



Your solutions

MSeT PC - Operating Manual

MST Sp. z o. o. Sp. k

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1 Installation and setting-up

1.1 System requirements

Minimum system requirements for proper software operation are following: operating system: Windows 7 or higher, 1 GB RAM, 50 MB free HDD memory. Administrator rights are required to install and update the program. In addition, internet connection is required to update the application.

1.2 Hardware requirements

For programming the LED Driver units, FEIG ID CPR30 + reader is necessary, which is compatible with Zhaga book 24. To purchase this device, contact the MST Sales Department.

More information about the reader can be found on the manufacturer's website:
<https://www.feig.de/en/products/identification/product/id-cpr30>.

Operation manual of the reader is available here:

https://www.feig.de/fileadmin/user_upload/Downloads/Datenblaetter/Data_Sheet_Identification_Desktop_Reader_ID_CPR30_.pdf



Figure 1: FEIG ID CPR30+ reader

1.3 Installation

Download installation program from the product catalogue available on www.mst.pl/en/products/led-drivers. Links to download are available for each driver category in *Downloads* table.

Downloads

Type	Name	File type	Size	Date
Leaflet	LED Driver Linear non-SELV NFC	PDF	694 kB	30-08-2022
Software	MSeT PC Application for configuration driver by NFC interface	ZIP	13.5 MB	22-08-2022
Software	MSeT PC Application for configuration driver by NFC interface	EXE	14.1 MB	22-08-2022

Figure 2: Link to MSeT PC download

The table specifies two types of files: ZIP and EXE. If your browser for safety reasons does not allow downloading executable files EXE, download ZIP file, and once downloaded - unzip it.

1.3.1 Program installation

Open *setup_MSeT* file.

Click button in SAFETY window:

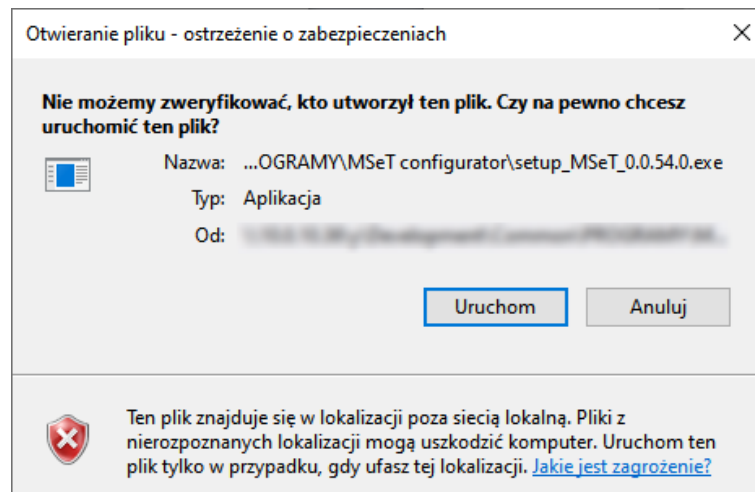


Figure 3: Installation window 1

Select installation language and click **OK**:

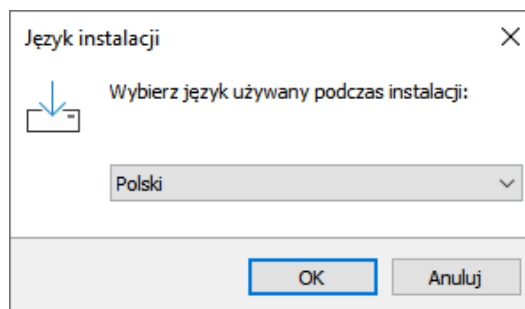


Figure 4: Installation window 2

Select destination folder for the program (or left the default folder, if you want) and click **Next**

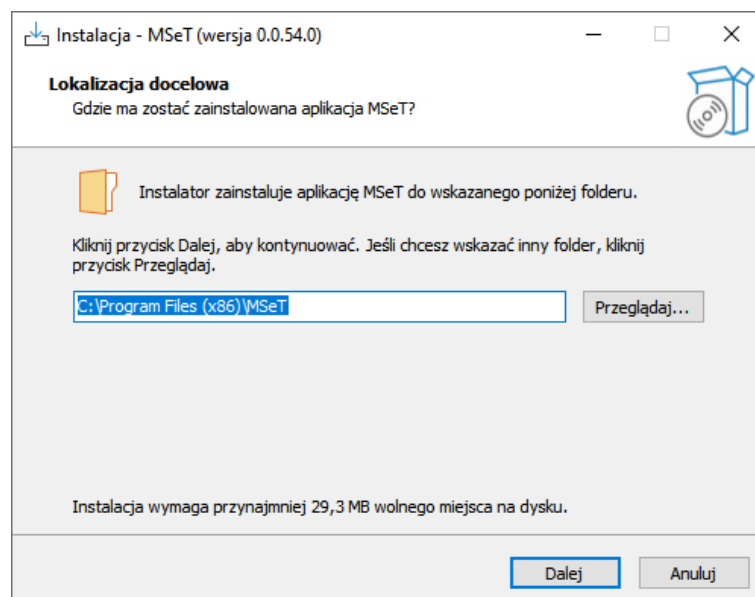


Figure 5: Installation window 3

Select the location for application shortcut (or left the default folder, if you want) and click **Next**

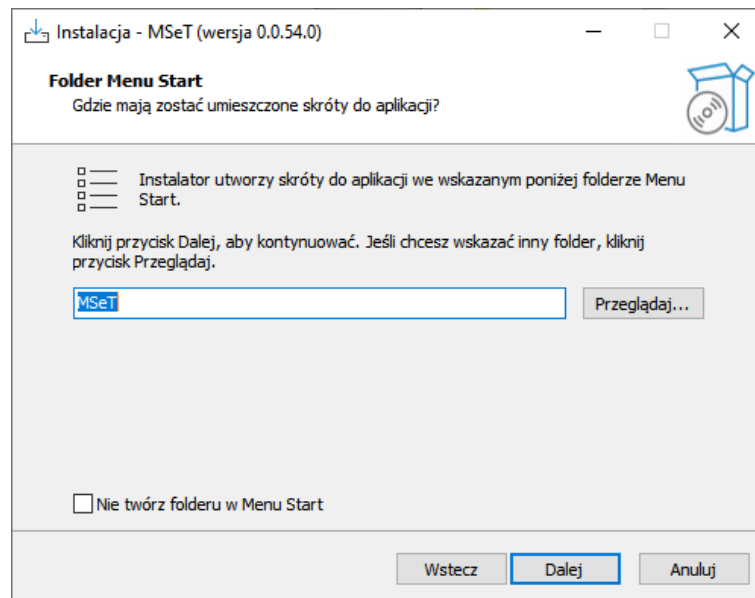


Figure 6: Installation window 4

Click **Install** (Instaluj) to confirm installation:

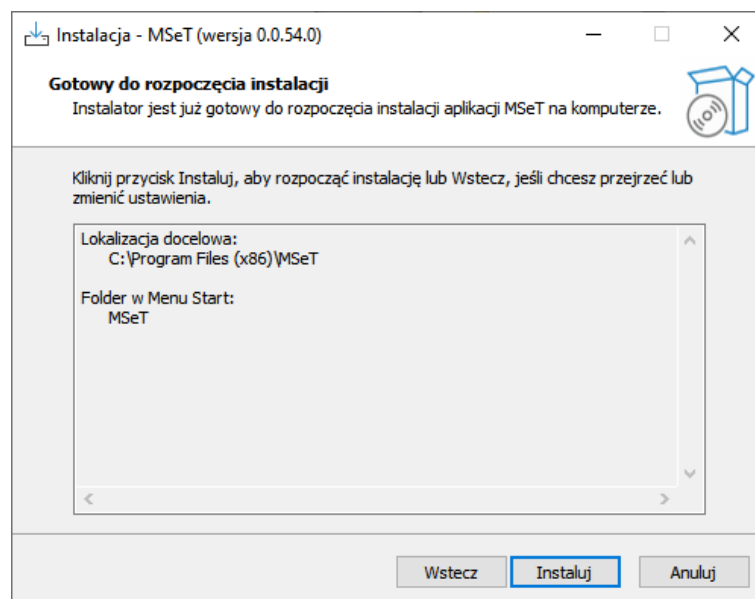


Figure 7: Installation window 5

1.3.2 Installing FEIG drivers

Install NFC reader drivers if you want to program Driver units. If the program will be used to create projects for setting-up Driver units in production only, the drivers specified below are not necessary to install. You can always install them later manually. The driver installation files are located in `C:\Program Files (x86)\MSeT\drivers`.

When installing the program on production programming PC, the reader drivers are necessary. To start driver installation, click **Yes** (Tak) to confirm the installation:

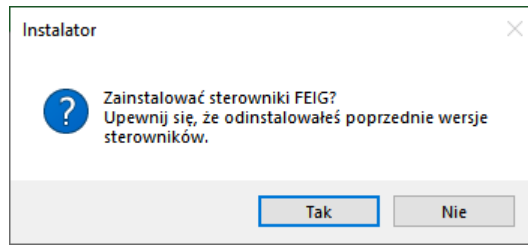


Figure 8: Installation window 6

Click **Next** to continue installation:



Figure 9: Installation window 7

Select destination folder for the program (or left the default folder, if you want) and click **Install**:

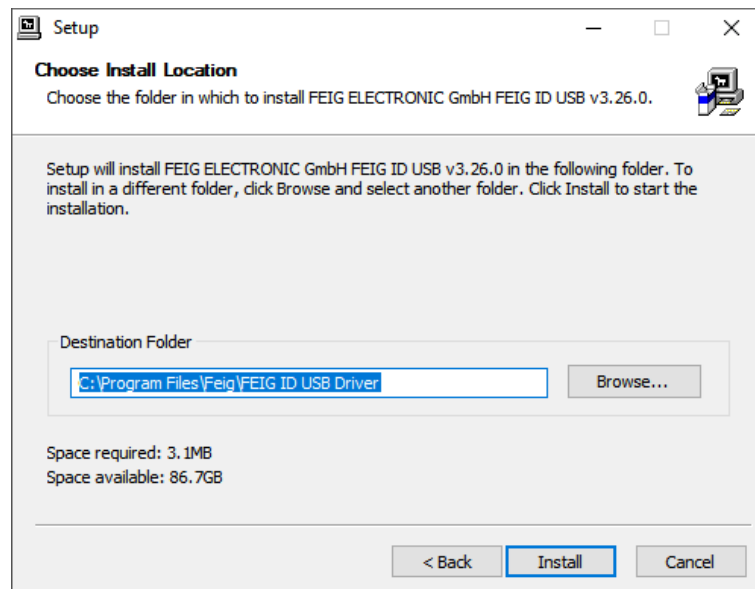


Figure 10: Installation window 8

Upon completed program installation click **Next**:

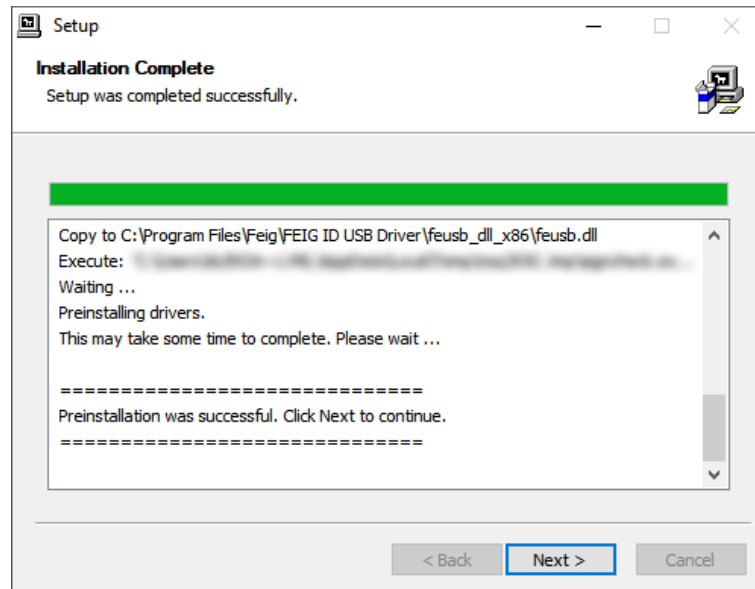


Figure 11: Installation window 9

To close the installer – click **Finish**:



Figure 12: Installation window 10

Click **Yes** (Tak) to confirm:

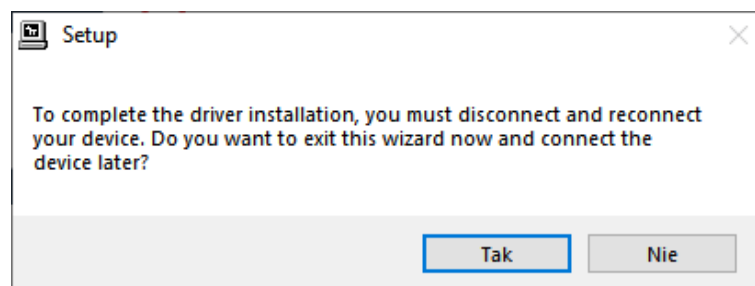


Figure 13: Installation window 11

To install next driver - click **Next**:



Figure 14: Installation window 12

Select destination folder for the program (or left the default folder, if you want) and click **Install**:

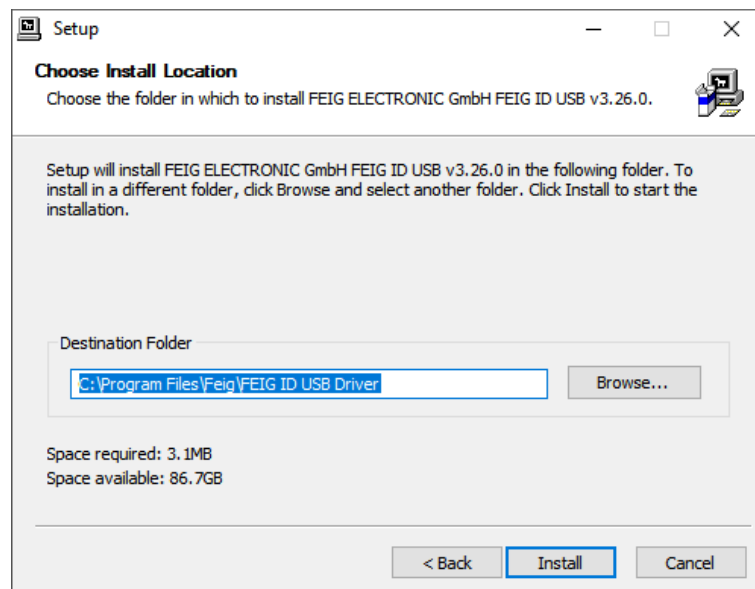


Figure 15: Installation window 13

Upon completed program installation click **Next**:

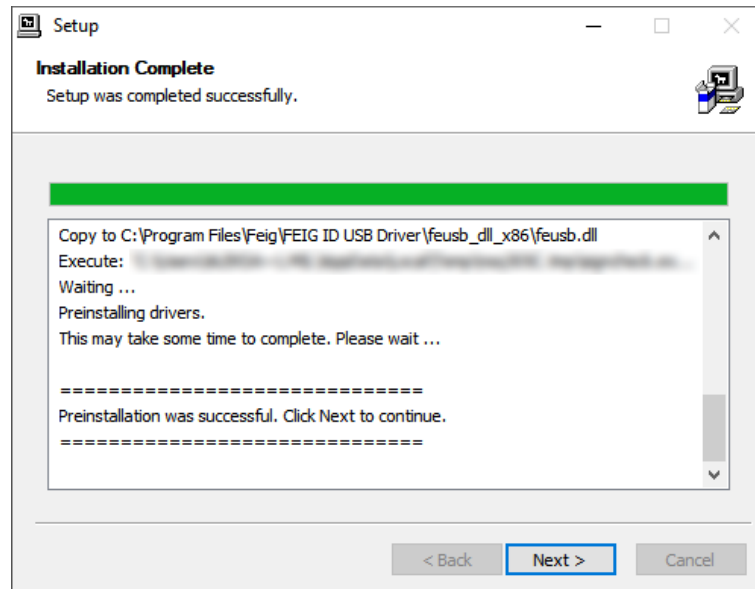


Figure 16: Installation window 14

To close the installer – click **Finish**:



Figure 17: Installation window 15

Click **Yes** (Tak) to confirm:

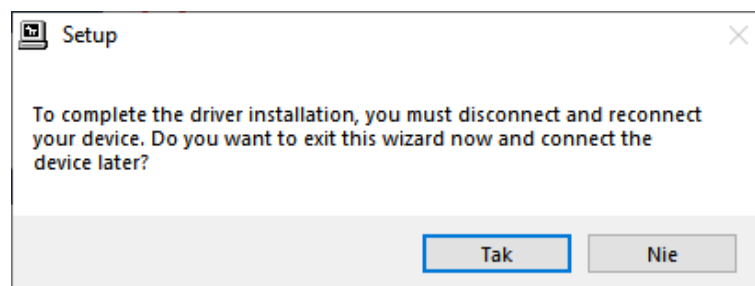


Figure 18: Installation window 16

To complete installation - click **Finish** (Zakończ):

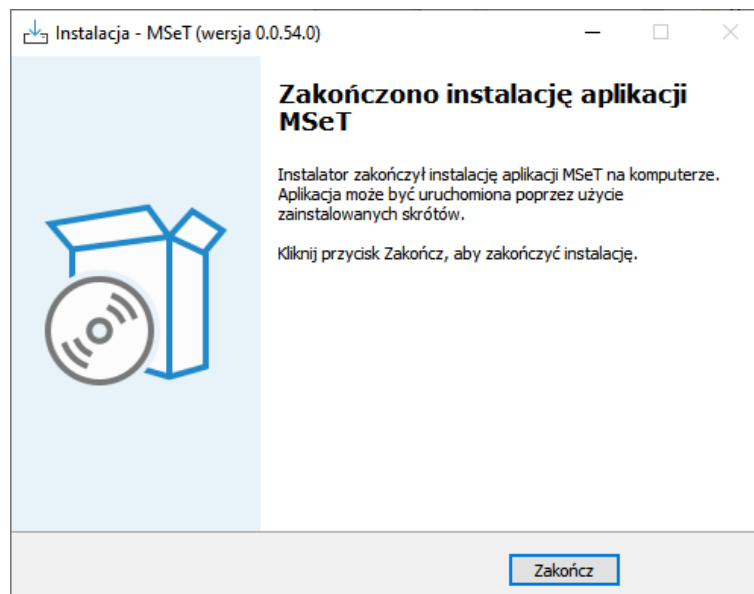


Figure 19: Installation window 17

1.4 Start-up

Once the application has been installed, two MSeT icons appear on the display.



Figure 20: Application icons

MSeT development - this program enables preparation of files for uploading in production and direct setting-up LED Driver units at the luminaire development station.

MSeT production – this program is intended for production to upload previously prepared project without setting parameters of LED Driver unit.

In the production environment, the shortcut to *MSeT development* program may be deleted, and only *MSeT production* shortcut may be left.

The table below shows differences between the features of both program versions.

Feature	MSeT Development	MSeT production
Open existing project	yes	yes
Add virtual LED Driver units	yes	no
Scan LED Driver units	yes	no
Modify parameters	yes	no
Set-up LED Driver units	yes	yes
Save project	yes	no

1.5 Update

When new application version is available, title bar of the software window shows the following message in blue: *Update available*. Click this message to update the application.

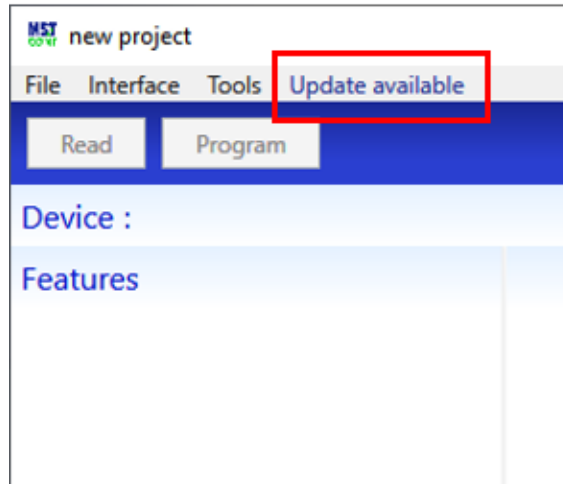


Figure 21: Update button

Once the update has started, the below window appears. Click **Download and install now** with the installer commands described in the Installation section.

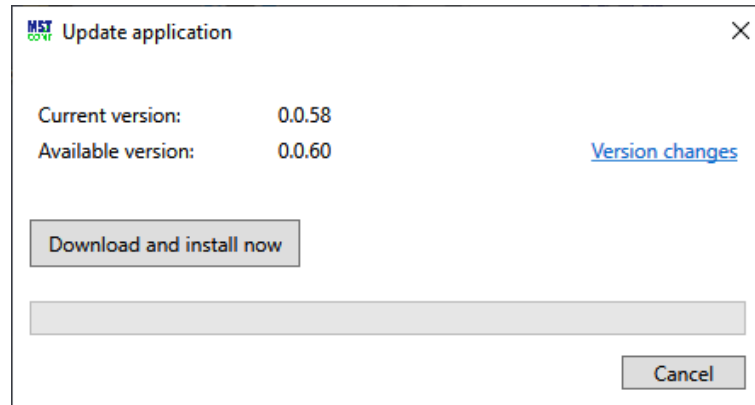


Figure 22: Update window

1.6 Uninstallation

Uninstall the application using *Add or Remove Programs* option in Windows system.

2 User's key manager

MST settings of Driver unit may be protected against unauthorized changes with the user's personal key. This function prevents unauthorized changes of parameters (e.g. output current) of the Driver unit installed in the finished luminaire.

Key-based protection of the Driver unit settings requires entry of correct key to modify the settings. To facilitate the process, all keys may be stored in Key Manager in MSeT software and will be automatically downloaded while working with the Driver unit. Key Manager stores the keys on the computer with the installed MSeT application. To use these keys on another device, they have to be loaded manually. Remember the keys already stored may not be retrieved or deleted, therefore we recommend to keep their copies in other form, e.g. write them down on a paper sheet. An additional copy may be helpful when adding the key again to the program.

Click **Tools** > **Keys** in application menu to add the key to the Key Manager:

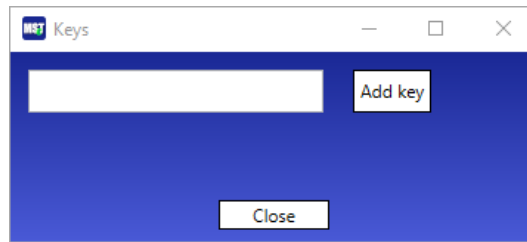


Figure 23: Key Manager Window

Enter the key (8 characters, digits and/or letters) and click **Add Key**.

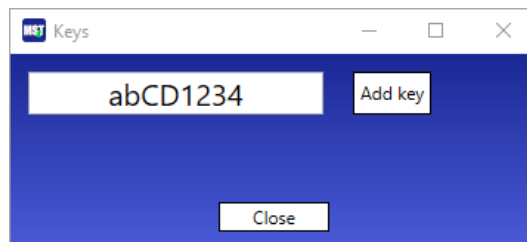


Figure 24: Key Manager - key adding

If the entered key is correct - the message: *The key has been added* is displayed.

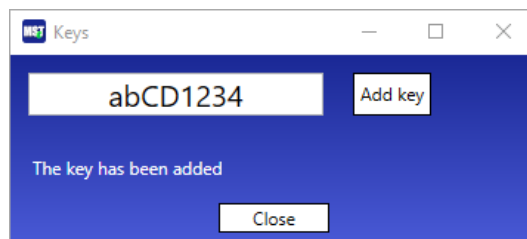


Figure 25: Key Manager - confirmation

3 Program operation

3.1 Typical path for program run

The program is divided into two subroutines: *MSeT development* and *MSeT production*.

The *development* subroutine is used for development works on the luminaire. Using this subroutine you can easily change the parameters of Driver unit, e.g. output current, and load them directly on the Driver unit. Also, the projects to load on the Driver units in production may be prepared using this software.

The *production* subroutine is used to load the parameters of LED Driver units in the production environment based on the project previously created in the development program. Production operator may not change the parameters of LED Driver unit set by the luminaire developer.

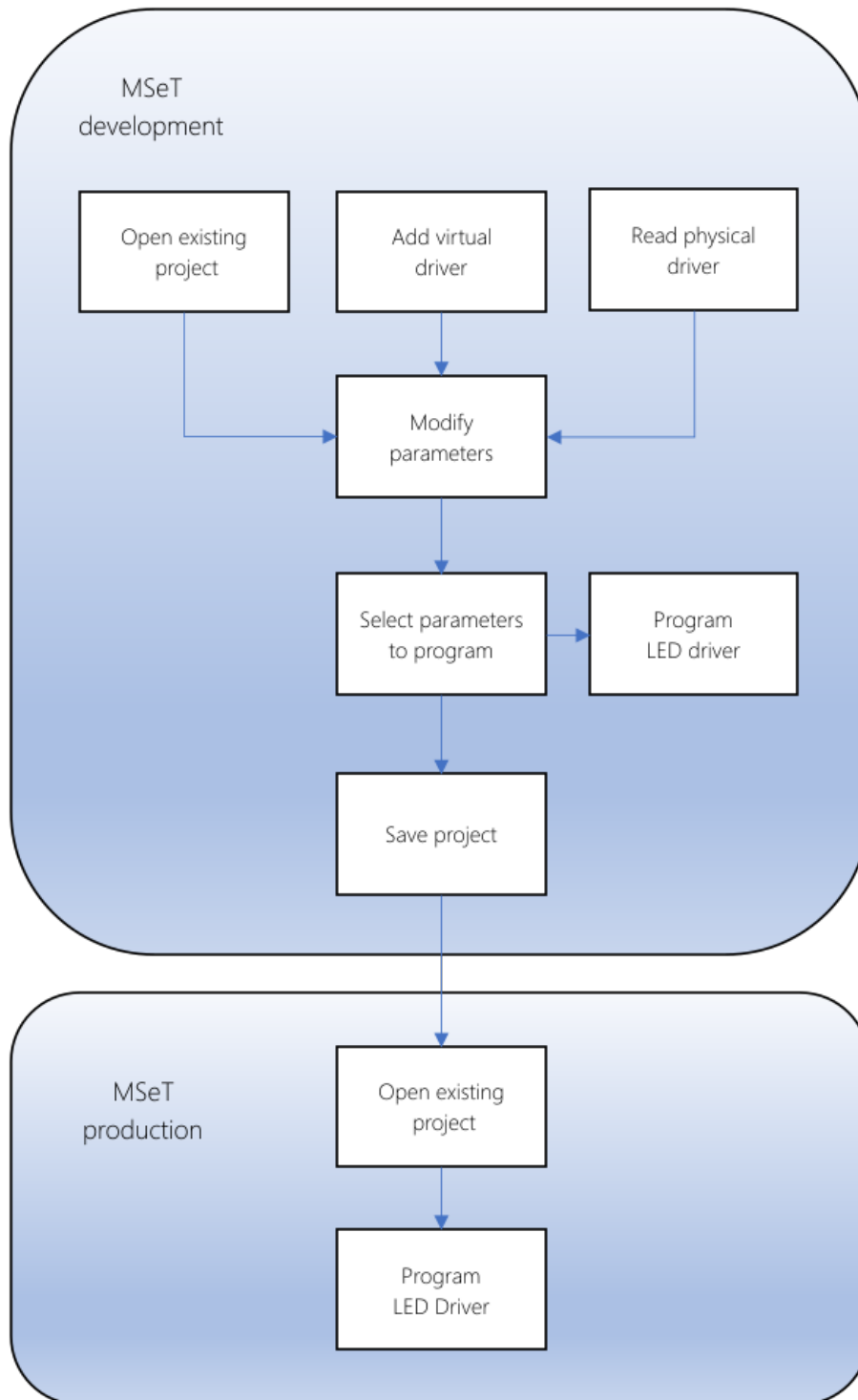


Figure 26: Path for program run

4 MSeT development

Click twice *MSeT development* icon to start the program. Main program window is shown below.

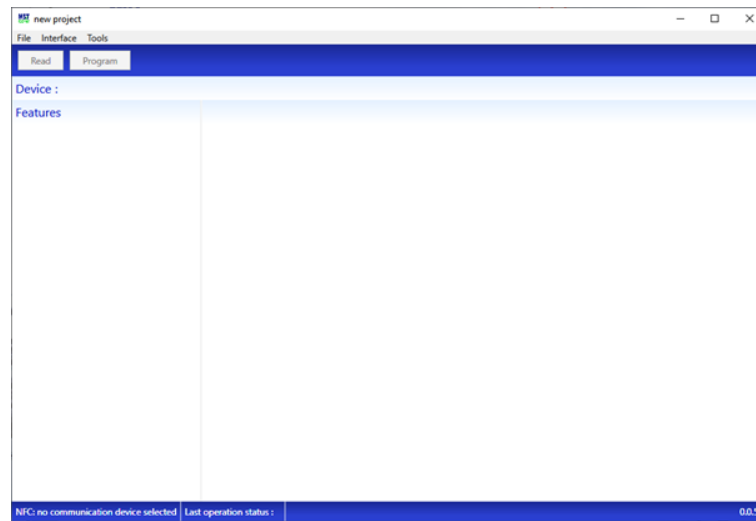


Figure 27: Main window of MSeT development program

4.1 Project creation

First step is to create the project. Project may be created in three ways: (1) open existing project, (2) create new project based on a virtual driver or (3) create new project by Reading parameters of Driver unit using NFC reader.

1. Work with existing project

Click **File** > **Open...** in the menu to open existing project. Find and click the project file in the window:

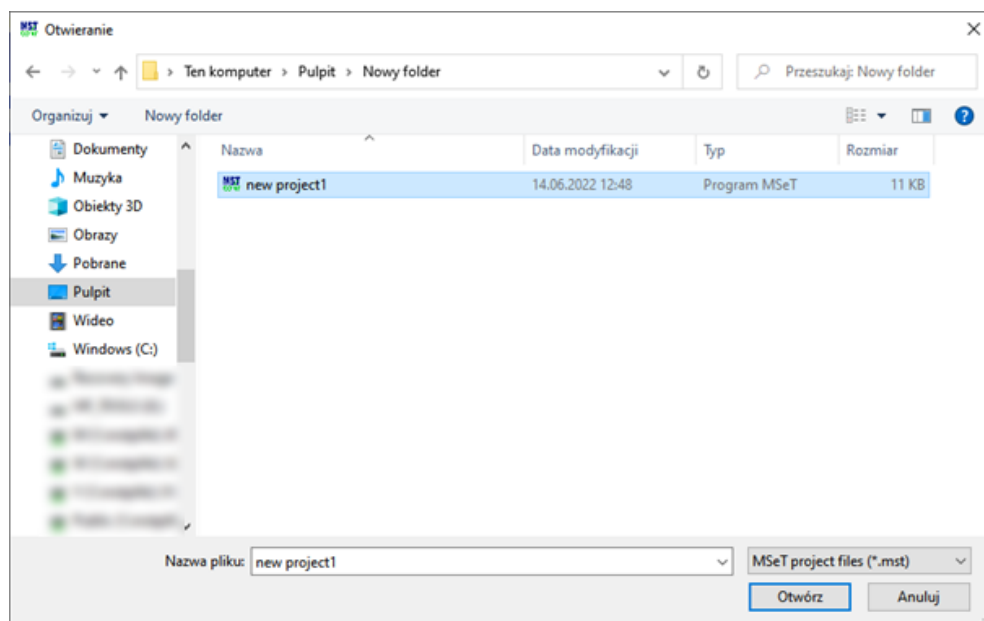


Figure 28: Project selection window

2. Work with virtual driver

Click **File** > **Add** virtual driver in the menu to add virtual driver. Select LED Driver unit from the list.

3. Work with physical driver

Place LED Driver unit in a distance no more than 2 cm from NFC reader.



Figure 29: Position of LED Driver unit and NFC reader during reading

Click **Read** button. If this button is not active it means your NFC reader is not connected or improperly configured. Proceed to the **Connection and setting-up of NFC reader** section in this Manual, follow the procedure specified there and return to this item upon successful configuration. Progress bar is displayed during reading memory of Driver unit.



Figure 30: Reading Driver unit window

Upon successful reading, the setting window of the Driver unit is displayed.

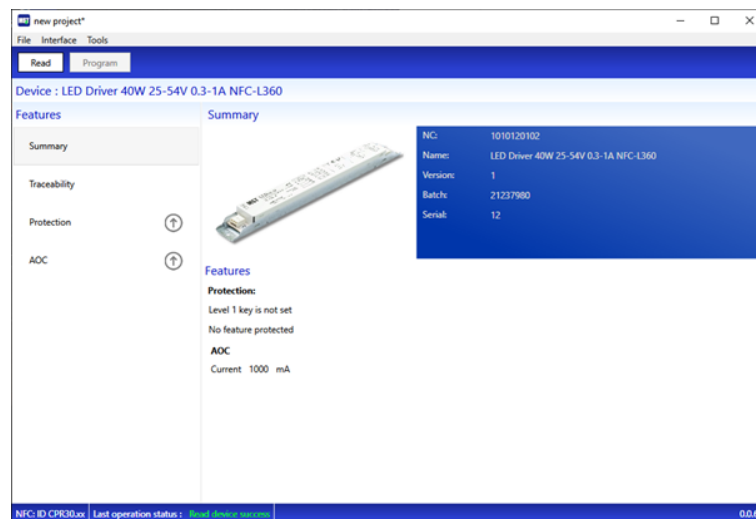


Figure 31: Reading Driver unit window

In case reading has failed, proceed to the **Program does not read LED Driver unit** section.

4.2 Settings of LED Driver unit

Configurable parameters of LED Driver unit are grouped according to the functions and listed in **Features** in the left section of main window. Only the features relevant to a given LED Driver unit are visible. Below all features are described; but be aware, that some of them may not be available in your device. Proceed to the description of the feature available in the Driver unit to set.



Figure 32: Features of the Driver unit

4.2.1 Summary

Window with listed parameters of Driver unit. Here you can check the order number (NC), the name and version number of driver unit and read the set values of all parameters.



Figure 33: Reading Driver unit window

4.2.2 Tracability

Information about the order number and the serial number of Driver unit is saved in the Traceability option.

4.2.3 Protection

The Protection window displays protection features of the Driver settings against unauthorized changes. Enter the valid key in the Key entry box. While entering, the message informing of typing valid key is displayed on the right side of the entry box. In the *Choose features to protect* box select the parameters to be protected with a key.

The key is also added to the Key Manager (see the **User's key manager** section).

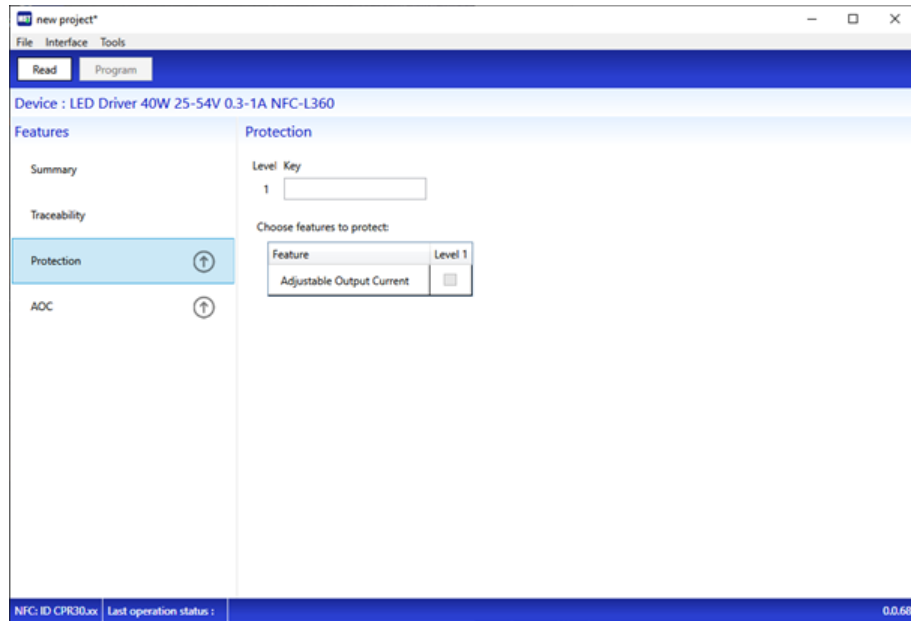


Figure 34: Protection window

4.2.4 AOC - Adjustable Output Current

Here output current of the Driver unit may be set. Use a slider to set the output current or enter desired value in the entry box. The program prevents entry of the current value outside the operating range of the LED Driver unit.

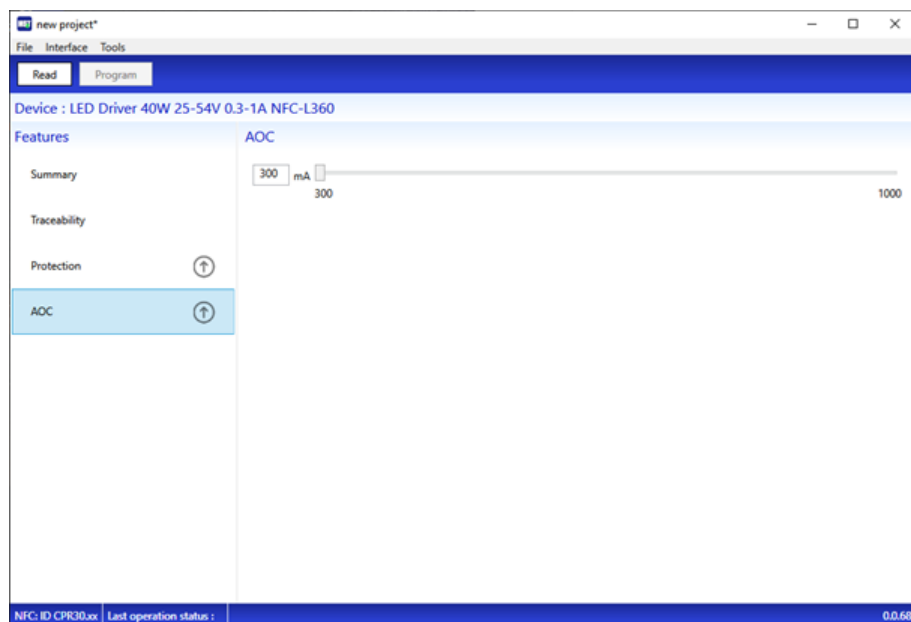




Figure 35: Adjustable Output Current window

4.3 Programming Driver settings in the development environment

4.3.1 Selection of features to set

Click the grey icon  to select parameters to set. The icon turns green. All features marked with green icon  are saved in next step of Driver unit parametrization.

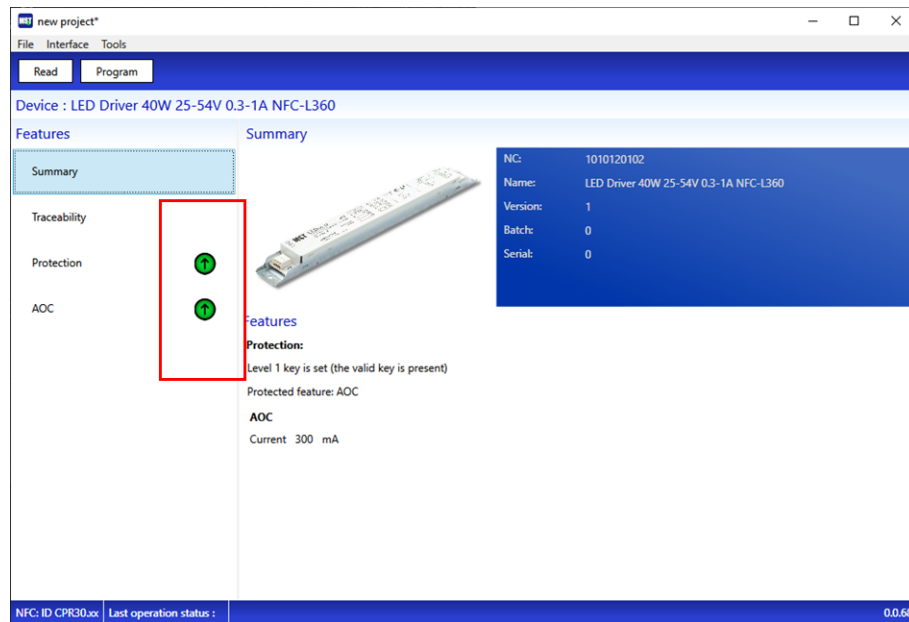


Figure 36: Selection parameters to set window

4.3.2 Programming Driver unit

Click **Program** button to open the Programming window in the main application window. This button may be inactive for either reason: (1) no parameter to set has been selected, or (2) fault of NFC reader. In the latter case - follow the procedure described in the **Connection and setting-up of NFC reader** section.

Click the **Program** button to open the programming window.

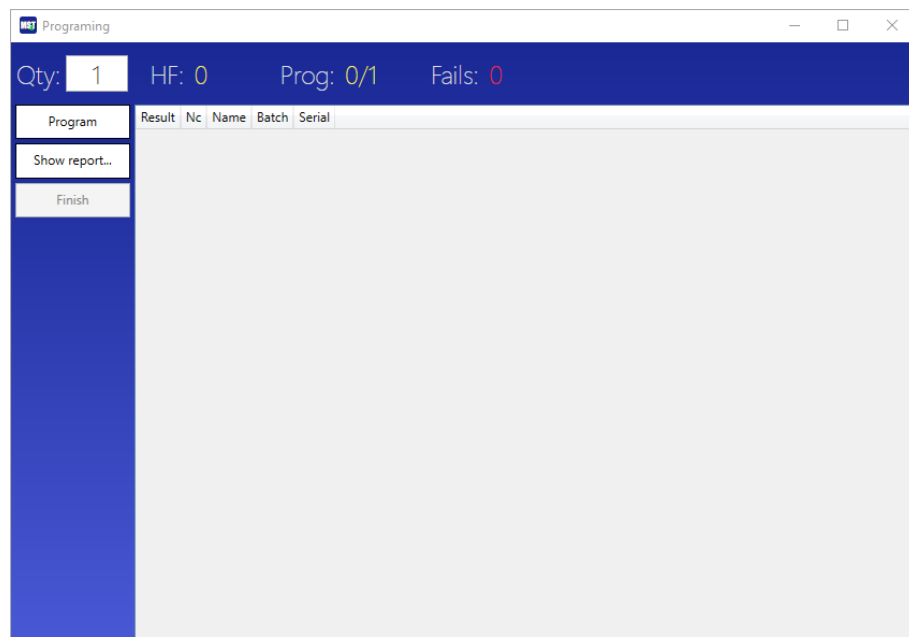


Figure 37: Programming window

Enter number of LED Driver units to set-up in Qty box. Click **Program** button to start programming. Programming stops once the set number of Driver units has been set-up. Enter ZERO to perform programming in an endless loop. In this case, click **Finish** to stop further programming. Each subsequently programmed Driver unit is added to the list in the table. Upon successful setting-up, the respective item on the list is displayed in green and the *Result* table shows *programmed*. Failure in programming is indicated by red colour of the respective item on the list, and the *Result* box shows error ID number.

Upon completed programming, *PASS* or *FAIL* message appears.



Figure 38: Programming window

PASS means all Driver units have been successfully programmed.

FAIL means programming of at least one Driver unit has failed. There are numerous reasons of programming failure and some of them are explained in the ***FAIL* message appears during Driver unit programming** section.

4.4 Project saving

Select **File** > **Save...** in main menu to save the project.

4.5 Saving project for production purposes

Before saving the project, make sure you have selected all parameters to set-up in production of Driver units. Click the grey icon (⬆) to select parameters to set. The icon turns green. All features marked with green icon (⬆) are selected in the project as ready to setting. Then, click **File** > **Save...** in main menu to save the project.

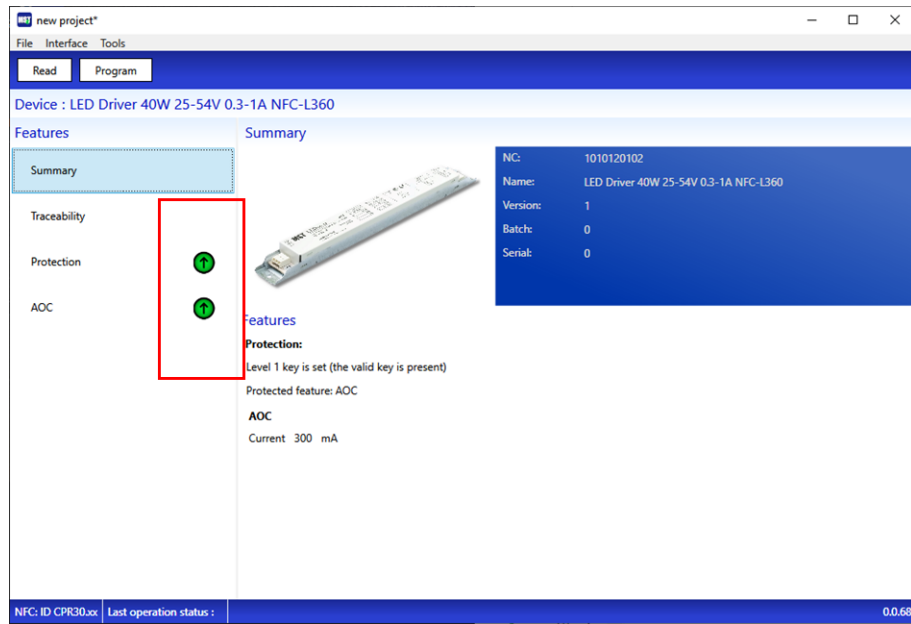


Figure 39: Selection parameters to set window

5 MSeT production

Click twice *MSeT production* icon to start the program. Main program window is shown below.

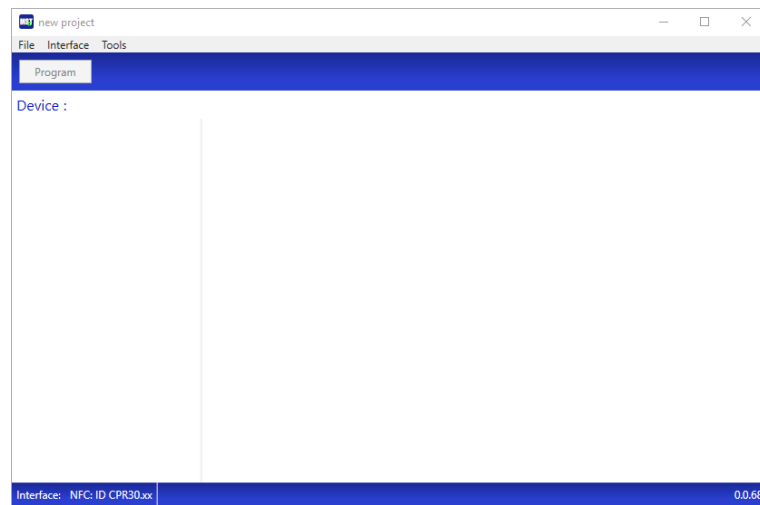


Figure 40: Main window of MSeT production program

5.1 Project loading

Click **File** » **Open...** in main menu to load the project. If parameters to setting are correctly selected in the loaded project, the project window is following:



Figure 41: Project selection window

If something is wrong with the parameter selection - following window is displayed:



Figure 42: Project selection window

If no parameters to setting are selected in the project, modify the project in the development environment (in the *MSeT development* application, see the **Saving project for production purposes** section).

5.2 Programming Driver units in production environment

Click **Program** button to start programming. If the button is inactive - see the **Program button is inactive** section.

Continue programming as described in the **Programming Driver unit** section.

6 Connection and setting-up of NFC reader

If the reader is connected and properly set-up, its name is displayed in the lower bar of the program window.

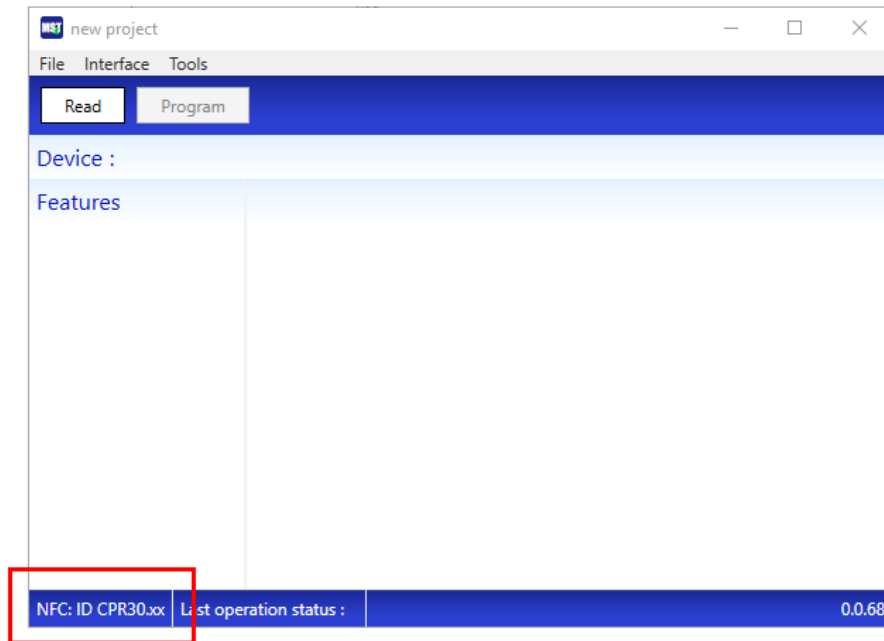


Figure 43: Application window - NFC reader installed

In case no NFC reader is connected, the message *no communication device selected* is displayed in the lower bar of the program window.

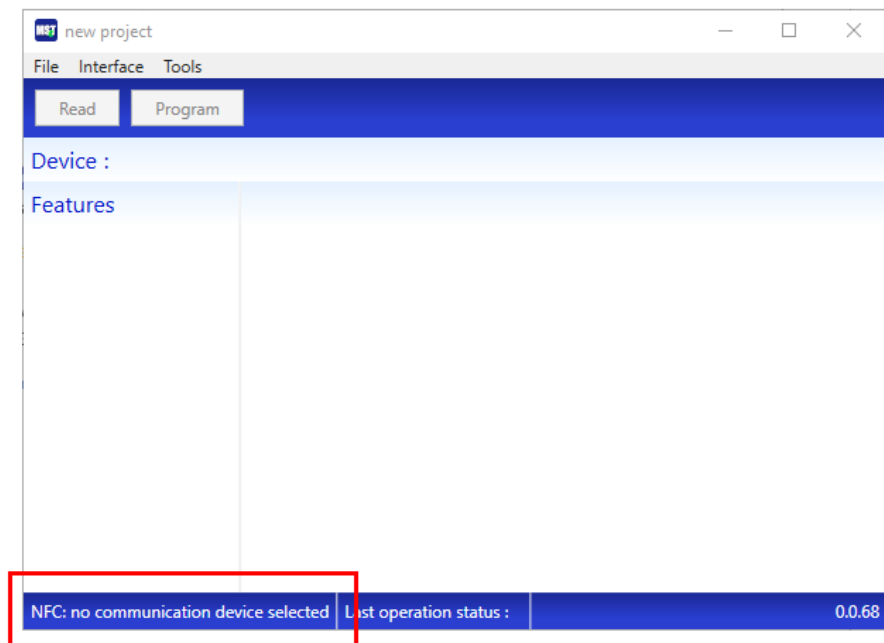


Figure 44: Application window - no NFC reader connected

To select a reader, click **Interface** >> **Select interface...** in the main menu of the program.

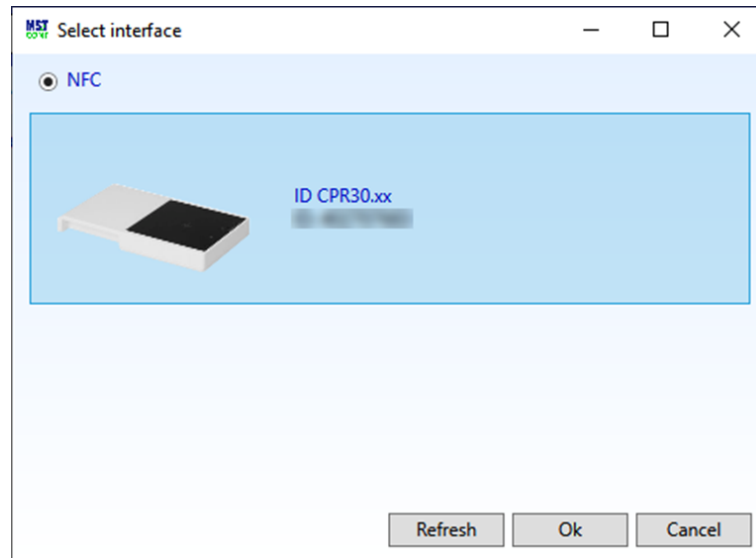


Figure 45: Reader selection window

If no device is listed, make sure the reader is connected to the computer and click the **Refresh** button. If the reader did not appear, disconnect and re-connect USB cable connecting the reader with the PC and click the button **Refresh** again.

7 FAQ

7.1 Missing NFC reader

Proceed to the **Connection and setting-up of NFC reader** section.

7.2 *Read* button is inactive

Missing NFC reader. Proceed to the **Connection and setting-up of NFC reader** section.

7.3 Virtual Driver unit invisible

Update the application to the newest version. If, upon updating, the Driver unit for which you want to create the project is not listed, it means this particular Driver unit does not support NFC communication. In other cases - contact our Sales Department.

7.4 Program does not read LED Driver unit

Reason	Remedy
More than one Driver unit are within the reader's operating range.	Remove all Driver units except one from the range of NFC antenna operation.
Failure in Reading Driver unit memory	Remove Driver unit from the antenna operating range, place it again and retry the Reading.

7.5 Impossible change of Driver unit settings

Driver unit is key-protected. See the **User's key manager** section.

7.6 *Program* button is inactive.

Reason	Remedy
No features selected to programming	Fault possibly occurred in the development environment. Selection of features to programming - see Programming Driver settings in the development environment section.
NFC reader is unavailable	Refer to the Connection and setting-up of NFC reader section.
No project is open	Fault possibly occurred in the production environment. Open the project to start Driver unit setting.
No selected feature to programming in production project	Fault possibly occurred in the production environment. Modify the project in the development environment and select features to programming in production environment.

7.7 *FAIL* message appears during Driver unit programming

Read the entry displayed in *Result* box in Driver unit setting table. Following options are possible:

Result	Description	Remedy
protected	LED Driver unit is key-protected and locked for programming.	Refer to the User's key manager section.
invalid type	Program does not support this LED Driver unit.	Replace the Driver unit with the compatible one
unprogrammed	Possible causes: <ol style="list-style-type: none"> 1. More than two Driver units present within the reader's Reading range. 2. Fault in saving in the memory. 	Remedy: <ol style="list-style-type: none"> 1. Keep only one Driver unit within the reader's operating range. 2. Retry saving.

