

CONFIGURING LoXS READERS FOR SMARTCARDS

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New electronic lock with integrated MIFARE card reader

Introducing an electronic lock with a powerful built-in MIFARE card reader, as a valuable addition to its locker management system LoXS. Many organisations use MIFARE cards (Classic, DESfire and Plus) for access control and payment at vending machines. These cards can now also be used to open and manage your lockers.

The new electronic lock allows one to open a locker or cabinet by simply holding a MIFARE card close to the lock. This makes accessing a locker easier than ever. People queuing up at the terminal is now a thing of the past. The lock with built-in MIFARE card reader is designed to be used in many different situations. The card reader can even be used in metal doors.



The card reader in the lock is prepared for reading all MIFARE types, including MIFARE DESfire. In addition, the card reader is capable of reading the card serial number (CSN) of HID iCLASS, Legic Advant and ICODE tags.

Configuring readers in a safe way

The MIFARE reader is capable of reading card serial numbers (or UID's), but can also be configured to read sectors (MIFARE Classic) or files (MIFARE DESfire) with encryption using keys.

The encryption keys are owned by end users or vendors. We very often are asked how we can configure our readers without having to disclose these keys. To be able to do this we have developed a configuration tool that is called Smartcard Configuration Locker (SCCL).

The policy involved is as follows:

1. End users, vendors or business partners can request the SCCL tool to be sent to them.
2. If the request is awarded, the program is made available for single use.
3. The 3rd party will fill out configuration details and can save the settings.
4. There are then two options to deploy the reader configuration:
 - a. The 3rd party can deploy the configuration directly into the LoXS components.
 - b. The 3rd party can save an encrypted configuration file. This file can be used by one of our business partners to configure the reader components without disclosing the encryption keys involved.
5. LoXS or AEOS components are configured and the 3rd party is requested to delete the SCCL tool.

Using the SCCL tool

The tool, once made available, can be started by double clicking the SCCL.exe icon,

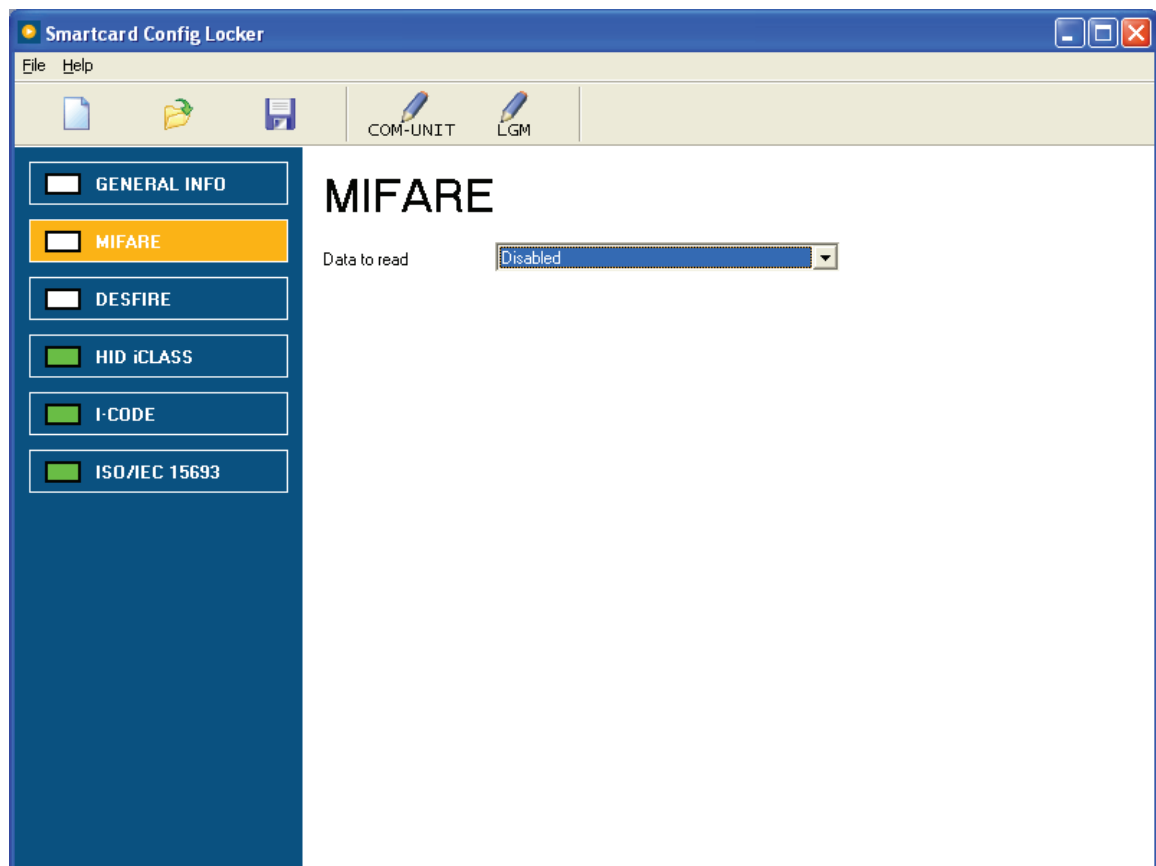
The following screen will appear:

The program starts by showing the 'General information' panel. Please use the 'Name'-field to specify the end user or project name. The date is automatically stored into the configuration file that will be generated.

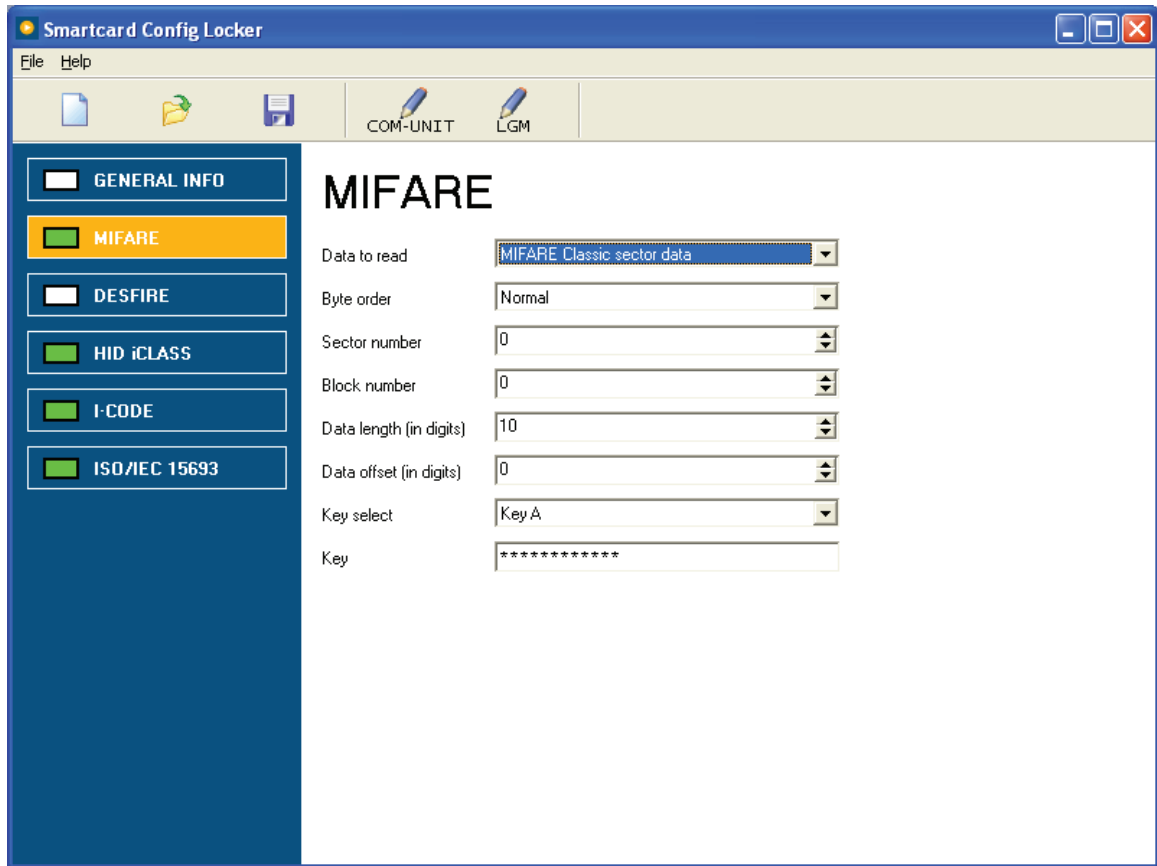
On the left side of the screen the optional card types are listed. Currently the following card types are supported:

- MIFARE - MIFARE Classic CSN & sector data, MIFARE Ultralight data.
- DESFIRE - MIFARE DESfire CSN & file data
- HID iCLASS - HID iCLASS UID (64 bit)
- I-CODE - I-CODE UID (64 bit)
- ISO/IEC 15693 - UID of ISO 15693 compliant cards like Legic Advant.

By clicking the card type of your choice, the corresponding configuration screen appears. Let's look at the MIFARE configuration as an example:



The 'Data to read'-pull down menu will show the available options for MIFARE card configuration. Selecting the option 'MIFARE Classic sector data' will show the following screen:



The configuration data for reading the MIFARE card can be specified in the corresponding fields.

Please note that the key will remain hidden when being typed into the 'Key'-field. Keys are never revealed to Nedap employees or employees of our business partners.

Saving reader configuration information

After the configuration is complete, the configuration settings can be stored into a file by selecting the menu option "File - Save as..." or by clicking the floppy disk icon.



A file location and name can be specified.

The configuration settings can be deployed to an entire LoXS installation by connecting to a terminal (LGM module). This will require you to specify the LGM hostname or the IP-address of the terminal.



It is also possible to upload the configuration into the LoXS readers by connecting a COM-init to the computer that is running the SCCL tool. Uploading the configuration to readers connected to a COM-unit requires a COM-port to be specified.



For more information about using the SCCL tool please contact Interloc.