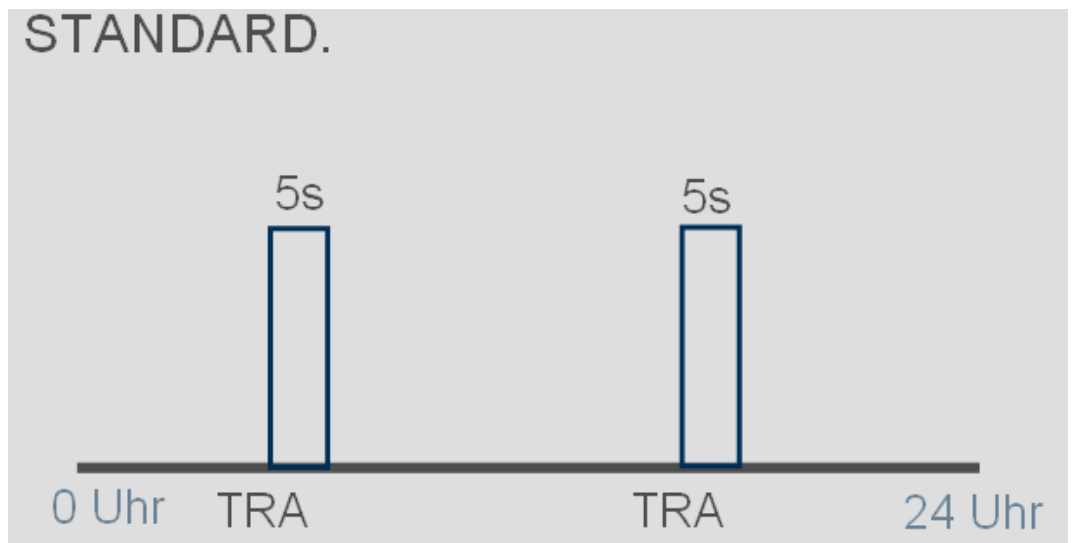
Authorisation with time zone plan

The diagram shows how a transponder behaves in a time zone plan. In the example, the transponder is authorised between 08:00 and 18:00 hours. The cylinder engages as normal within this time zone. The transponder is not authorised and the cylinder will not engage before 08:00 hours or after 18:00 hours.

MIT ZEITZONENSTEUERUNG.
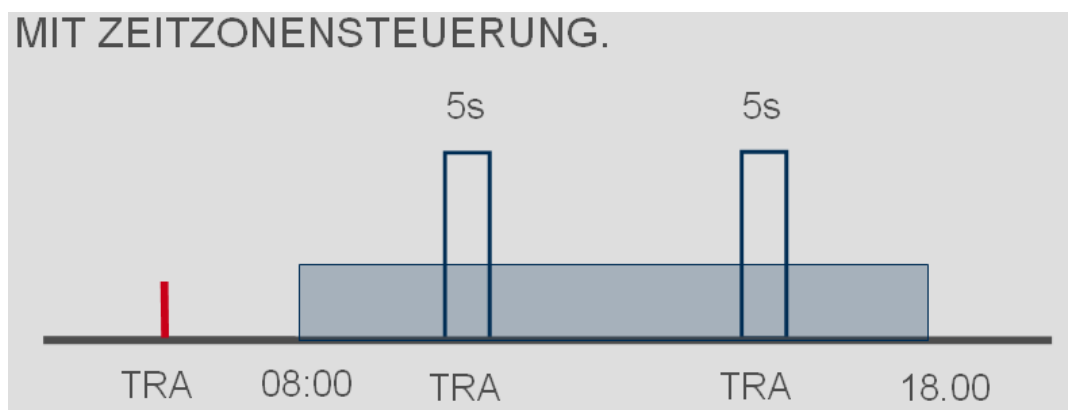
Create time zone plan

- ✓ The LSM Starter software is open
- ✓ You have added a cylinder to the locking plan
- ✓ The cylinder has the .ZK product feature. The cylinder can only manage time zone plans if it has this feature
- ✓ In the 'Name' tab in the cylinder properties
- ✓ You have added a transponder to the locking plan
- ✓ The transponder is in the correct time zone group --> Transponder properties --> 'Configuration' tab --> The user's name should be in the time zone group

1. Click on 'Edit' in the menu bar and then select 'Time zone plan'
   ↳ The time zone plan for your locking plan opens up
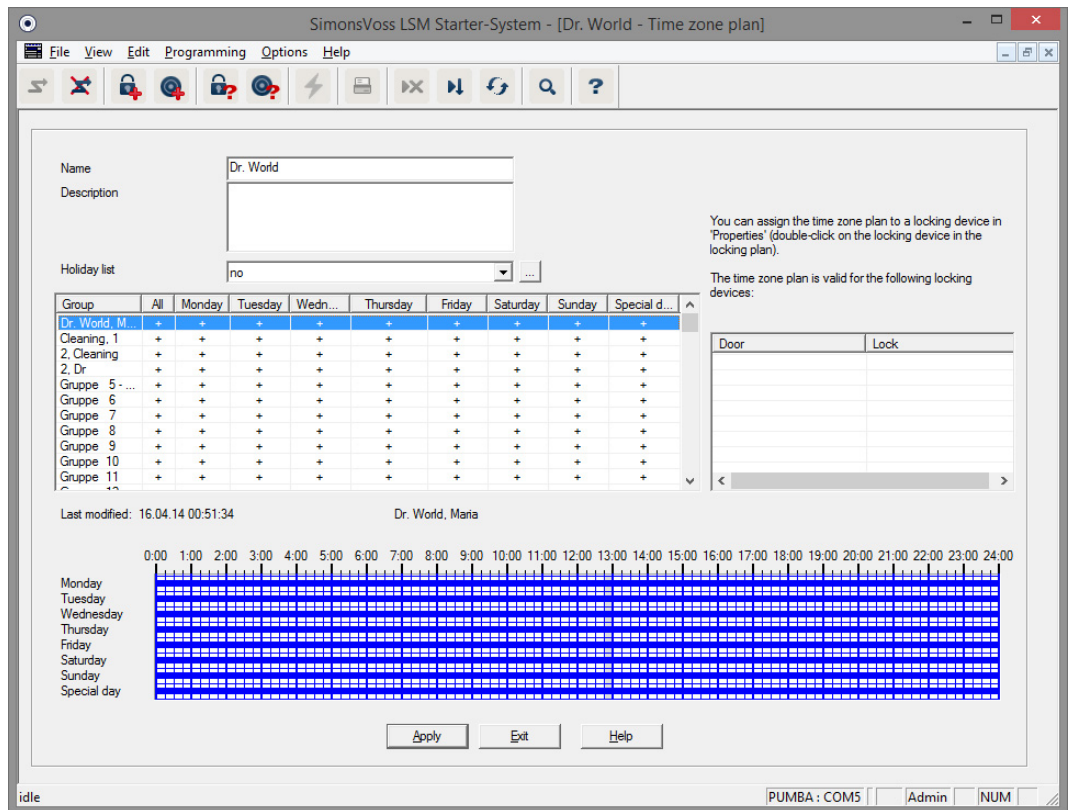
2. Click on the person for whom you would like to create a time zone plan
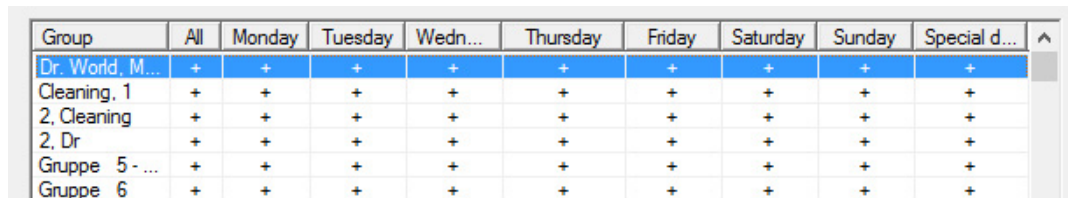
3. Configure the authorisation times in the week overview
   ↳ By clicking items individually in the matrix

   - or -

   By selecting a section with the mouse
   ↳ Area highlighted in blue > The transponder is authorised
   ↳ Non-highlighted area > the transponder is not authorised
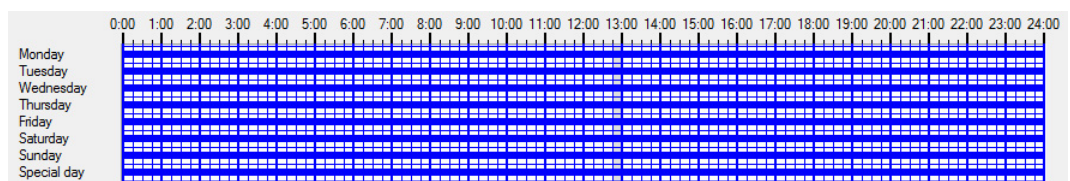
4. Select 'Authorise' or 'Do not authorise' for the selected time period
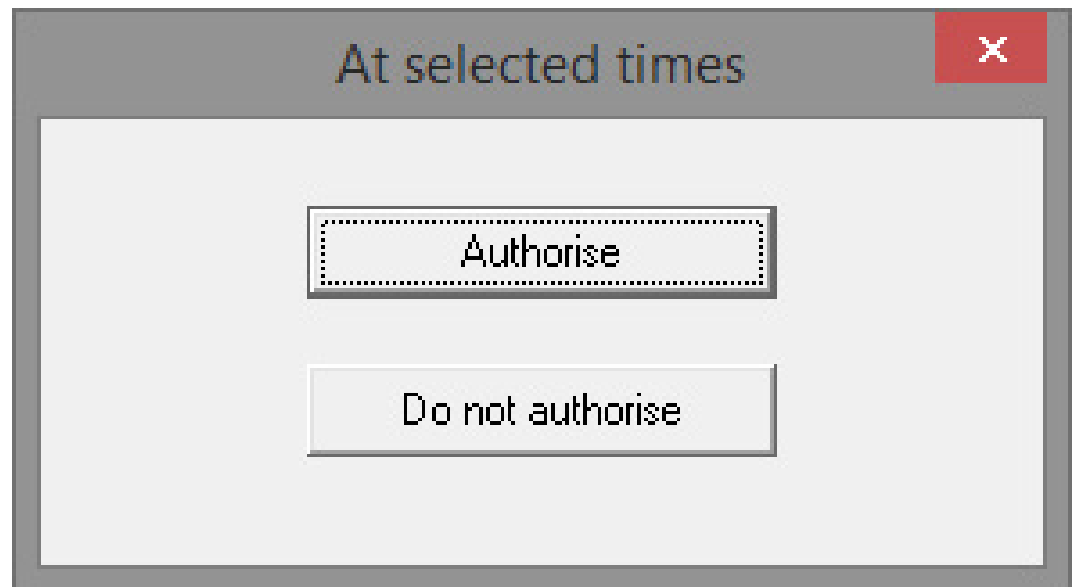
5. Confirm the plan by clicking on 'Apply'
6. Click on 'Finish' to close the window
7. Open the properties for the cylinder to which the time plan should apply. Remain in the 'Names' tab
8. Change the entry from 'None' to the name of the locking plan in the 'Time zone plan' row
9. 'Apply' and 'Finish'
    ↳ You will now see a clock icon next to the cylinder in the locking plan view
10. Programme the transponder and the cylinder
    ↳ The time zone plan is now set up.

NOTE

Programming tasks for the cylinder

Changes to the time zone plans become effective as soon as the information has been programmed in the cylinder.

4.4.5 Time switch-over function

The time switch-over function allows you to set your SmartHandles and SmartRelays to engage and disengage at certain times. You can make individual areas accessible to visitors, customers or patients during opening hours (e.g. 08:00-18:00 hours). The doors are locked outside these times and can only be opened using an authorised transponder.

The 'Automatic engage and disengage' diagram shows how the SmartHandle behaves when it is automatically engaged and disengaged.

- The door is opened as usual with a transponder before 08:00 hours.
- At 08:00 hours, the SmartHandle engages automatically. People who do not have a transponder can now open the door.
- The SmartHandle engages automatically at 18:00 hours.

This version is suitable for doors in indoor areas which do not have any special security requirements.

- Waiting room
- Visitor rooms
- Presentation rooms
- Meeting rooms
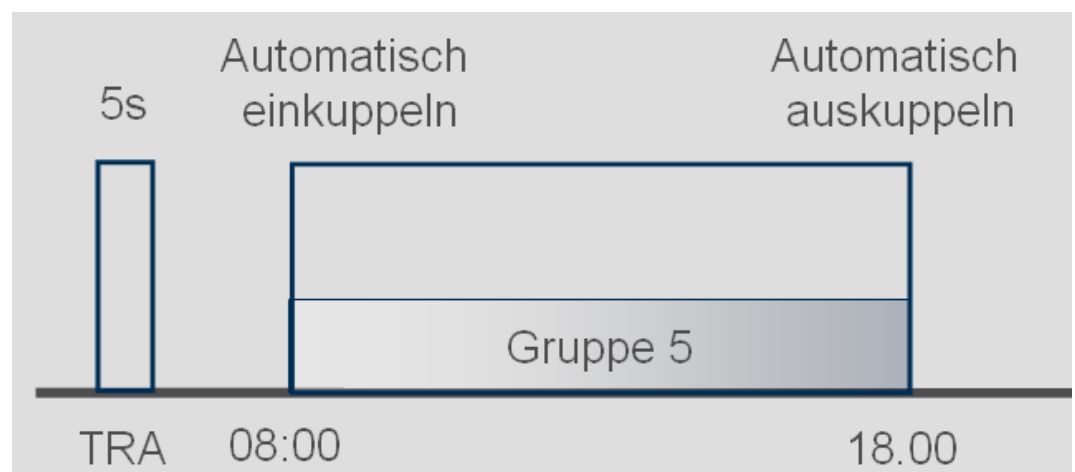
Doors in outdoor areas have greater security requirements. The outside doors to a business with customer footfall should not be open until an employee has arrived. Opening hours can also start at 08:00 hours in this case. But the SmartHandle will not engage permanently until you have actuated your transponder.
If you are still stuck in traffic and arrive at your business later than planned, the doors remain firmly locked.
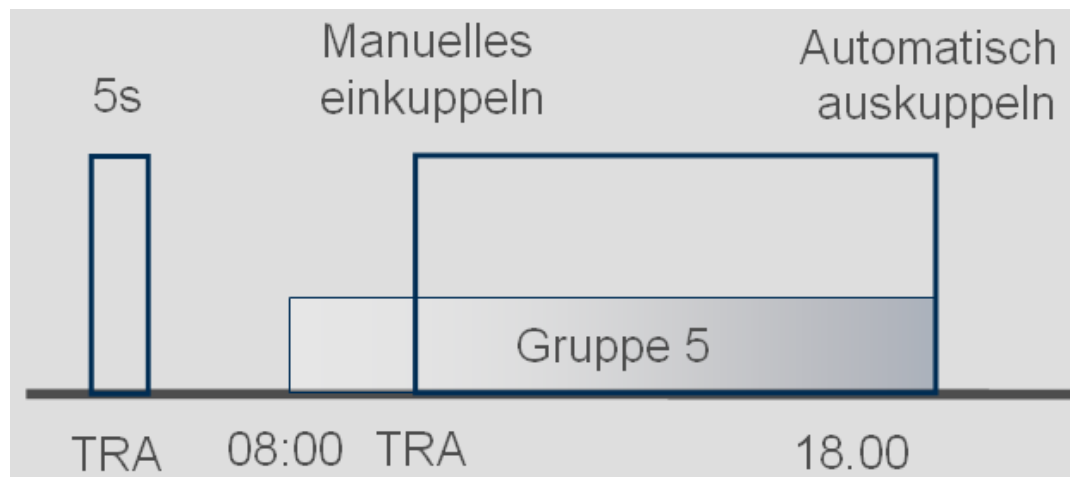
Setting up time switch-over

Definitions are made in the time zone plan to specify which period the locking device should engage. The times are always configured in Group 5.

- ✓ You have a SmartHandle or a SmartRelay2.G2 with .ZK.
- ✓ You have added a locking device to the locking plan

1. Open the locking device's properties.
2. Select the time zone plan in the 'Name' tab
3. Open the 'Configuration/Data' tab
4. Highlight 'Time zone management' and 'Time switch-over'
5. Click on 'Apply'
6. Click on 'Advanced configuration'
   ↳ The 'Advanced configuration' mask will open
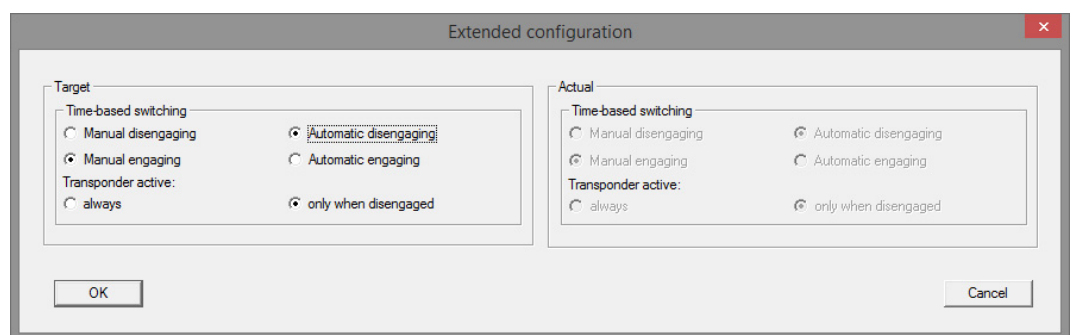
7. Specify how the door should behave at the start and end of the time switch-over period.
   ↳ Manual engage: the locking device remains disengaged at the start of the time switch-over period. The locking device does not engage until an authorised transponder is actuated.
   ↳ Automatic engage: the locking device automatically engages at the pre-set time.

↳ Manual disengage: the locking device remains engaged at the end of the working day. The locking device does not disengage until an authorised transponder is actuated.

↳ Automatic disengage: the locking device automatically disengages at the pre-set time.

↳ Transponder active – always: you can use a transponder to engage and disengage the door during the working day

↳ Transponder active – only if disengaged: the locking device cannot be engaged and disengaged during the working day.

8. Click on 'OK' to close 'Advanced configuration'
9. Click on 'Apply' to close the locking device's properties
10. Click on 'Edit' to open the time zone plan > Time zone plan
11. Highlight 'Group 5' and configure the opening times as in the time zone plan
12. Click on 'Apply' to save the changes
13. Programme the locking device
   ↳ The time switch-over is now set up

4.5 Apply existing locking plan

If LSM Starter has been upgraded from an earlier version, you can continue to use the existing locking plan.
There are two ways of applying a locking plan.

Open back-up

Open the backup file of an existing locking plan.

✓ You have created a backup file of your existing locking plan

1. Open LSM Starter
2. Click on 'File' in the menu bar and select 'Open backup...'
3. Navigate to the folder where the backup file is stored
4. Select a file and click on 'Open'
5. Log on to the database

Database folder

Copy an existing locking plan to the database folder

1. Open the database folder
   C:\ProgramData\SimonsVoss\Repository
2. Copy the existing database into the directory
3. Open LSM Starter
4. Click on 'Setup'

> **NOTE**
>
> **Always use 'Setup' to incorporate an existing locking plan**
>
> No other locking plan can be added once a new locking plan has been produced using 'Log on.'

↳ Setup will open
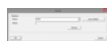
5. Select your database under Project.

6. Click on 'Use as default'

7. Click on 'OK' to exit Setup

8. Log on to your database

5 Day-to-day operation

5.1 Print security information

The locking system password is generated automatically in LSM Starter System. In the event that all data is lost, you need this locking system password to reset the SimonsVoss components used such as locking devices and transponders.

We strongly recommended printing out the locking system password and keeping it in a safe place.

NOTE

Ensure that you keep the locking system password secret. Anyone who knows the locking system password can use the software and programming device to effect an emergency opening on locking devices, thus gaining access.

Proceed as follows to reset your locking system password:

1. Select *Print file/ Security information*.
2. Read notice and press *Yes* to continue.
3. *Enter password* and press *OK* to accept
4. Select printer and start print task.

5.2 Programming

5.2.1 Replacement transponder

Sometimes transponders go astray. Transponders are lost, stolen or not returned.

You should create a replacement transponder in such cases and deactivate the original transponder to ensure that your system remains safe and secure. The 'Replacement transponder' menu will guide you through the individual steps. The original transponder is deactivated as soon as you actuate the new transponder on the cylinder.
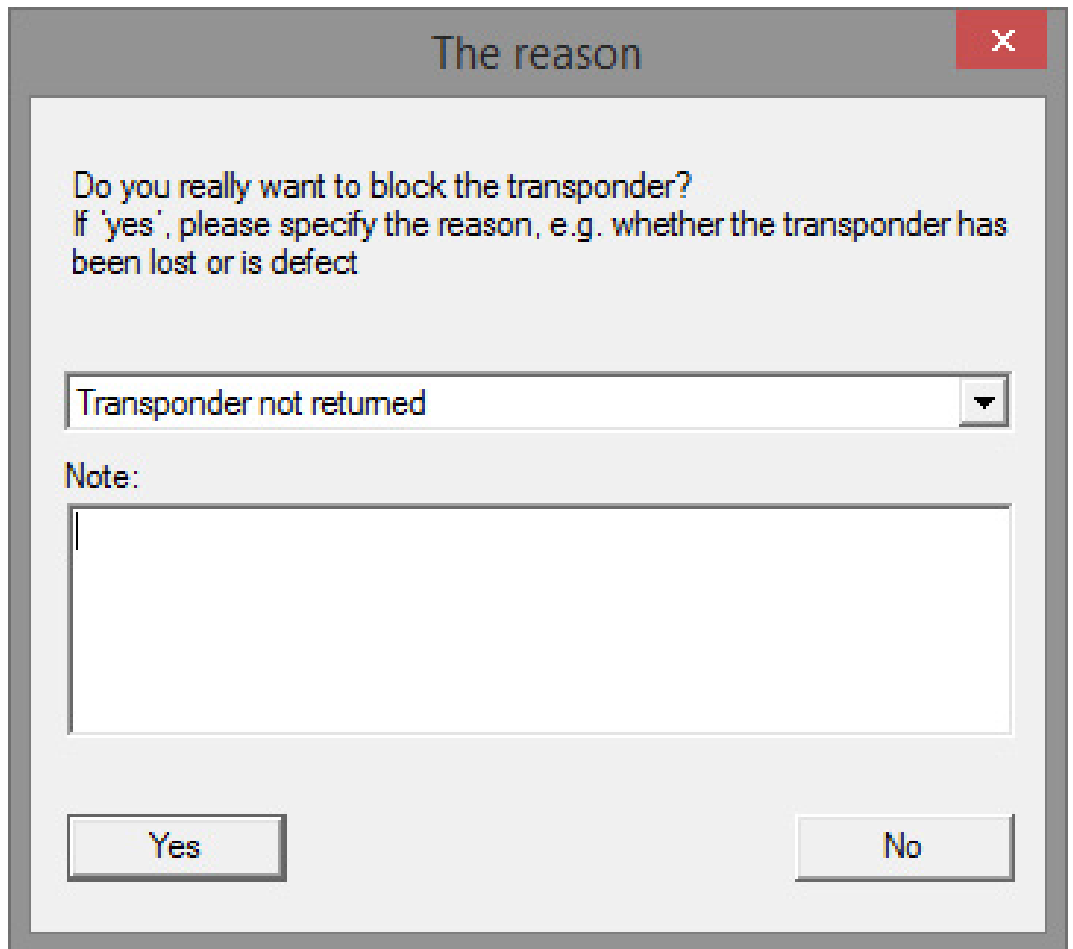
✓ The LSM software needs to be open

✓ You have added a transponder to the locking plan

1. Right-click on the transponder on the locking plan screen and select > New > Replacement transponder
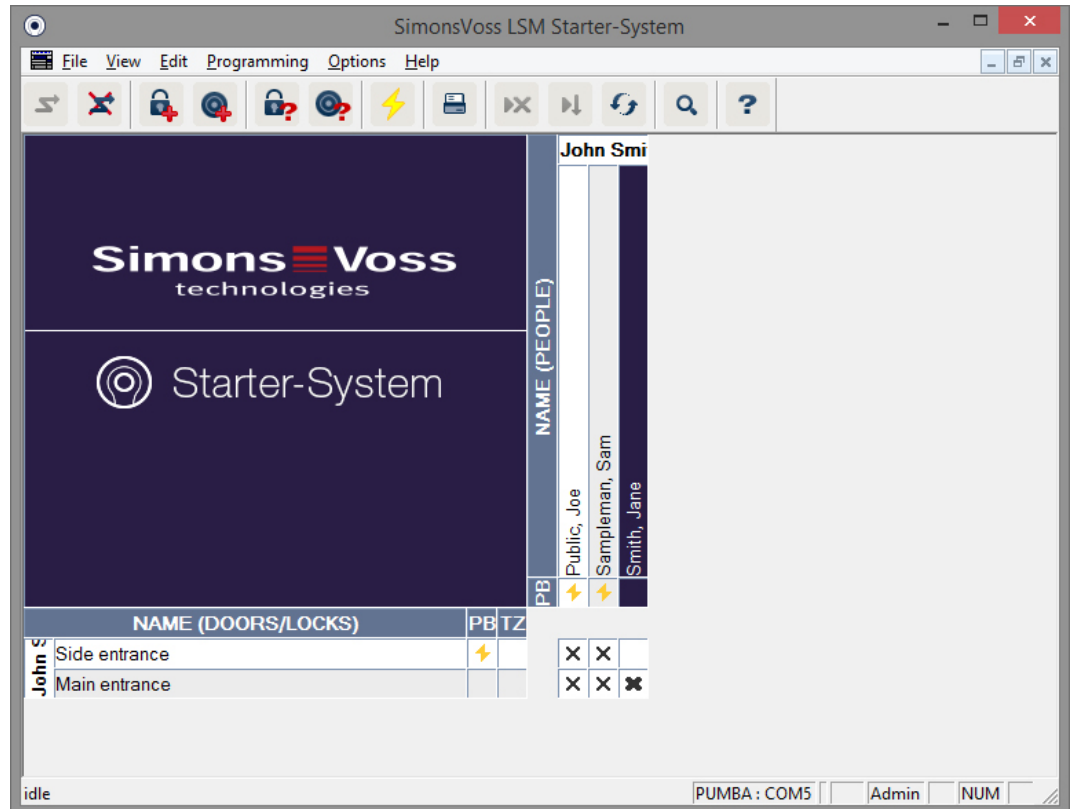
↳ The confirmation prompt will appear
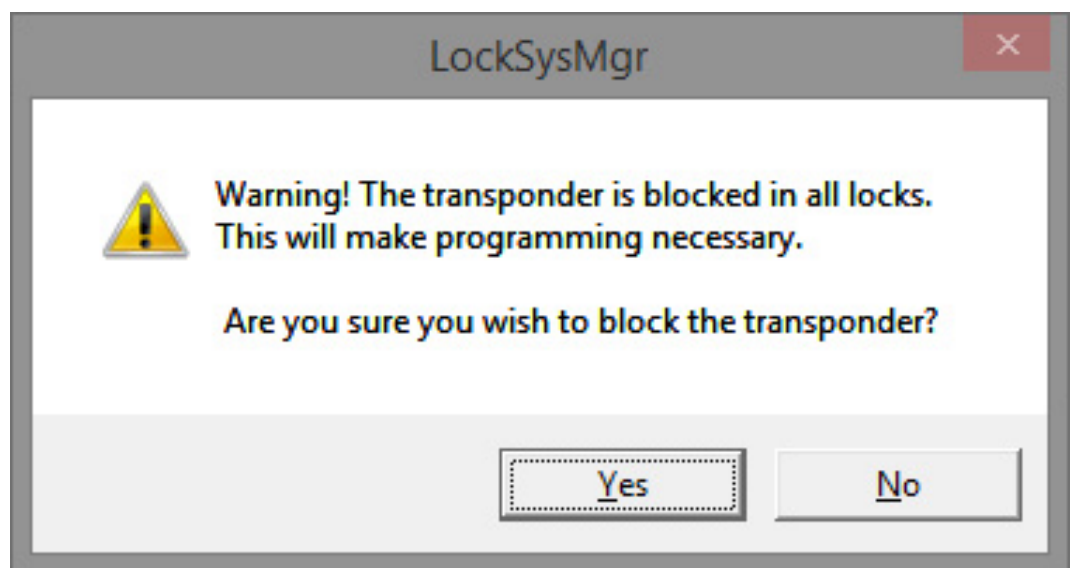
2. Confirm by pressing 'Yes'
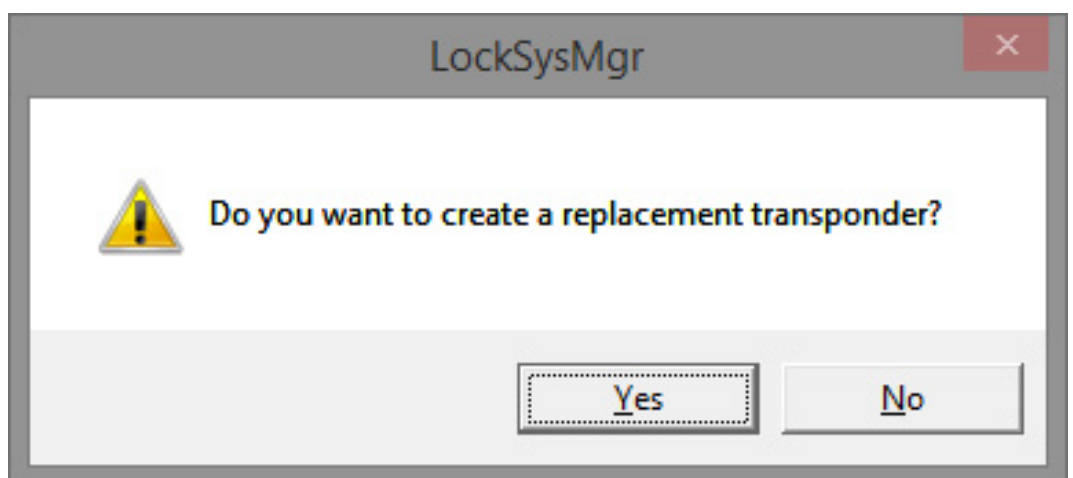
↳ The reason screen will appear

3. Select the scenario which matches your situation best and enter additional information. This information is saved to the database and you can see what the circumstances were at a later date.
   ↳ You will be asked if a replacement transponder is to be created

4. Confirm by pressing 'Yes'

5. Enter a serial number. This can be an employee number, for example, or the PHI number on the casing of the new transponder

6. Click on 'OK' on the completion prompt to confirm
7. Click on 'Finish' to close the transponder properties
    ↳ You will see the replacement transponder and the deactivated transponder in the locking plan
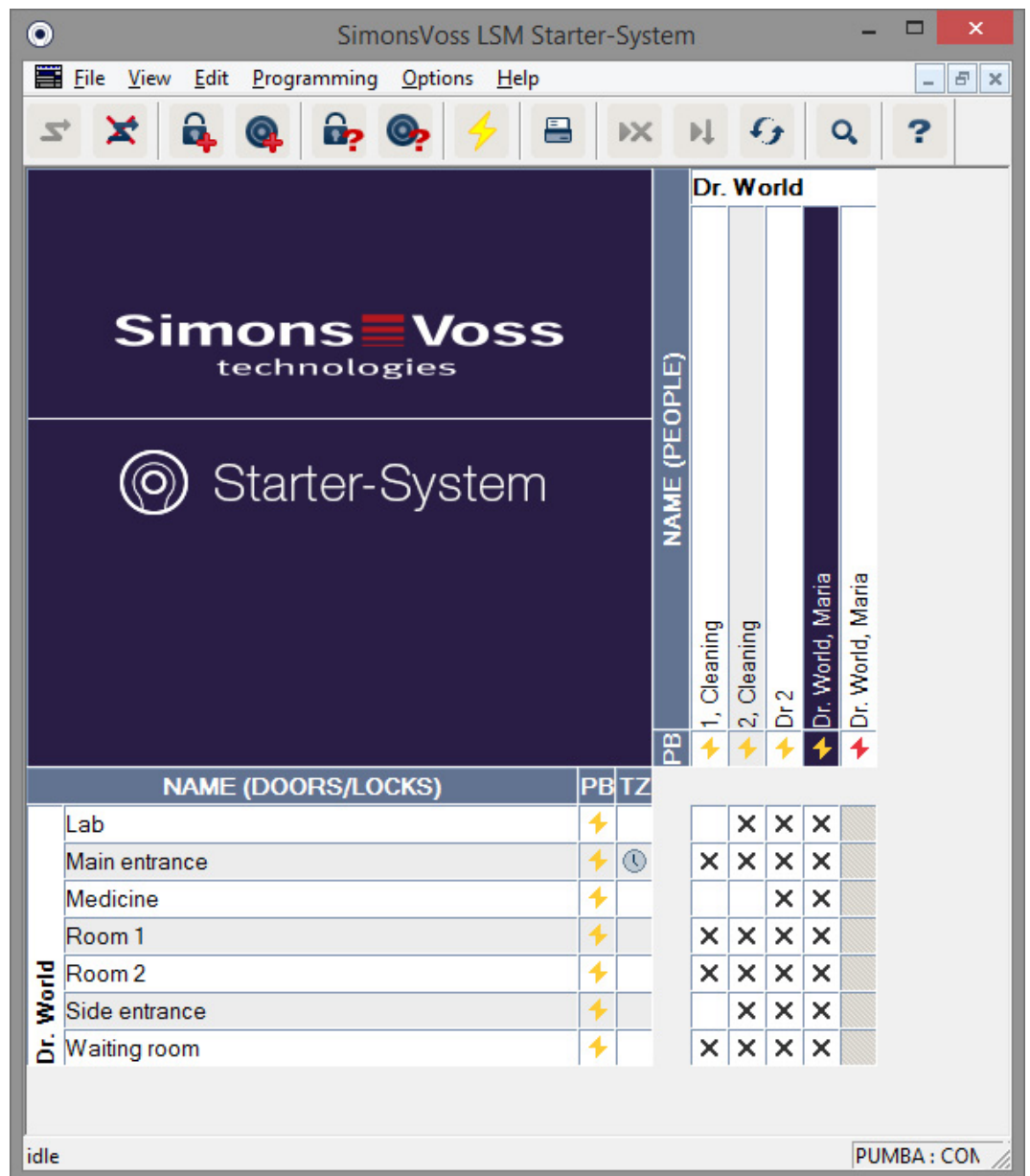
↳ The deactivated transponder is marked with a red programming flash

8. Programme the new transponder

9. Activate the replacement transponder once at the door where it is authorised. This blocks the original transponder from use on these doors. You will continue to see programming requirements for the locking device in the locking plan until a programming device has been used to re-programme.

- or -

Programme the locking device. This programmes the new transponder in the locking device and the old transponder loses its authorisations

5.2.2 Deactivate transponder

You can deactivate transponders which have been mislaid or are missing. As with replacement transponders, you can decide whether a replacement transponder needs to be created or the transponder is to be deactivated only.

1. Left-click on the transponder twice on the locking plan screen

   – or-

   Right-click on the transponder on the locking plan screen and select 'Properties'
   ↳ The transponder properties are opened. You will see the 'Name' tab
2. Click on 'Deactivate'
   ↳ The confirmation prompt will appear
3. Confirm by pressing 'Yes'
   ↳ The reason screen will appear
4. Select the scenario which matches your situation best and enter additional information. This information is saved to the database and you can see why the transponder was deactivated at a later date.
   ↳ You will be asked if a replacement transponder is to be created
5. If you click on 'Yes', you enter a serial number in the next window. This can be an employee number, for example, or the PHI number on the casing of the new transponder
6. Click on 'OK' on the completion prompt to confirm
7. Click on 'Finish' to close the transponder properties
   ↳ You will see the replacement transponder and the deactivated transponder in the locking plan

5.3 Error messages

5.4 Reset

You can reset all programmed components and use them elsewhere. We will show you what steps you need to go through, using a cylinder as an example. The same sequence of actions is valid for other components.

✓ You have a programmed transponder or a programmed locking device.
✓ The LSM software is open.
✓ The programming device is connected.

1. Place the component in front of the programming device.

2. Click on 'Import locking device' in the quick start menu 🔒 or click on 'Programming' in the menu bar and select 'Import locking device/Set clock'.
   ↳ Information on the cylinder is displayed.
3. Click on 'Reset'.
   ↳ The mask to re-set the locking device will open.
4. Click on 'Reset'.
5. Wait until programming is complete.

Reset PinCode Keypad

You can use *Programming / Read/reset PINCode* to reset a PINCode Keypad. The procedure is similar to the one for resetting a transponder.

1. First, enter the following number sequence into the PinCode Keypad: 0 0 + master PIN.
2. Now select *Read/reset PINCode* under *Programming* .
3. Enter the transponder on the PinCode Keypad that you wish to reset (e.g. 1 for User PIN 1 or Internal Transponder 1).
   ↳ You can now reset the PIN code in the following window.
4. Re-enter the following number sequence into the PinCode Keypad: 0 0 + master PIN.
5. Use the *Reset* command to start the resetting procedure in LSM.
6. Enter the transponder on the PinCode Keypad that you wish to reset.
   ↳ The selected PIN code is now reset.

A PinCode Keypad can save up to 3 user PINs. These must all be reset individually. Repeat the procedure if you have programmed more than one user PIN in LSM and would like to reset the whole PinCode Keypad.

5.5 Data backup

The database is an essential part of your locking system. It is used to store all the information required to operate your locking system. The cylinders and transponders can no longer be re-programmed without the database.

NOTE

If the database is lost, the locking system components can no longer be programmed.

No more changes can be made to your locking system.

You may need to replace all components in the system.

1. Create backup copies of your database on a regular basis
2. Save the backup copies on an external hard disk

The software will create a locking system password when the first locking plan is added to LSM Starter. This password is written into the components during programming. This ensures that only you may carry out programming tasks using your database. Backup your data on an external storage device on a regular basis, so that you can recreate your database if data is lost.

Create backup

1. Open 'File' in the menu bar and select 'Save as.../Backup'
2. Click 'Yes' to confirm
3. Select the installation location and confirm by pressing 'Save'

4. Select 'OK' if you wish to log on to the database again

Open backup

1. Open 'File' in the menu bar and select 'Open backup...'
2. Select the backup file
3. Log on to the database

5.6 Emergency opening

If you do not have an authorised transponder at hand, you can engage the locking device for operation using a programming device and a computer with the database.

✓ You have installed LSM software with a locking plan on a computer
✓ You have a programmed locking device which belongs to the locking plan
✓ You have connected a programming device to the computer
✓ The programming device can be placed about 15 cm away from the locking device

1. Open the locking plan to which the locking device belongs
2. Click on 'Programming' in the menu bar and then select 'Implement emergency opening'
3. Place the locking device 15 cm away from the programming device
4. Click on 'Execute'
↳ The locking device will engage

5.7 Import access list

Locking devices with the .ZK option can record which particular transponders have been used to operate them at different times. Transponders can record which doors they were used on and the time when they were used. We will show you what steps you need to go through, using a cylinder as an example. The same sequence of actions is valid for other components.
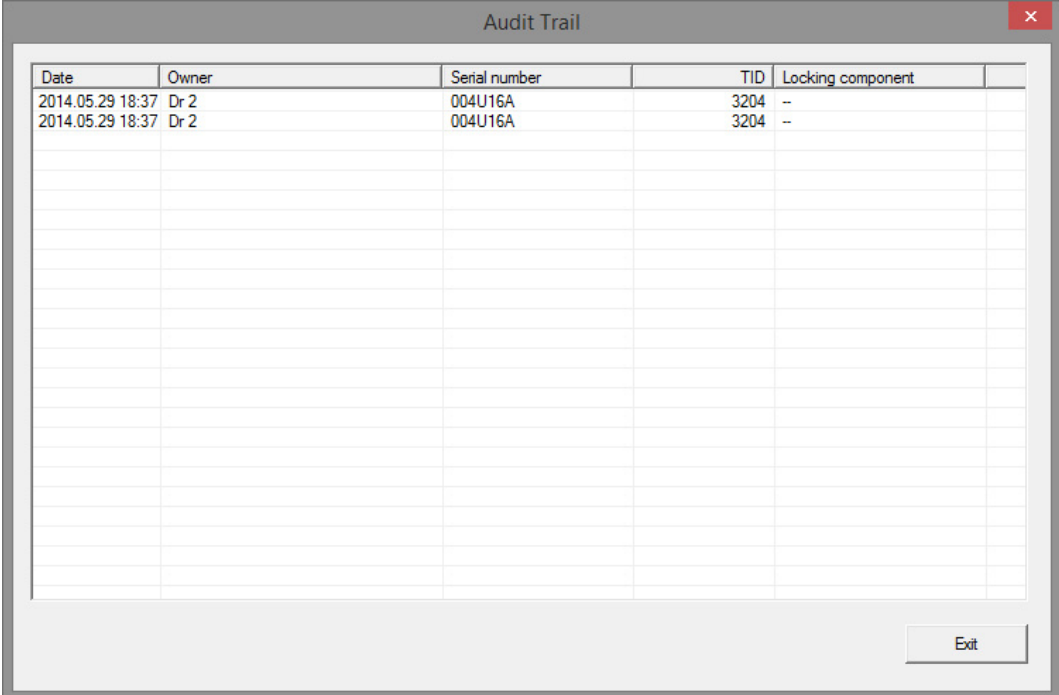
✓ You have a programmed transponder or a programmed locking device

✓ The .ZK option is present in the case of a locking device

✓ The 'Access control' option has been selected in Properties in the case of a locking device

✓ The 'Physical access list' option has been selected in Properties in the case of a transponder

✓ The LSM software is open

✓ The programming device is connected

1. Place the component in front of the programming device

2. Click on 'Import locking device' in the quick start menu 🔒

    -or-

    Click on 'Programming' in the menu bar and select 'Import locking device/Set clock'
    ↳ Information on the cylinder is displayed

3. Click on 'Access list'
    ↳ The access list is read

↳ You will see the locking device's access list with the
Date
Holder
Transponder serial number
Transponder ID

5.8 Replace the batteries

Thanks to the use of active transponder technology, SimonsVoss products feature an extremely long battery life. Up to 150,000 opening cycles can be performed in a cylinder using a single set of batteries. Batteries seldom need to be replaced as a result.

Battery warning

There are two battery warning levels integrated into SimonsVoss products which advise you to replace the batteries in good time.

If the battery capacity in a cylinder falls below 25 per cent, Battery Warning Level 1 is activated. You will then hear eight short audible signals when the cylinder engages instead of the normal two. The first level remains active for 15,000 openings or nine months.

The second battery warning level is activated when either limit is reached. It now takes 30 seconds for the cylinder to engage. Batteries should be replaced now at the latest. You now have 50 opening cycles or 30 days to change batteries.

The cylinder changes to freeze mode once the second warning level comes to an end. The cylinder will now no longer engage when a transponder is used. You can now open the doors a few more times using a programming device using emergency opening or you can use a battery replacement transponder.

> ### NOTE
>
> **Replace the batteries immediately after the first warning level starts**
>
> If batteries are completely discharged, the locking device may need to be drilled to be removed and will thus be irreparably damaged.

Locking disc with opening (identical on outside)

Inside Knob

Battery and installation key

Installation key

Outside knob

Recessed grip ring
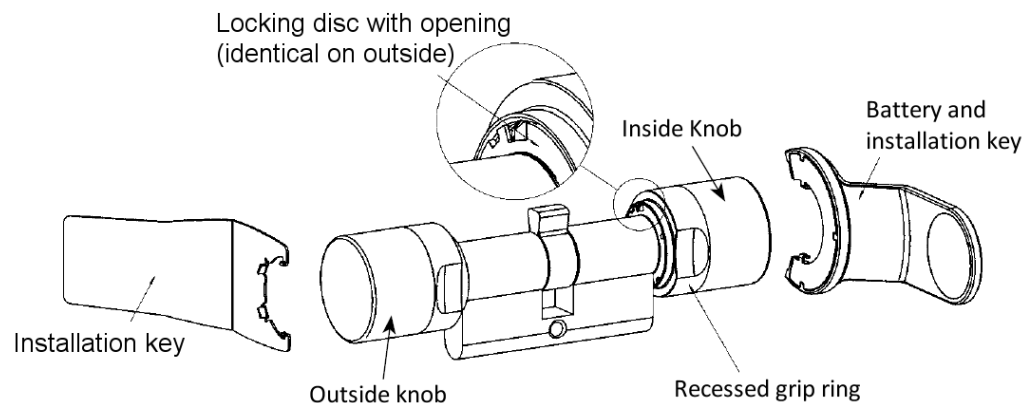
✓ You need a battery key to replace the battery. The installation key should only be used to fit the outer knob

1. Place the installation/battery key on the inside knob in such a way that the two teeth lock into the openings in the locking disc; if necessary, turn the knob until both teeth engage into the locking disc.
   Important: The tool must be placed flat on the inside front surface of the recessed grip ring to ensure that the installation tool can engage into the locking disc

2. Hold the inside knob firmly and carefully turn the installation/battery key about 30° in a clockwise direction (until you hear a click)

3. Remove installation/battery key from the thumb-turn

4. Push recessed grip ring backwards towards the door, so that it comes away from the knob

5. Hold recessed grip ring firmly and turn knob about 10° in an anti-clock-wise direction and remove

6. Carefully remove both batteries from the holder

7. Insert the new batteries into the holder at the same time **with the positive poles** next to each other

8. Replace the batteries quickly if you use the Access Control option. The inside clock will move while the batteries are removed

9. Use clean gloves free of fat or grease to handle new batteries
10. Replace the knob (align the triangle marks as in the diagram)
11. Hold the recessed grip ring firmly and fasten the inside knob by turning it about 10º in a clockwise direction
12. Push recessed grip ring back onto the knob, so that the knob and ring close together in a flush fit
13. Place the installation/battery key on the inside knob in such a way that the two teeth lock into the openings in the locking disc; if necessary, turn the knob until both teeth engage into the locking disc
14. Lock the knob into place again by turning it about 30º in an anti-clockwise direction (until you hear a click)

5.9 Software reset section
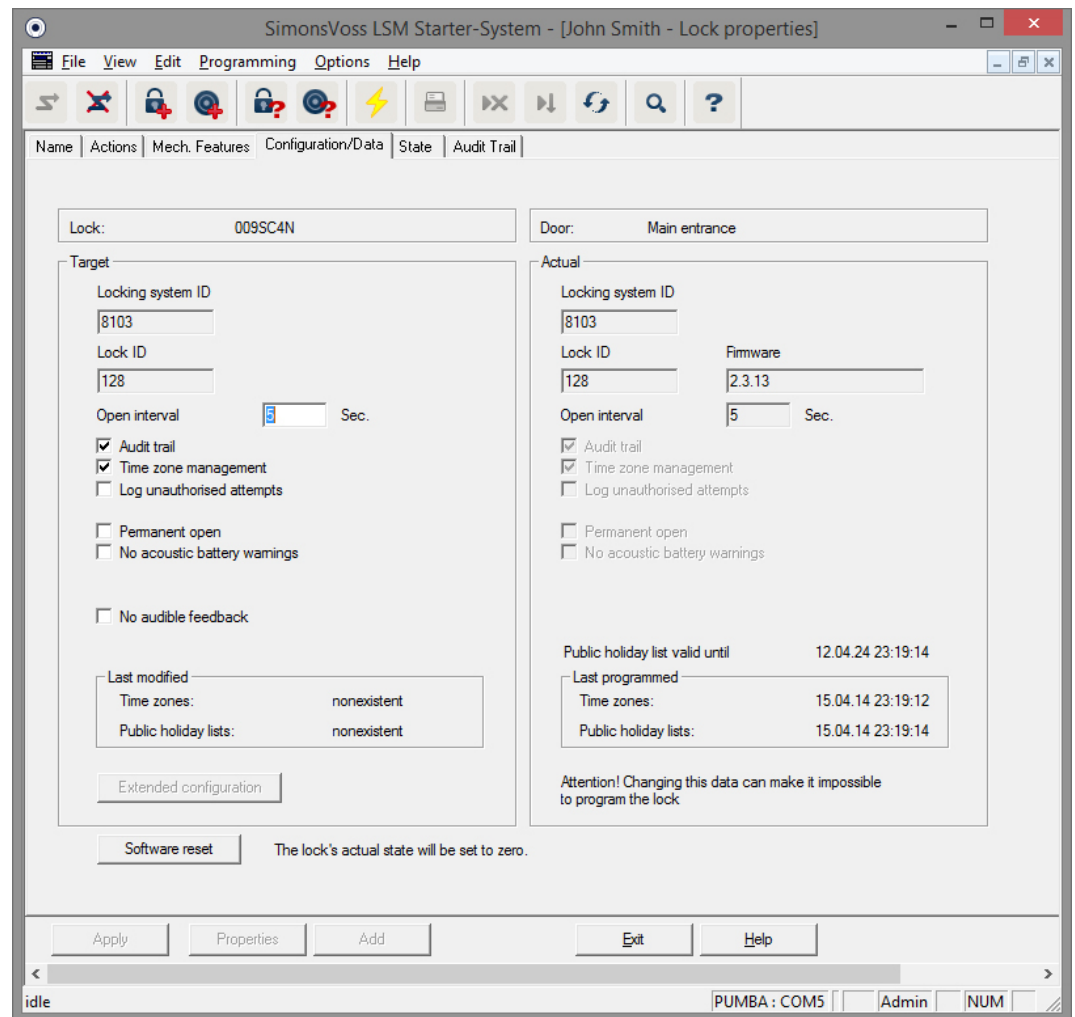
You should always reset the software when the current software status does not reflect its true status.

An example:

A transponder is programmed. > The target and actual statuses are the same in the Configuration/Data tab > The transponder can be used to operate a cylinder and the cylinder engages

The transponder is dropped on the street and a car drives over it > The transponder is obviously broken

If you now highlight the broken transponder in the locking plan and would like to programme a new transponder, a message will appear indicating that the actual status in the database does not match that of the transponder.

If you press on software reset before programming, the current status is reset and you can now complete programming as normal.

6 Technical specifications

CD.STARTER

Programming	Active, 25 kHz
USB interface	USB 2.0 type A
LSM version	LSM Starter Version 3.2 SP1 and higher
Operating system	Windows 7 or higher
Dimensions L x W x H	57 (70)x 19 x 13 mm
Programming distance	10-30cm
Protection rating	IP40
Power supply	Via a USB port
Temperature range	-10 ºC to +60 ºC
Humidity	95% (non-condensing)

Read ranges

Pairing	Read range
Transponder - cylinder	10-30 cm
Transponder - SmartHandle	10-30 cm
Transponder - SmartRelay	10 - 100cm

Other devices may affect the read range of a component. Items such as switched-mode power supply units and high-current cables may produce interference signals and affect communication in active SimonsVoss products.

Batteries

Components	Battery	Manufacturer
Cylinder Z4	CR2450	Murata / Varta / Panasonic
SmartHandle	CR2450	Murata / Varta / Panasonic
SmartRelay*	SREL.BAT	SimonsVoss
Transponders	CR2032	Murata / Varta / Panasonic

* SmartRelay can be powered with a mains adapter or a battery.

7 Variants section

7.1 Locking devices

Cylinder

Code	Description	Example
.AP2	Cylinder for use in anti-panic locks	Z4.30-30.**AP2**.FD.G2
.CO	The inside cylinder is permanently engaged for use. The door can be opened and closed on the inside without a transponder	Z4.30-30.**CO**.G2
.FD	Both thumb-turns are freely rotating	Z4.30-30.**FD**.G2
.FH	Used in steel and fire doors where a wider cylinder radio read range is required	Z4.30-30.FD.**FH**.G2
.G2	Components with G2 protocol	Z4.30-30.FD.**G2**
.HZ	Half cylinder. The inside dimension is always 10 mm	Z4.30-10.**HZ**.G2
.MR	Multi-point version for use in doors with multi-point locks	Z4.30-30.FD.**MR**.G2
.MS	Brass version	Z4.30-30.FD.**MS**.G2
.OK	Without inside knob. Inside dimension is always 35 mm	Z4.30-35.FD.**OK**.G2
.SW	Seawater-proof. Available with .WP only	Z4.30-30.FD.WP.**SW**.G2
.VDS	VdS Approval Class BZ. Additional hardened pins on the outside of the cylinder	Z4.30-35.FD.**VDS**.G2
.VR	Shortened read range for the half cylinder	Z4.30-10.HZ.**VR**.G2
.WP	Weatherproof with protection rating IP65	Z4.30-30.FD.**WP**.G2
.ZK	Access control, time zone management and events logging	Z4.30-30.FD.**ZK**.G2
.SCHLUESSEL	Installation/battery key: special tool for disassembly and for replacing batteries (button cells) in TN4 cylinders (double thumb-turn and half cylinders)	Z4.**SCHLUESSEL**

Code	Description	Example
.BAT.SET	Batteries for TN4 cylinders (double thumb-turn and half cylinders) (type: CR2450)	Z4**BAT.SET**.

Cylinder profiles

Different cylinder profiles are fitted, depending on the region. The standard cylinder is supplied with a profile cylinder profile (also known as Euro Profile). Locks in most European countries feature this design. Different cylinder profiles are used in the UK, Switzerland and Scandinavia.

Code	Description	Example
.SO.A	Scandinavian Oval for outer side; installation length: 41.3mm	Z4.SO.A40.G2
.SO.I	Scandinavian Oval for inner side; installation length: 31.9mm	Z4.SO.I30.G2
.RS.A	Scandinavian Round Cylinder 3061, for outer side; installation length: 41.3 mm;	Z4.RS.A40.G2
.RS.I	Scandinavian Round for inner side; installation length: 31.9 mm	Z4.RS.I30.G2
.BO	British Oval, installation length: 30-30 mm	Z4.BO.30-30.FD.G2
.SR	Swiss Round Comfort; inside thumb-turn can be operated without transponder; installation length: 30-30 mm;	Z4.SR.30-30.CO.G2

SmartHandle

SmartHandle is a digital version of a handle set. Its versions and structure types are largely based on the different lock model types. An order code for a SmartHandle could look like this, for instance:
SH AS 07 B 85 1 A A 1 1 G2. The following table explains what the individual characters represent.

Code	Description
SH	Identifier for electronic door handle = SH

Code	Description
AS	Lock profile and door thickness Profile: A = Euro Profile / Swiss Round / British Oval B = Scandinavian Oval, C = Euro Profile with mechanical override (MO) D = Swiss Round with MO, E = Scandinavian Oval with MO Door thickness: S = 39 - 60 mm or 33 - 54 mm for SO, 30 - 51 for SO.DP (extra adapter is required for British Oval) M = 59 - 80 mm or 53 - 74 mm for SO, 50 - 71 mm for SO.DP L = 79 - 100 mm or 73 - 94 mm for SO, 70 - 91 mm for SO.DP
07	Spindle: 07 = 7 mm 08 = 8 mm 8.5 mm (using Sleeve SH.HUELSE.8.5; see under Accessories) 09 = 9 mm 10 = 10 mm
B	Fastening type/plate width: A Snap-in*, narrow (41 mm) B Snap-in, wide (53 mm) C conventional fastening, narrow (41 mm) D conventional fastening, wide (53 mm) E conventional fastening with MO – inside and outside recess, narrow (41 mm) F conventional fastening with MO – inside and outside recess, wide (53 mm) G conventional fastening with MO – inside blind / outside recess, narrow (41 mm) H conventional fastening with MO – inside blind / outside recess, wide (53 mm) I conventional fastening with MO – inside recess / outside blind, narrow (41 mm) J conventional fastening with MO – inside recess / outside blind, wide (53 mm) K conventional fastening with MO – inside and outside blind, narrow (41 mm) L conventional fastening with MO – inside and outside blind, wide (53 mm)

Code	Description
85	Centres distance: 00 = conventional fastening, Versions C, D, K, L 70 = 70 mm 72 = 72 mm 75 = 75 mm 78 = 78 mm 85 = 85 mm 88 = 88 mm 90 = 90 mm 92 = 92 mm 94 = 94 mm (for Swiss Round only) 05 = 105 mm (for Scandinavian Oval only)
1	Version: 0 = engaged (without electronics) 1 = engages on one side
A	Handle versions, outside: A = L-shaped R (round, curved) B = L-shaped G (mitred) C = U-shaped R (round, curved) D = U-shaped G (mitred)
A	Handle versions inside: A = L-shaped R (round, curved) B = L-shaped G (mitred) C = U-shaped R (round, curved) D = U-shaped G (mitred)
1	Surface finish: 1 = brushed stainless steel 3 = brass
1	Reader technology: 0 = without electronics 1 = active 2 = SmartCard (not suitable for G1)
G2	Options: G2, ZK, WP, DP (for SO only)

* Snap-in: A bolt is inserted through the cylinder opening in the lock from the outer side and the inner side and screwed into position on the inside with Snap-in installation. This enables you to fit a SmartHandle without drilling holes in the door. There must be drilled holes in the door for conventional installation. You will find detailed information on Snap-in installation on the SimonsVoss website.

SmartRelay

Code	Description
SREL.G2	Digital SmartRelay 3063 in black housing and with connection for external antenna

Code	Description
SREL.ZK.G2	Digital SmartRelay 3063 in black housing, with access control, time zone control and event logging; connection for external antenna (SREL.AV)
SREL.AV	External antenna for connecting to SmartRelay (cable 5 m long)
SREL.BAT	Battery for SmartRelay for operation without external power supply; includes soldered connector cable with plug connector to SmartRelay: battery type: lithium 1/2 AA
SREL2.G2.W	Digital SmartRelay 2 3063 in white housing; relay contact featured as NO contact (reversible to break contact); operated with direct current (9 to 24 V DC); connection available for an external antenna (SREL.AV)
SREL2.ZK.G2.W	As SmartRelay 2, but with access control, time zone control and events logging

Furniture lock

Code	Description
FL.M400.ZK.G2	Digital Furniture Lock M400 with catch, including fitting accessories
FL.M300.ZK.G2	Digital Espagnolette Lock M300, including fitting accessories

7.2 Identification media

Code	Description
TRA.G2	Transponder 3064 with blue button and G2 functions
.ROT	Version with dark red button
.BRAUN	Version with brown button
.SPEZ	Version with bonded housing
TRA.SCHALT.G2	Switching transponder with two connection wires used to operate via an isolated contact on an external device
TRA.BAT	Batteries for transponder (type: CR2032)

Code	Description
TRA.PINCODE	Cable-free, battery-powered PINCode Keypad with up to 3 different PINs

8 Help & Contact

Instruction manuals

You will find detailed information on operation and configuration under Informative material/Documents on the website:

https://www.simons-voss.com/en/documents.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

Address

SimonsVoss Technologies GmbH
Feringastr. 4
D-85774 Unterfoehring
Germany

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).

Made in Germany

SimonsVoss is truly committed to Germany as a manufacturing location: all products are developed and produced exclusively in Germany.