iDEX

☞ INTELLIGENT

☞ DIAGNOSTICS

☞ ENVIRONMENT

FOR ODX

CONFIDENTIAL

IDEX

USER MANUAL

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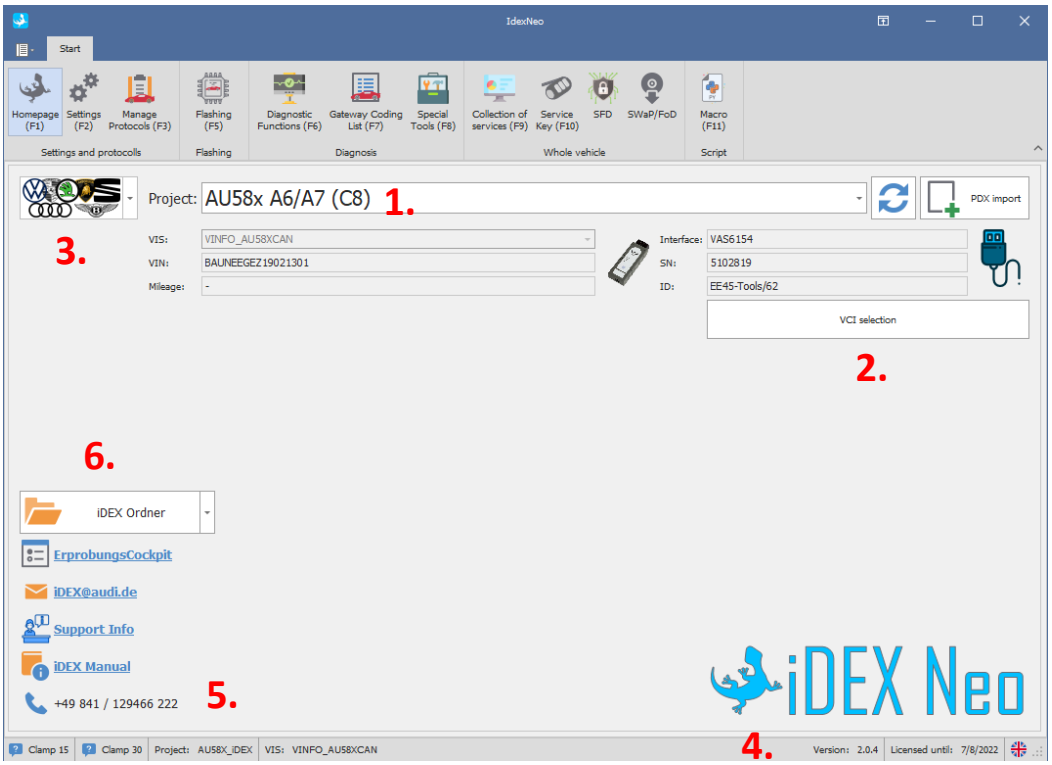
OVERVIEW - GROUPS AND APPLICATIONS

IDEX INTERFACE - HOME

The homepage of iDEX contains the following displays or functions:

1. **Project Selection**
2. **VCI Selection**
3. **Group Selection**
4. **Display of the version and validity of your license**
5. **Contact iDEX Support and iDEX User Guide**
6. **Access to local iDEX folders**



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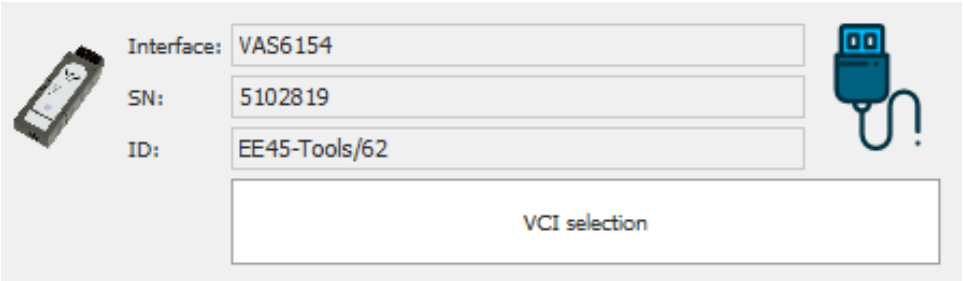
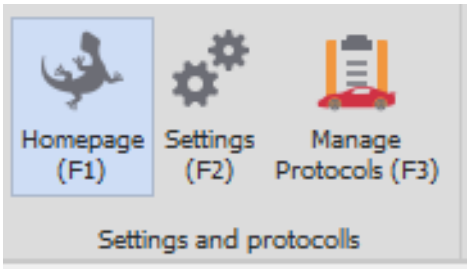
1.) An example of a selected vehicle project and selected VCI

2.) VCI selection / display when the connection is successfully established



GROUP – SETTINGS AND PROTOCOL



Start page

VCI selection and selection of the vehicle project can be selected by group selection

Settings

User specific settings

Manage Protocols

View the logs, send, sort, delete etc.

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GROUP – FLASH

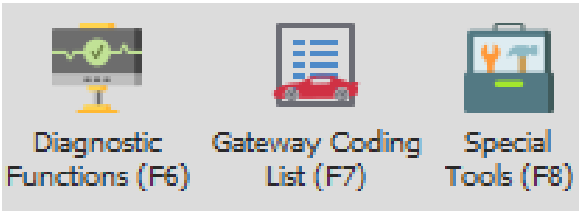
Flash Flash multiple control units

sequential / parallel

Update Center Carry out automat. Installation comparisons

IS / SHOULD condition documentation

GROUP – DIAGNOSTIC



Diagnostic - Function

Record selection of individual SG via gateway or macros

Gateway Coding-List

Coding of the bus master

Spezial

transport / production mode

Activate / deactivate, PDX Manager, Send HexService, EM history, role mode

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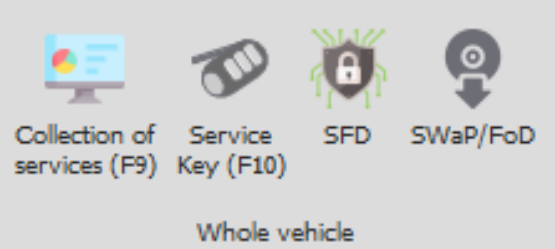
GROUP - WHOLE VEHICLE



Collection of services

Various settings for individual SG or entire vehicle, saving the configuration, e.g. read-delete

SWaP

activate certain functions in the control unit through activation

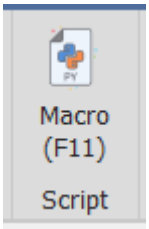
ServiceKey

data from the event memory of a vehicle key can be read out, displayed and compared with data in an iDEX protocol

SFD

Security of the vehicle diagnosis

GROUP – MACRO



Script

Execute saved scripts or create new ones.

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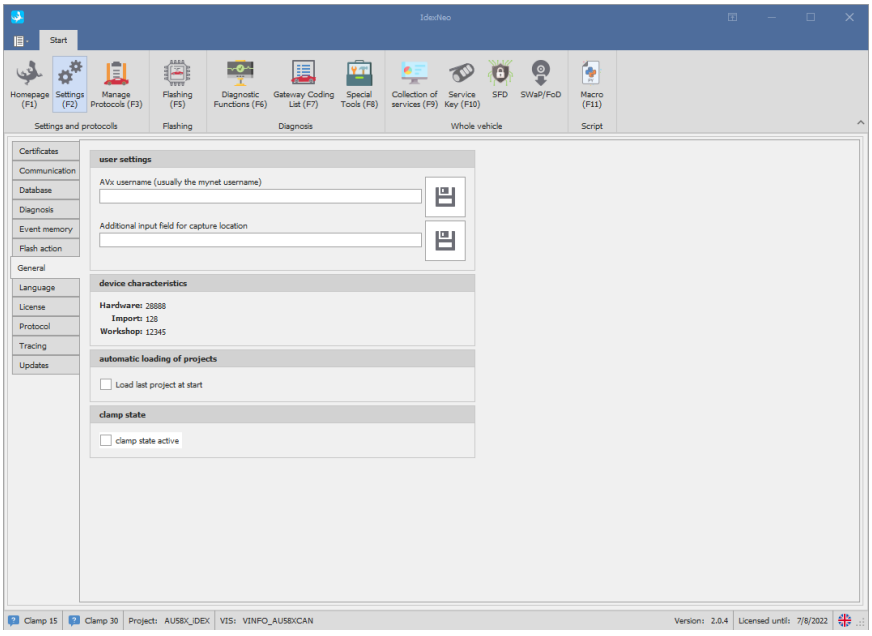
GROUP: SETTINGS AND PROTOCOLS

GENERAL SETTINGS

You can change the following settings under the General tab:

- ✓ Save AVx usernames
- ✓ Save additional input location
- ✓ Sorting of the controlluints
- ✓ Automatic loading of projects
- ✓ Activate clamp state



The device properties you have set are also displayed:

- ✓ Hardware Number
- ✓ Import Number
- ✓ Workshopcode

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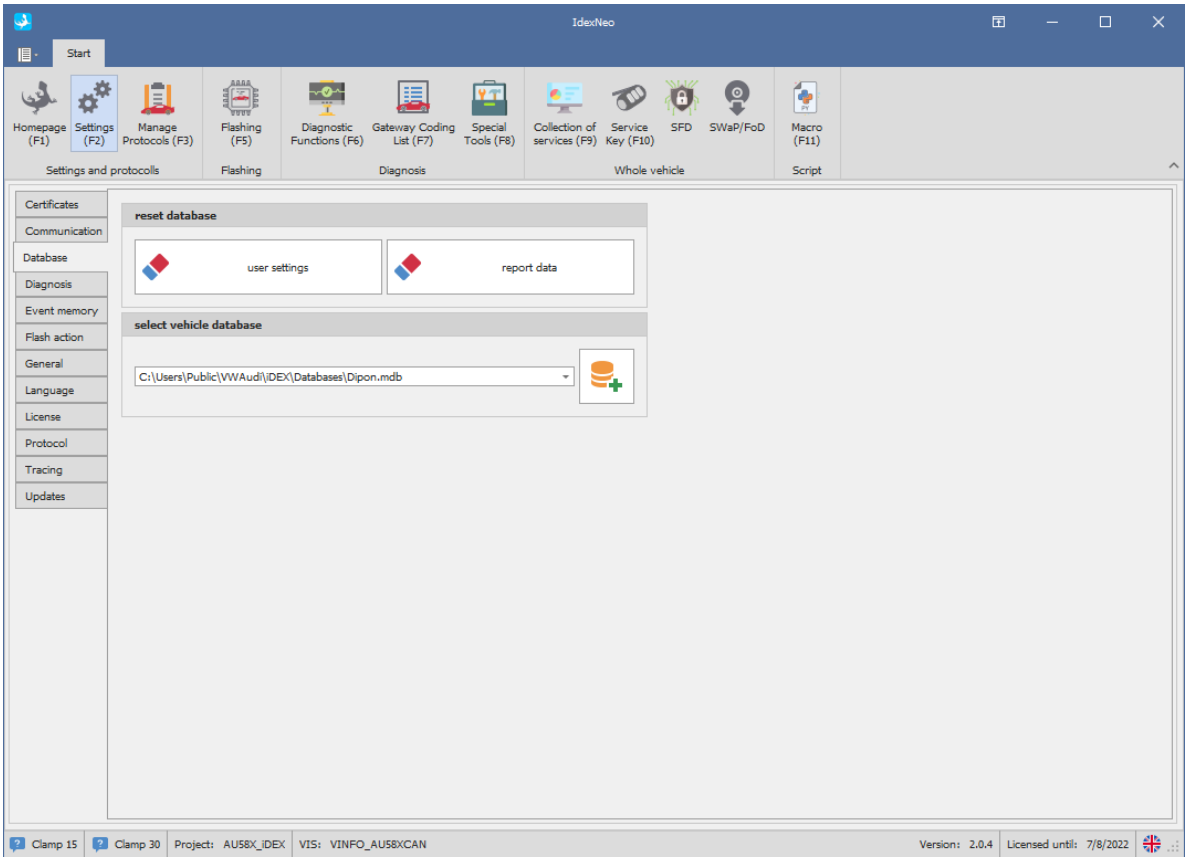
DATABASE

Unter dem Reiter **Datenbanken** können Sie folgende Einstellungen verändern:

- ✓ Reset user setting
- ✓ Reset report data
- ✓ Selection of vehicle database



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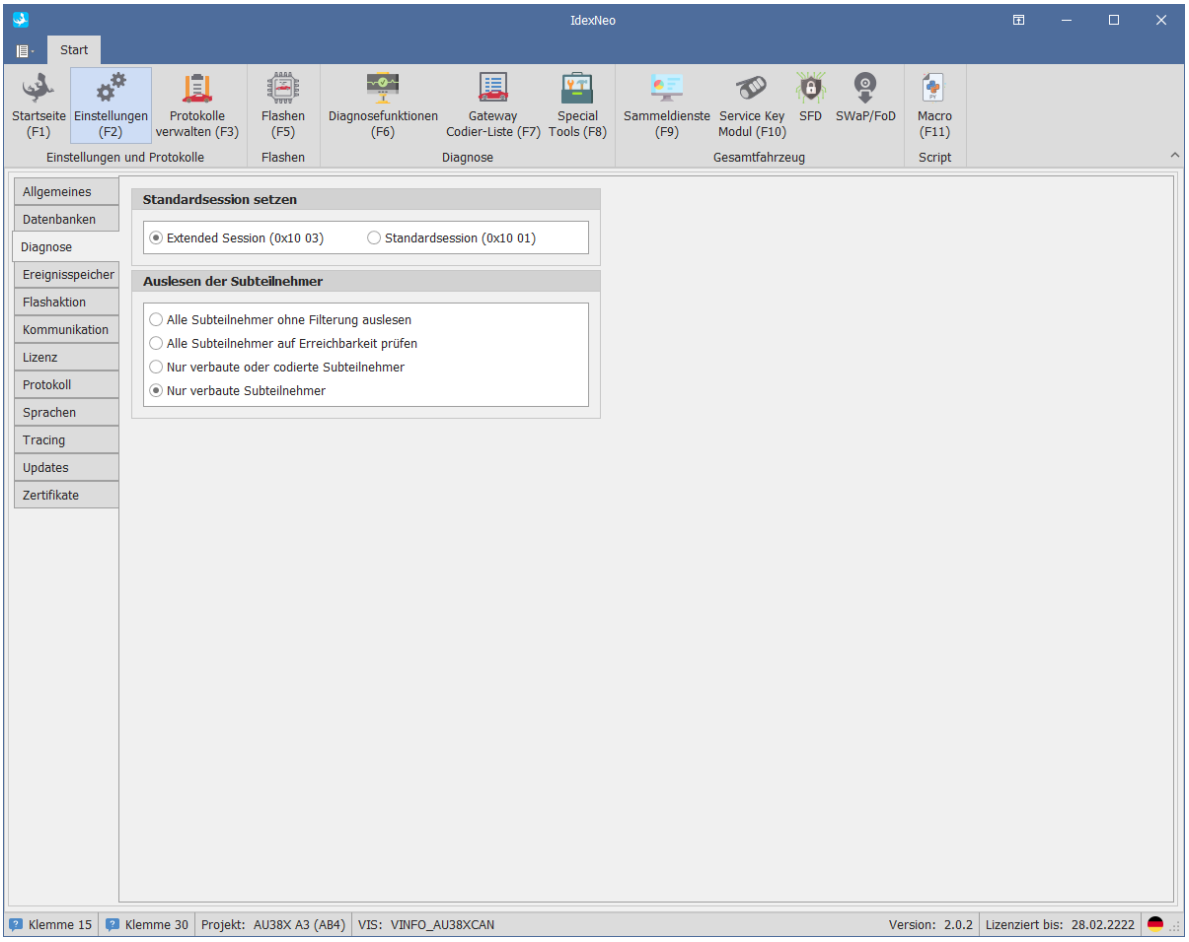
DIAGNOSIS

You can change the following settings under the Diagnosis tab:

- ✓ Read out the mileage with KWP control units
- ✓ Set standard diagnostic session
- ✓ Readout of sub-ECU



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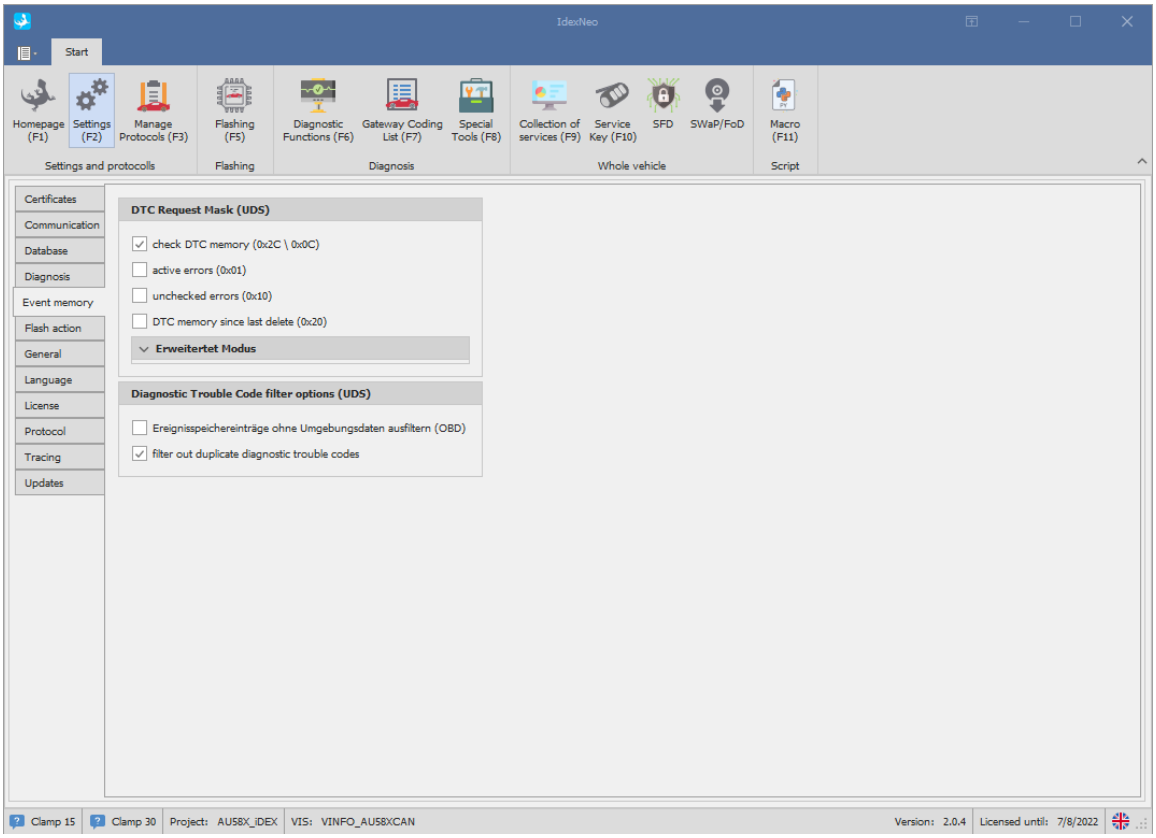
EVENTMEMORY

You can change the following settings under the Event memory tab:

- ✓ Query mask for UDS control units
- ✓ Event log filter options



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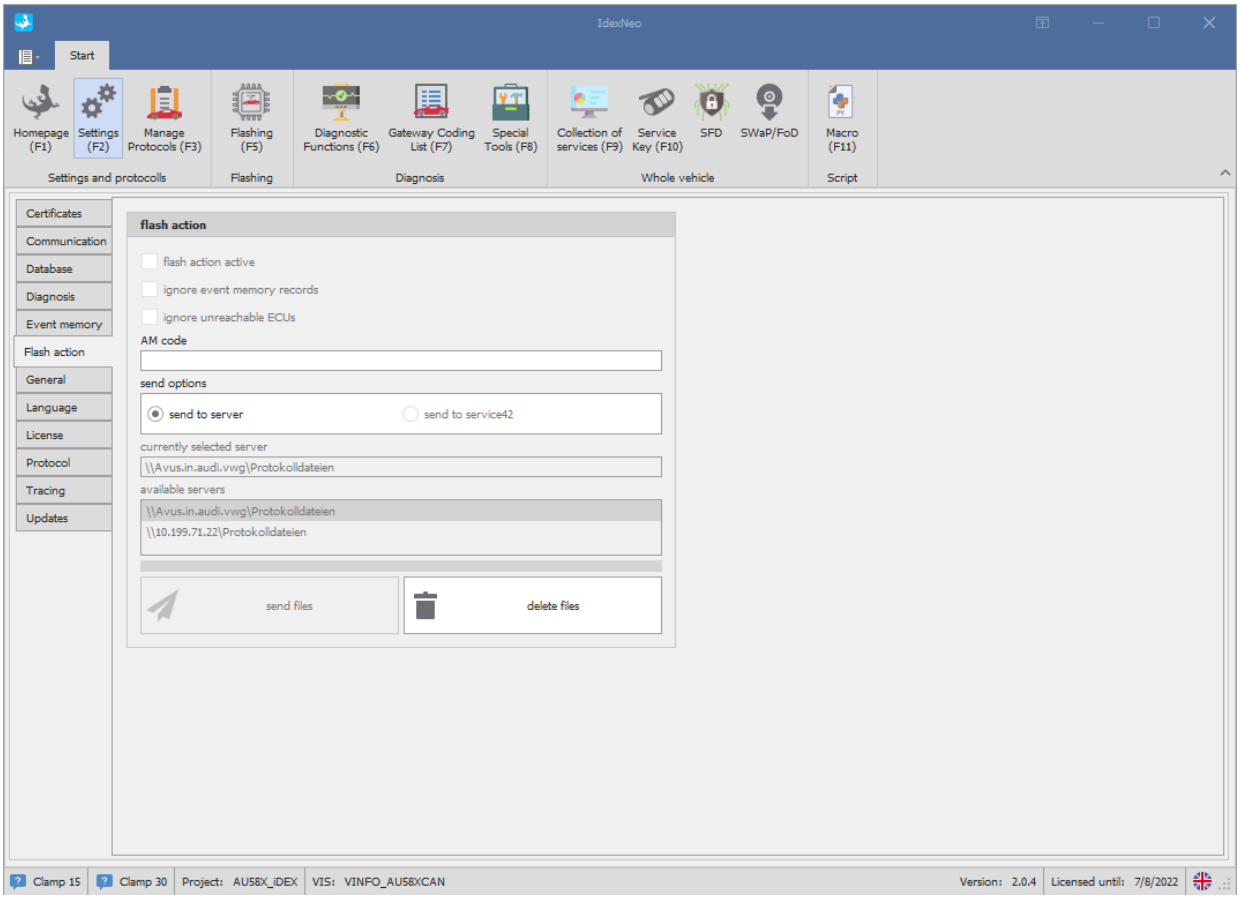
FLASH ACTION

You can change the following settings under the Flash Action tab:

- ✓ Selection to which server the logs should be sent
- ✓ Enter AM-Codes

☞ **Info**:

The "check boxes" are only activated after entering the AM code.D



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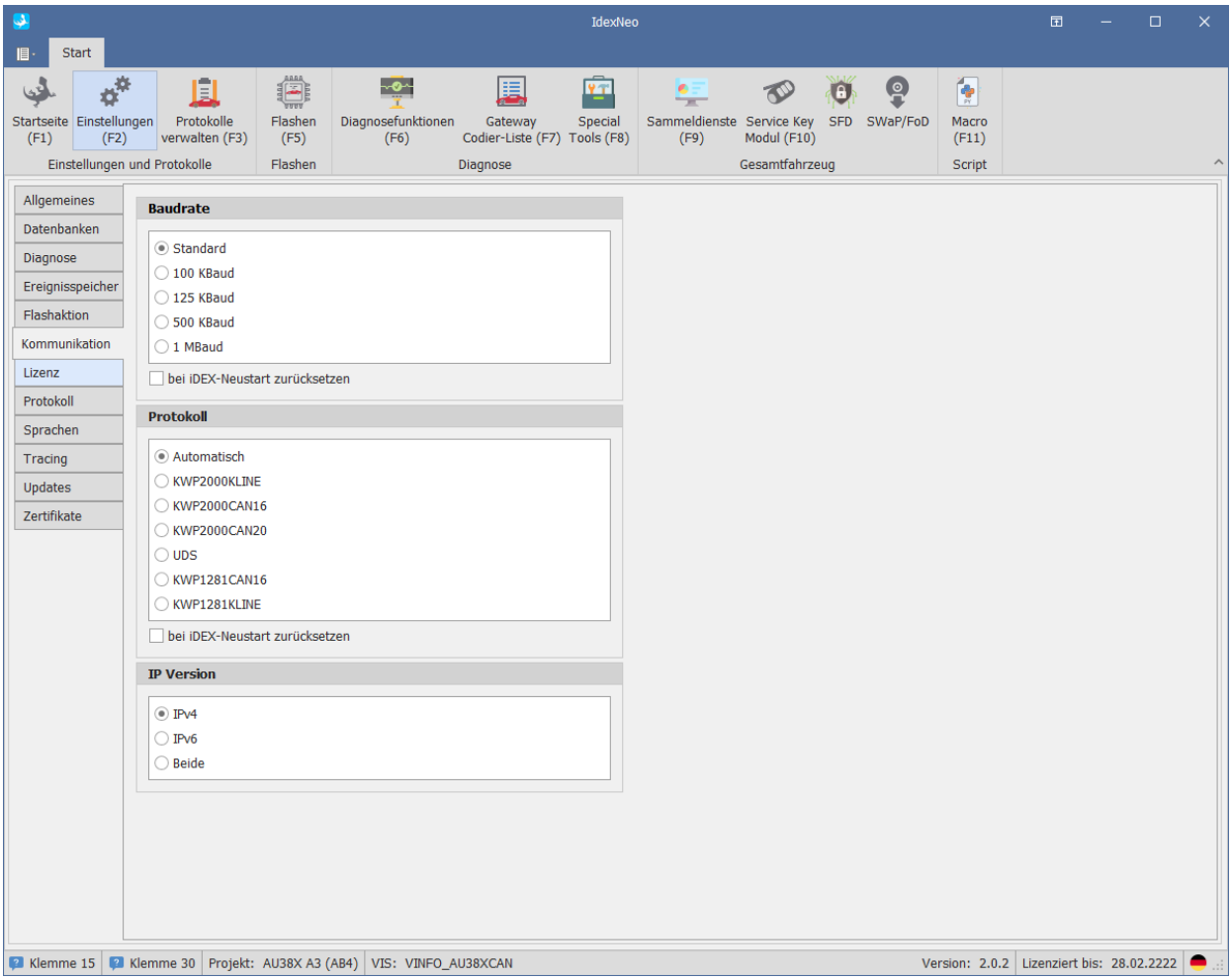
COMMUNICATION

You can change the following settings under the Communication tab.

- ✓ Baudrate
- ✓ Protokoll
- ✓ IP-Version



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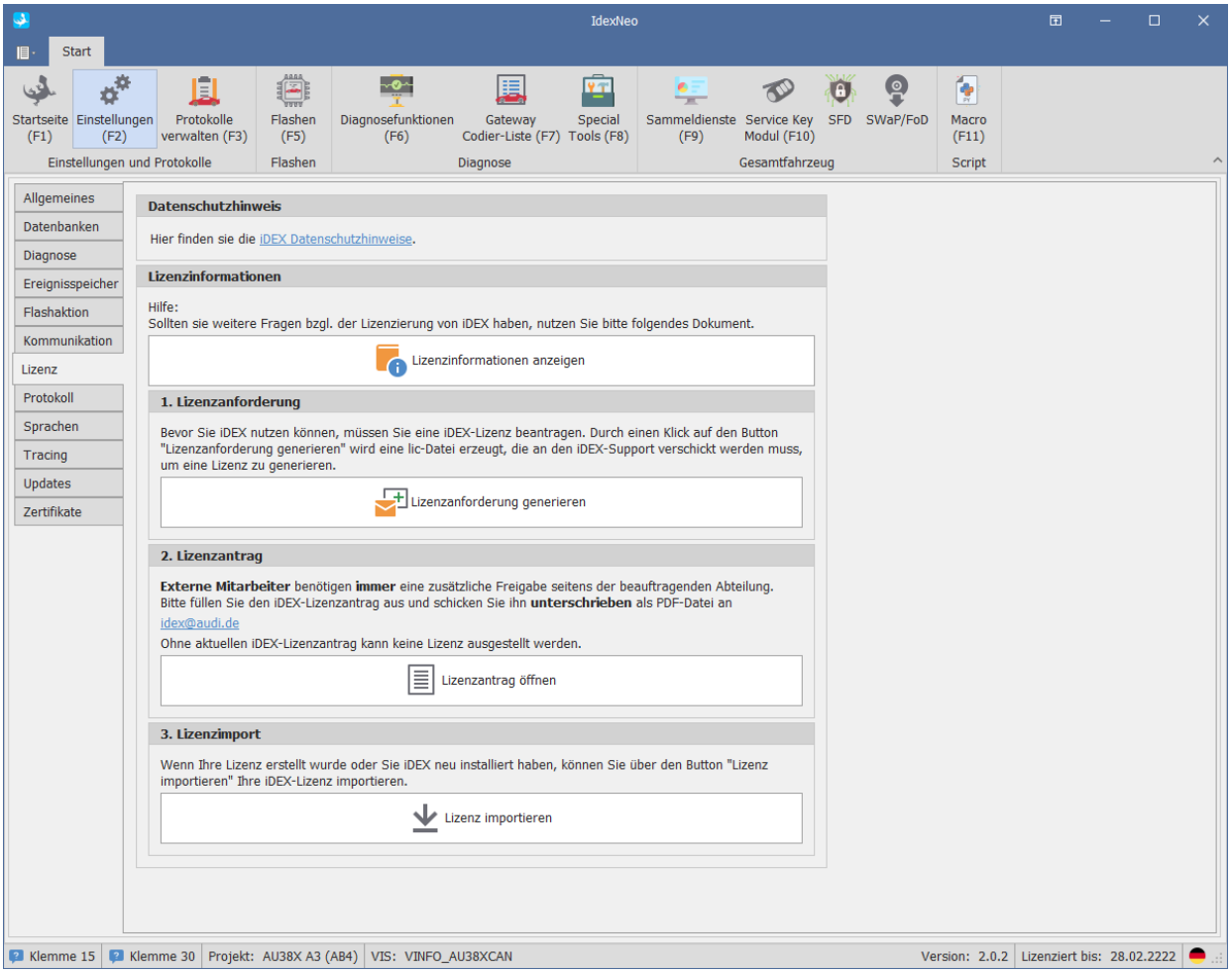
LICENSE

You can change the following settings under the License tab:

- ✓ Generate license request
- ✓ Open license application
- ✓ Import license
- ✓ Show license information
- ✓ Dataprotectionnotice



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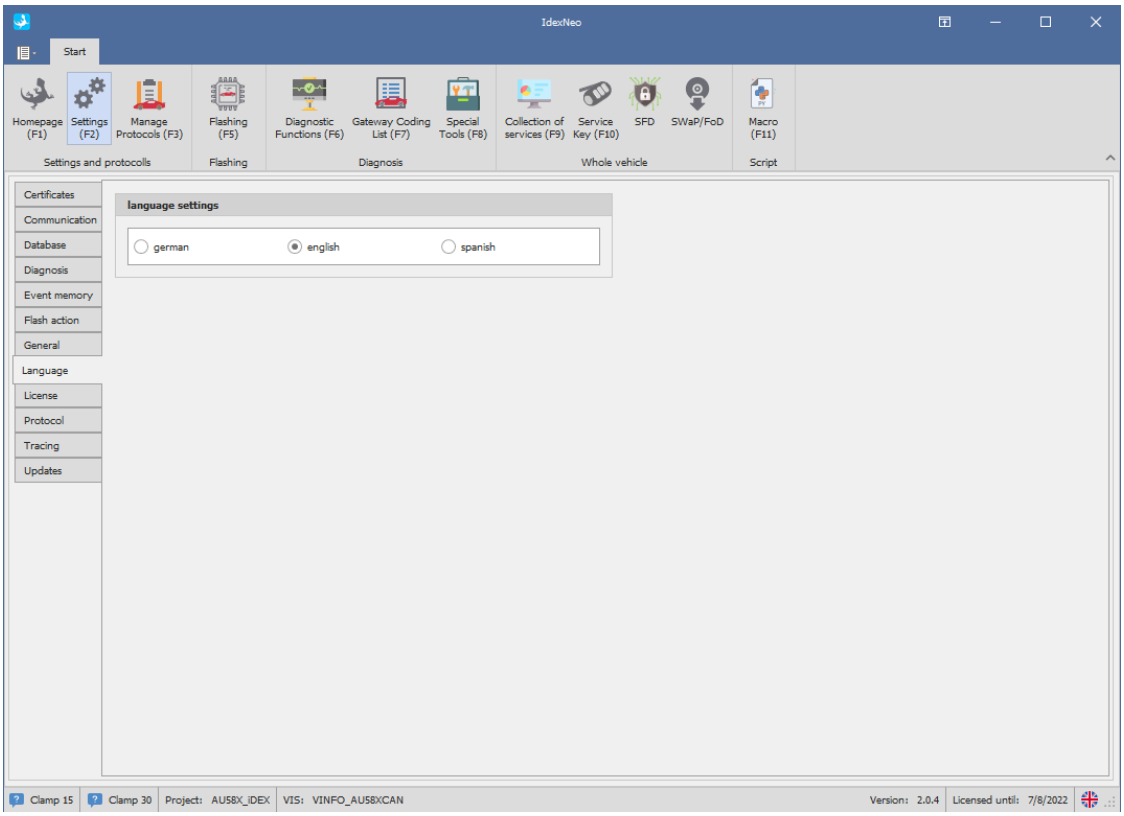
LANGUAGE

You can change the following settings under the **Languages** tab:



The following user languages are possible under language settings:

- ☒ **German**
- ☒ **Englisch**
- ☒ **Spanish**

☞ **Info**:

Please note that iDEX needs to be restarted after setting a different language

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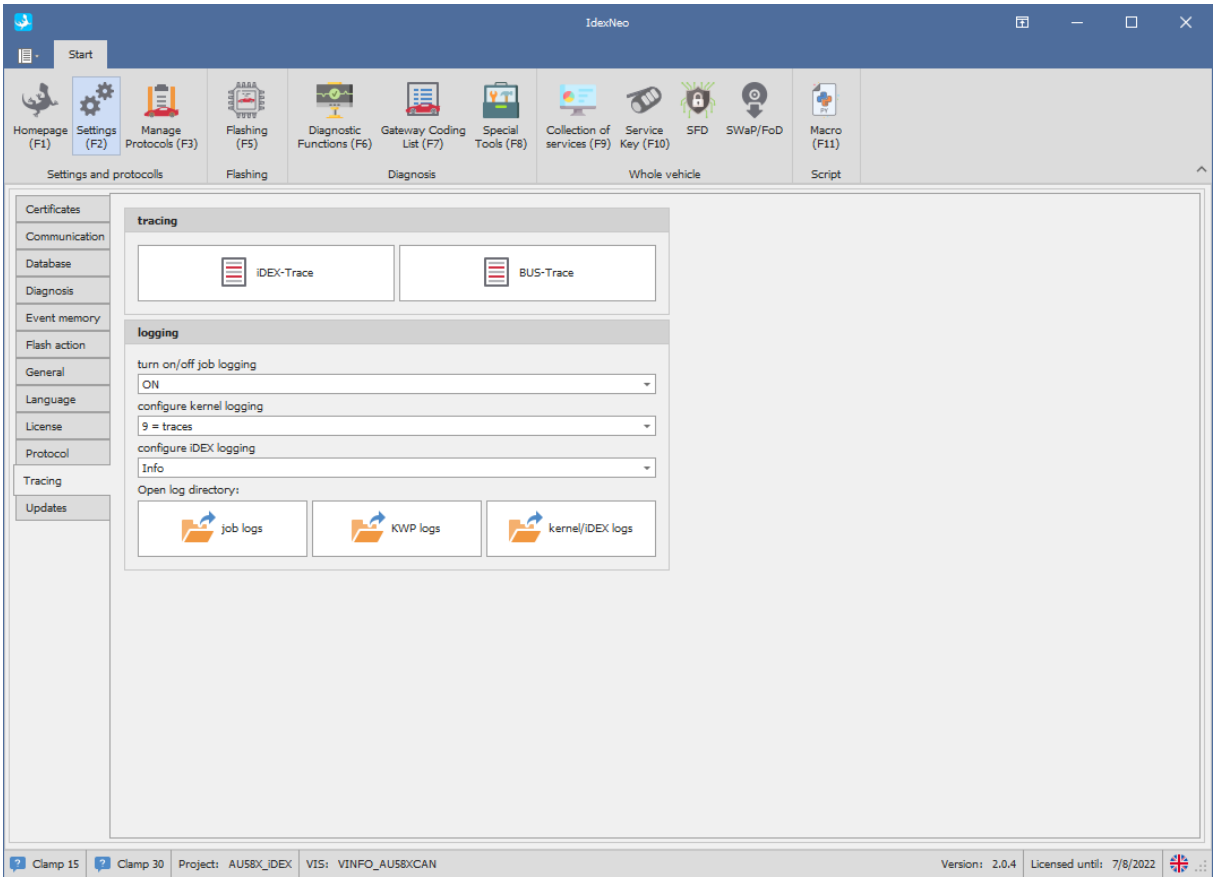
TRACING

You can change the following settings under the Tracing tab:

- ✓ Turn on iDEX/-CAN-Traces
- ✓ Settings for Logging
- ✓ Open log-paths



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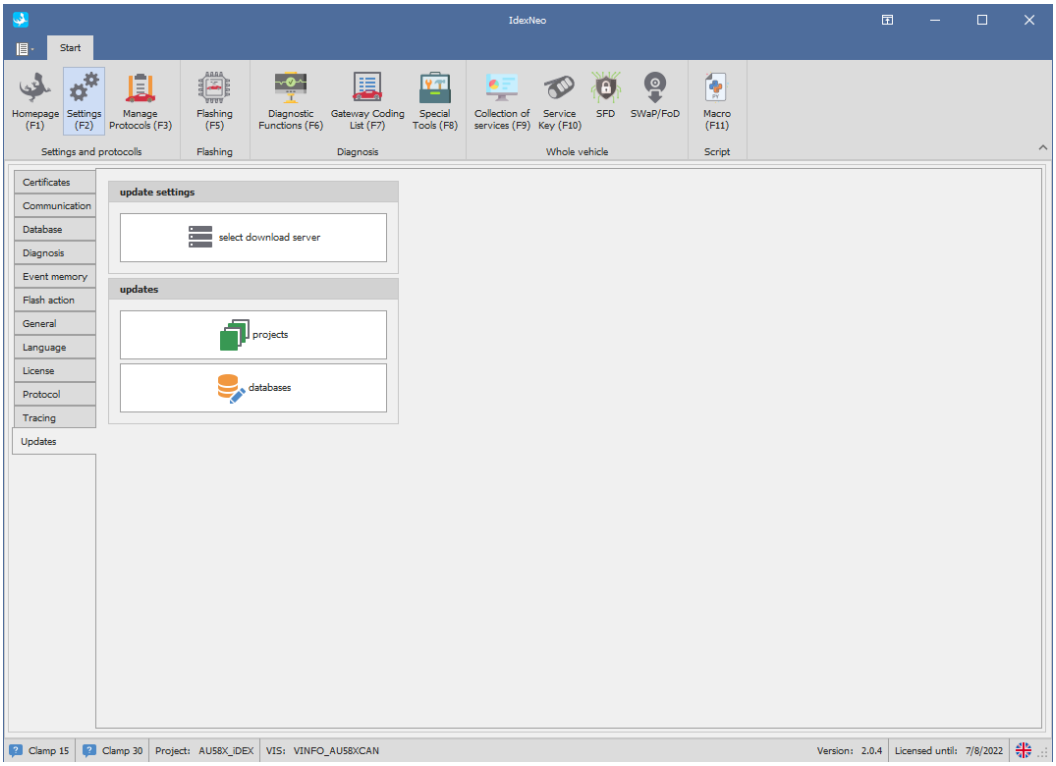
UPDATES

You can change the following settings under the Updates tab:

- ✓ Selection of the Download-Server
- ✓ Update of projects, databases, macros and hex flash configs



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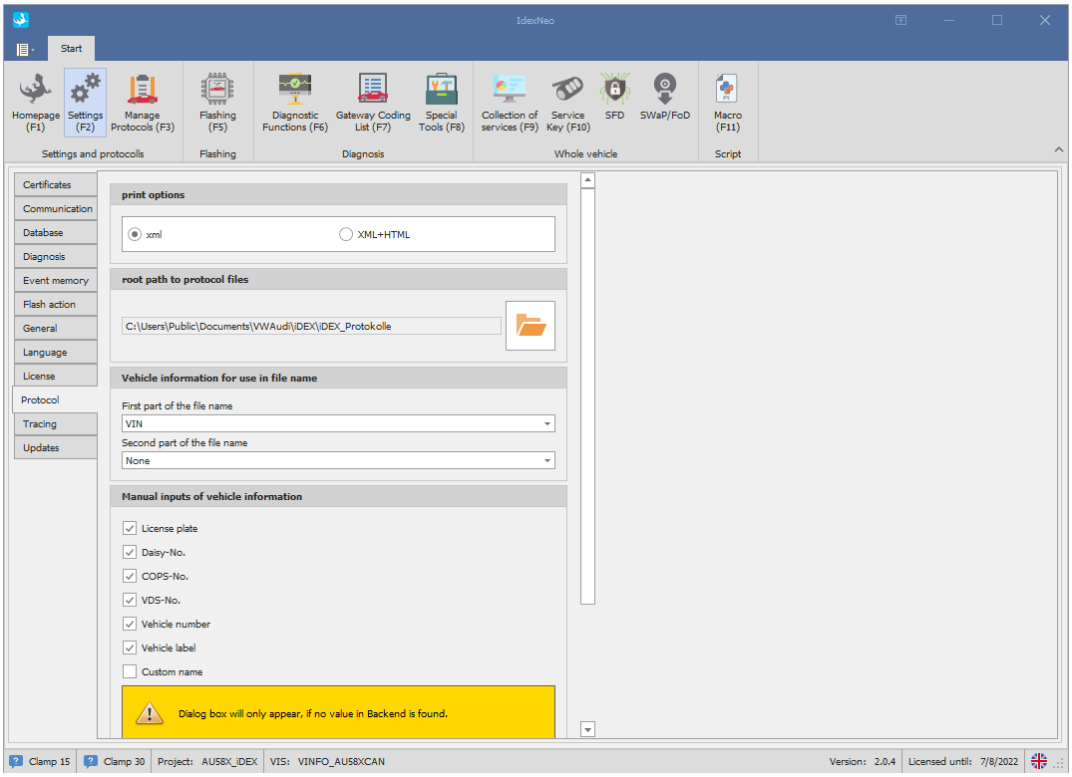
PROTOCOL

You can change the following settings under the Protocol tab:

- Output format of the iDEX protocol
- Set protocol path
- File names 1st-2nd value can be assigned
- Manual input of vehicle. data
- Backend (set the query for Dipon.db)



Im Module „**Protokolle verwalten (F3)**“, werden alle erstellten iDEX-Protokolle angezeigt. Diese sind nach den iDEX-Gruppen (Flashen, Diagnose, Gesamtfahrzeug, Macro) sortiert bzw. gruppiert. Nach Auswahl eines Protokolls wird dies im Vorschaufenster angezeigt.

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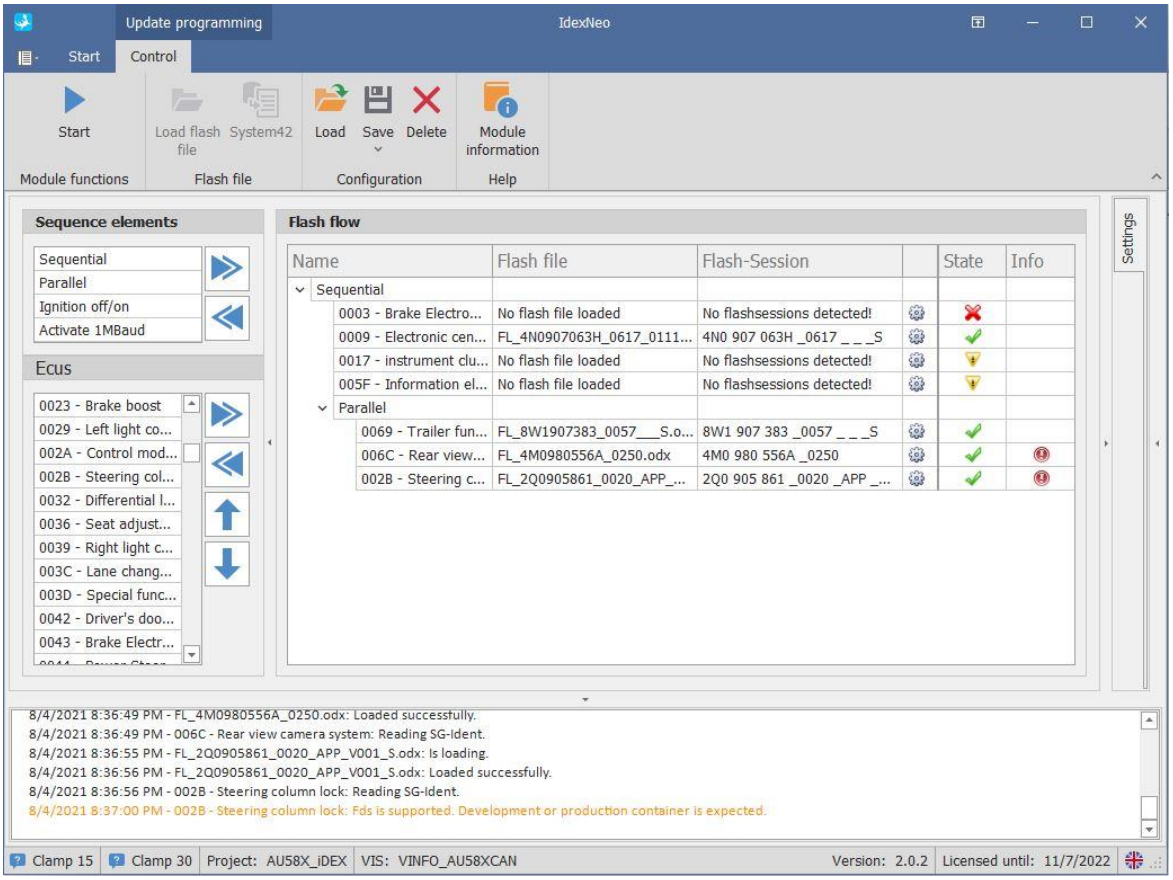
GROUP: FLASHING



FLASHING

Used to configure, load, save and execute flash configurations.
Detailed function description:

Load a flashcontainer

Load a configuration

Save the current configuration

Clear the current configuration

Add the selected element to the flash configur

Move the selected element up

Remove the selected element from the flash configuration

Move the selected element down

 Hide the ECU and element lists

 Show the ECU and element lists

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Use the control buttons to create a flashflow configuration. You can save a configuration by clicking the “Save configuration” butt
You can choose between two different saving formats.

- Save flash flow without actual flashcontainers (*.xml)
- Save flash flow and include all necessary flashcontainer (*.iar)

To load a flash flow configuration use the “Load configuration button.

STATUS SYMBOLS/-MESSAGES

Flash elements will have a status icon to reflect a certain state.
To see a more detailed help text in iDEX hover the mouse cursor over an icon.

Warning: e.g.no flashcontainer selected.

Ready to flash.

ECU not available.

Element not allowed or ECU is twice in parallel section.

Additional flash information available

FLOW ELEMENTS

Sequential	All ECUs an flow elements are flashed in the same sequential order as the list.
Parallel	All ECUs and flow elements are executed in parallel.
Ignition off/on	This element triggers a break in the flash flow. A message box will pop up to ask the perform a ignition switch. After the user confirmes the message the flash flow will c This element is not allowed in a parallel section.
Activate 1MBaud	The first element (ECU or flow element) afterwards will be flashed using a speed of 1

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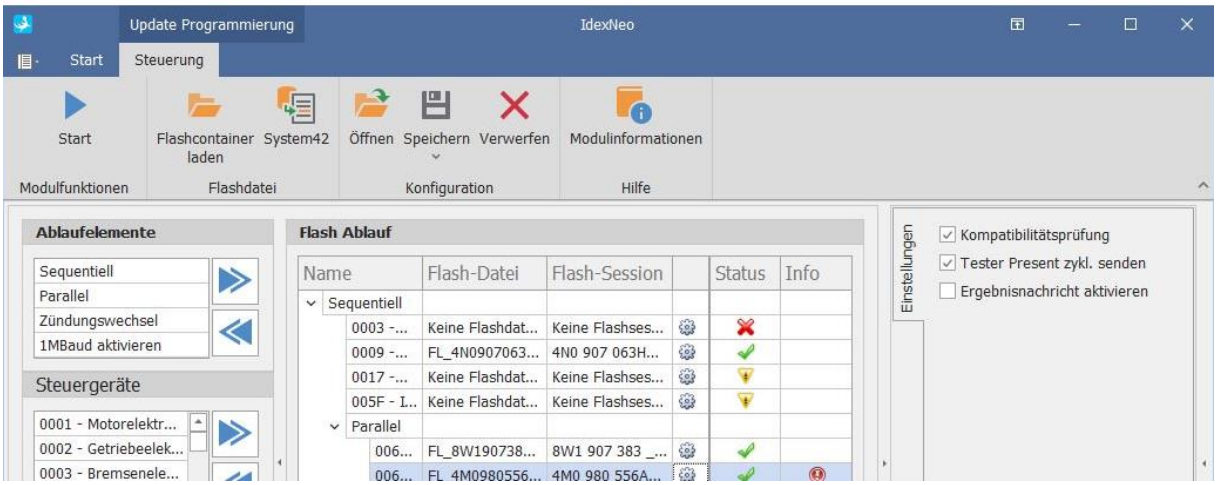
SETTINGS

To access the settings menu you have to click the “Settings” tab on the right side.



Close the settings panel

Opens the user manual for this module

▪ Activate partial flashing	Only changed datablock are written to the ECU
▪ Check expected idents	Validates the “expected idents” of the flash container with data from the ECU.
▪ Send tester present cycl.	Send a cycl.TesterPresent service during the complete flash process

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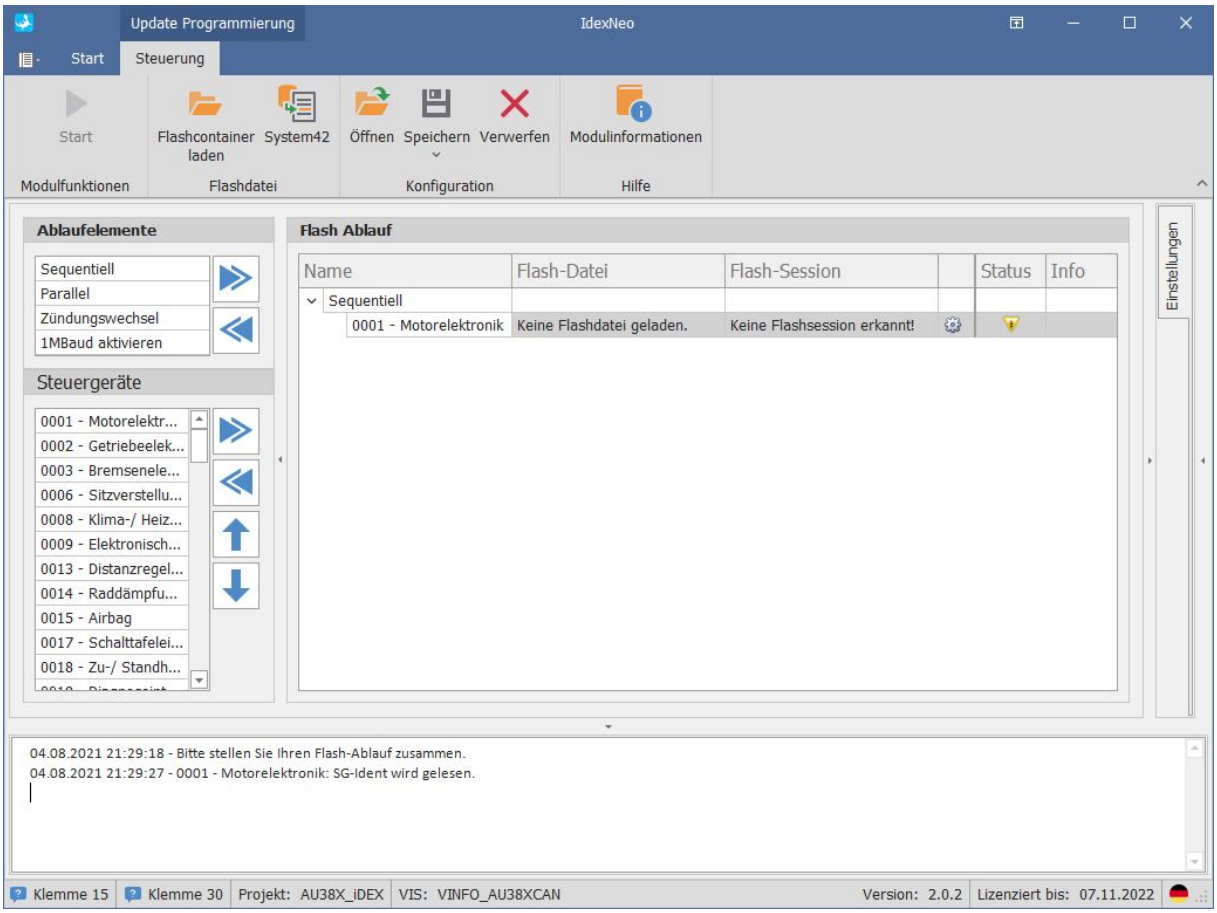
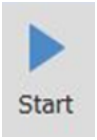
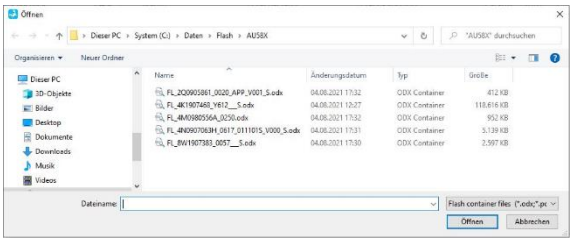
HOW TO FLASH



1. Use either a double click, drag & drop or the control buttons to add a flash flow element from the lists on the left to the configuration.
   When using drag & drop you will see an indicator where your element will be placed.
2. After you added an ECU iDEX will automatically try to get some ECU identification data which are necessary for some following functions.
3. To set the flash container for an ECU you have to select the appropriate row in the configuration first. Now select the “Lo flash container” button (top left folder icon) and open the file through the “Open” dialog box.
   Supported filetypes are: *.odx, *.sgo, *.sgm, *.frf, *.pdx, *.hex and *.zip
4. Proceed till you have set a falsh container for each ECU element.



5. If all ECU elements have the status “ready to flash” (green check) you can start the flash process by clicking the “Start” button in the button right corner.



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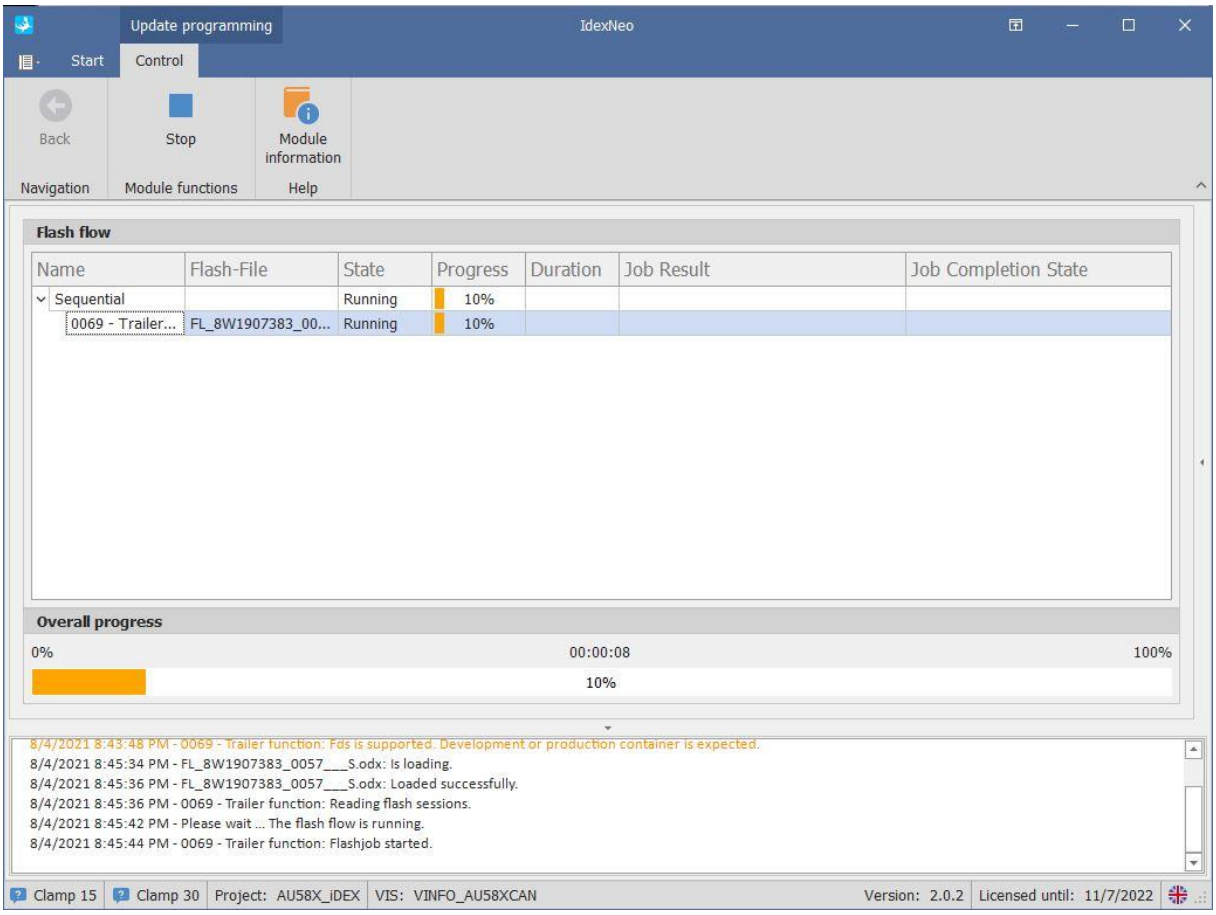

Progress bars:

There are multiple progress bars on the screen to provide a maximum of information.

In general you can categorize them in 3 different types of progressbars which level from more specific/detailed to more rough/summerized:

1. Type Single ECU element
   You will see the live progress of the flash procedure as it was reported by this single ECU
2. Type Sequential or parallel element
   Summerizes all the progress information of its child elements to give you a better overview
3. Type Total progress at the bottom
   Displays the same progress as the top most sequential element but it is quicker and easier to read if you have some distance to your pc monitor.

Stop button:

You can always use the stop button to tell iDEX to cancel the flash flow.

However, the flash process won't get canceled immediately since iDEX will not cancel any ongoing flash procedures to prevent damage to the ECU.

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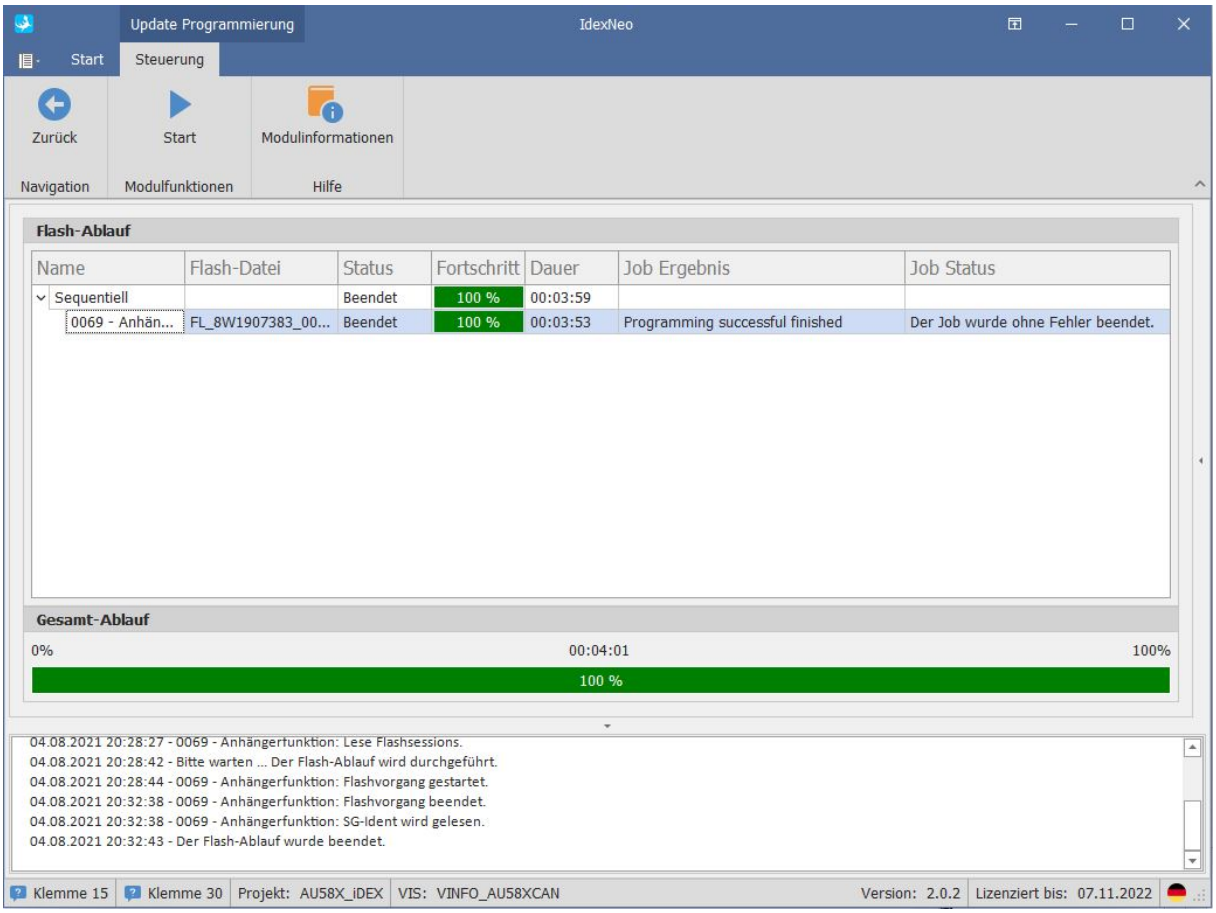

After a completed flash flow you will see the result information on each ECU element and the time it took to process the complet configuration.

The following data is provided for an ECU element:

- Which file was used to flash the ECU
- State of the procedure (e.g. finished or canceled)
- Progress of the flash process
- Duration of the flash process
- Reported job result message
- Reported job status message

The Back button will bring you to the flash flow configuration screen.

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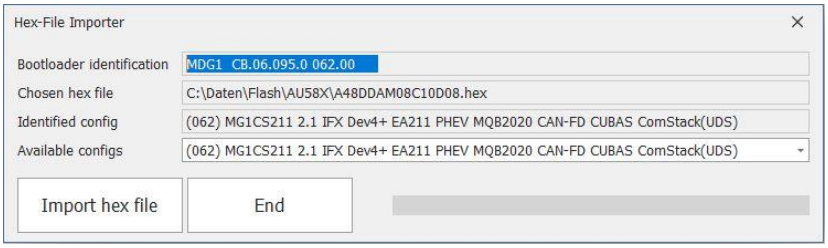
HOW TO HEX FLASH

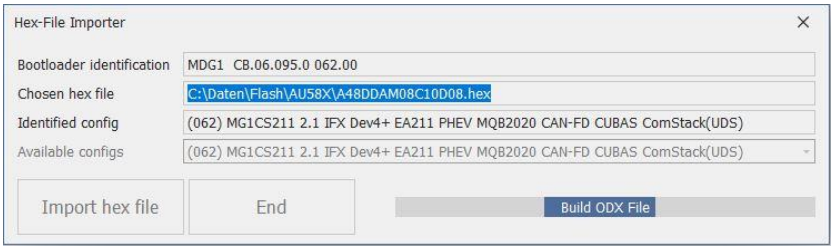
Hex flash describes the process to write hex files to an ECU.
It only differs to the normal flash process in one additional step.

After you have added the ECU element and selected the *.hex file the “Hex-File-Importer” window will appear.



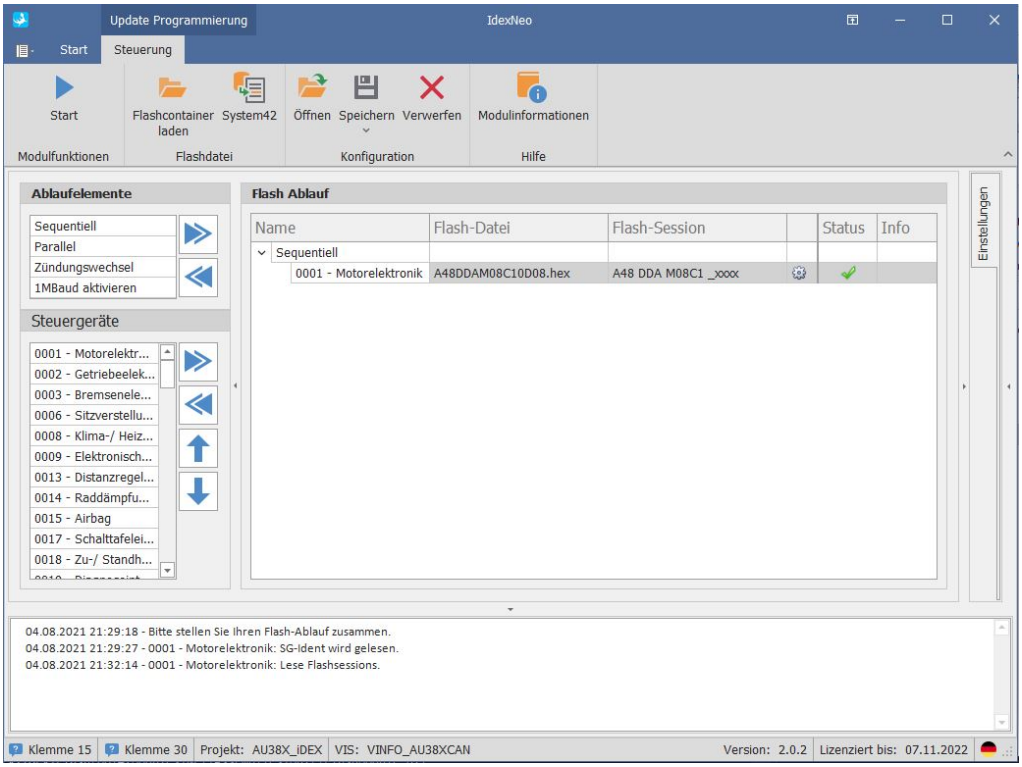
The importer will identify the needed configuration and preselect it. If this automated process doesn´t work or if you realize it selected the wrong configuration, you can also change it manually.

If everything looks promising click the “Import Hex-File” and wait until the conversion process finishes.



After the conversion, you automatically return to the flash flow configuration window.

You can now start the flash process by clicking the “Start” button.



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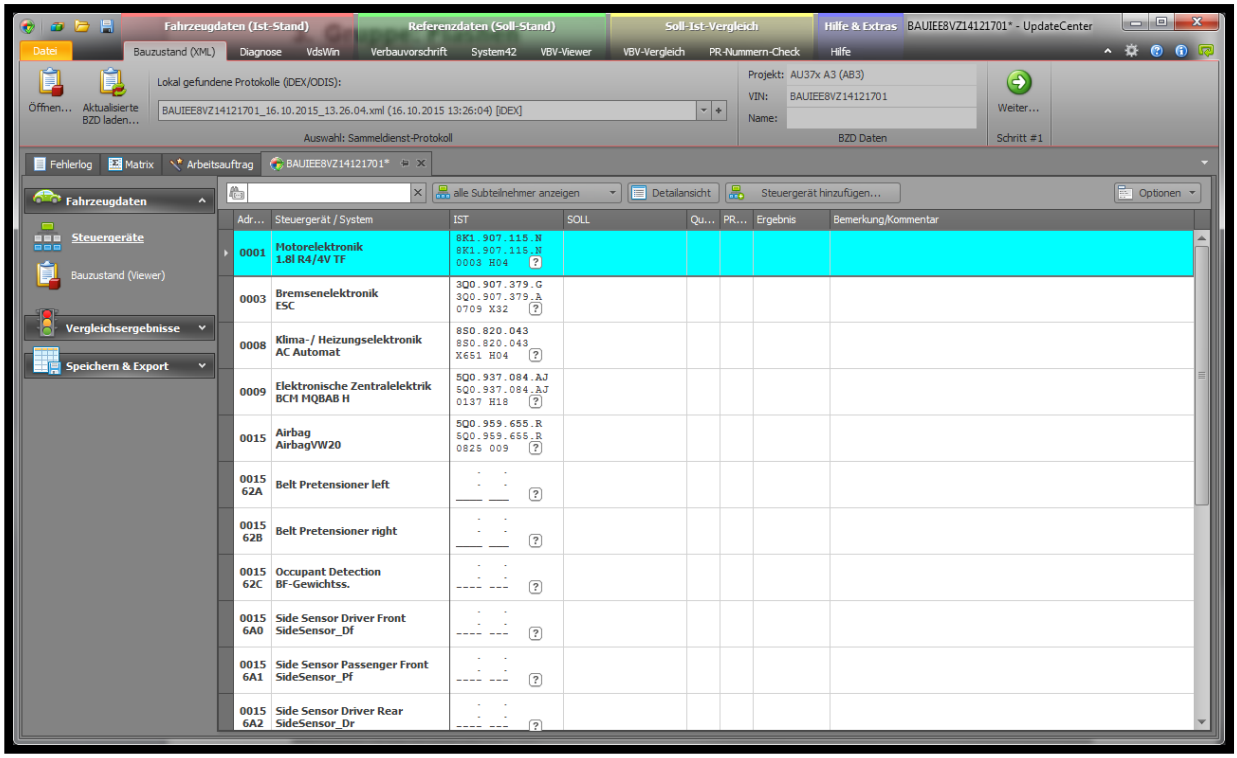
UPDATECENTER

For more information on the “UpdateCenter”, please refer to the documentation for this application. You can call this up in the program using the "?" Button.



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GROUP: DIAGNOSTIC

DIAGNOSTICS - DIAGNOSTIC FUNCTIONS

The Diagnostic Functions module can be accessed via the "F6" key or via the button in the Diagnostics -- **Diagnostic Function** (F6) menu.

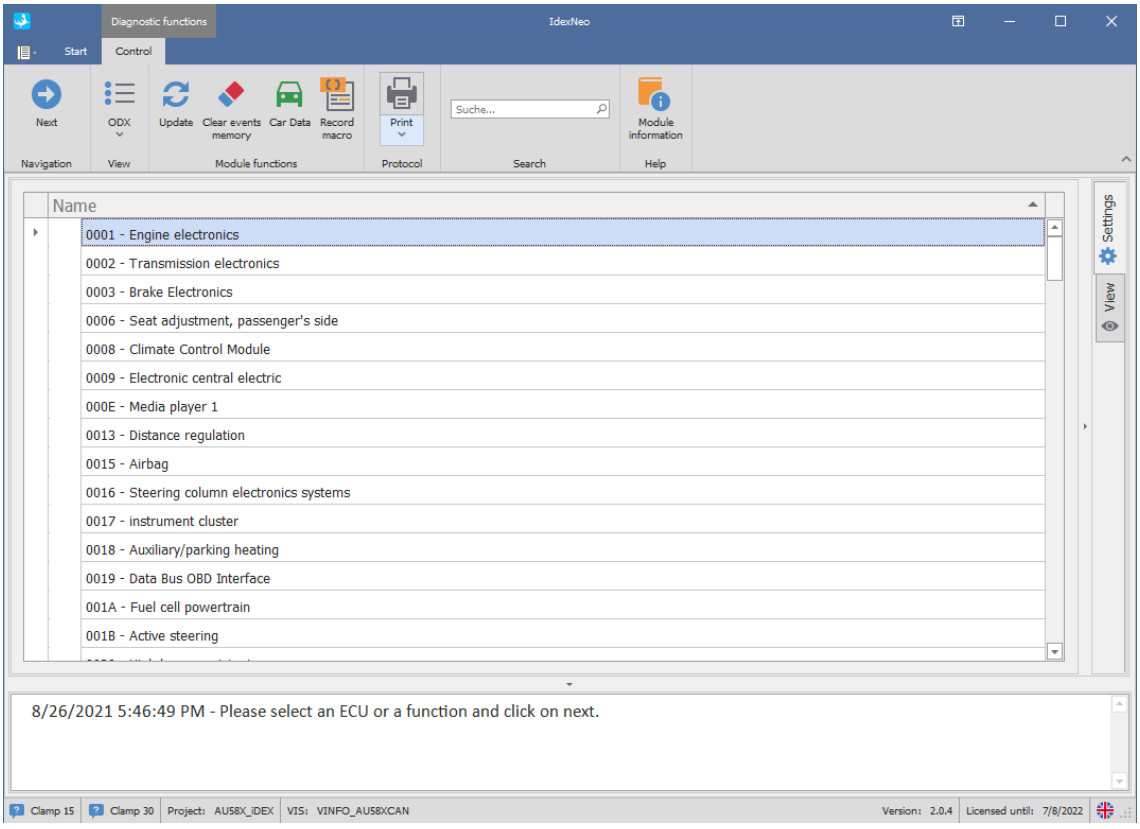
GATEWAY COMPONENT LIST

With this module, a connection to the ECU can be created so that the existing diagnostic functions are displayed by the ECU.

The various representations are explained below.

ODX - ADS

This view displays all existing ECUs that are defined in the vehicle project (ODX). Regardless of whether they are installed in the vehicle.



The main table shows the baud addresses and the names of all existing ECUs.

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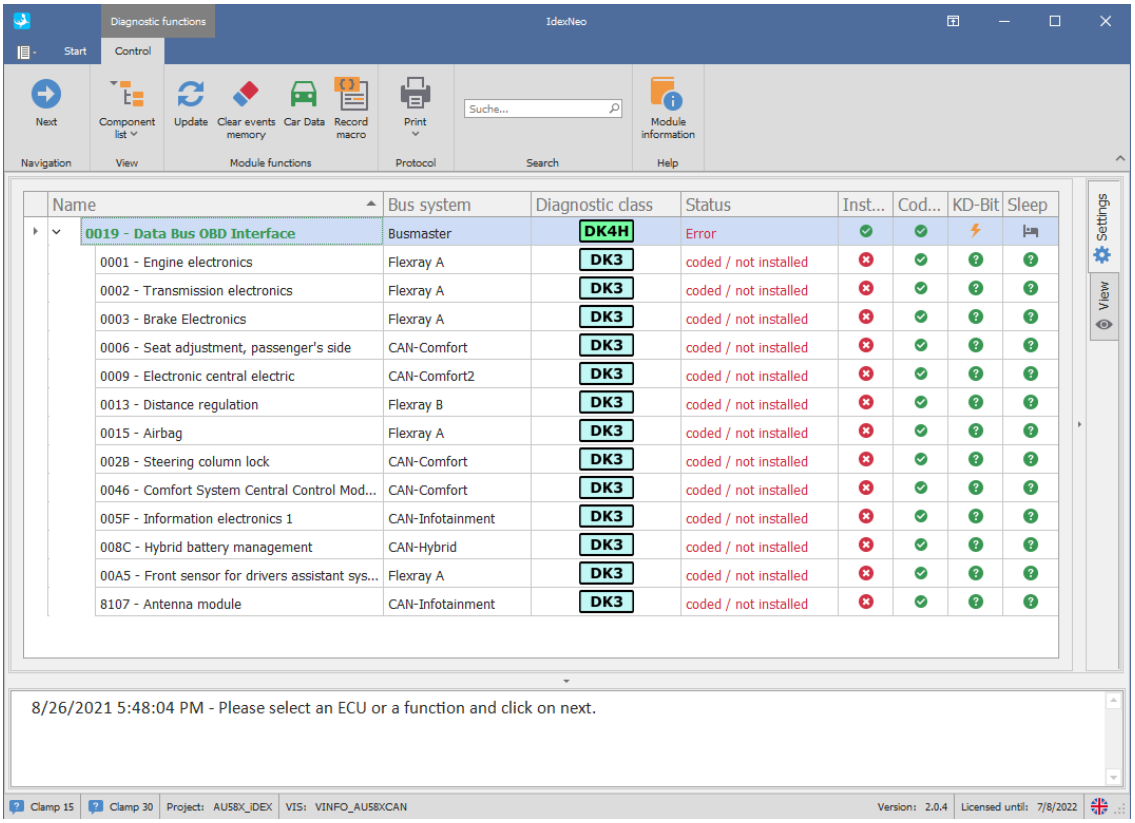
COMPONENT LIST

This view displays all control units that are present in the vehicle. To do this, a connection to the gateway is first created, after which all sub-participants are queried. For "UDS" based vehicles, the remaining bus masters are determined and the same process is carried out individually for each bus master, i.e. connection is created and the sub-participants are read out.



Busmasters are highlighted **in green**

Additional ECU information can be displayed in this table and, depending on which settings have been selected, are also displayed in the view. These ECU information are:

1. **Name**: 4-digit baud address plus name
2. **Bus system**: Possible bus types

- Unknown
- Busmaster
- CAN-Diagnose
- CAN drive
- CAN comfort
- CAN-Infotainment
- CAN chassis
- CAN-Extended
- CAN-Komfort2
- CAN-Lade
- D-CAN
- K2-CANe

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- Flexray-B
- Flexray
- MOST-Infotainment
- LIN
- Logical Bus 1

3. **Diagnostic class**: To which diagnostic class the ECU belongs:

   - DK4H: Busmasters that have sub-participants of classes 3 or 4. You can also have sub-students in grades 0, 1, or 2.
   - DK4L: Bus masters that have sub-participants of classes 0, 1 or 2, which are only visible after the ECU has entered the system.
   - DK3: Subteilnehmer
   - SWCL: A software cluster (SWCL) is used to divide the entire functionality of a system into different integrated units that can be directly diagnosed by a diagnostic client

4. **Status**: The current state of the ecu:

   - All right
   - not installed
   - installed, not coded
   - Unreachable
   - Error (If installed and encoded, but event entries are present.)
   - not installed, coded

5. **Installed**: Whether the control unit is installed

   - Yes (hook)
   - No (Red circle with white X)
   - Unknown (question mark)

6. **Coded**: Whether the ECU is encoded

   - Yes (hook)
   - No (Red circle with white X)
   - Unknown (question mark)

7. **KD**bit: Whether the bit is active for the DTC error.

   - Yes (hook)
   - No (Red circle with white X)

8. **Sleep**: Whether the "Sleep Indication" bit is active.

   - Yes (hook)
   - No (Red circle with white X)

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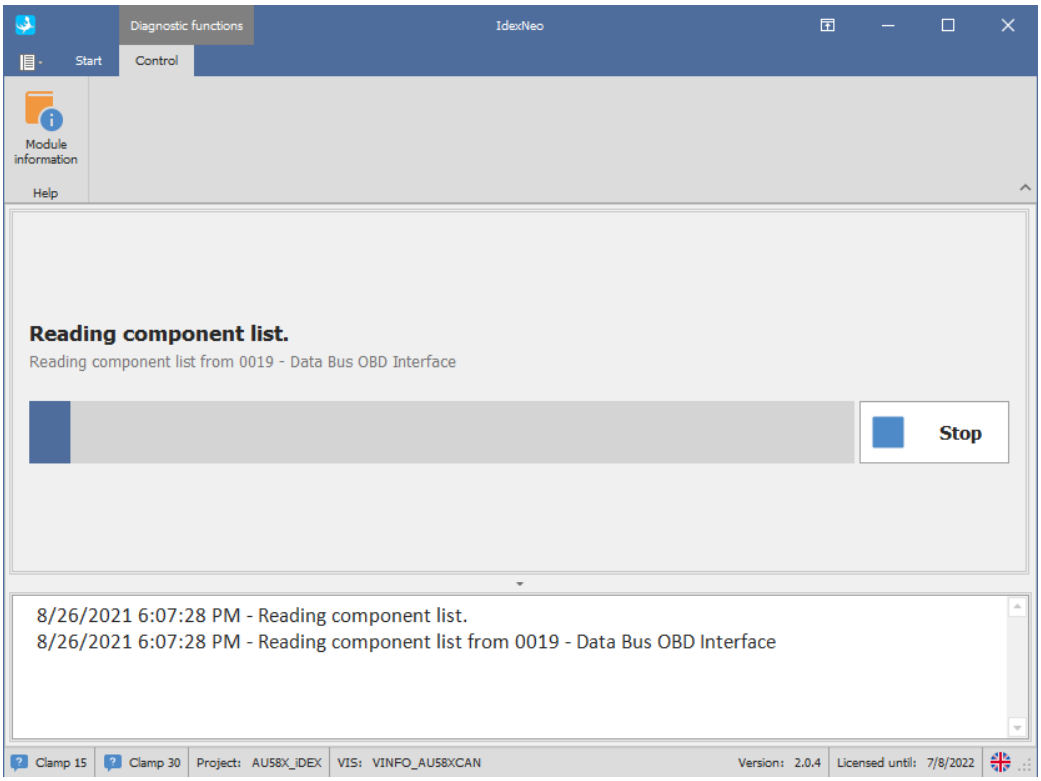
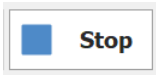
The reading of the installation list can be cancelled at any time by clicking the "Stop" button. Then, in this case, the "ODX list" is displayed.





The reading of the installation list can be cancelled at any time by clicking the "Stop" button. then in this case the "odx list" is displayed.

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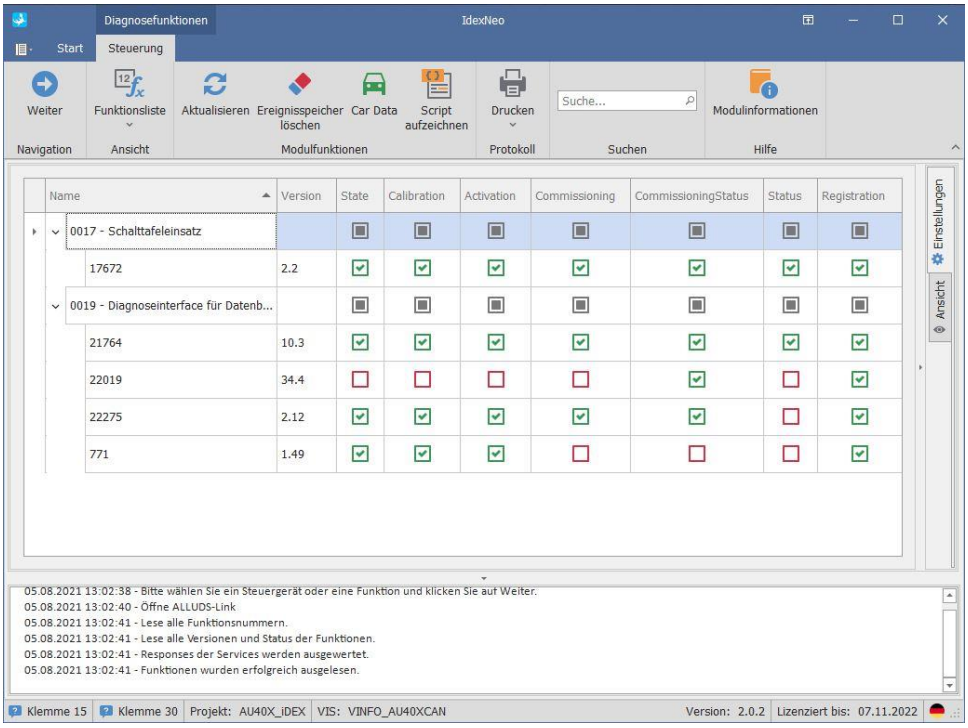
FUNCTIONSLIST

A table is displayed for the function list in which the function master ECUs and the associated functions are listed.



The following data is displayed:

1. **Name**: 4 digit baud address plus name of function master or function number
2. **Version**: Function version
3. **State**: Whether the function is in order
   - Yes (hook)
   - No (Red circle with white X)
4. **Calibration**: Whether the function is calibrated correctly
   - Yes (hook)
   - No (Red circle with white X)
5. **Activation**: Whether the function is active
   - Yes (hook)
   - No (Red circle with white X)
6. **Commissioning**: Whether the function needs commissioning
   - Yes (hook)
   - No (Red circle with white X)
7. **Commissioning status**: Whether the function has been commissioned
   - Yes (hook)
   - No (Red circle with white X)
8. **Status**: Whether the function is active
   - Yes (hook)
   - No (Red circle with white X)
9. **Registration**: Whether the function is registered
   - Yes (hook)
   - No (Red circle with white X)

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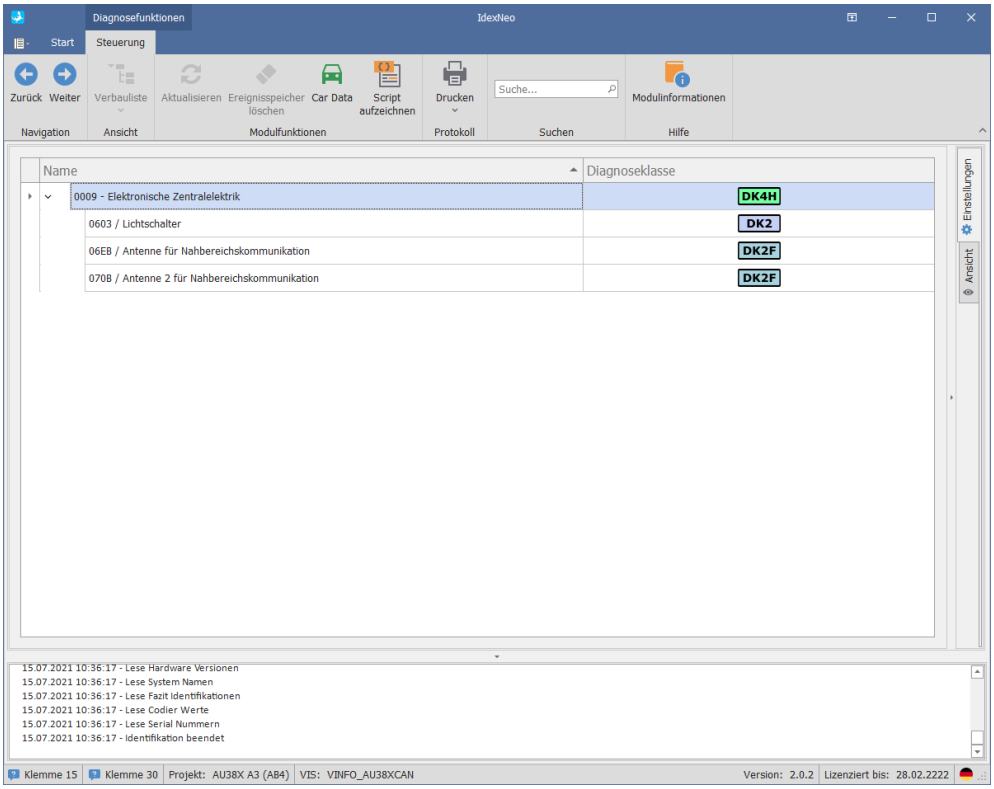
SUB PARTICIPANTS

After entering the control unit, this view is displayed when sub-participants of class 0, 1 or 2 are visible. If there is no sub-participant, the view of the diagnostics module is displayed.



This table displays two columns:

1. **Name**: Construction address and name of the system
2. **Diagnoseklasse**:
    1. DK4L: Bus masters that have sub-participants of classes 0, 1 or 2, which are only visible after the ECU has entered the system.
    2. SWCL: Software Cluster
    3. DK0: Sub-participants who only report error states to their master. They are used without software / hardware changes and do not have a VW AG part number
    4. DK1: Sub-participants who have a VW AG part number. They can only be diagnosed via their bus master
    5. DK2: Sub-participants whose diagnostic functions are distributed on the bus master and on the system itself. Diagnostics is forwarded to the system by a bus master.
    6. DK2F: like DK2 but additionally reprogrammable
    7. SWC: Software Components (SWC) are used to further subdide software compositions. Software components represent parts of the application software.
    8. SWCO: A Software Composition (SWCO) divides software clusters or the software of a (virtual) system into different integrated units (e.B. from different suppliers).

The selection in this view is stored internally so that the selected ECU or sub-participants can be flashed.

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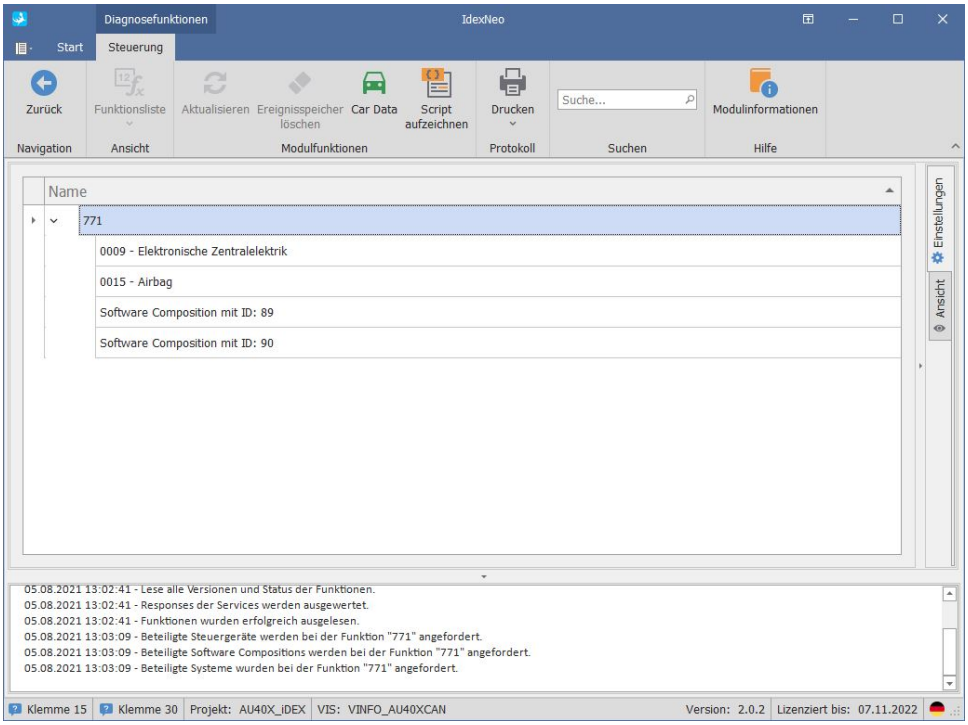
PARTICIPATING SYSTEMS IN THE FUNCTION

When a function is selected or selected and clicked on**"Next",** all systems involved in the function are requested.



This table displays the function number and the name of the systems involved. These systems can be either an ECU or a software composition.

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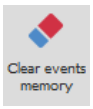
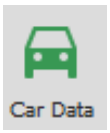
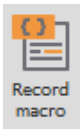
CONTROL BUTTONS

	Reload list
	Print log
	Clear event stores
	Vehicle
	Record Macro
	Search field for the tree list

Refresh / Reload List

The displayed list is reread

Print log

A log file is created with the existing diagnostic data. Internet Explorer is opened or called up to display the log file.

If a log file has already been created for the current diagnostic flow, the new diagnostic data will be added to this file.

Clear event stores

The event store is cleared. The result of the deletion is returned at the bottom of the module.

Vehicle

When you click on the "Vehicle Data" button, the following dialog is displayed.

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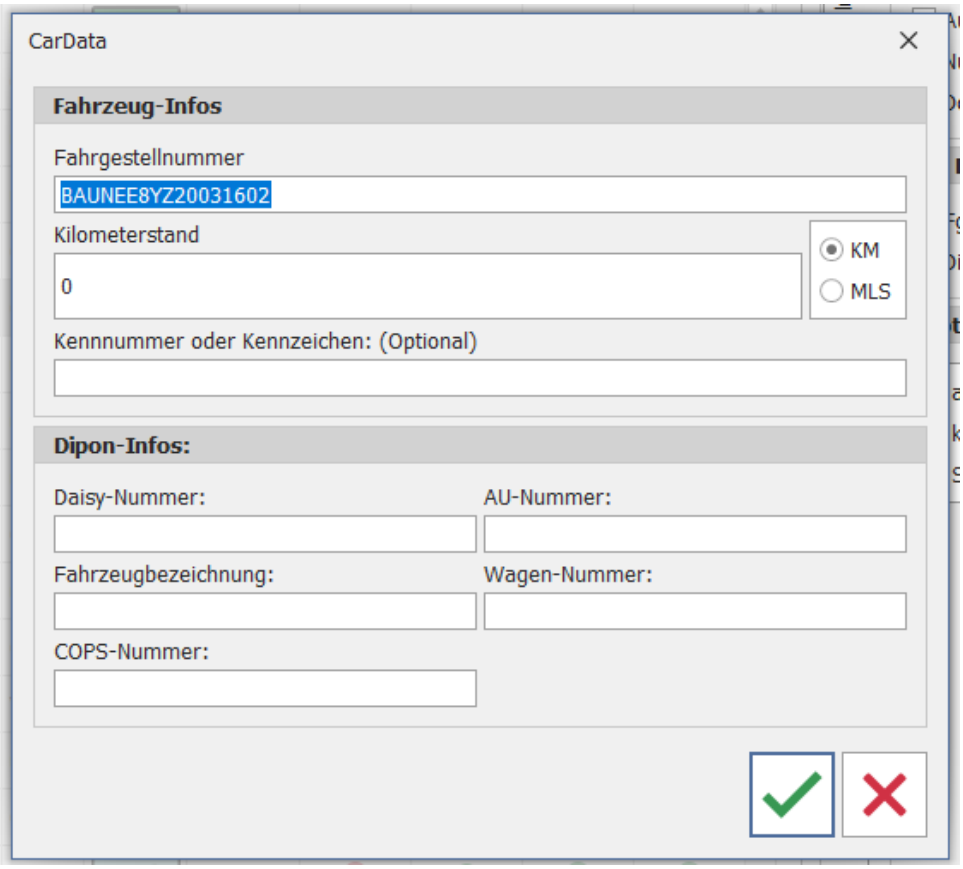


In this dialog you can enter the chassis number, the mileage and the identification number. The first two inputs have some default values if they are present in the vehicle.

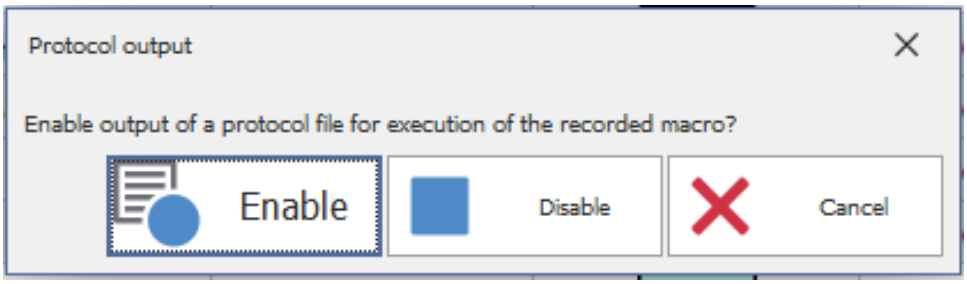
The unit of mileage can be selected in either kilometers (KM) and miles (MLS).

The fields for the "Dipon" information are not editable, as they are read from the "Dipon" vehicle database. Based on the chassis number, the existing data is returned. The path for this vehicle database can be found under Settings (F2) > tab "Databases".

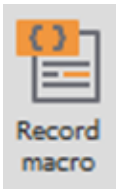
When you click on the**"click"**button, the data is stored in the log. By clicking on the "Red circle with sage X" the entries are discarded.

1. Record Macro

When a macro is recorded, the log output setting is queried.



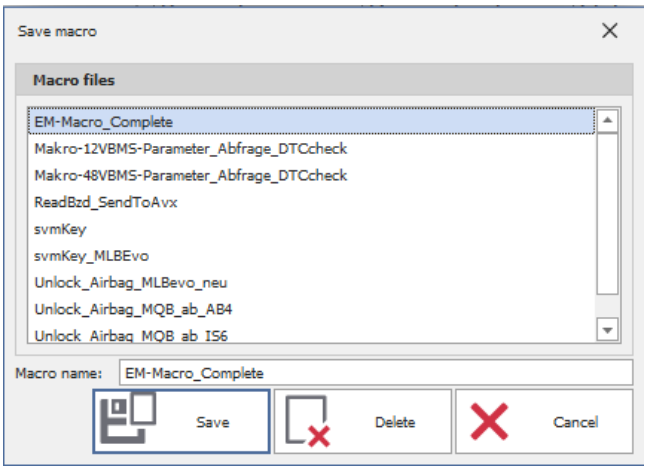
CONFIDENTIAL



If a log is created in the execution of the recorded macro, you should click on "**Turn on**" here. If not, use the button "**Remove**". Clicking Cancel doesnot recorda macro.

As soon as a macro is recorded, the button remains stored as active.

When the button is pressed a second time, the "**Macro Save**"dialog appears.



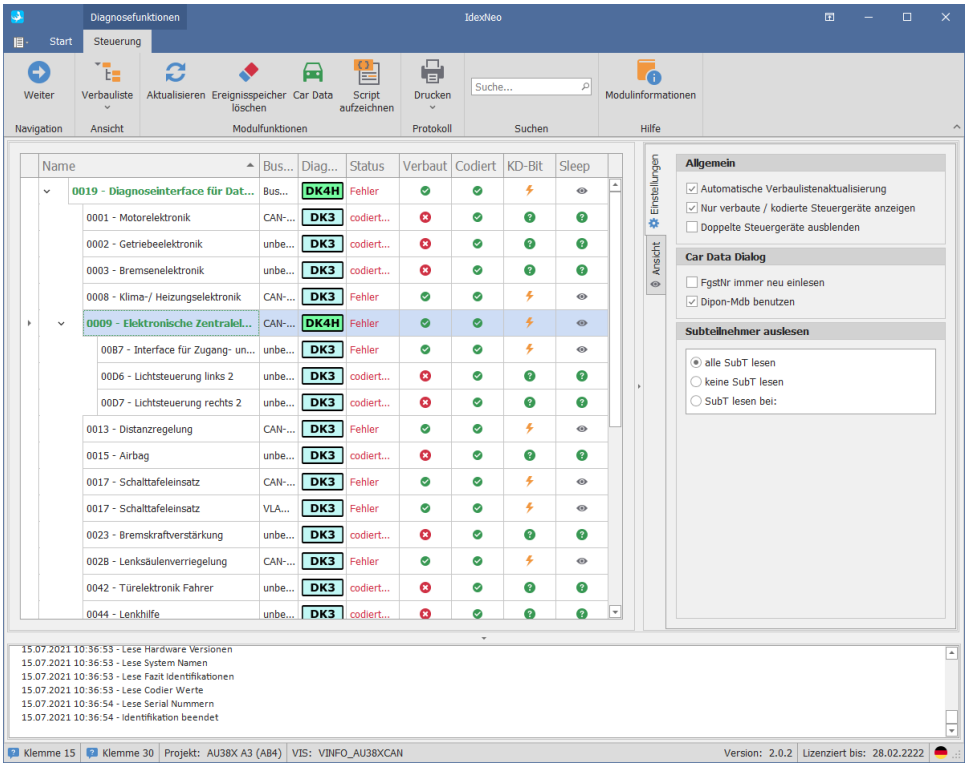
All existing macros are displayed in this list. In the field "**Macro-Name:**" the macro name should be entered. When saving, the macro is saved locally. The "**Delete**" deletes the selected macro in the list. Clicking Canceldoes not**save**the macro.

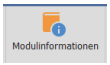
The result of saving is reported at the bottom of the module ("ActionInfo" field).

CONFIDENTIAL

SETTINGS

The settings menu can be opened with the mouse by clicking on the tab "**Settings**" or"**View**".





Opens the User's Guide for this module.

CONFIDENTIAL

SETTINGS TAB CARD

1. General

"Automatic Obstruct list update": Specifies whether certain actions such as.B event memory delete or encoding list write and the installation list should be updated automatically.

"Show only installed / coded ECUs": Specifies whether only installed or coded ECUs should be displayed.

2. Read sub-participants

This setting shows how the sub-participants are read:

- "Read all SubT": Sub participants are always read out
- "Do not read SubT": Sub-participants are never read out
- "SubT read at:" The sub-participants are only read out in the selected CONTROL unit. A table is displayed in which all ECUs are selected by default. By ticking the checkbox, individual ones can be removed.

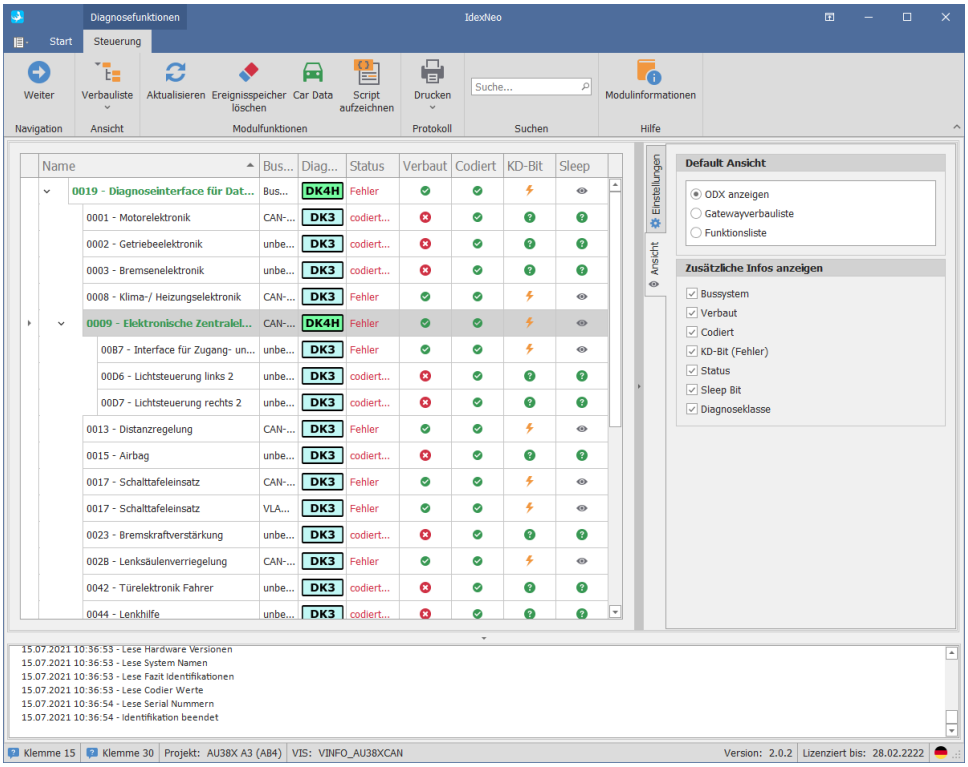
3. Car Data Dialog

"Always read out Fgstnr": Specifies whether the chassis number should always be read out when the "Vehicle data" dialog is displayed. If the check mark is not set, the last chassis number read is taken over.

"Use Dipon-Mdb": Specifies whether the "Dipon" vehicle database should be used in the "Vehicle Data" dialog to read out different data.

CONFIDENTIAL

VIEW TAB MAP



1. Default View

Here you can select which view should be displayed by default when the module is loaded:

1. View ODX
2. Gatewayverbauliste
3. Funktionsliste

1. Get more info

Setting only the gateway installation list, since this information is only available in this view.

1.	"Bus system"	Displays the Bus System column in the list.
2.	"Installed"	Displays the "Installed" column in the list
3.	"Coded"	Displays the Class column in the list.
4.	"KD bit (error)"	Displays the KD Bit column in the list
5.	„Status“	Displays the Status column in the list.
6.	„Sleep Bit“	Displays the Sleep Bit column in the list.
7.	„Diagnoseklasse“	Displays the Diagnostic Class column in the list.

CONFIDENTIAL

SELECT A CONTROL UNIT AND CREATE A CONNECTION

Several procedures can be used to select a control unit:

Selection by mouse control	Click on the desired ECU
Arrow key ñ (up) or ò (down)	Changes the selection to next bottom or top row.
Enter the baud address (or keyword)	When entering the baud address with the keyboard, the corresponding control unit is selected. z.B.: when entering "03", "0003 – Brake Electronics" is selected.

If you press "**Next**" or the Enter button on the keyboard, a connection to the selected ECU is established. If the setting is selected, the identification data of the ECU, including the subsystems, are then read. Then, if necessary, all subsystems are displayed.

The "Diagnostic Functions" module is loaded.

If a connection could not be established, a message is displayed indicating this.

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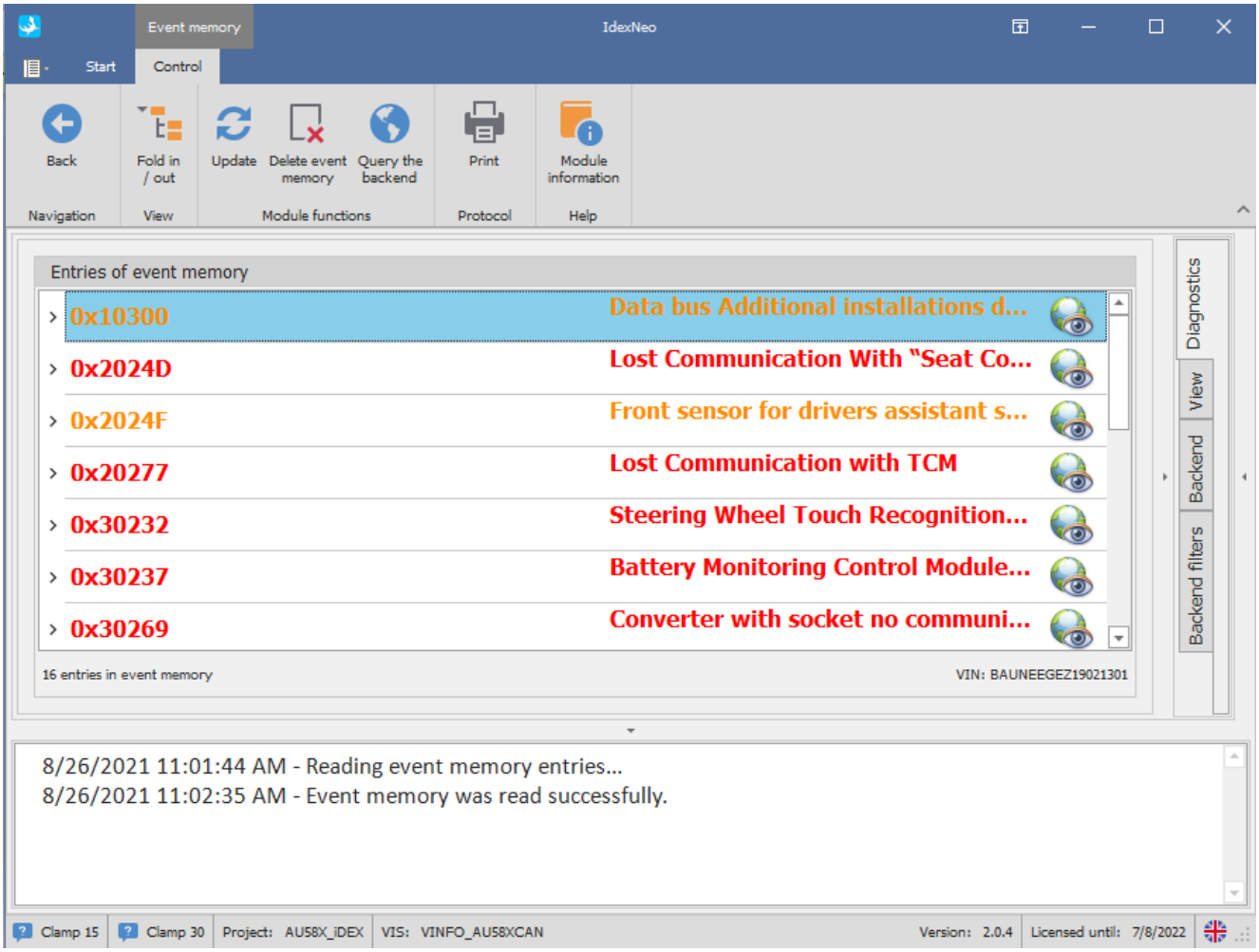
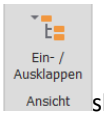
READ / DELETE EVENT MEMORY ENTRIES

When the modul is loaded, it will automatically start to read the event memory.
The result will be shown as a list where active DTCs are red-coloured whereas passive DTCs are displayed in orange.



Description of available buttons:



show / hide details for all entries

print protocol

delete event memory

re-read event memory

Query external systems.
Needs to be configured in the „Backend“ settings tab.

Display additional information of external systems.
May be grayscale if there are no valid results.

Read the vehicle identification number.
(Will get displayed right after the colon)

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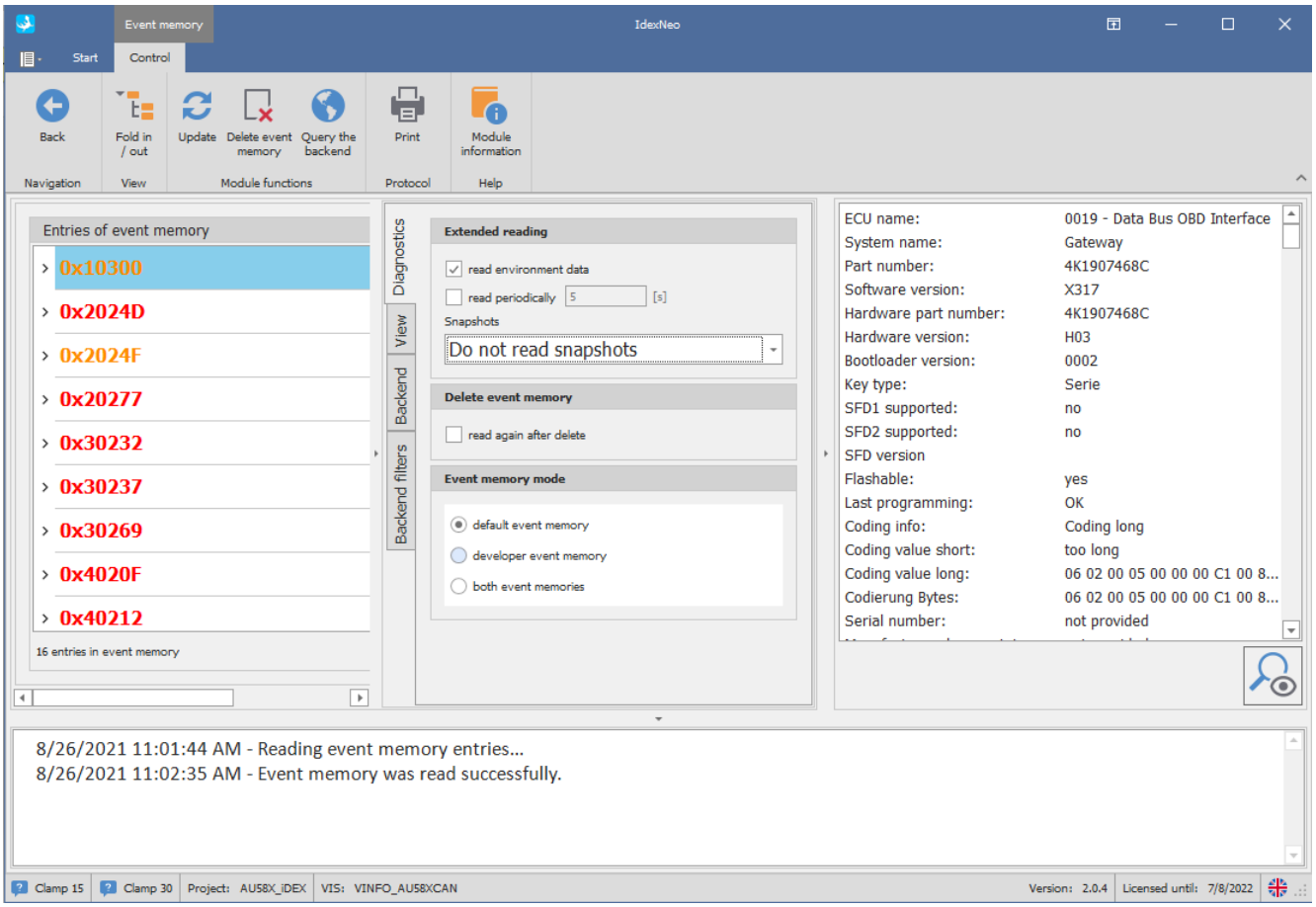
SETTINGS

READ



To access the read settings click on the tab named “Read”.

Hide the settings menu

Open the user manual for this modul

In this menu you can select the following:

- Extended reading
  - Read environment data
  - Read periodically
  - Snapshots
    - Auto Mode
    - ODX Mode
    - PDU Mode
    - Do not read snapshots
- Delete event memory
  - Read agaub after delete
- Event memory mode
  - Default event memory

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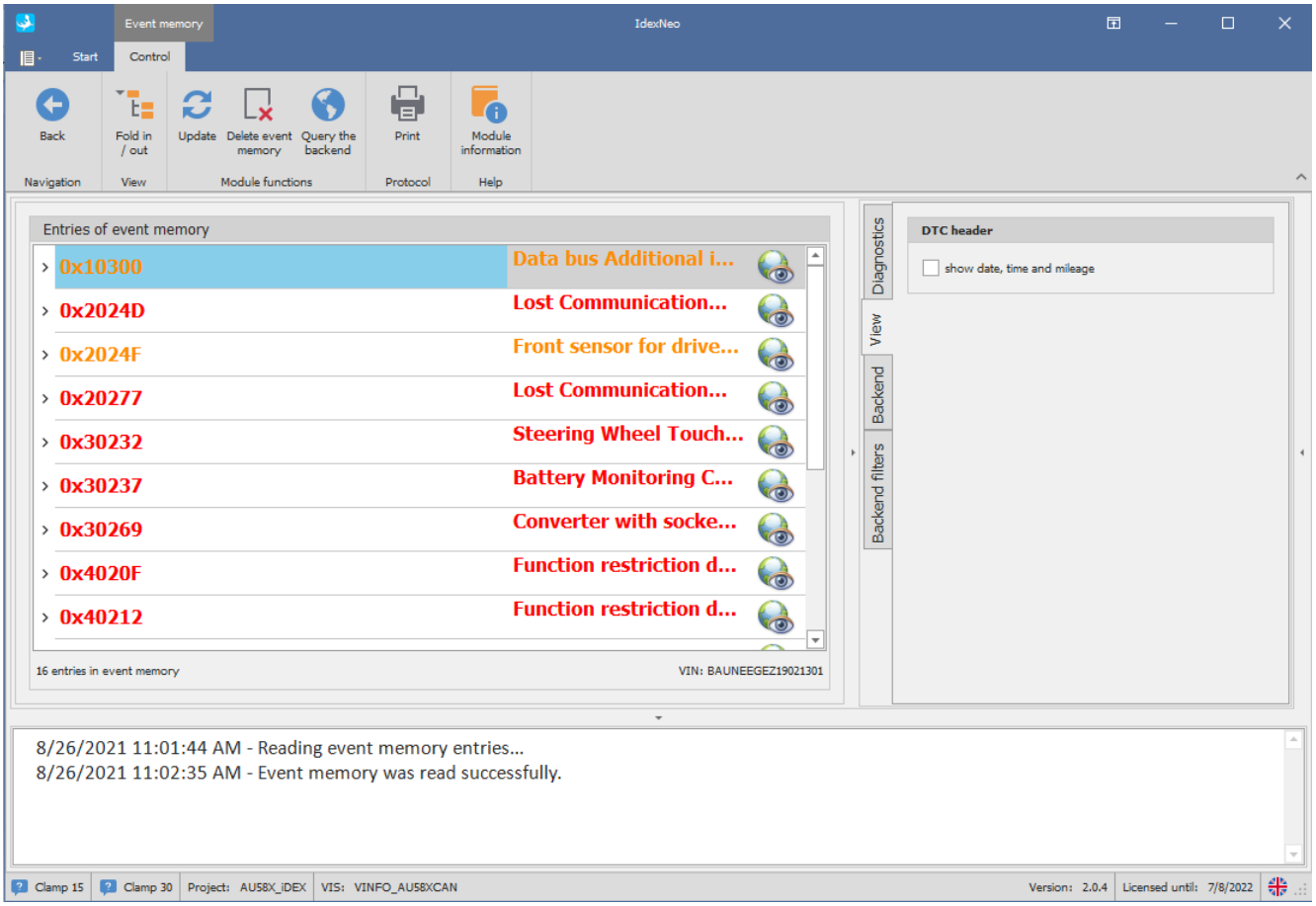
- Developer event memory
- Both event memories

VIEW

To access the view settings click on the tab named “View”.



Show date, time and mileage

Activate to show also date, time and mileage in the DTC header.

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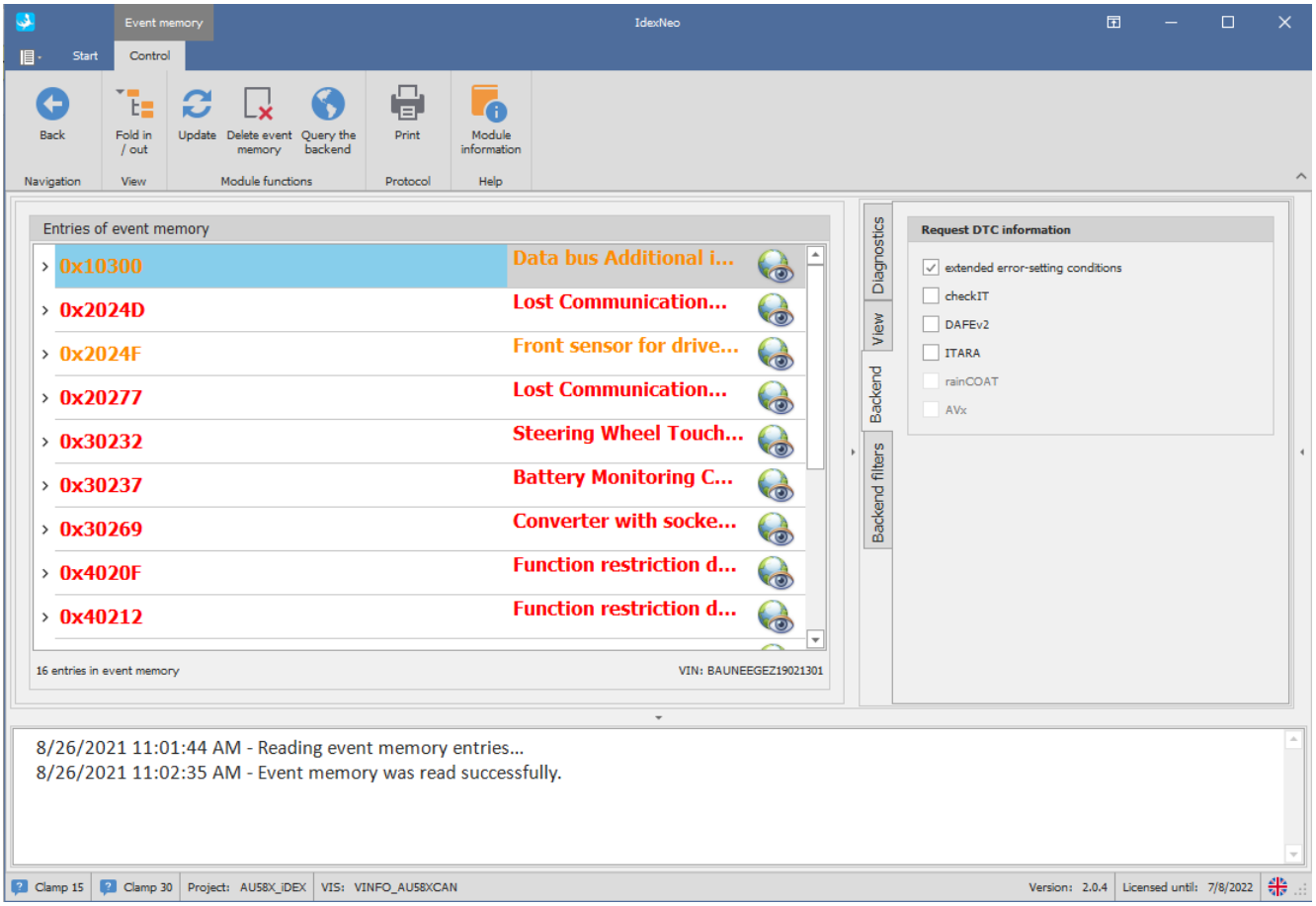
BACKEND

To access the backend settings click on the tab named “Backend”.



Use the check boxes to (de)activate the use of additional 3rd party services.
(Some systems may require additional configuration.)

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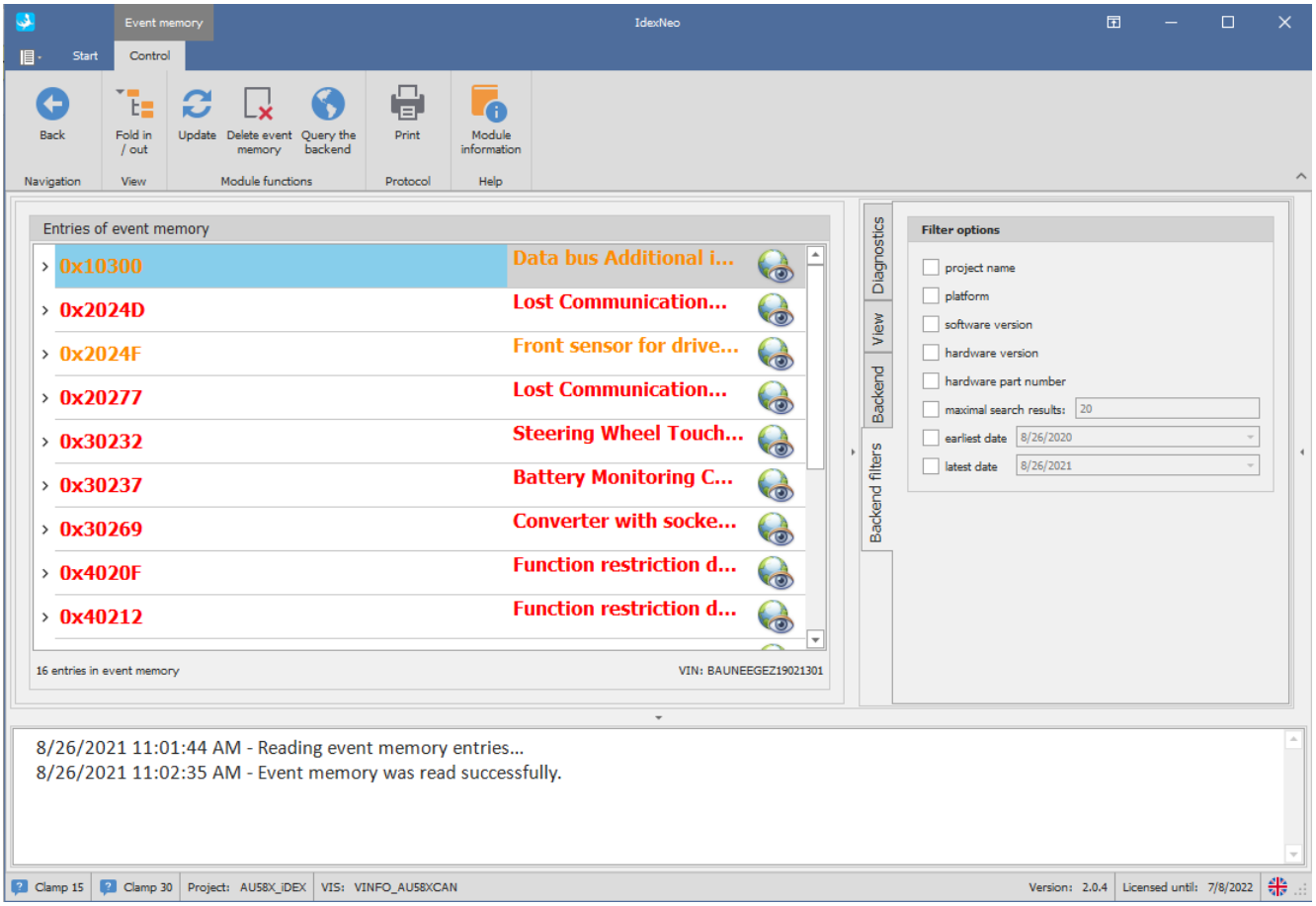
BACKEND FILTERS

To access the backend filters settings click on the tab named “Backend filters”.



Here you can filter the results of the 3rd party services on following properties:

- Project name
- Baud address
- plattform
- software version
- hardware version
- hardware part number

If you check “project name”, you will only get 3rd party service results for your DTCs that also match your currently selected project.
If you uncheck the “project name” filter you will get any information for this DTC number, regardless for which project they were added.

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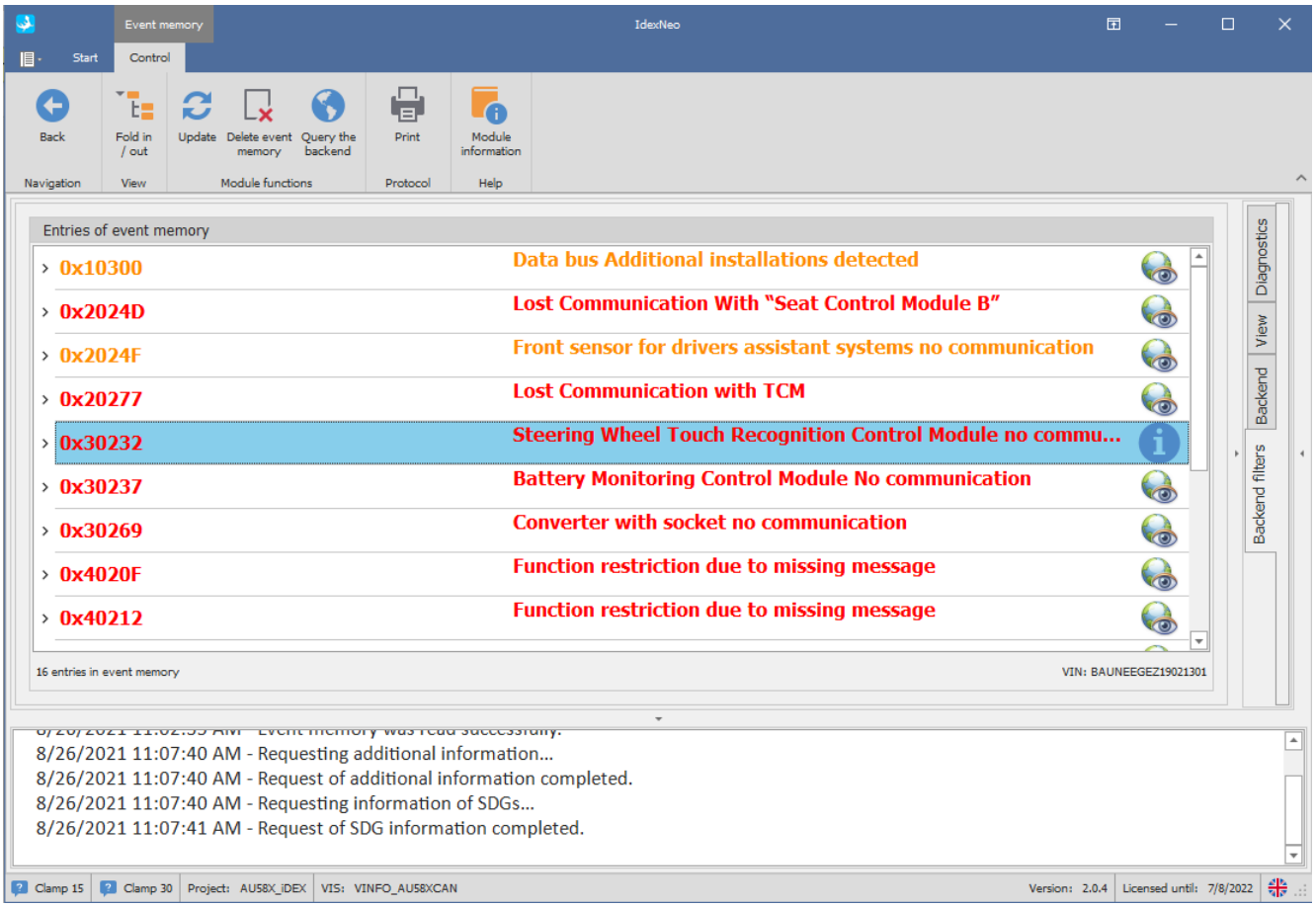
QUERY EXTERNAL SYSTEMS (CHECKIT, DAFEV2, ITARA, RAINCOAT, AVX)

Prerequirements: The desired 3rd party systems need to be configured within the “Backend” tab.



To call up the additional information, click on the "Query external systems" icon.

The data for the selected event memory is then retrieved. When this process is completed, the following symbol appears.

Please click on the symbol to display the additional information.

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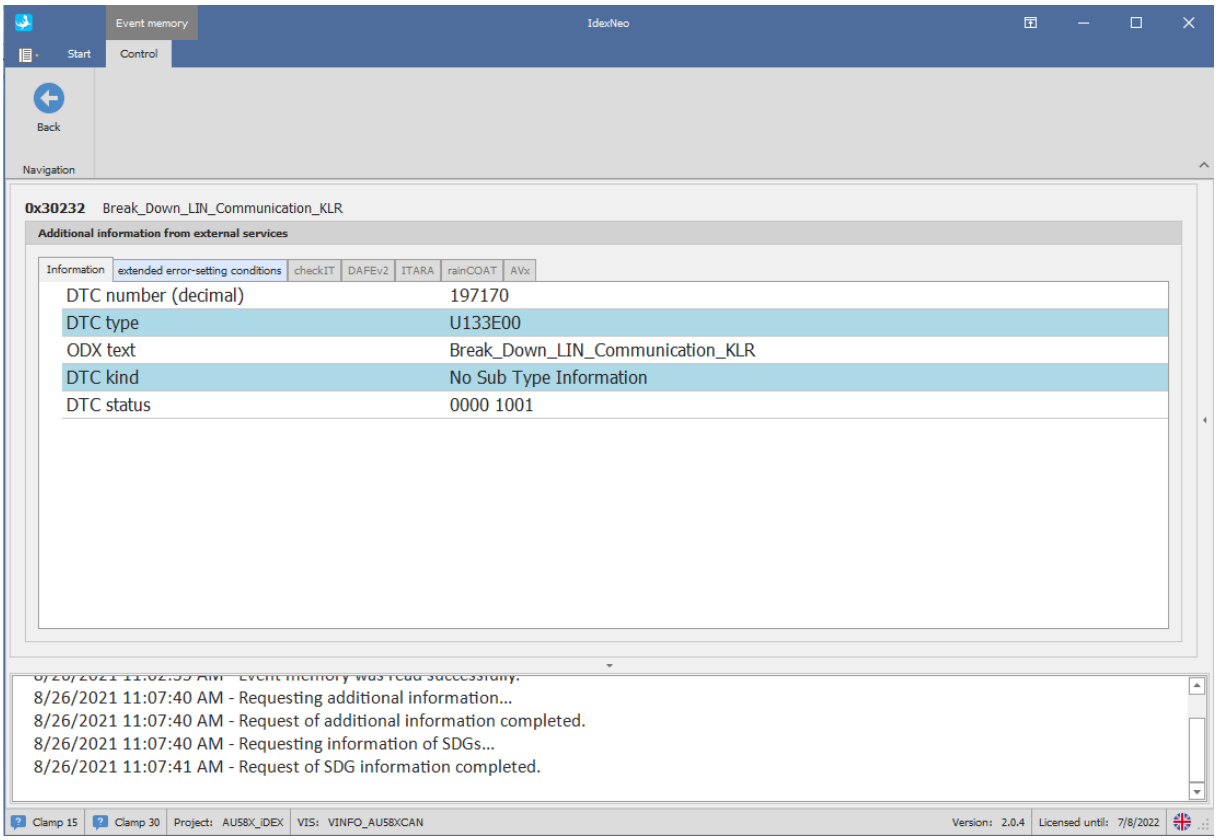


This view is divided into two groups:

- Information about the event log entry
- Additional service information

The event memory entry with all its information is displayed in the "Event memory entry information" group. In addition, the extended error setting conditions are also displayed.

The contents of the external systems found for the selected event log entry are displayed in the “Additional service information” group.

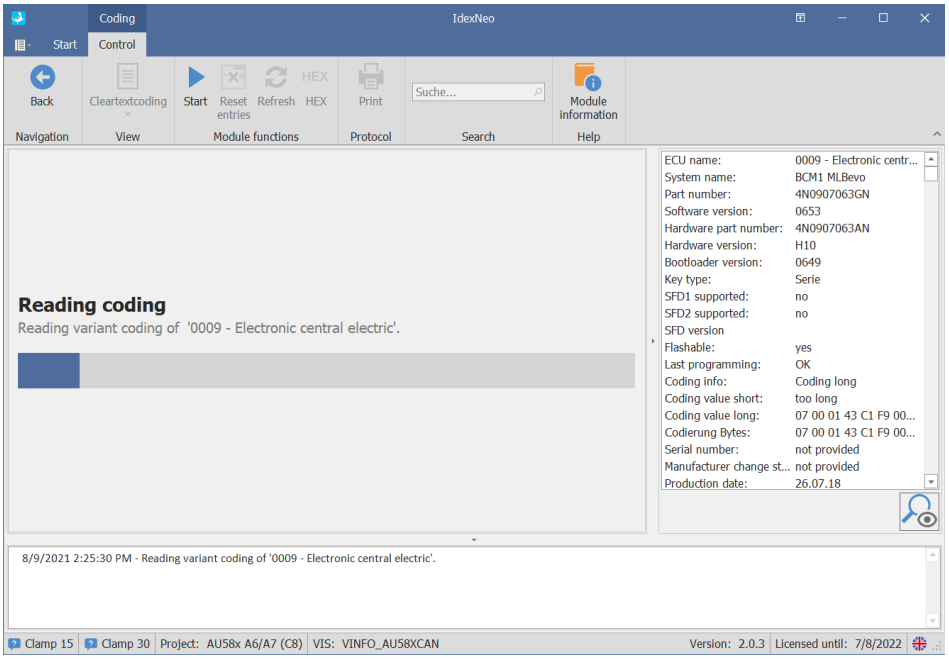
CONFIDENTIAL

CODINGMODULE

CODINGMODULE START

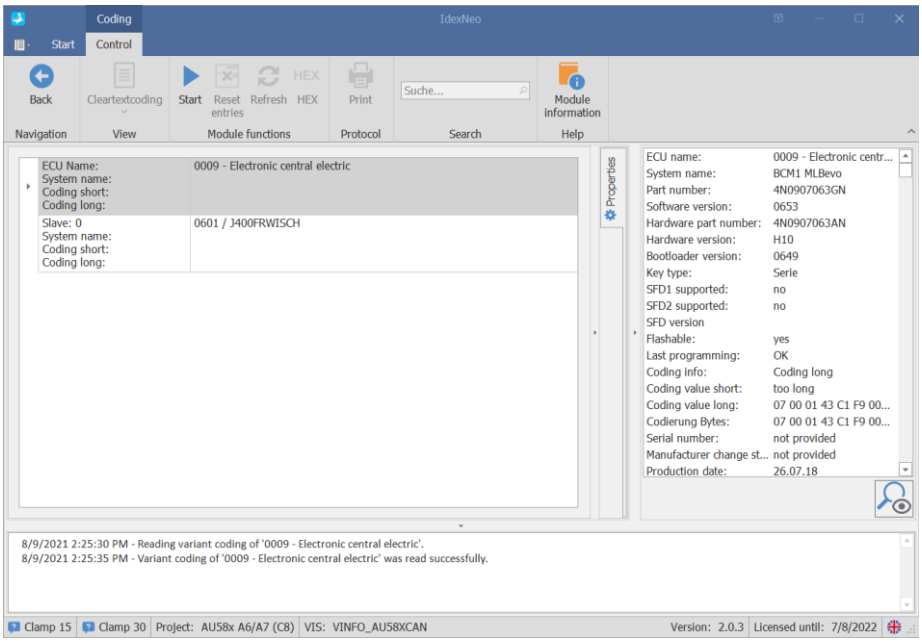
With this module, the individual parameters of control units can be changed.

When the module is called, the master and its sub-ECUs are identified.



After identification, the ECUs are listed. The control unit name, the system name, the short and the long coding of the control unit are displayed. Grayed-out controllers do not support customization.

To enter a controller, highlight a controller and press Start. Alternatively, you can use a double-click.



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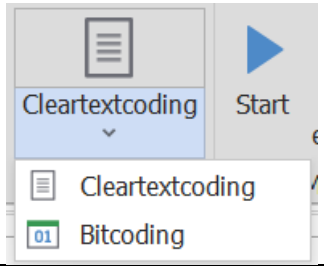
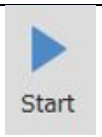
VIEWS

COMMON ELEMENTS

Here are some control buttons explained in both views:

	Change between the clear-text-coding and bitcoding-view
	Reset data
	Reload Data
	Print protocol
	Input of the entire coding as a byte array
	Searchfield for the Views
	Returns to the function list
	Starts the writing process

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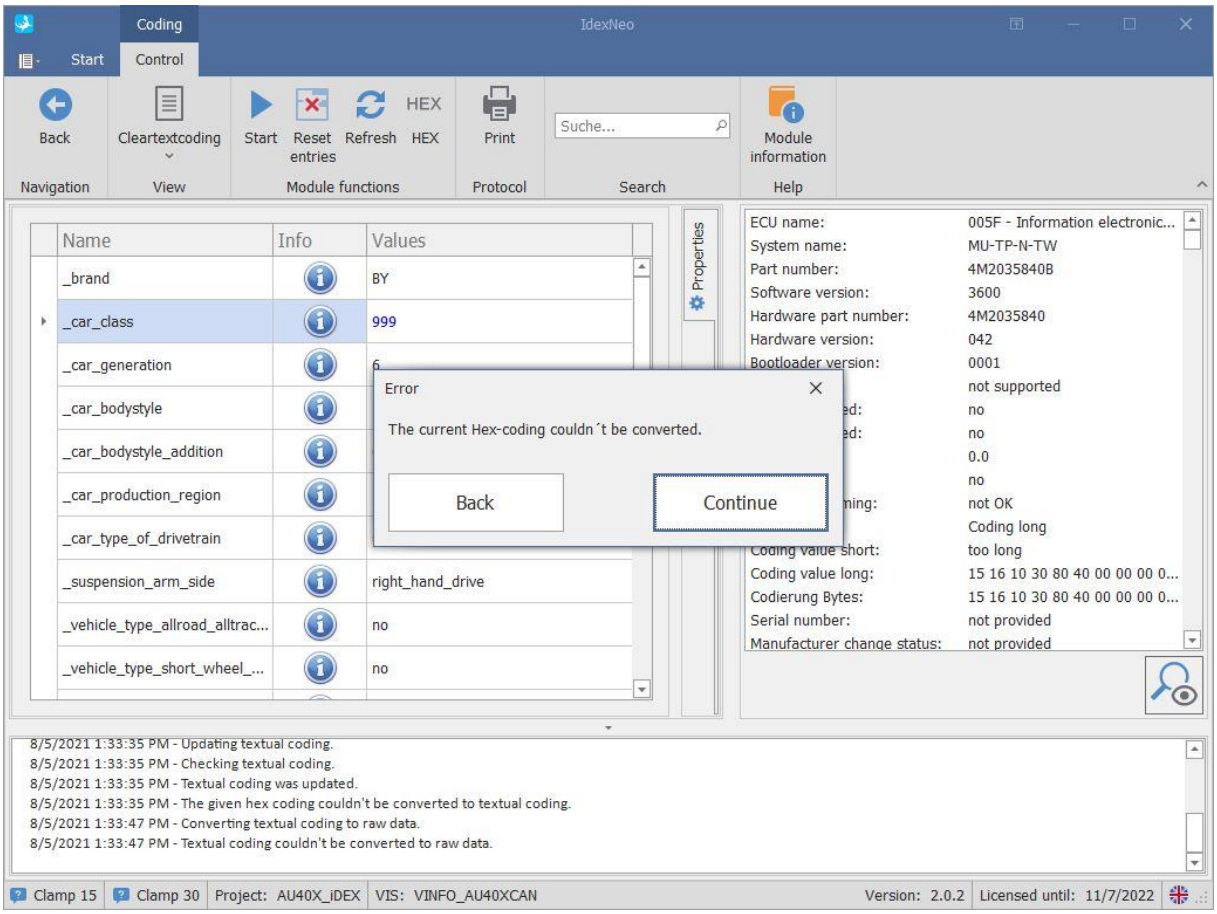
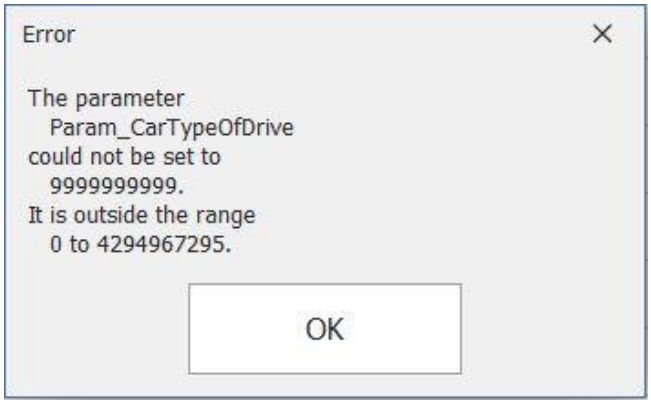
CHANGE VIEW



When the view is changed, the entered data is converted. If this process raises an error, an error message appears.

Back	Keeps the changes and stays in the current view
Continue	Switches the view, resets the changed data

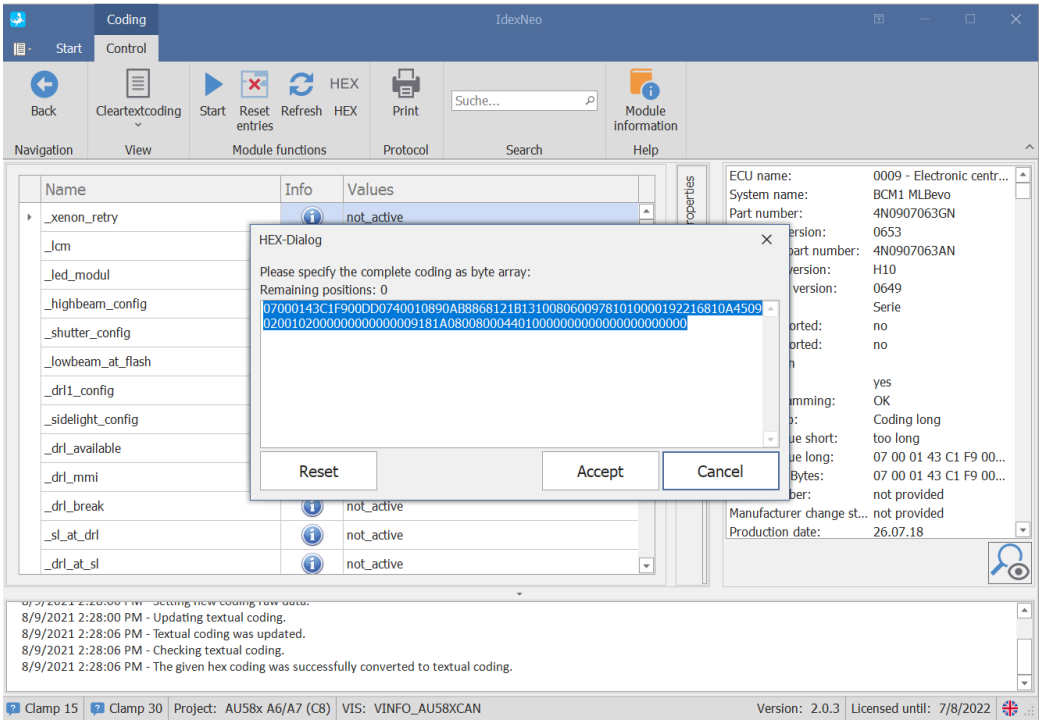
VALUE OUT OF RANGE



If a value outside of the valid range is entered in the cleartext-coding in one of the cells, an error message is displayed. The ODX name of the cell, the entered value and the valid value range are displayed.

CONFIDENTIAL

HEX-DIALOG



When clicking on the HEX dialog button, a window appears with the coding currently present in the control unit, represented as a byte array.

Remaining positions: 0	Indicates how many positions are currently missing in the lower text display
07000143C1F900DD0740010890AB8868121B131008060097810100001922 16810A4509 02001020000000000000009181A0800800044010000000000000000000000	Contains the current coding as written on the controller. Filters for hex characters
Reset	Resets the text display
Accept	Accepts the entered coding in the text representation. The values in the cleartext- and bitcoding-view are updated.
Cancel	Aborts without changes

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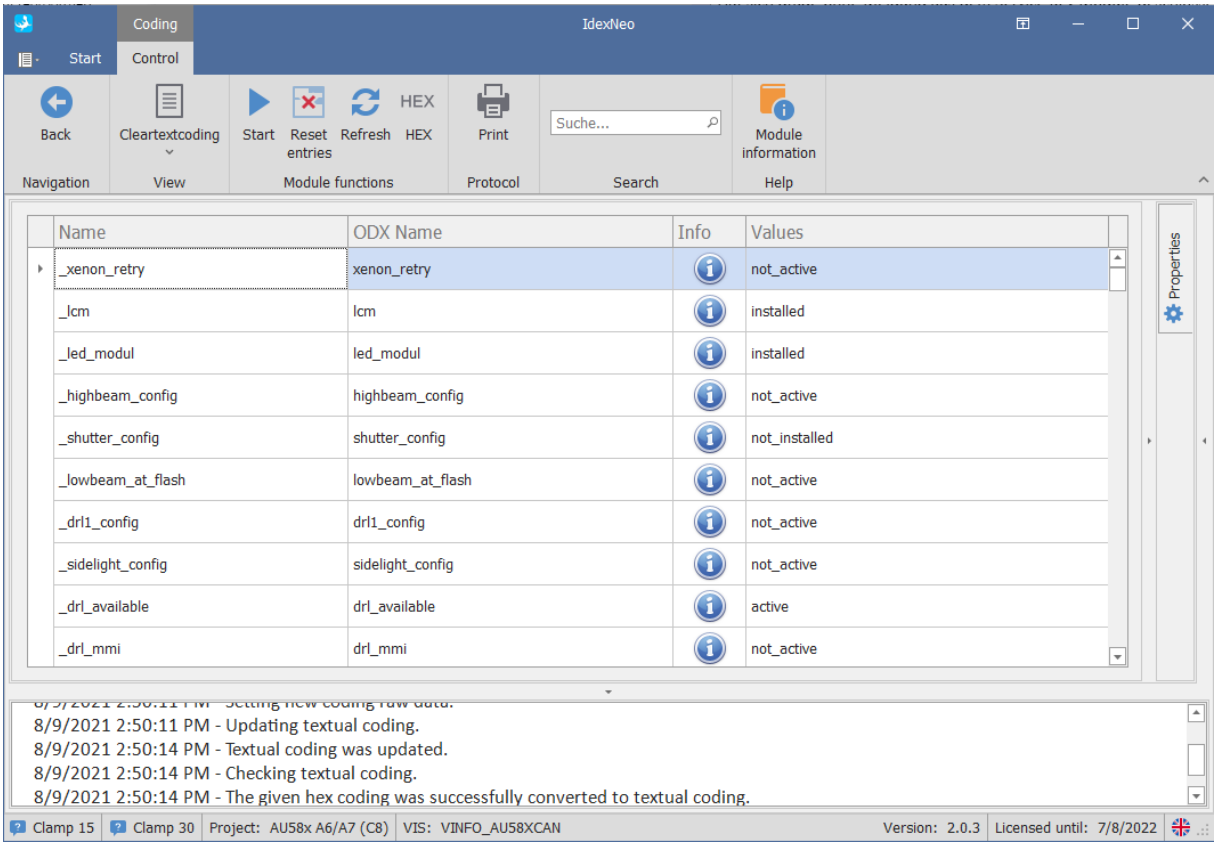
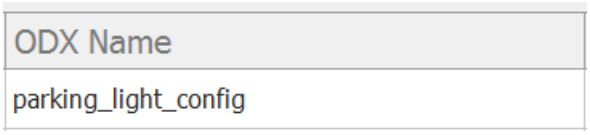
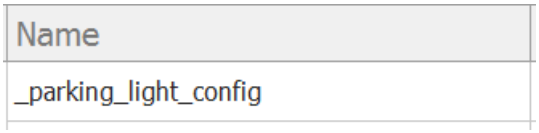
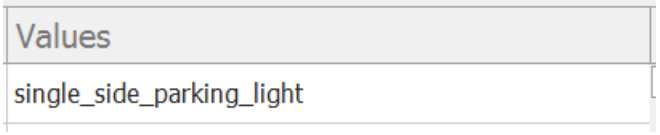
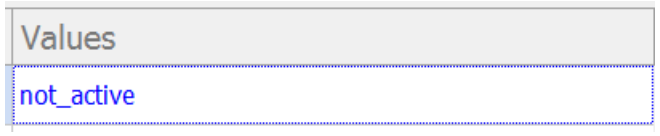
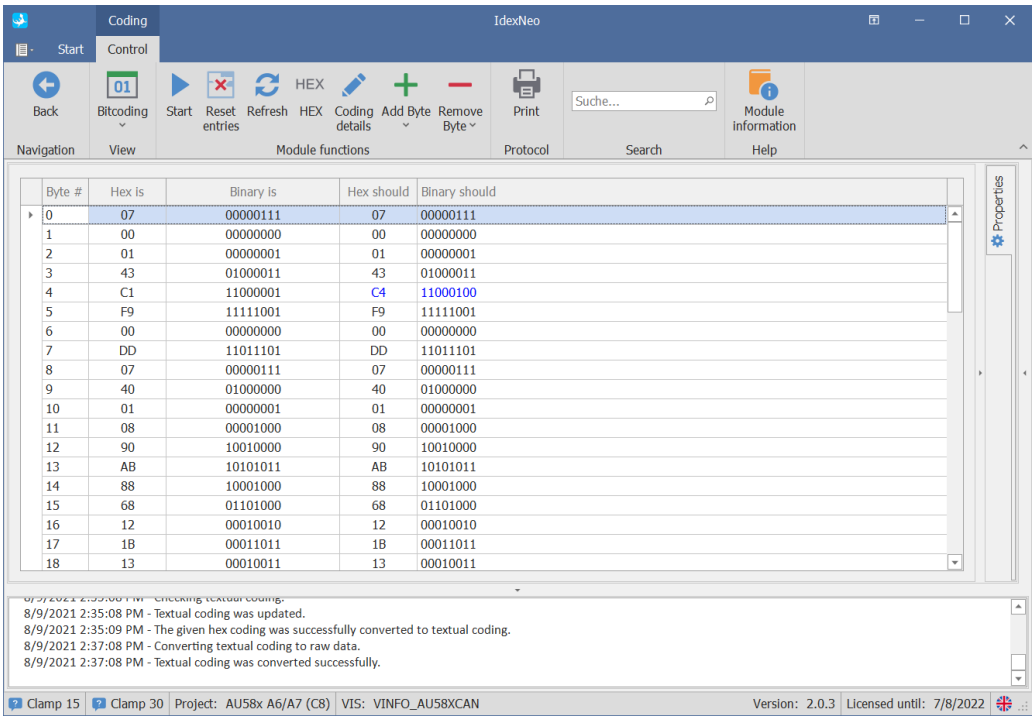
CLEARTEXT-CODING-VIEW

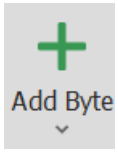
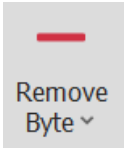
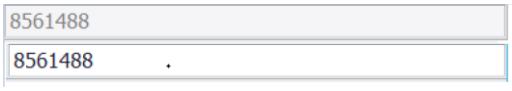
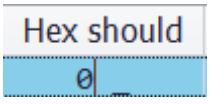
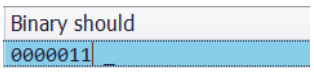
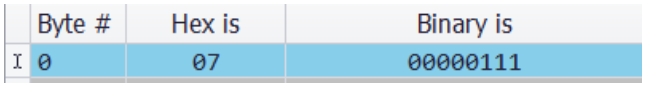


	The ODX-Name
	The localised name
	When holding the mouse over it, a tooltip appears with the start byte and start bit of the value
	The value cell. Depending on the data type, a selection box or input box for changing the value appears. The value is automatically filtered
	Once a value has been changed, the font color changes to blue to signal the change.

CONFIDENTIAL

BITCODING-VIEW

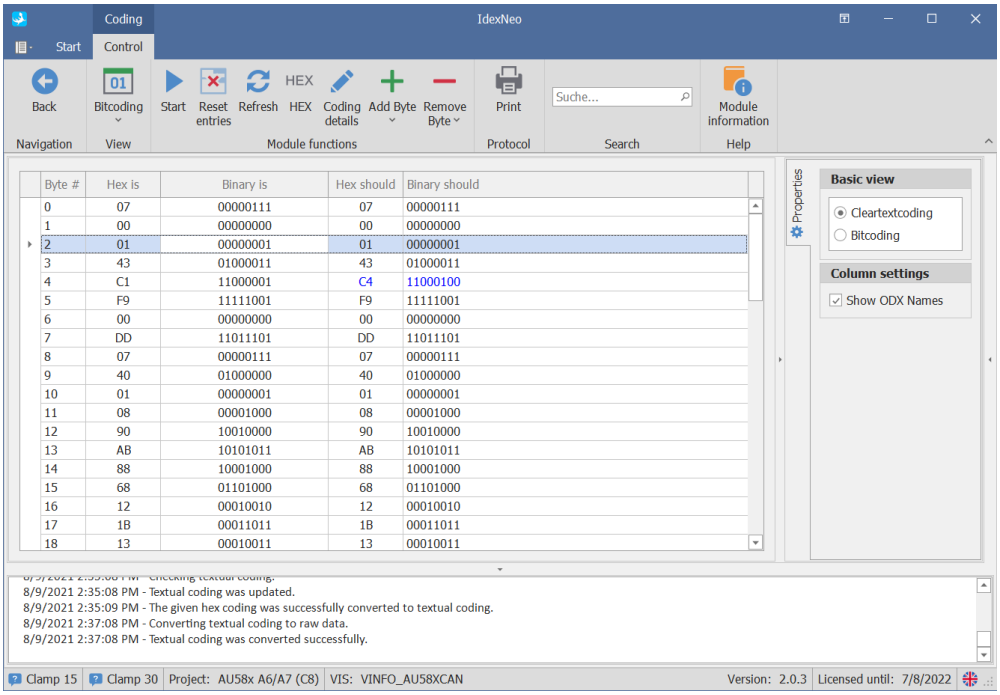


	Adds a new byte at the end of the list or above the selected position
	Removes a byte at the end of the list or at the selected location
	Displays the coding in integer format. When changing the value, all byte positions are adjusted. If the value has been adjusted, the font color changes to blue. Only visible if the coding is short (<= 3 bytes).
	The "Hex should"-column displays the current byte position at a specific position as a hex value. The number is 2 digits long. When the number is changed, the binary value and the integer representation automatically update
	The "Binary should"-column displays the current byte position at a specific location as a binary value. The number is 8 digits long. When the number is changed, the hex value and the integer representation automatically update.
	Shows the current encoding as it currently exists on the controller.

CONFIDENTIAL

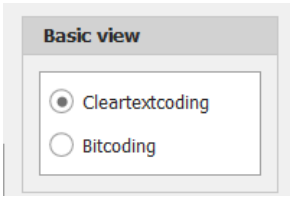
SETTINGS

The settings menu can be opened with the mouse by clicking on the "Settings" tab.

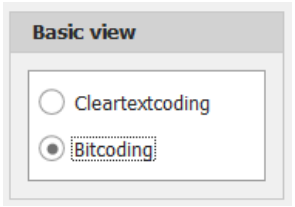


Closes the settings

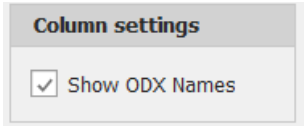
Opens the user manual for this module.



Opens the cleartext-coding view as the default view



Opens the bitcoding-view as default view



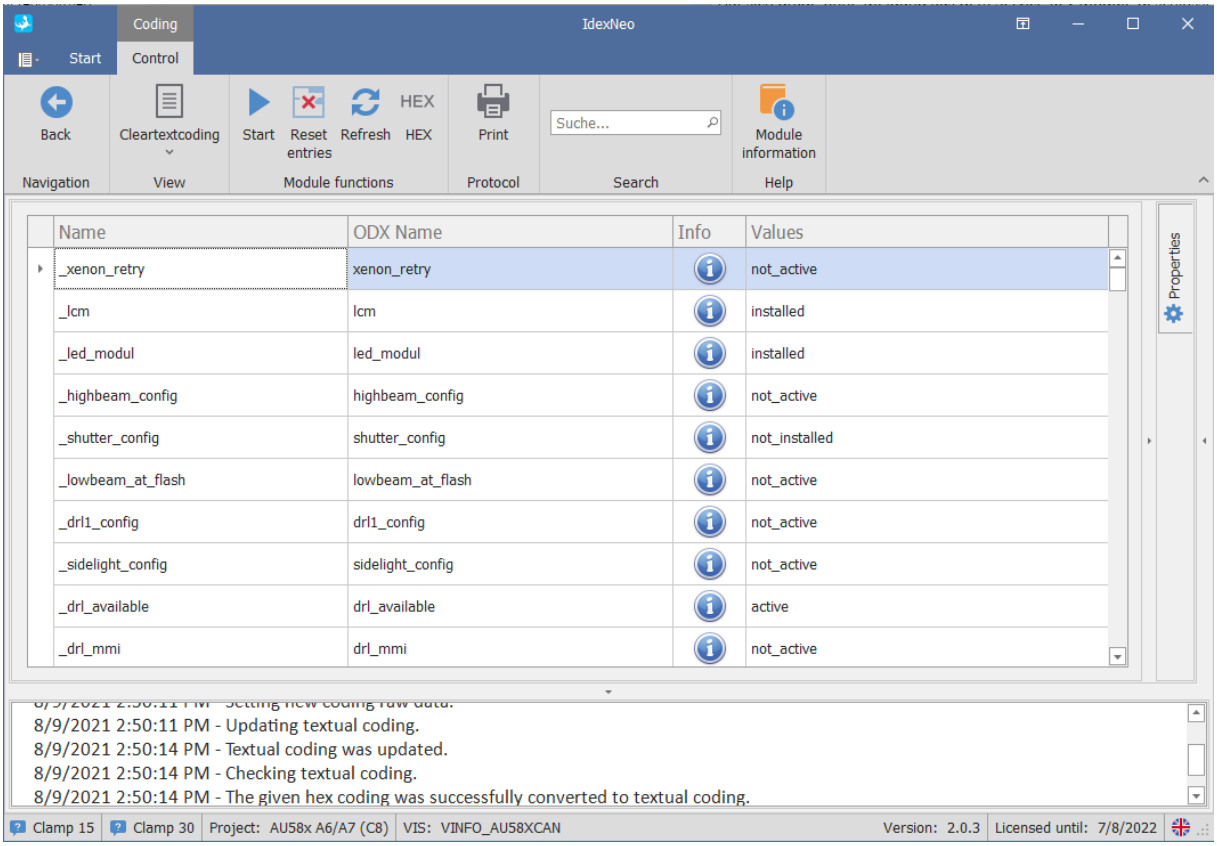
Displays the "ODX Name”-column in the plain text encoding view

CONFIDENTIAL

EXECUTE WRITING PROCESS

Once the desired changes have been entered, the start button can be clicked to start the writing process. After the process has been performed, the coding is read out immediately and displayed in the preferred view as it was when the module was initially displayed.

If errors have occurred while writing the coding, an error message is output in the actioninfo. The control units that do not correspond to the desired coding will be displayed in red.

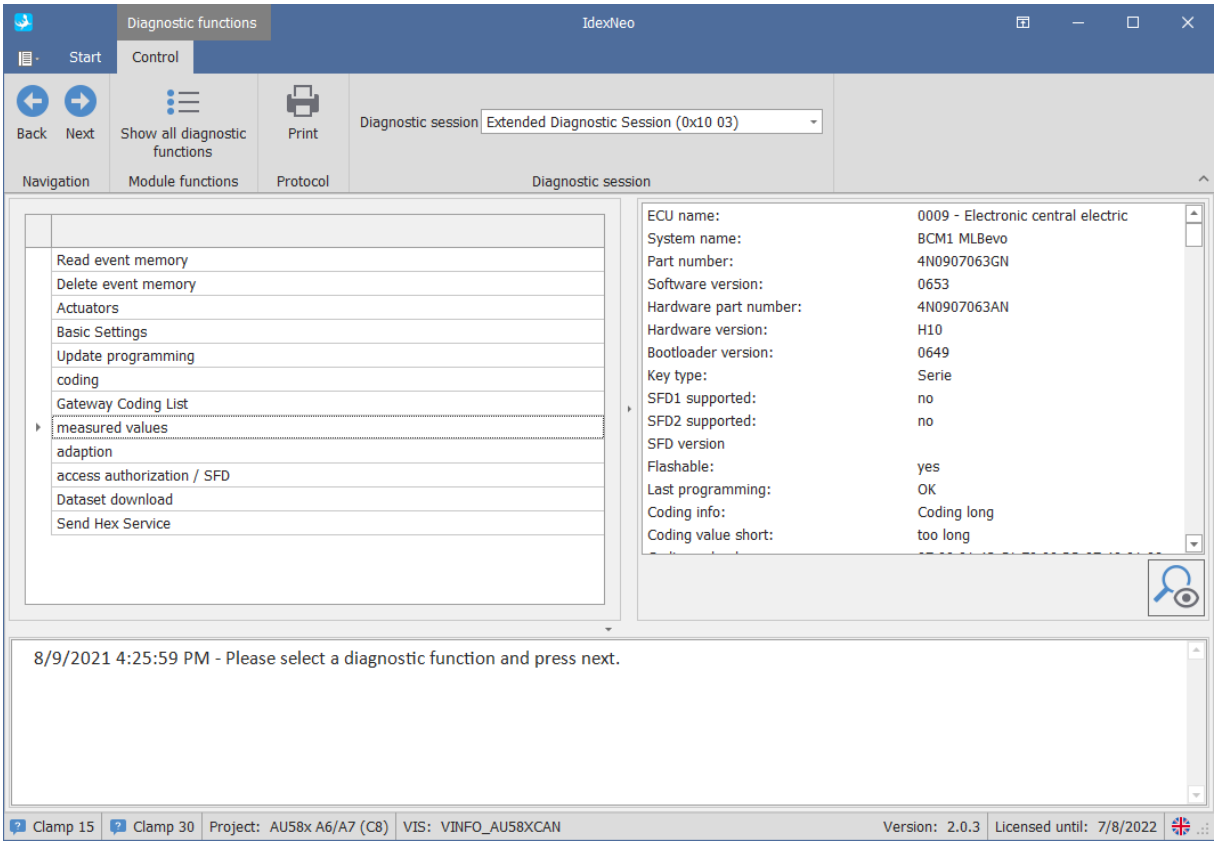


CONFIDENTIAL

MEASURED VALUES - UDS

You can open this module by selecting „measured values“ from the function list and clicking „Next“.

You can also double click the function list entry to open the module.



After you open the module, you will see all available measurements of the current ECU.

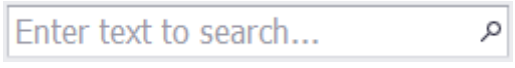
Simply select the measurements you want to read and click “Next”.

You will also have some buttons available, which is explained in the table below.

Load a previously saved configuration.

Save the currently selected measurements as configuration.

Just resets the current configuration to none.
Will not delete any saved configuration.

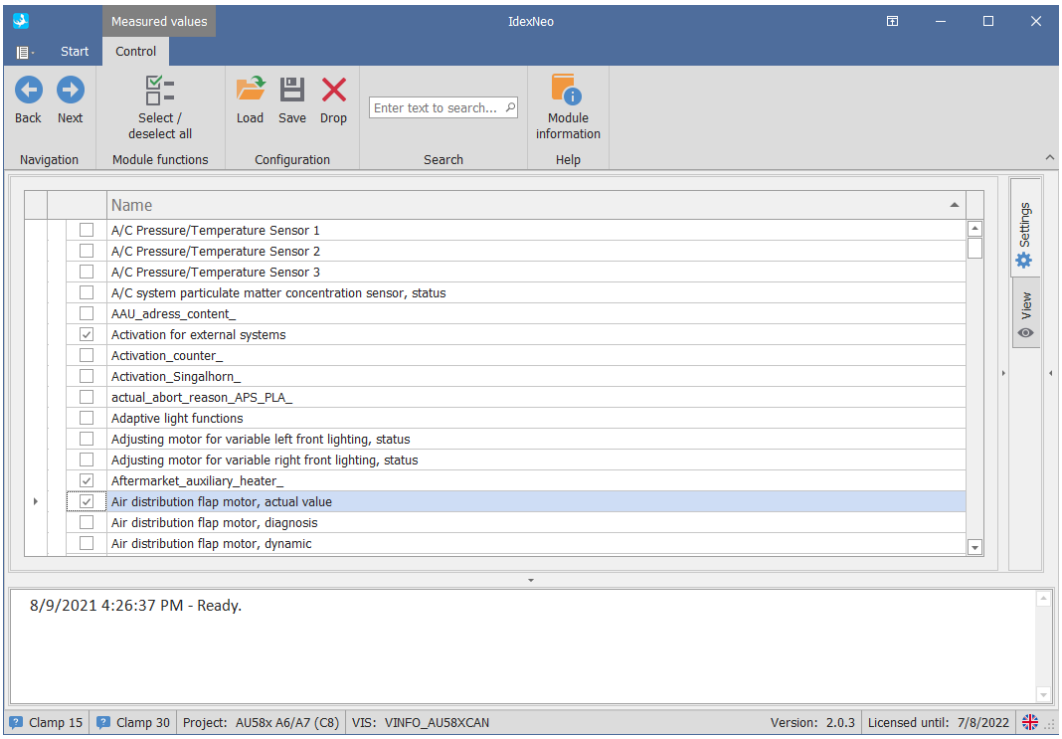


Quick filter to only show measurements which contain the entered text.

Returns to the ECU function list

CONFIDENTIAL

Read the values of the selected measurements

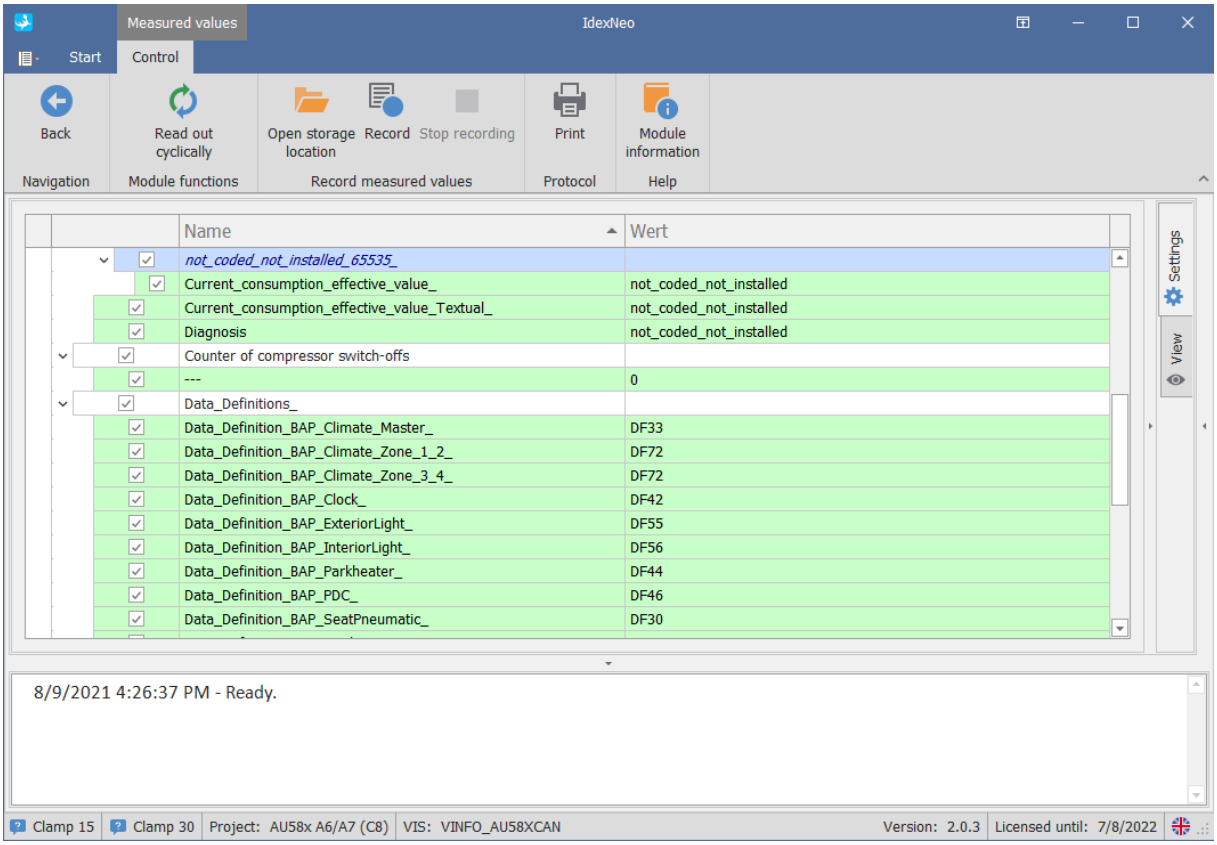


CONFIDENTIAL

Select the required measurements and click “**Start**”.

The selected measured values are read out and displayed in a tree structure.

Depending on the amount of selected measurements and the speed of the ECU this may take some time.



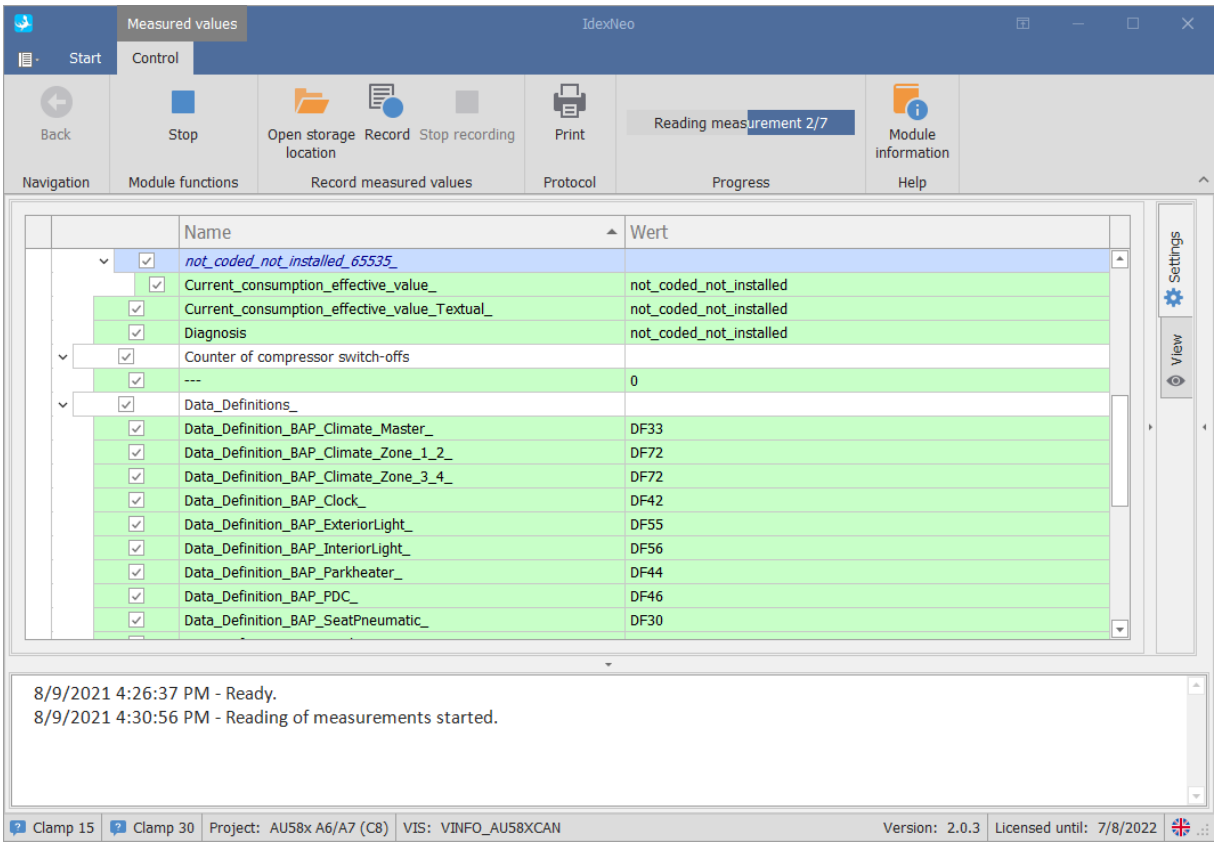
CONFIDENTIAL

You will have the following options in the result view.
Depending on the current state of the module you will see the “Start” or “Stop” button.

Start to continuously read out the measurements.

Stops the continuous read out.

Prints an iDEX protocol with the selected measurements



CONFIDENTIAL

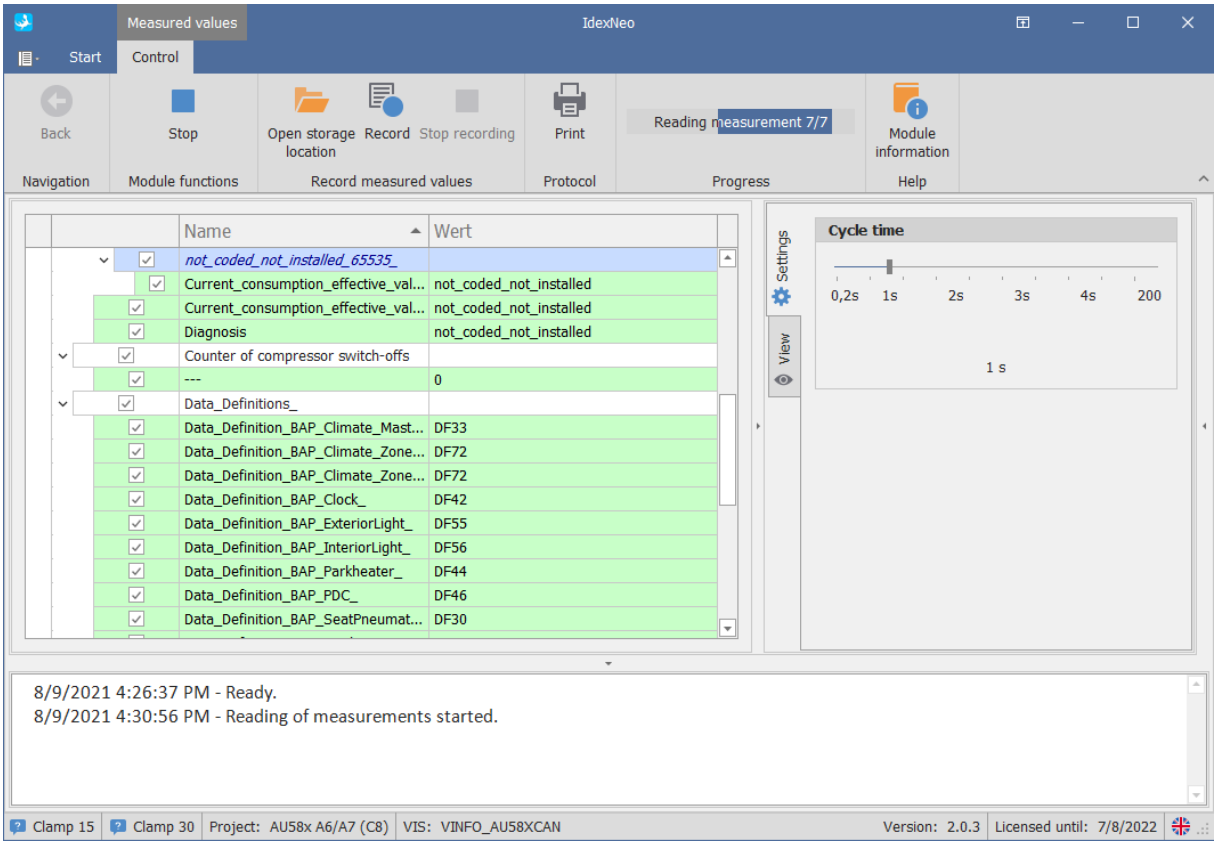
SETTINGS MENU

SETTINGS

Click „settings“ on the right side of the iDEX window to open the module settings.

Here you can change the minimum time between the automatic read outs of the measurements between 200ms and 5seconds (default 1second).

You can also change the value while already reading the measurements.



CONFIDENTIAL

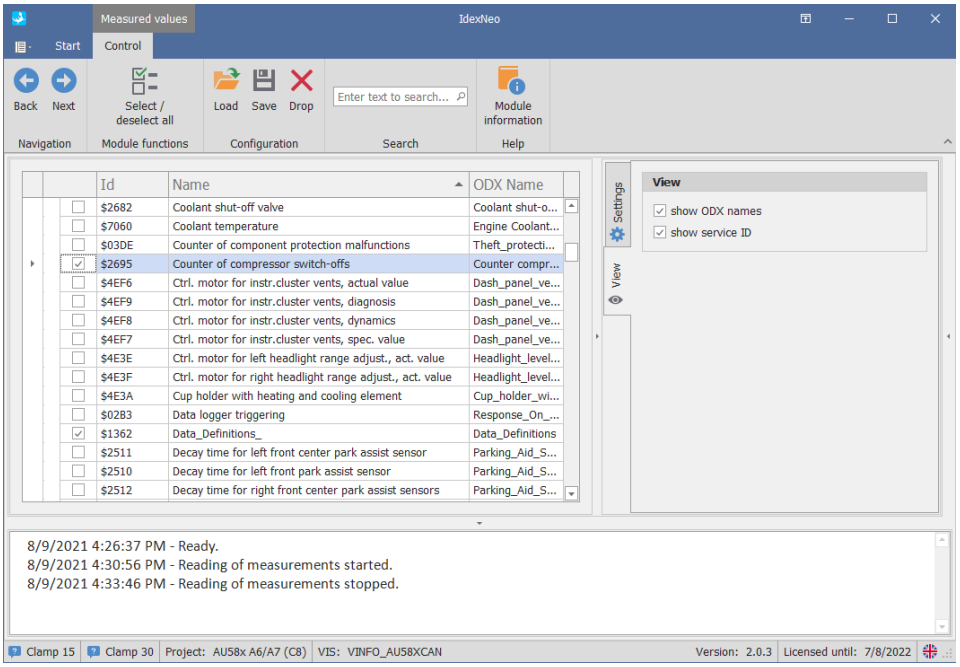
VIEW

Click „view“ on the right side of the iDEX window to open the view settings of the module.

Select any of the options to add an appropriate column in the main and result view.

- *show ODX names*
  adds a column which shows the ODX defined name of the measurement

- *show service ID*
  adds a column which shows the ODX defined ID of the measurement

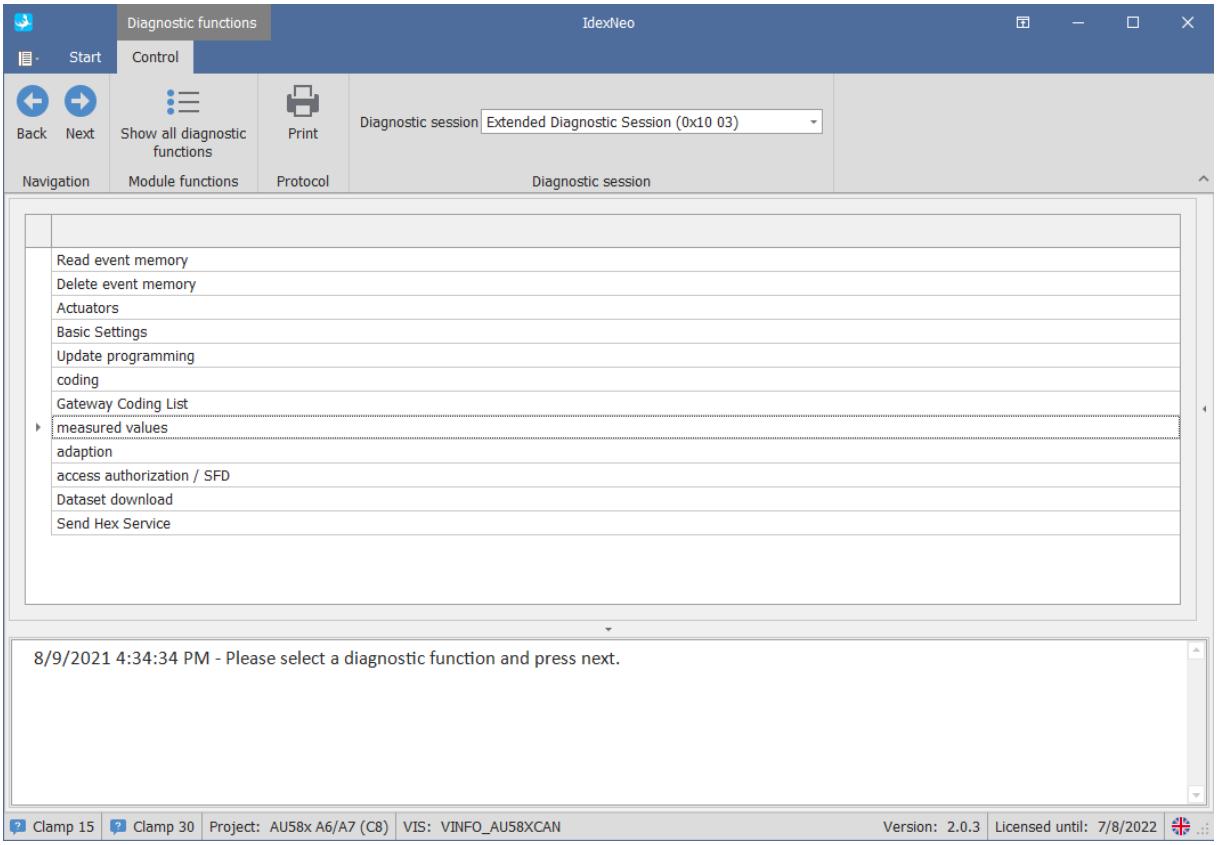


CONFIDENTIAL

MEASURED VALUES - KWP

You can open this module by selecting „measured values“ from the function list and clicking „Next“.

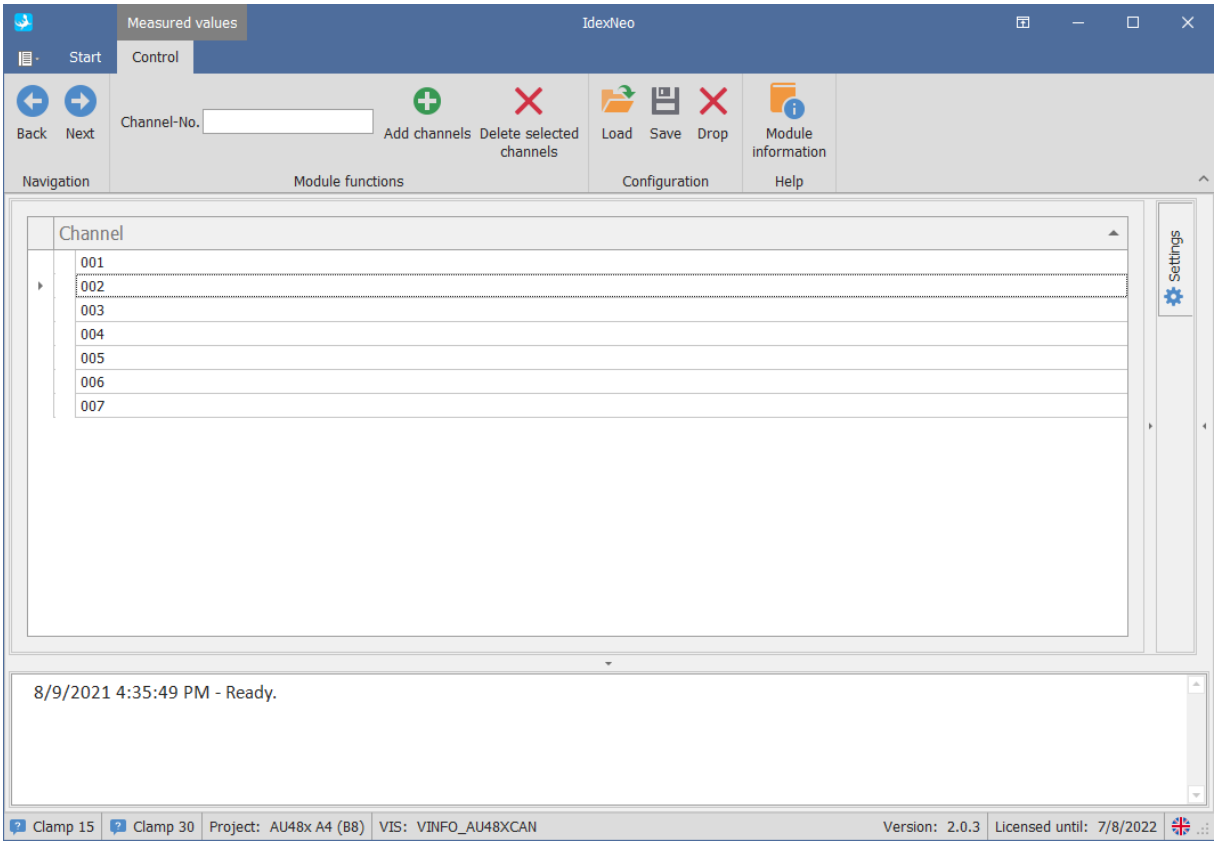
You can also double click the function list entry to open the module.



CONFIDENTIAL

Enter the channel number and click the „+“ sign to add them to the configuration.
(refer to the next page to see the allowed format options)

Click “Next“ to start the read out.



Load a previously saved configuration.

Save the current config.

Just resets the current configuration to none.
Will not delete any saved configuration.

Channel numbers to add.
Allowed format options are:

- Single channel e.g. 1
- List e.g. 1,2,3,5,8
- Range e.g. 4-12

Allowed values are 1 - 255.

adds the entered channels to the config

removes the selected channels from the config

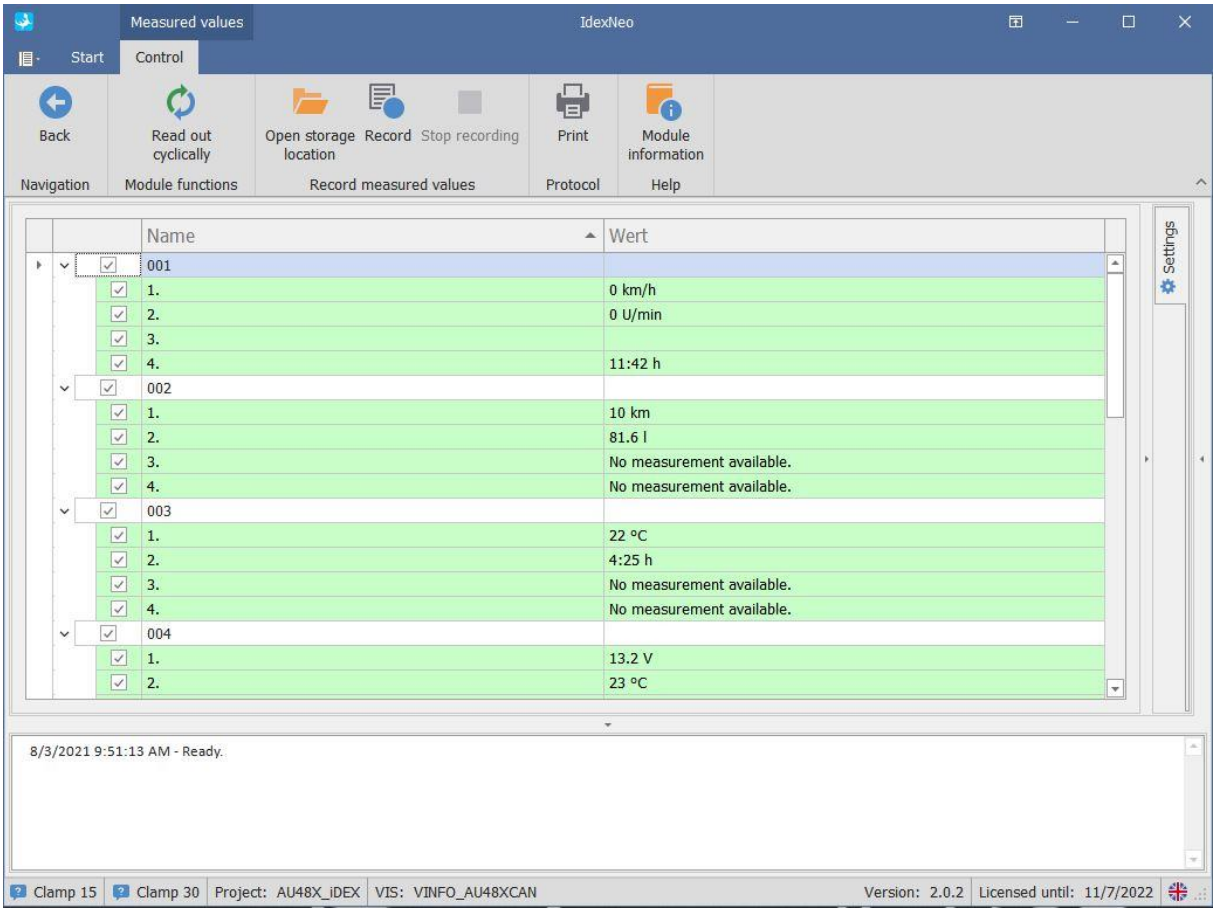
CONFIDENTIAL

Returns to the ECU function list

Read the values of the selected measurements

CONFIDENTIAL

You will have the following options in the result view.
Depending on the current state of the module you will see the “Start” or “Stop” button.



Start to continuous read out the measurements

Stops the automatic read out.

Prints an iDEX protocol with the selected measurements and their values.

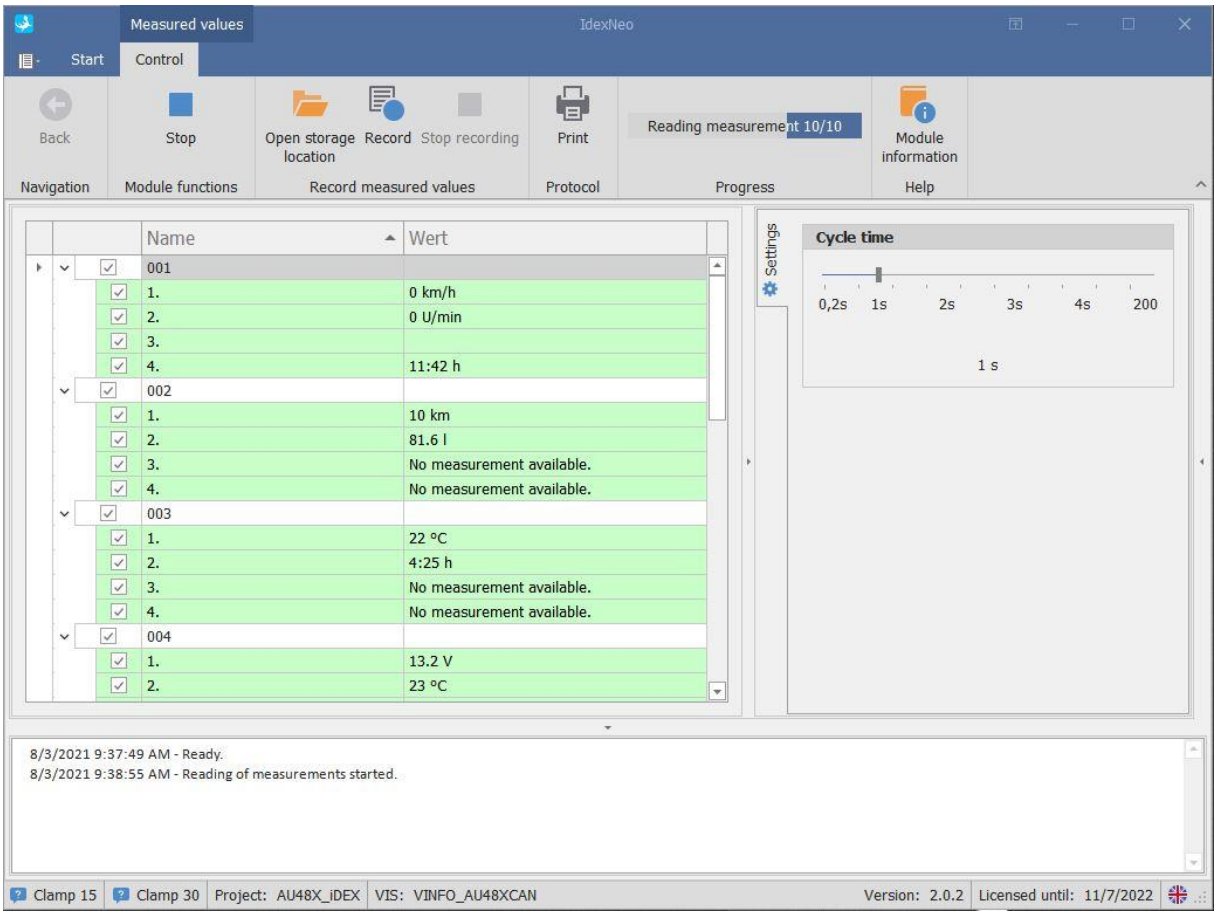
CONFIDENTIAL

SETTINGS MENU

Click “**settings**” at the right side of the iDEX window to open the module settings.

Here you can change the minimum time between the automatic read outs of the measurements between 200ms and 5seconds (default 1second).

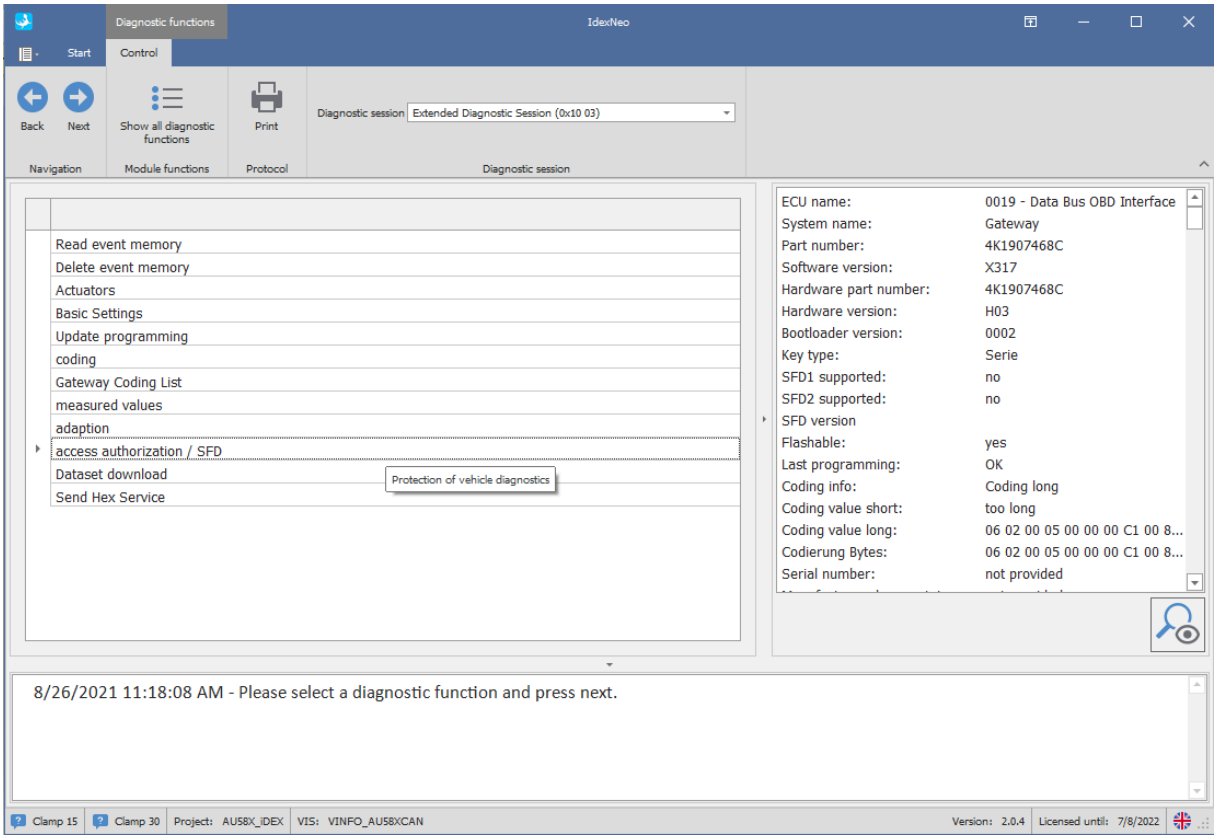
You can also change the value while already reading the measurements.



CONFIDENTIAL

ACCESS AUTHORIZATION / SFD

To call up this module, please click in the function list on "Access authorization". See picture.



Click on **Continue**".

Enter the login for the control unit here and press "**write**".

Note:
If it is an SFD control device, you have the option of specifying the desired role and duration.

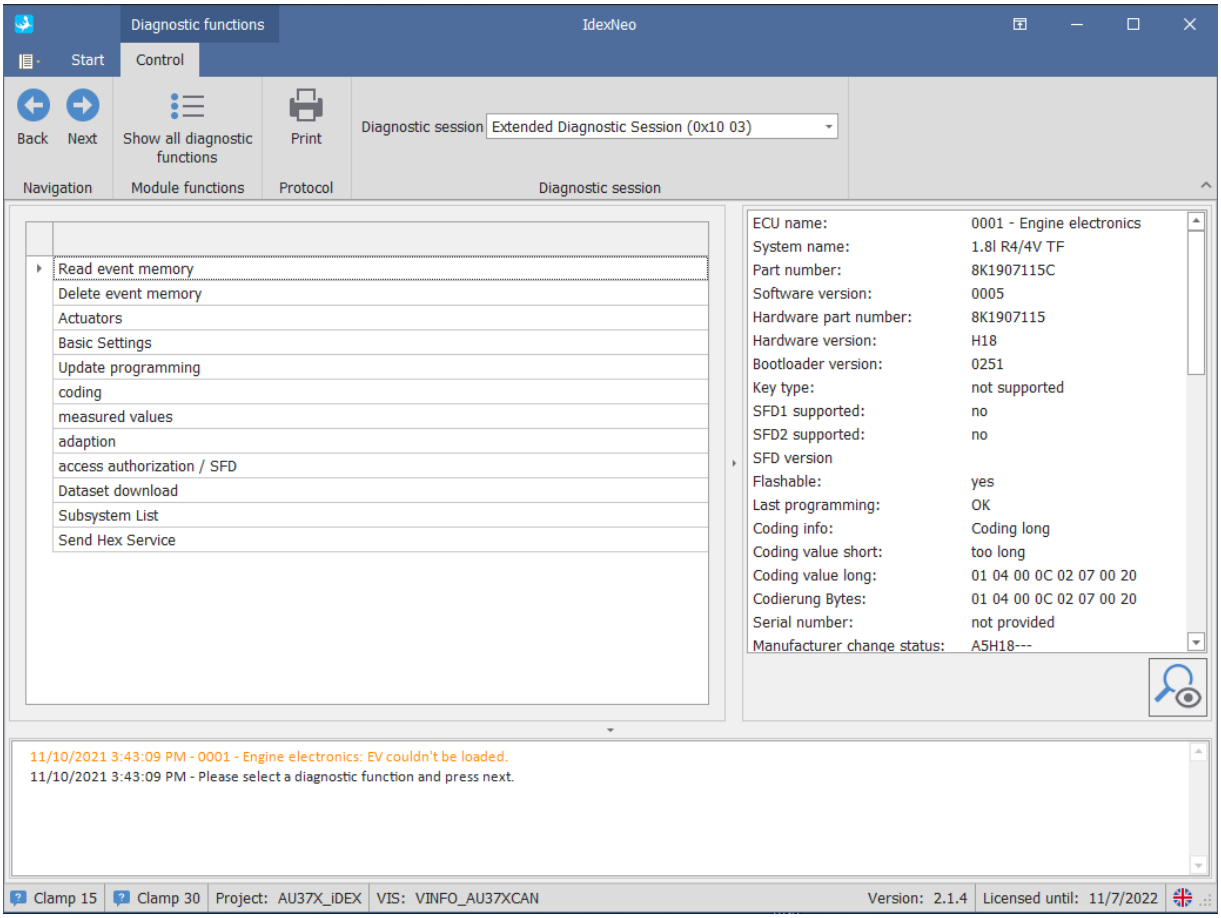
(Section Function Module - SFD)

In the case of a non-SFD control device, the input mask for the PIN appears.

CONFIDENTIAL

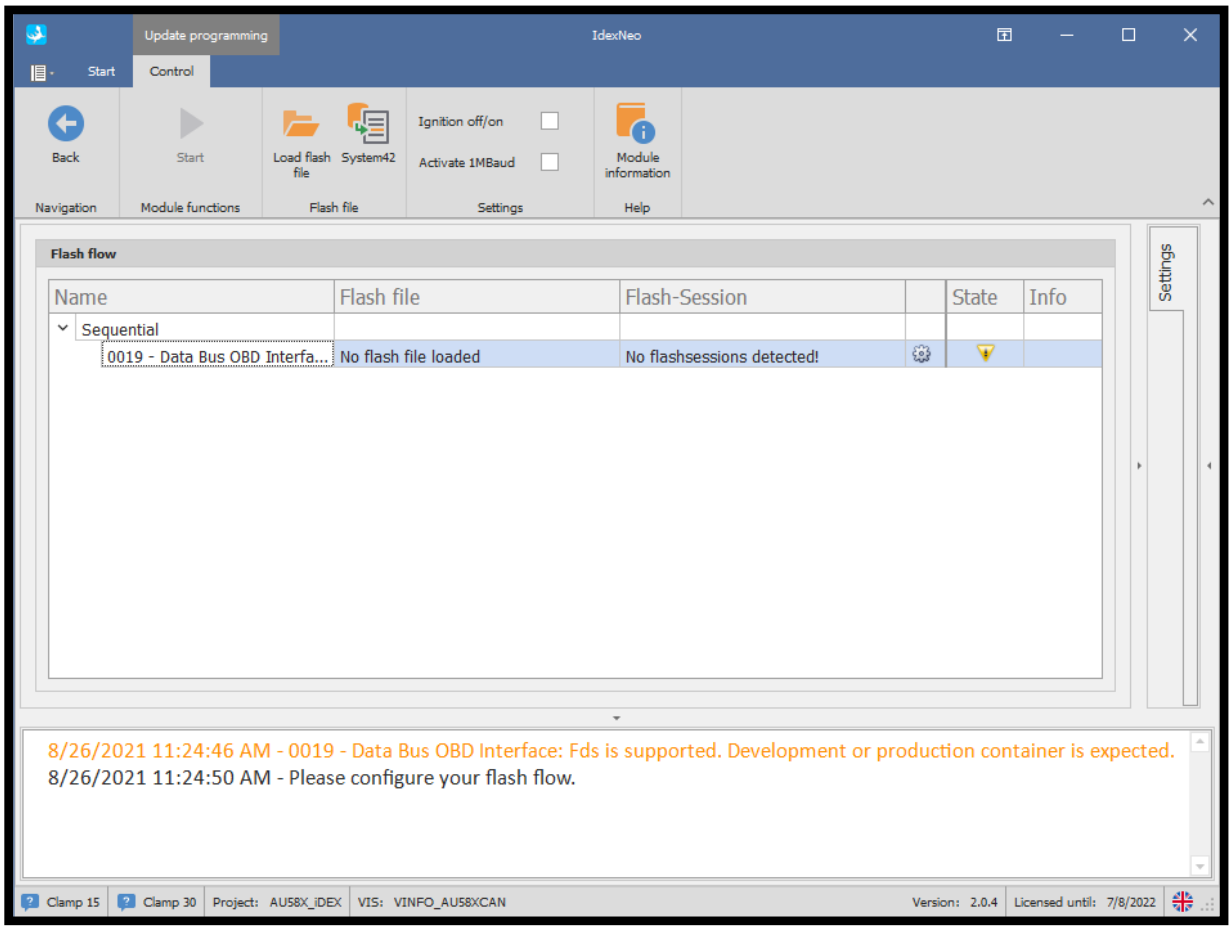
UPDATE PROGRAMMING

To call up this module, please click in the function list on "Update programming". See picture.

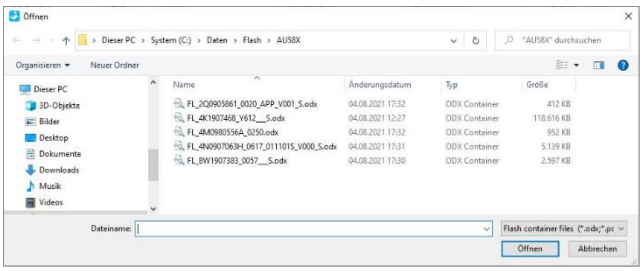


Click on **Continue**".

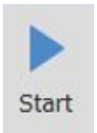
CONFIDENTIAL



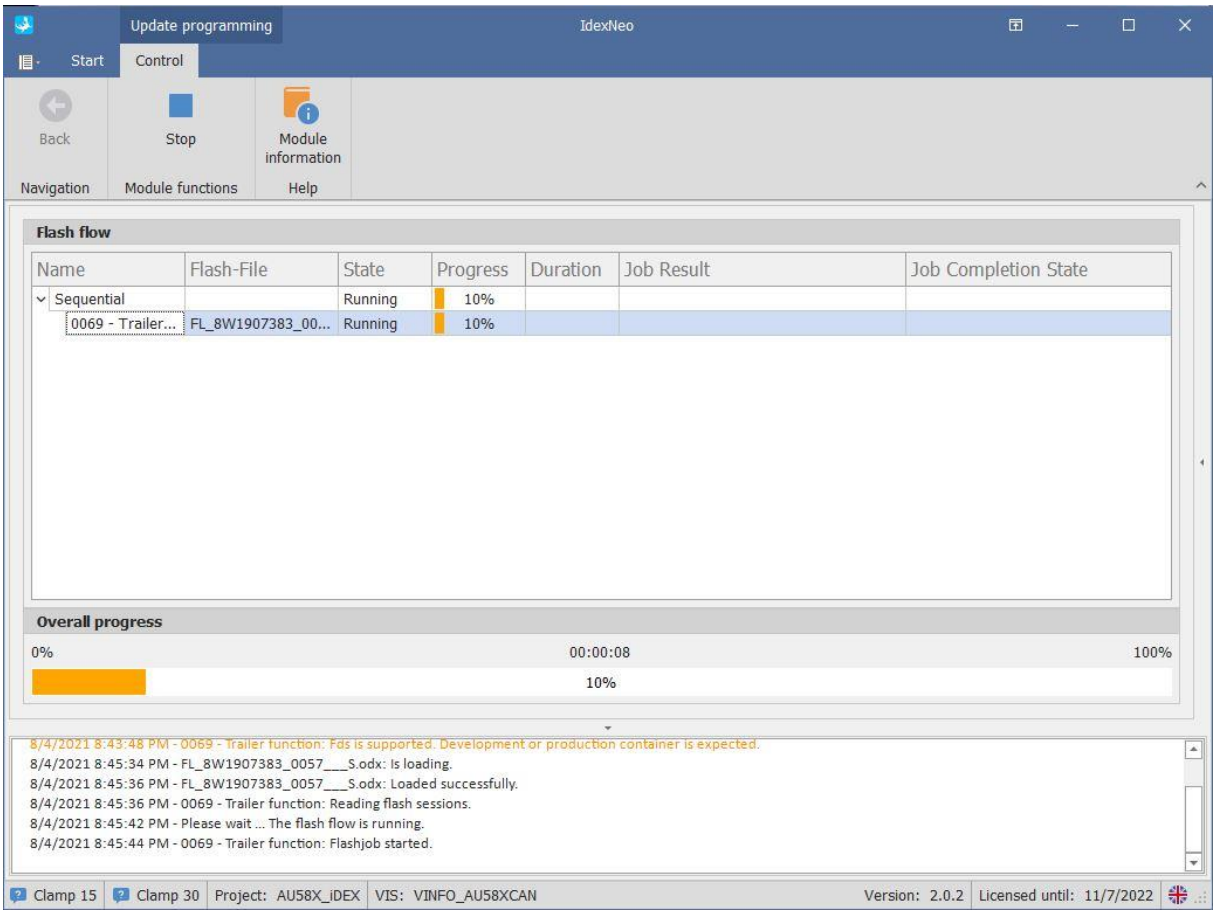
The first thing to do is to load the appropriate flash file for the control unit. To do this, the control unit must first be selected (see figure). Then the button "Load flash file" must be pressed. A window for selecting the flash file then opens. Permitted file types are * .odx, * .sgo, * .sgm, * .frf, * .pdx and * .hex.



Select the flash file and press "Open". When adding the control unit to the flash sequence, a control unit identification is carried out. All relevant data that are important for flashing are read from the control unit. Once the flahs file has been loaded and has the status "Ready to flash", the flash process can be started using the "Start" button.



CONFIDENTIAL



Progress bars:

There are multiple progress bars on the screen to provide a maximum of information.

In general you can categorize them in 3 different types of progressbars which level from more specific/detailed to more rough/summerized:

1. Type Single ECU element
   You will see the live progress of the flash procedure as it was reported by this single ECU
2. Type Sequential or parallel element
   Summerizes all the progress information of its child elements to give you a better overview
3. Type Total progress at the bottom
   Displays the same progress as the top most sequential element but it is quicker and easier to read if you have some distance to your pc monitor.

Stop button:

You can always use the stop button to tell iDEX to cancel the flash flow.

However, the flash process won't get canceled immediately since iDEX will not cancel any ongoing flash procedures to prevent damage to the ECU.

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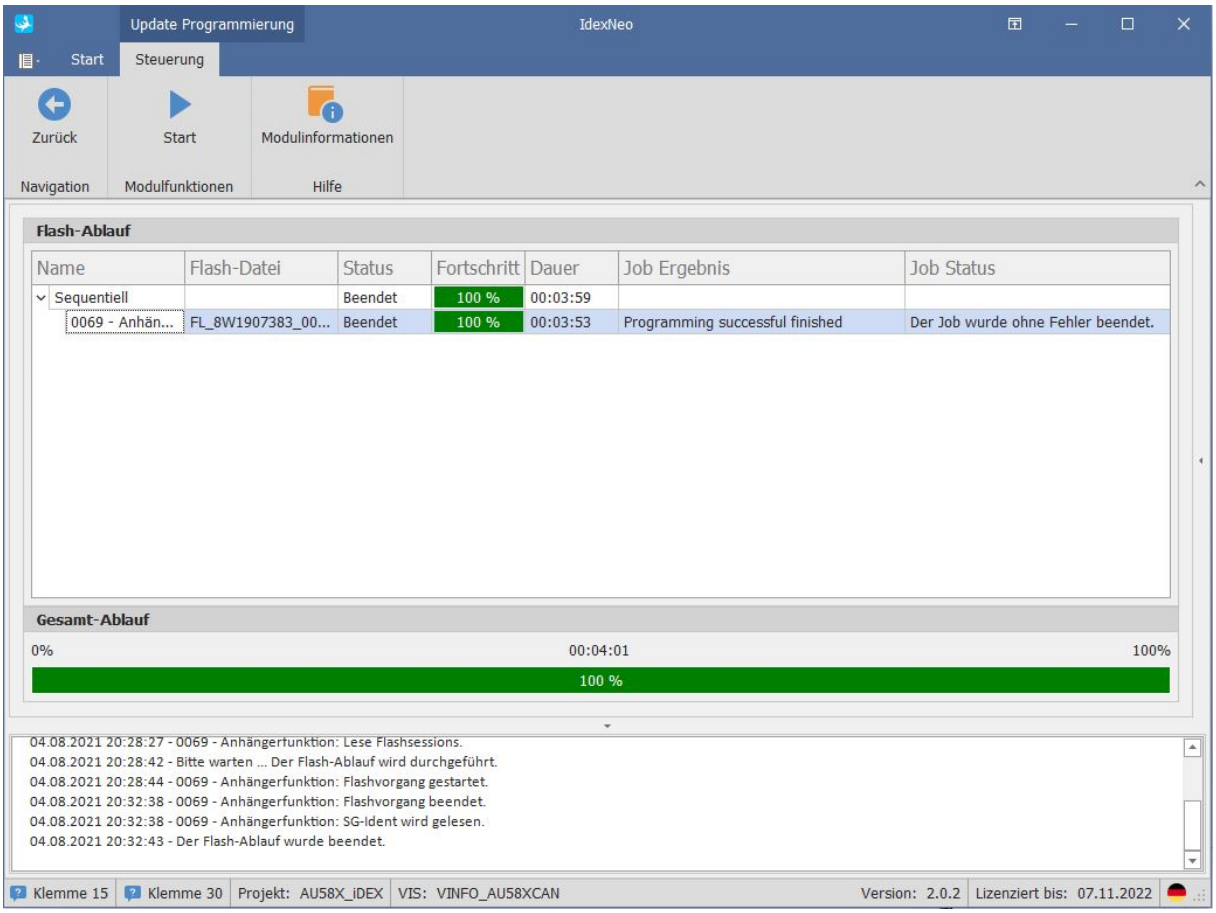


After a completed flash flow you will see the result information on each ECU element and the time it took to process the complet configuration.

The following data is provided for an ECU element:

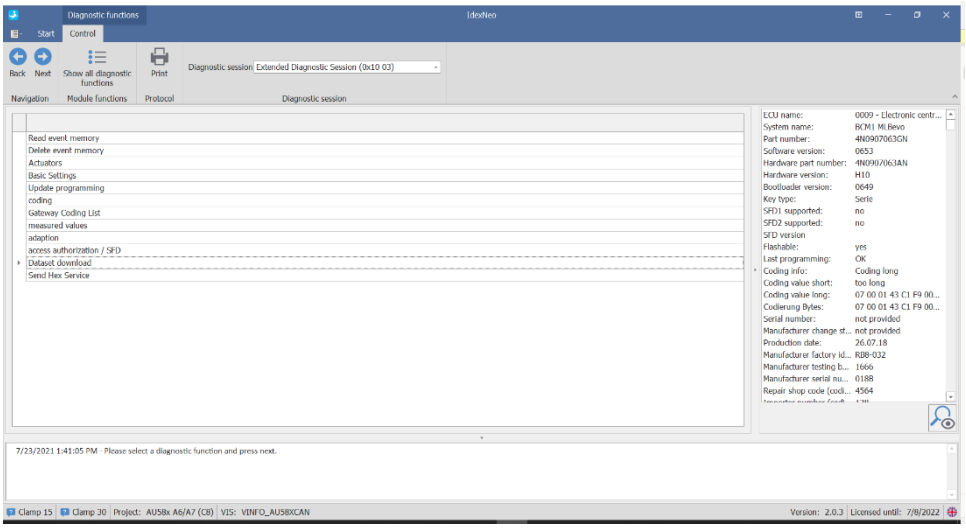
- Which file was used to flash the ECU
- State of the procedure (e.g. finished or canceled)
- Progress of the flash process
- Duration of the flash process
- Reported job result message
- Reported job status message

The Back button will bring you to the flash flow configuration screen.

CONFIDENTIAL

DATASET DOWNLOAD

Select “Dataset download“ to open the Module.



Click on “Next“.

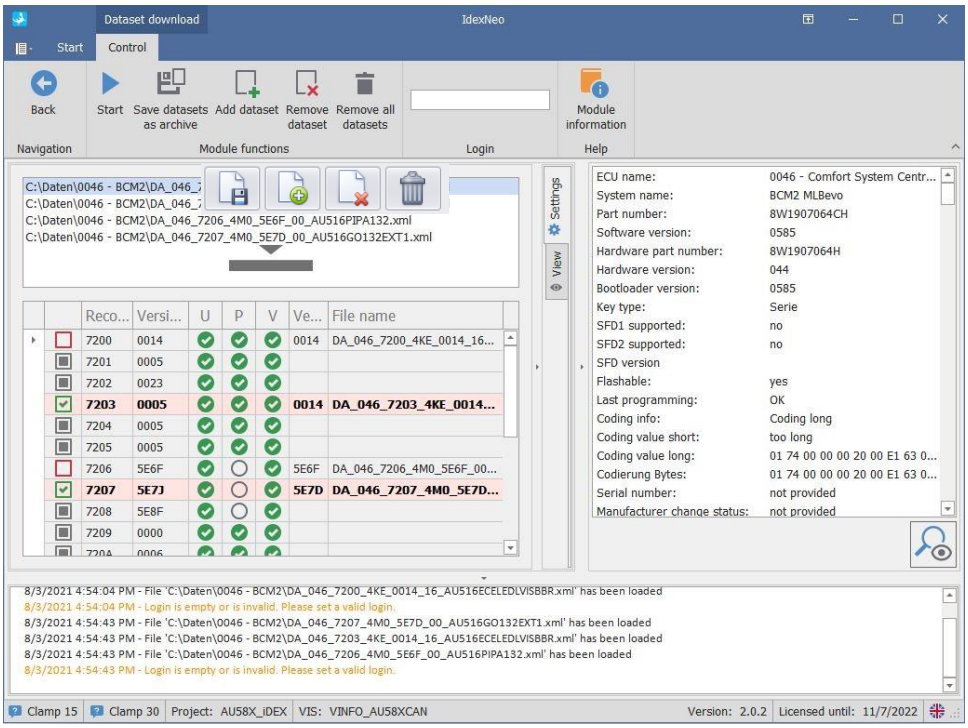
GENERATION 1 AND GENERATION 2

An ECU can be input data either through dataset download generation 2 or either dataset download generation 1. A partial input through dataset download generation 1 and remainder input through dataset download generation 2 isn’t possible technically. Because of this, there are some differences on this module depending on which generation is supported by any given ECU. User must consider this cautiously.

CONFIDENTIAL

DATASET DOWNLOAD – OVERVIEW GENERATION 2

In this view you can select the datasets.



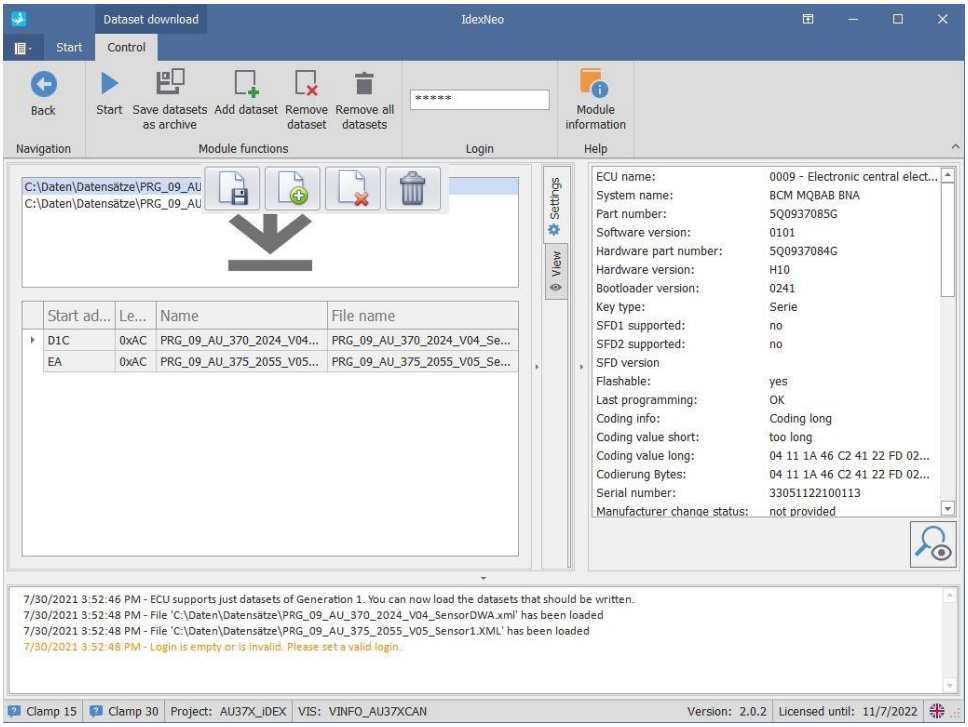
For ECUs which support generation 2, it will be shown all datasets from the identification data, previously read, in the grid control. Following data will be display from identification data:

- **Record-ID**: Identifier of Dataset
- **Version**: Current version of Dataset
- **U**: Stands for „Used“ and indicates, weather a Dataset is used from Application
- **P**: Stands for „Plausible“ and indicates, weather a Dataset is plausible
- **V**: Stands for „Valid“ and indicates, weather a Dataset is valid

The remaining data (version and file name) will be read out from the loaded files.

CONFIDENTIAL

DATASET DOWNLOAD – OVERVIEW GENERATION 1



For generation 1, it will be displayed an emptied data grid, since ECUs which don't support generation 2 don't contain any dataset in their identification data. All information displayed will be read from the loaded files:

- **Start address**: Start address of dataset
- **Length**: Length of data
- **File name**: Name of the file
- **Name**: Name of data

LOAD DATASET FILES

DRAG & DROP OR CLICK ON „ADD" BUTTON (+)

Datasets can be loaded either via „Drag & Drop" or either via click on Button

CONFIDENTIAL

DATASET FILES OF GENERATION 2:

ODX – BOOTLOADER-DATASET

Bootloader-Dataset files are supported for generation 2. Any loaded ODX file will be checked, weather its name (by reference to specification documents “Dataset-download Generation 2 V3.1 Release 20120921.pdf“ and “QLAH_DSDL_G2_V3.3.pdf“) and its contained data are valid. Invalid files will be discarded with a proper message being displayed.

XML- APPLICATIONS-DATASET

Application-Dataset (XML) are supported for generation 2. Any loaded application-dataset file will be checked, weather its name (by reference to specification documents “Dataset-download Generation 2 V3.1 Release 20120921.pdf“ and “QLAH_DSDL_G2_V3.3.pdf“) and its contained data are valid. Invalid files will be discarded with a proper message being displayed.

STEUERINFO.XML

Control info files can be added as well. Its name der must be exactly „Steuerinfo.xml“ (case is ignored), files with a different name will be automatically discarded. Contained data will also be checked.

In the control info file is indicated the name of all dataset files contained. Those files will be checked and added individually. Therefore the dataset files must be located where they are addressed, usually in the same directory.

ZIP FILES

Zip files will be copied to a temporary directory, where they will be unzipped. All extracted files will checked and added individually. As usual invalid files will be discarded with a proper message being displayed.

CONFIDENTIAL

DATASET FILES FOR GENERATION 1:

XML - DATASET

Applications dataset (XML) are supported for Generation 1. . Any loaded application-dataset file will be checked, weather its name and its contained data are valid. Invalid files will be discarded with a proper message being displayed.

STEUERINFO.XML

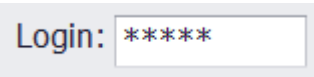
Controlinfo files can be added as well. Its name der must be exactly „Steuerinfo.xml“ (case is ignored), files with a different name will be automatically discarded. Contained data will also be checked.

In the controlinfo-file is indicated the name of all dataset files contained. Those files will be checked and added individually. Therefore the dataset files must be located where it’s addressed, normally in the same directory.

ZIP FILES

Zip files will be copied to a temporary directory, where they will be unzipped. All extracted files will checked and added individually. As usual invalid files will be discarded with a proper message being displayed.

LOGIN

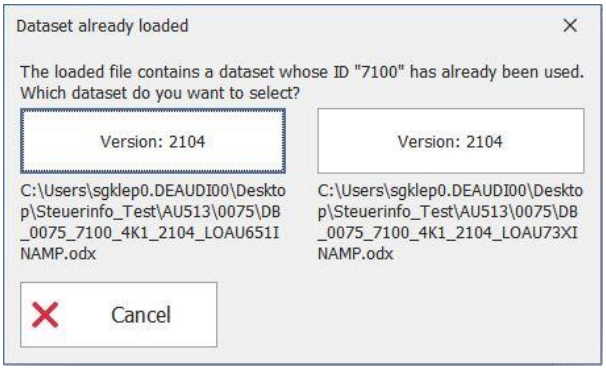


In Login field should be input a valid login. This login will be used for every loaded dataset.

In case no login value is input, the default login value will be taken. However a warning will be displayed.

DATASET ALREADY LOADED

In case a dataset file is loaded with an ID (generation2) or a start address (generation 1), which has already been used by another loaded dataset file, a dialog window will be displayed. In this dialog, you will have to decide which dataset file you wish to take, since for any ID there can just be one dataset file to be written.



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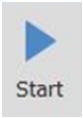
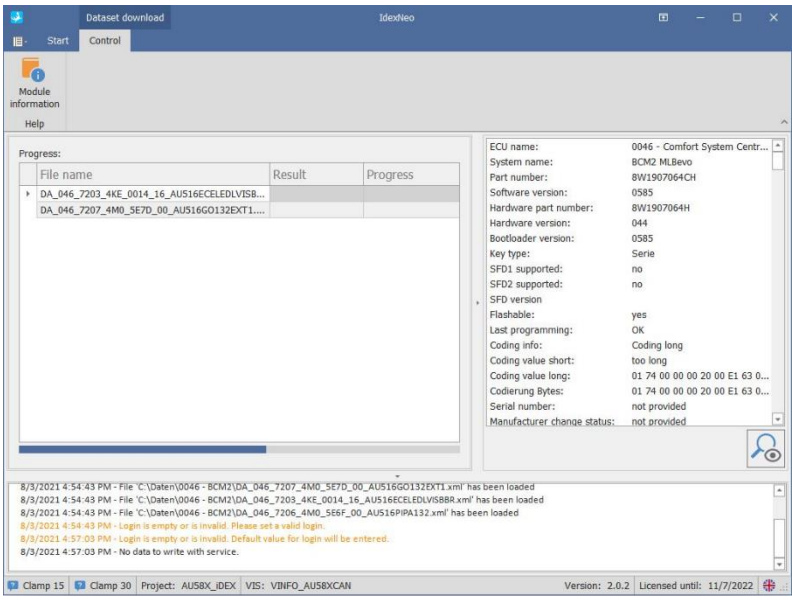
WRITE DATASETS

In generation 2 you can select, which dataset should be written. With this purpose there is a column in the grid control with a check box. This is not possible for generation 1, therefore all loaded datasets will be written.



The parameterization process will be started, in case of click on button „Start“.

PROGRESS VIEW



During the write process of the dataset files, it will be displayed this view, in which it is located a progress bar for the general progress.

A grid control is also placed in there, in order to indicate the progress individualized for the different dataset files. This is just available with write type „Single “.

RESULT VIEW

When the parametrize process is finished, it will be displayed the following view.

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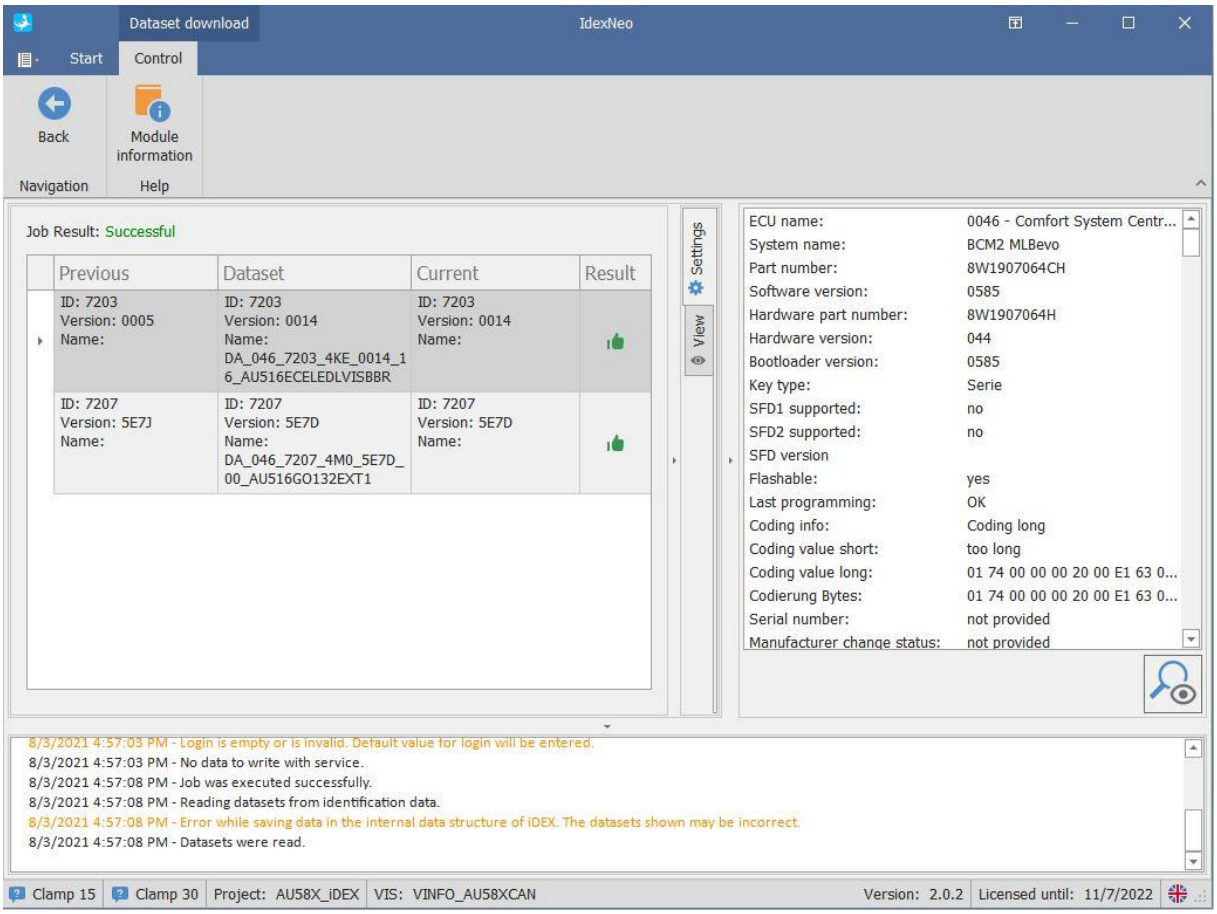

In the top of the view there is a label, in which the result will be shortly described. That is, in case an error occurs, it will be indicated, highlighted in red, the error case and the response code of job. Otherwise, a success message will be shown.

In Generation 2, the datasets will be read again, in order to check whether the datasets were written successfully. That is whether the version has changed as expected. With that purpose, there is a table where the datasets will be shown, indicating the previous value, the values on the files and the current values of the datasets.

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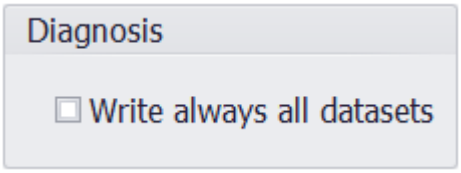
SETTINGS MENU

SETTINGS

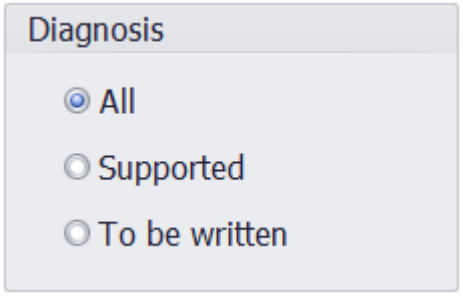
You can click on the tab “Settings”, in order to open the settings menu.

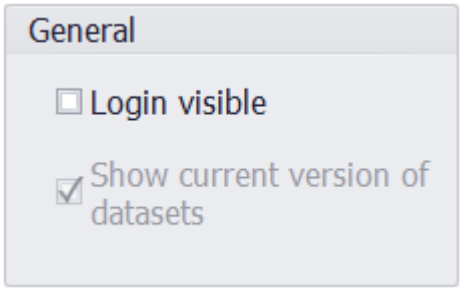


In the settings menu, you can select, whether all datasets should be written always. For this purpose, there is a check box.

VIEW

You can click on “View” to open this menu.





In this settings tab, an extra column can be shown (or hidden) for the generation 2.

Info:

this option is only available for “generation 2”

You can also set the login to visible or invisible.

The list of datasets can be filtered too.

There are three possible filters:

- **All:**
  Shows all datasets that get reported to the control unit
- **To be written:**
  Shows only datasets that have loaded Data (e.g.: fitting Datasets have been loaded via drag&drop)
- **Supported**

  Shows only datasets that are selected to be written on the control unit

Info:

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Not plausible datasets will be always displayed.

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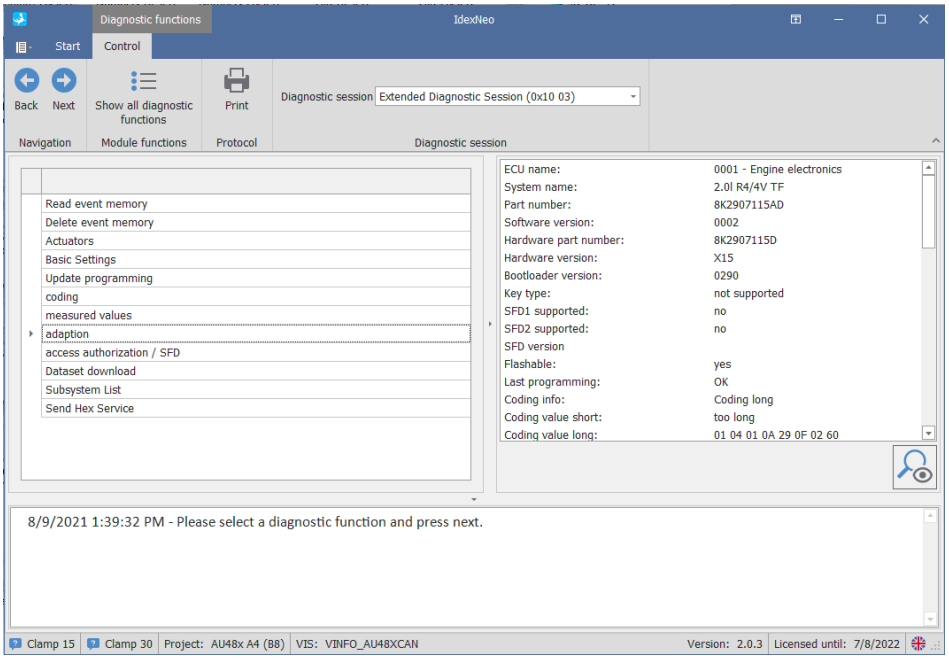
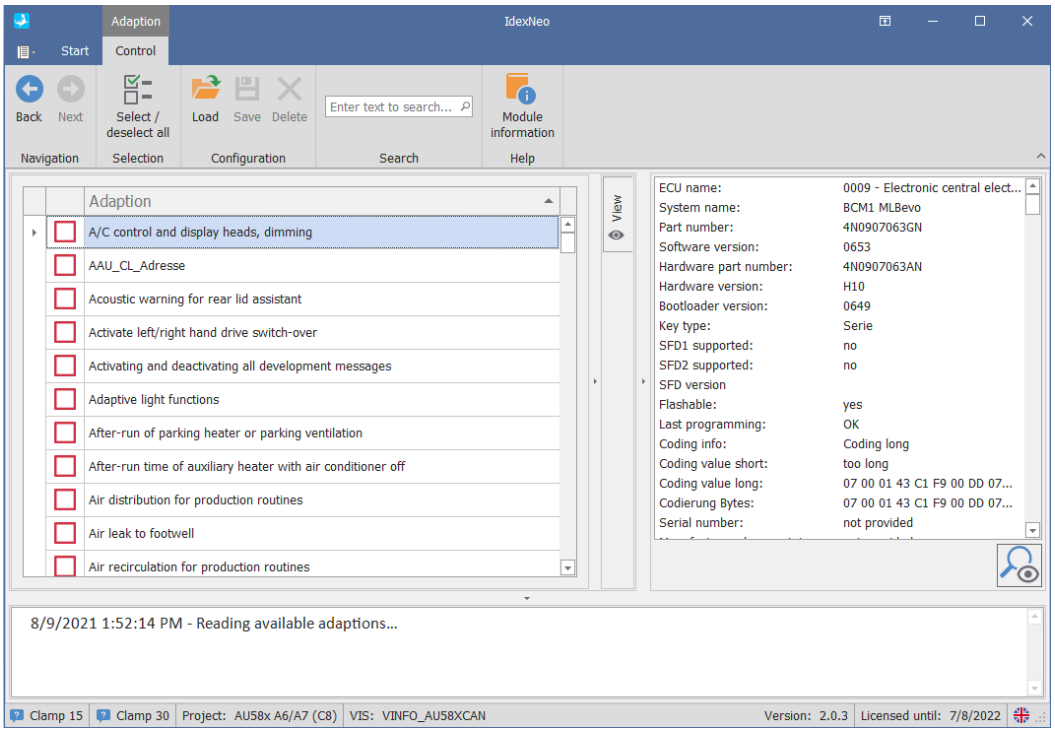
ADAPTION - UDS

To access this module, please click on "Adaption" in the function list.
See Picture.



Press "Next".



Select the appropriate adaption, check the boxes, and press “Next”.

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Explanation of the buttons:

	Change the order of the selected adaption up by one.
	Change the order of the selected adaption down by one.
	Loading a saved configuration.
	Saving the selected adaptions and the data in a configuration file.
	Clears the current configuration, not the configuration file!
	Input field for user-defined search.

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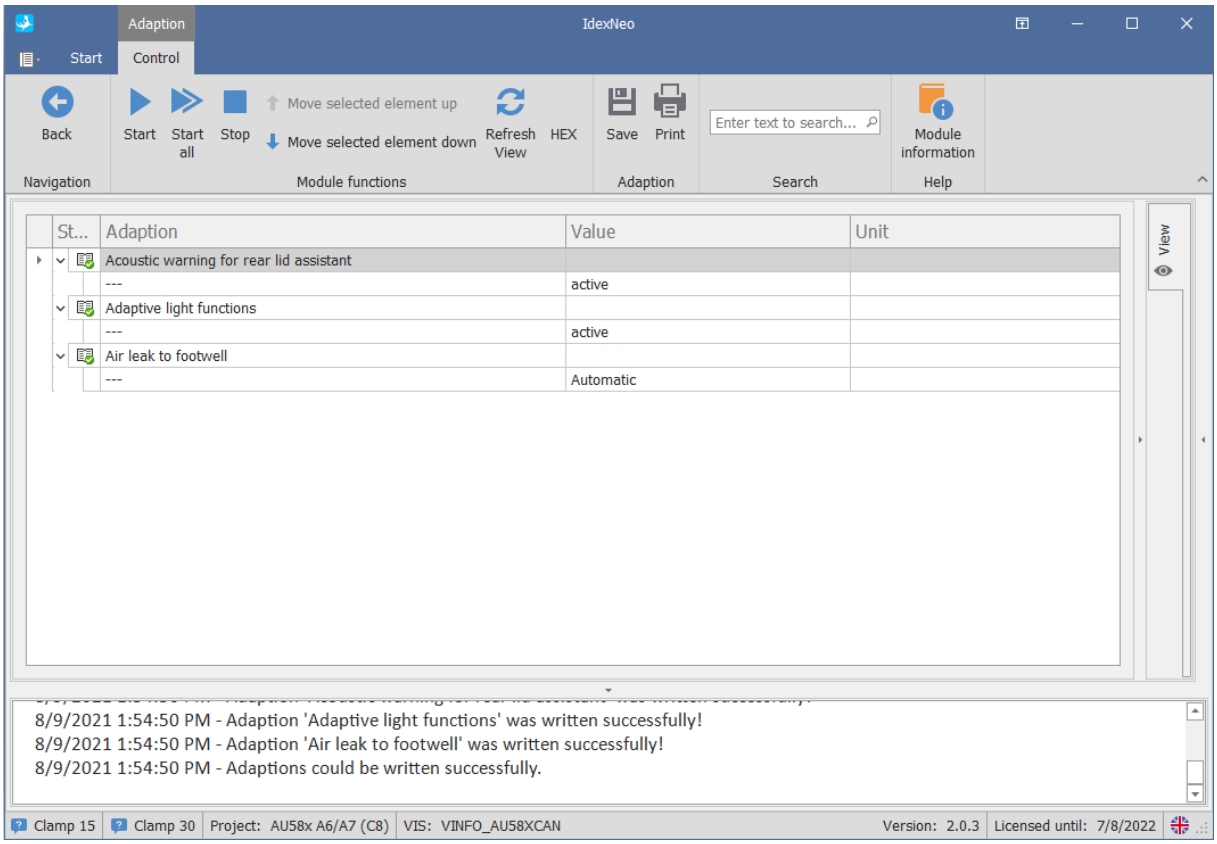
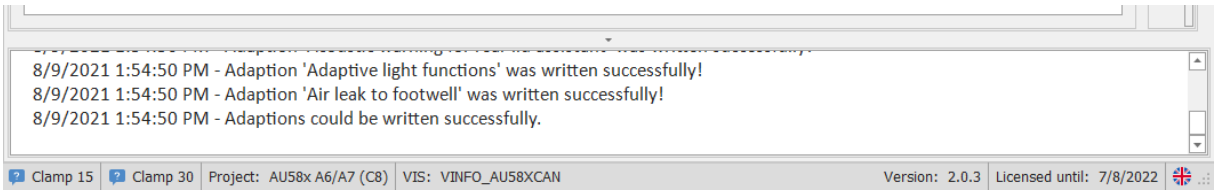


Enter the value for the adaption in the 'Value' column and press

„Start“.

After writing the adaption, the current status is displayed at the bottom of the window.

The events that are triggered, when the parameter is written, are displayed. All parameters in the list can also be written individually. To write a single value, please press the button with the single arrow.



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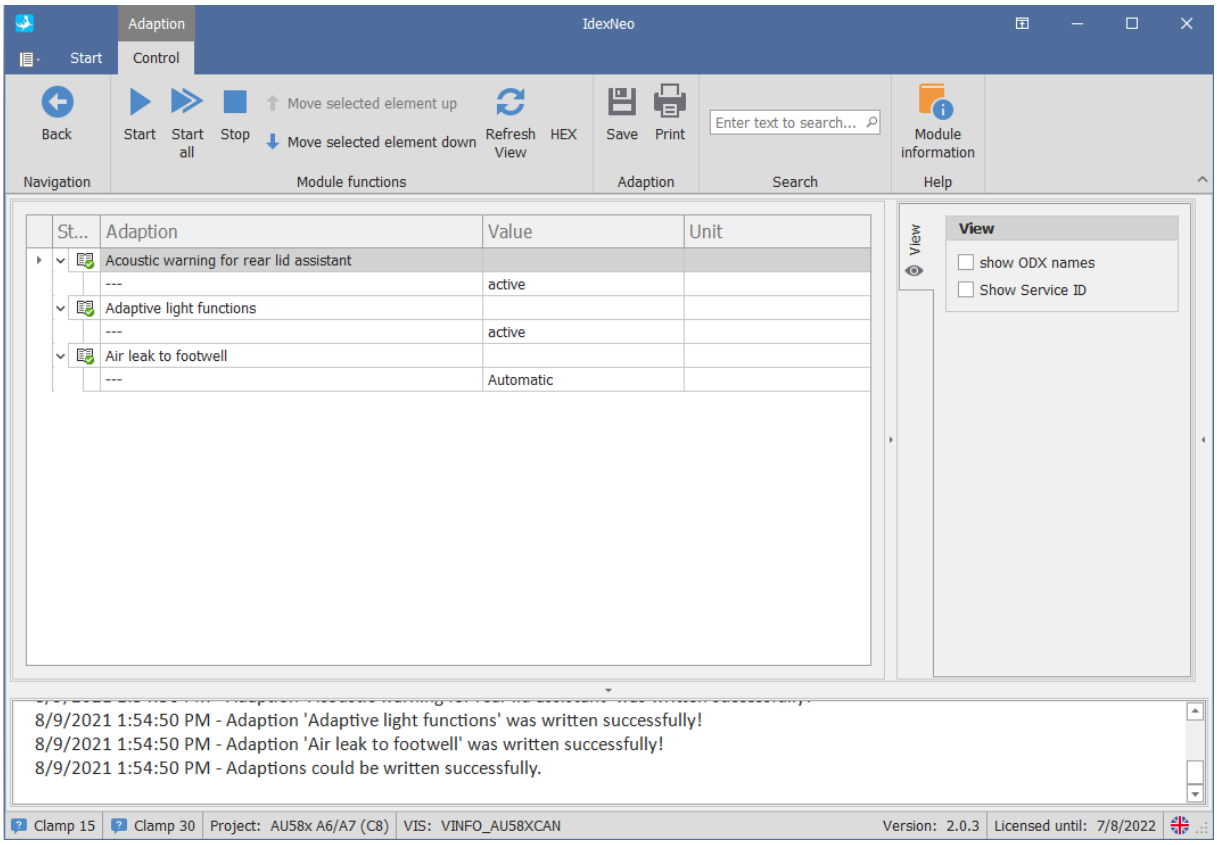
4.1.10.1 VIEW

Click on "View" to show or hide additional columns.



By selecting the check boxes "Show ODX names" and / or "Display service ID", the columns of the same name in the list of parameters are shown / hidden. These settings are also used in the measurement view.

Explanation of the buttons

Prints an iDEX - protocol.

The view is refreshed and the values are newly read from the ECU.

This does not concern values taken from a configuration.

Change the order of the selected Adaption up by one.

Change the order of the selected Adaption down by one.

Opens the dialog for editing the value in hexadecimal.

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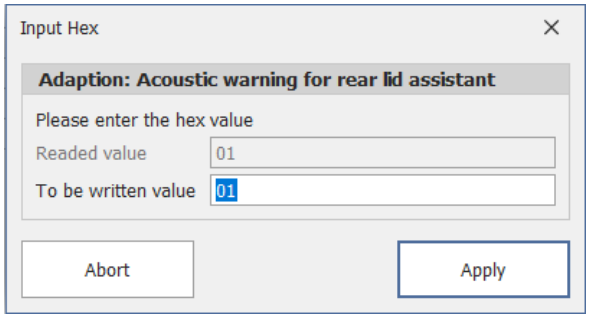

Enter the hexvalue in the text box and click "Apply".

Saves the selected adaption in a configuration file.

You can go back to the function list of the control unit, using the button “Back”

Write adjustments. Individually or all.

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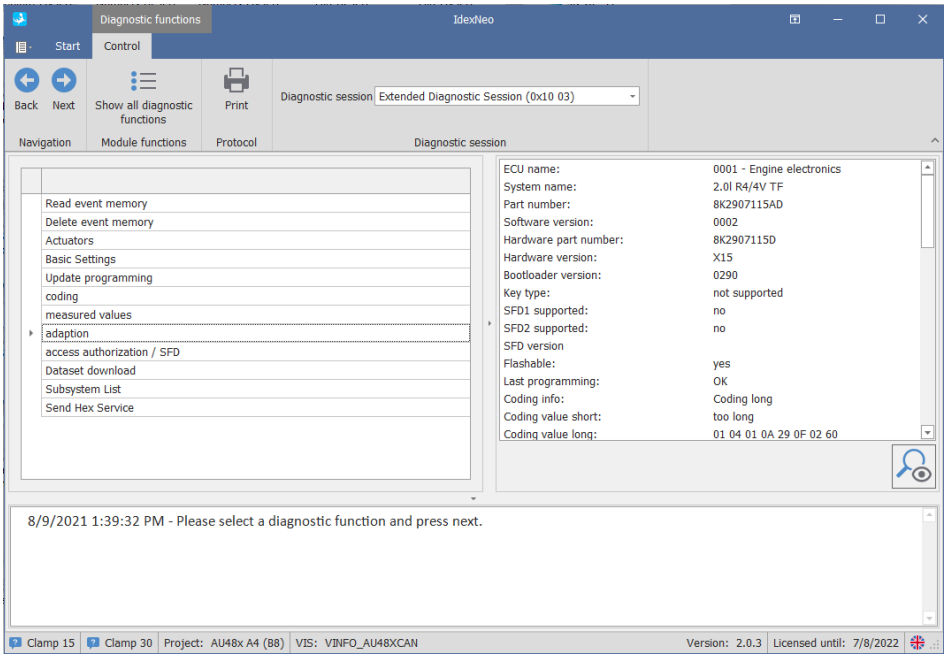
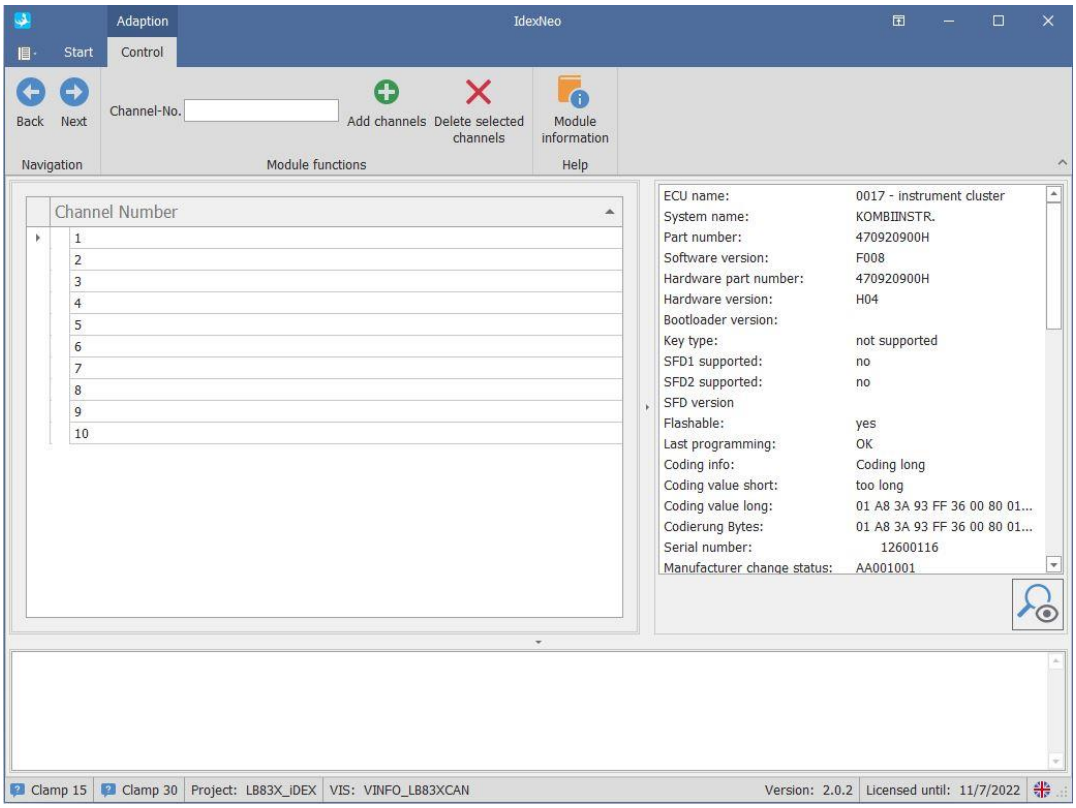
ADAPTION - KWP

To access this module, please click on "Adaption" in the function list. See Picture.



Press "Next".



Enter the channel number (s) and press the "Next" button.

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The channel number can be entered in this field.
The following entries are possible:

- Individual channel numbers e.g. 1
- Listing e.g. 1,2,3,5,8
- Range e.g. 4-12

Only channel numbers in the range of 1-255 can be used.

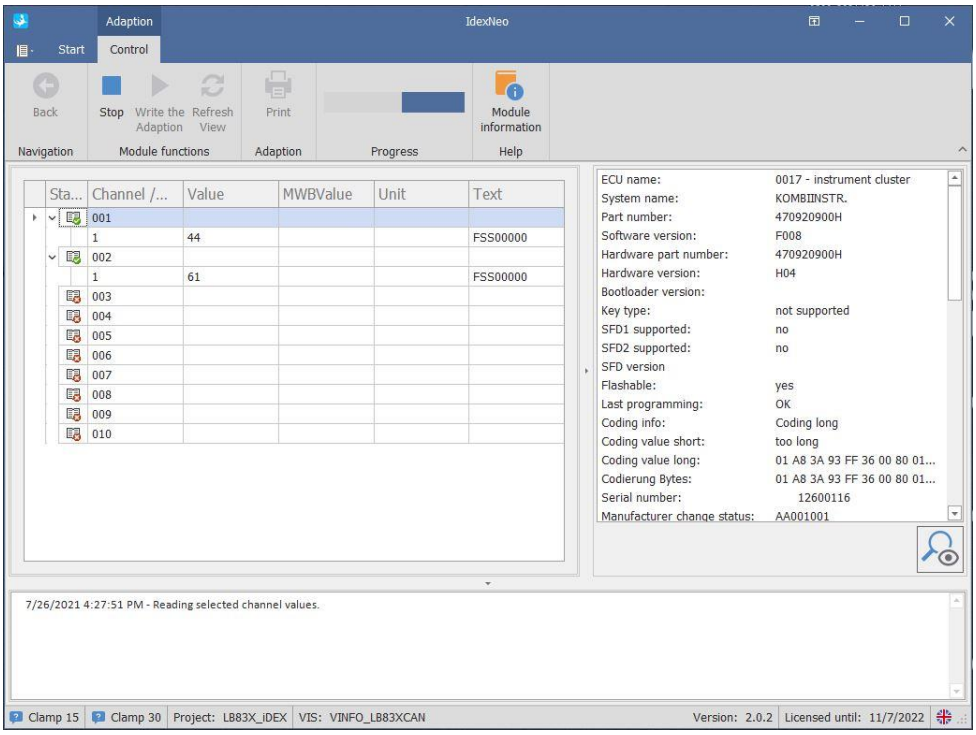
With the button add the input channels.

With the button the selected measured values are removed from the list.

With the button back, you get to the function list of the control unit

With the button “Next” the adaptions are read.

The channel values are read and displayed.



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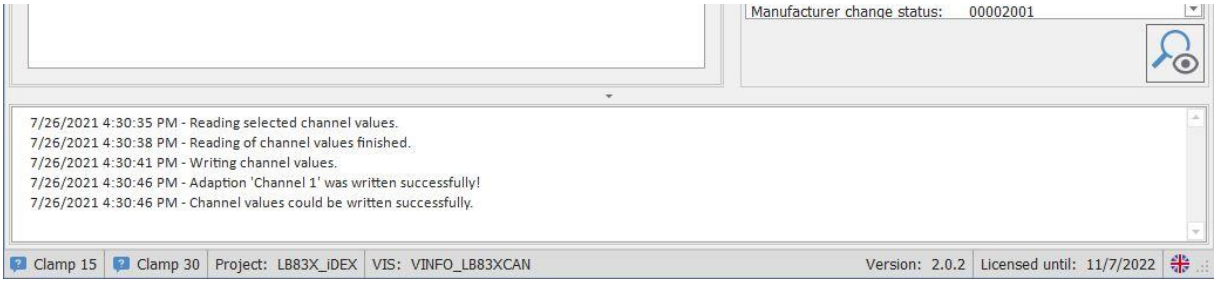
Enter the value for the adjustment in the column “Value” column and press 'Write Adaptions”.

After writing the adaption, the current status is displayed at the bottom of the window.

The events that are triggered, when the parameter is written, are displayed.



Prints the parameters read into an iDEX protocol.

Refreshes the view.

You get to the channel list of the control unit by using the button "Back".

Adaptions are written.

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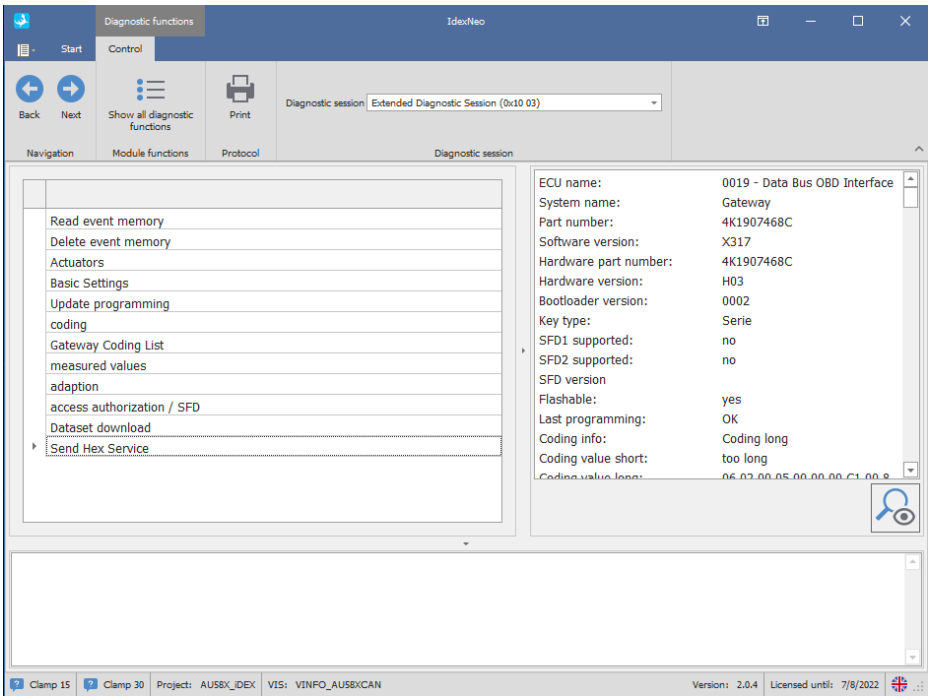
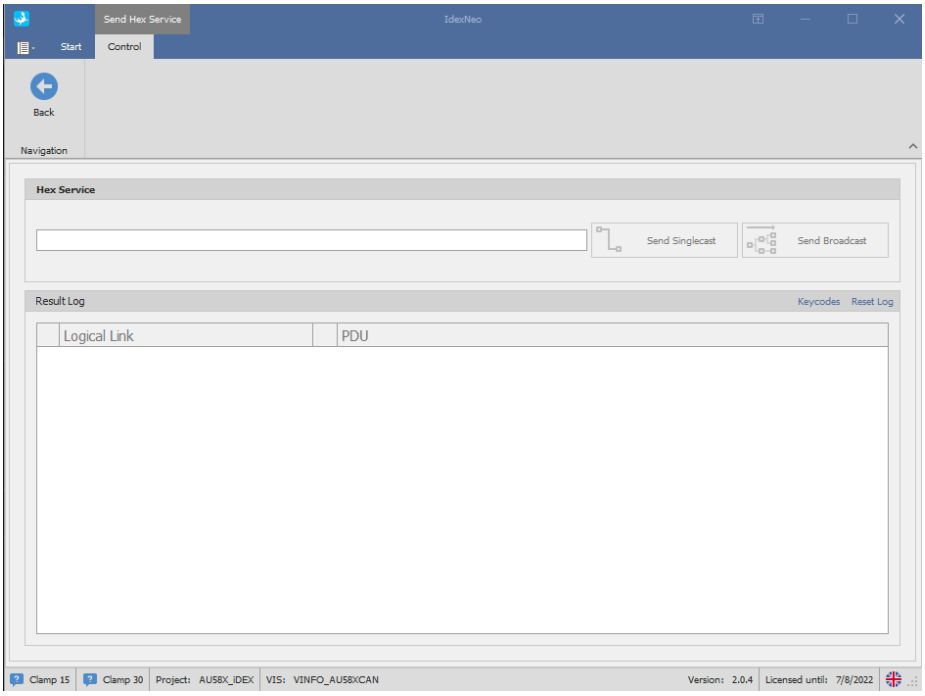
SEND HEX-DATA

To call this module, please click in the function list on "Write hex data". See picture.



Clicken on „**Next**“.



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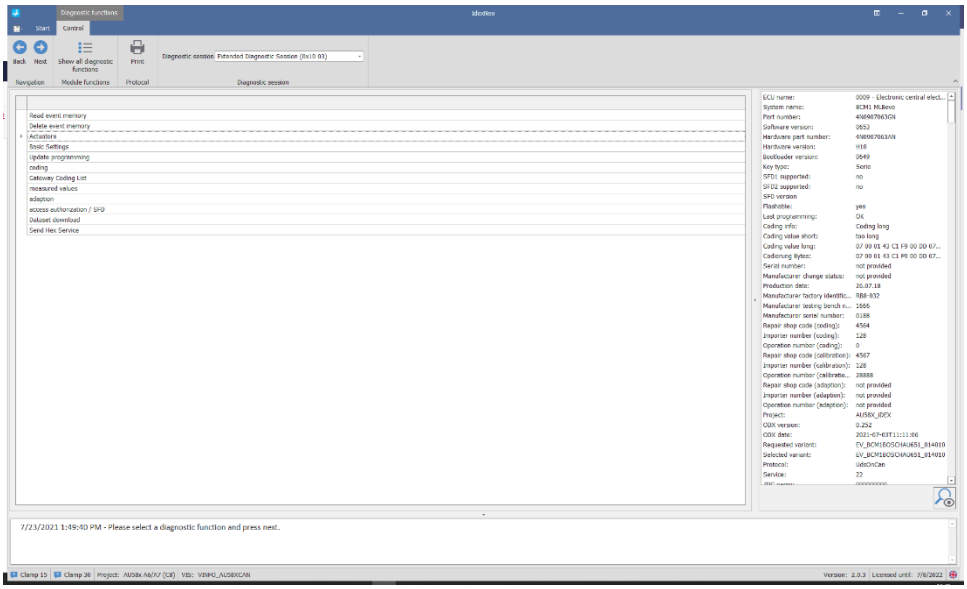
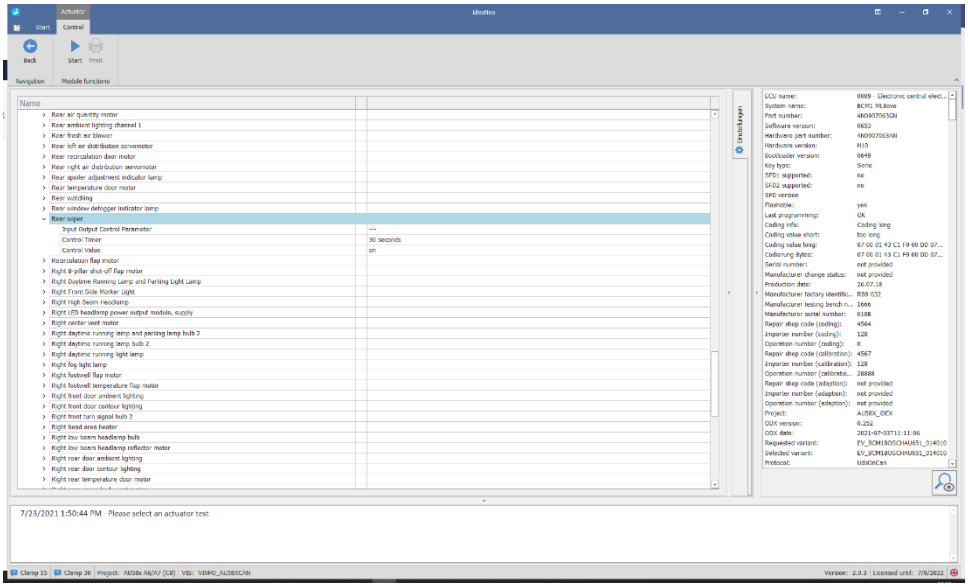
ACTUATOR – UDS

To open this Module, click in the function list on “Actuators”.

See picture below



Click on „**Next**“.



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This View is a list of all Actuator tests and the measured value blocks of the control unit. The Measurement blocks are listed under Actuator tests. Those can be selected to read their value.

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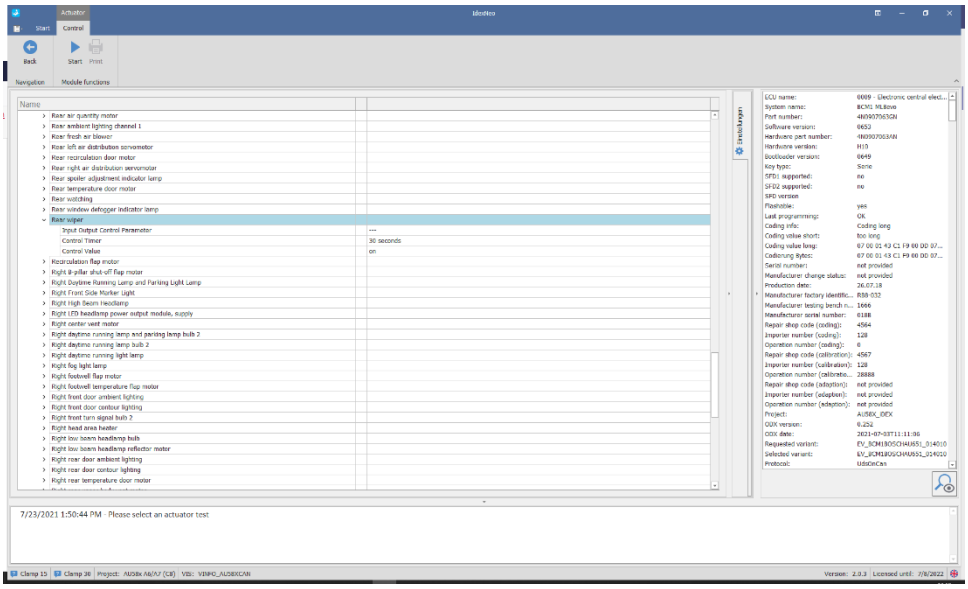
By selecting an actuator (see picture) it opens up. The parameters and the associated value can be configured under each actuator test.

To start and actuator test, please select an actuator and press start.



The started actuator test is shown in green. You can end the actuator test again with the "**Stop**" button.

The "Print" button creates an iDEX protocol.

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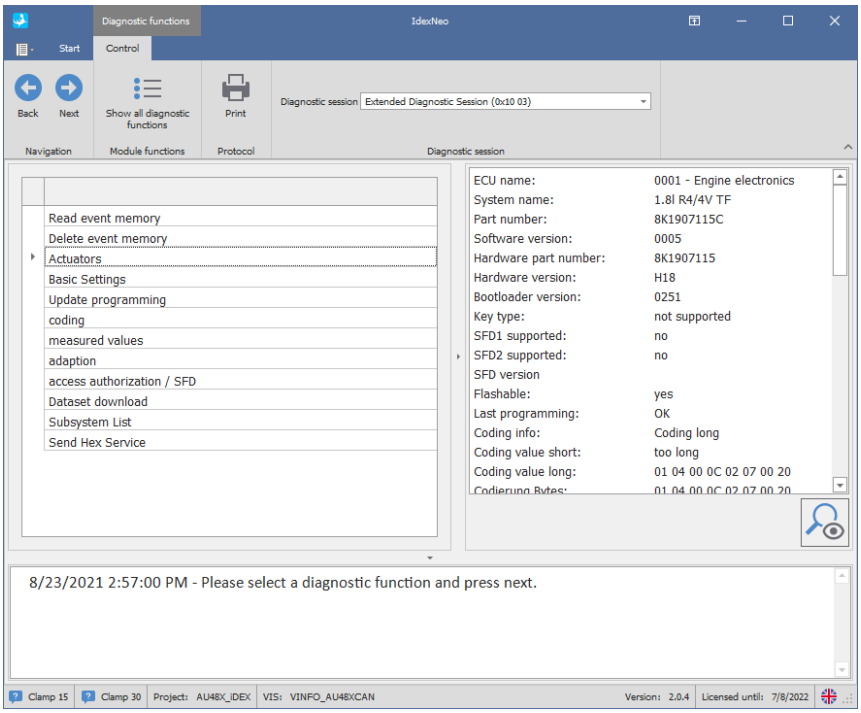
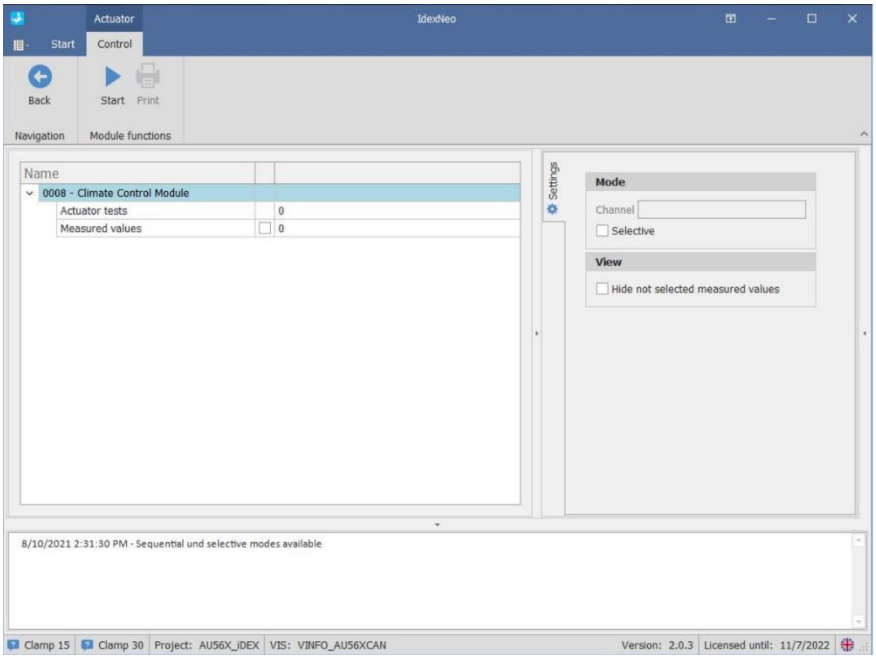
ACTUATOR – KWP

To call up this module, please click on "Actuators" in the function list. See illustration.



Click on „**Next**“.



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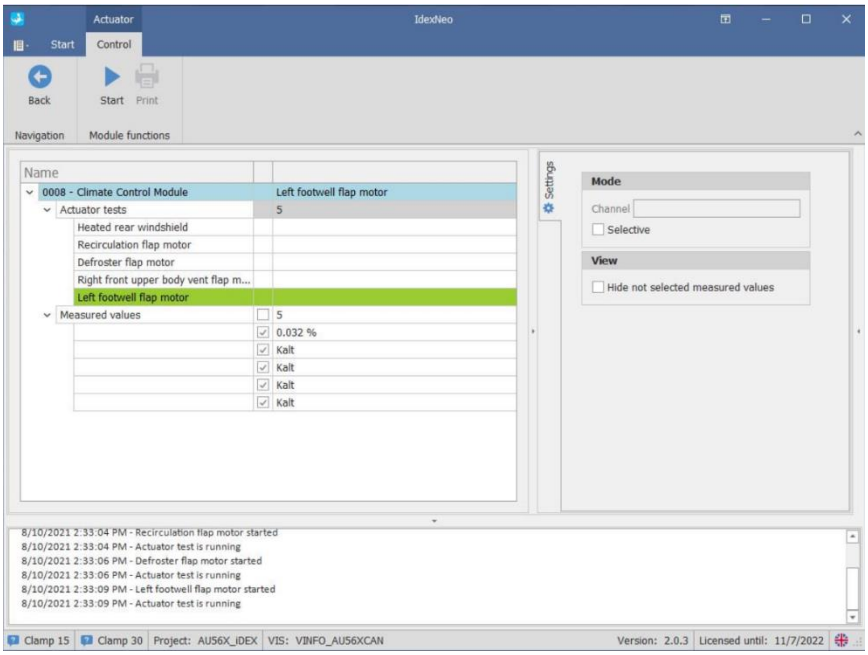
Normal Start: Press the "Start" button to start final control diagnosis. The associated actuator test is carried out for each channel

Selective Start: In the “Mode” group, check the “selective” box. Enter a channel number and press the "Start" button. In this mode, only the actuator test of the specified channel is carried out.



The started actuator test is shown in green. The readings are also shown in the table.

Press "Restart" to start the next actuator test. The process ends when all actuator tests have been carried out.

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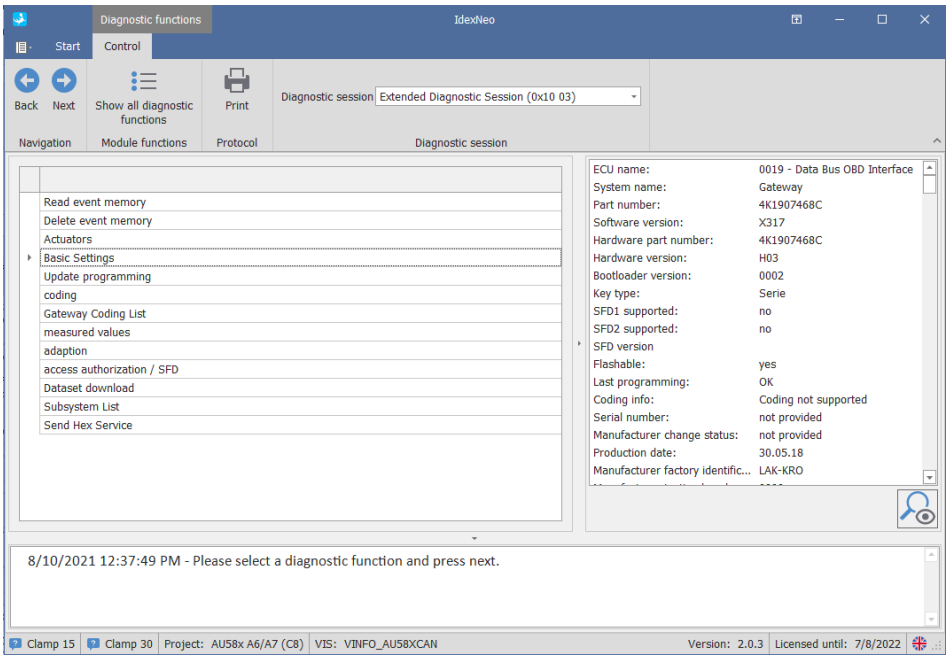
BASIC SETTINGS - UDS

You can open the module by selecting „Basic settings“ from the function list and clicking „next“.



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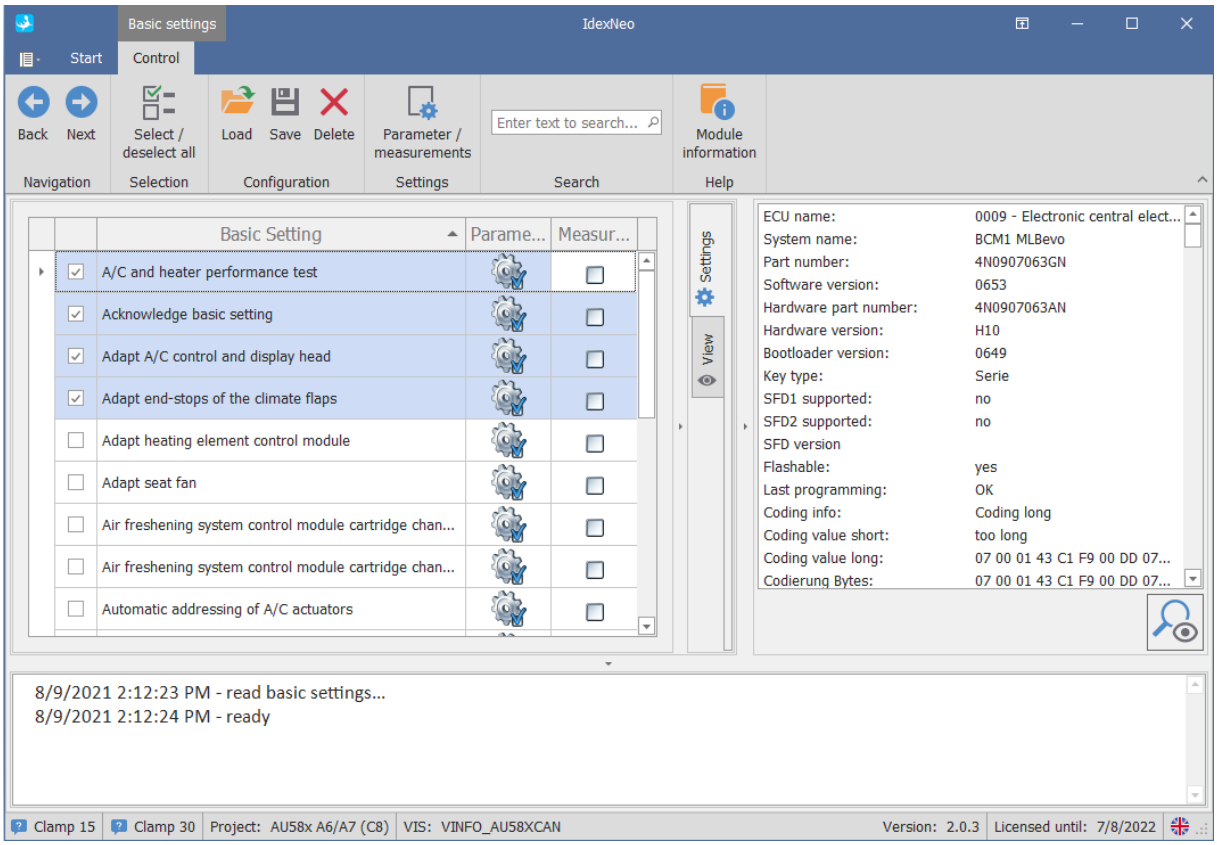
BASIC SETTINGS – OVERVIEW

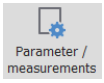
After you open the module, you will see all available basic settings.
You can select multiple basic settings and configure them.

Start the process by clicking “Next”.



Available options through the button bar:

Prints an iDEX protocol



Configure the parameters and measurements of the selected basic setting

Loads a previously saved basic setting configuration

Saves the current configuration

Resets the configuration to none.
Will not alter any of your saved configurations

PARAMETER CONFIGURATION

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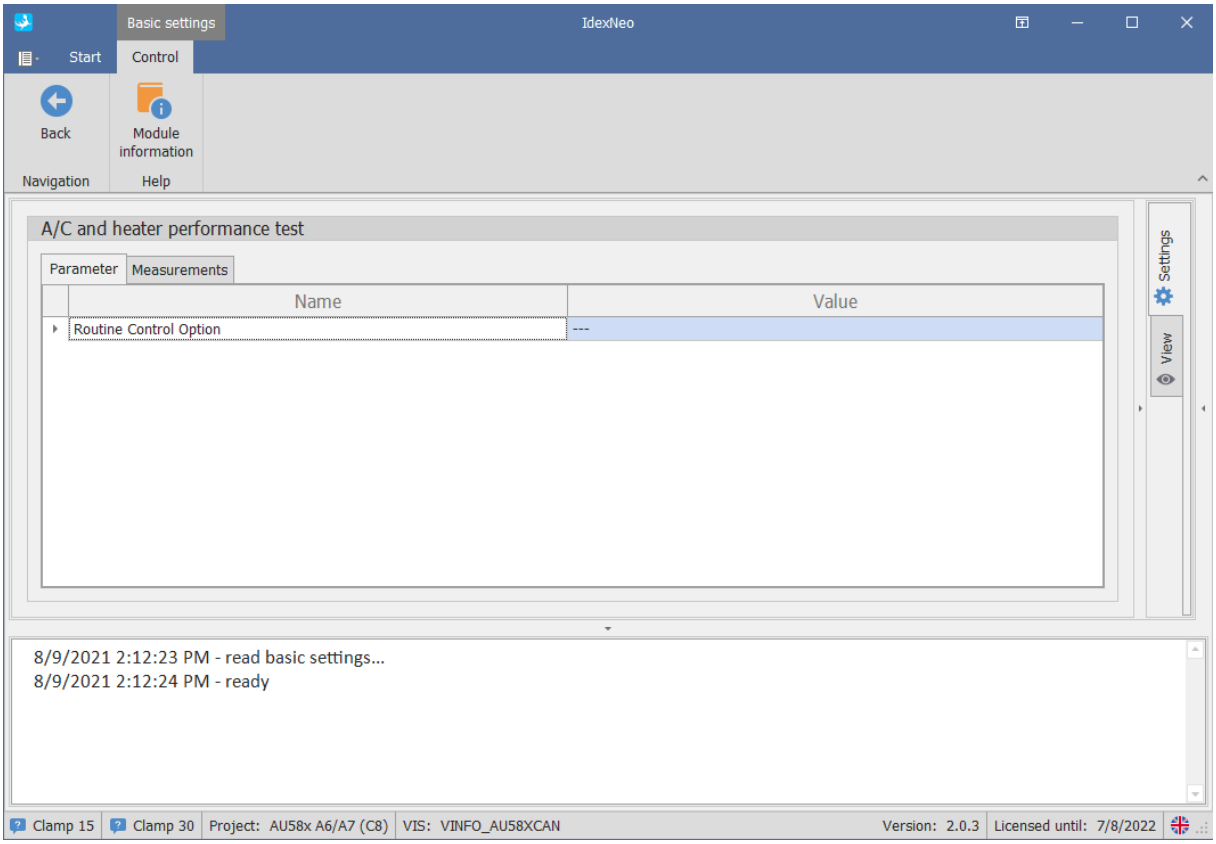
Select a basic setting entry and click the button or use the icon of one of the basic settings to open the configuration view.
You will see all available parameters and their available options.
Configure the parameters as you like and click “back” after you are done.



If there are changes in the values there will be an indication symbol in the main window.

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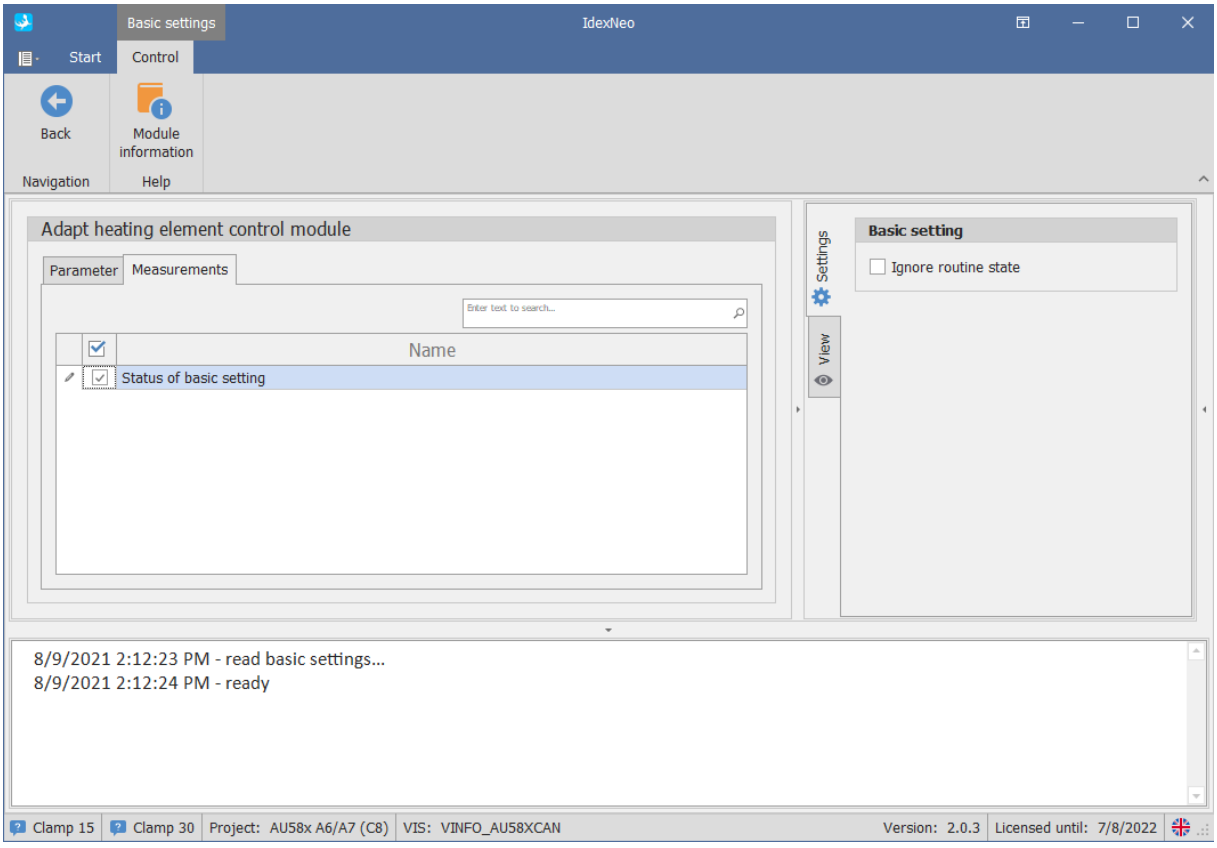
Select a basic setting entry and click the button or use the icon of one of the basic settings to open the configuration view.
You will see all available measurements.
Select the measurements you like to read during the basic setting and click “back” after you are done.

Keep in mind, that the selected measurements will only get read out during this one specific basic setting.



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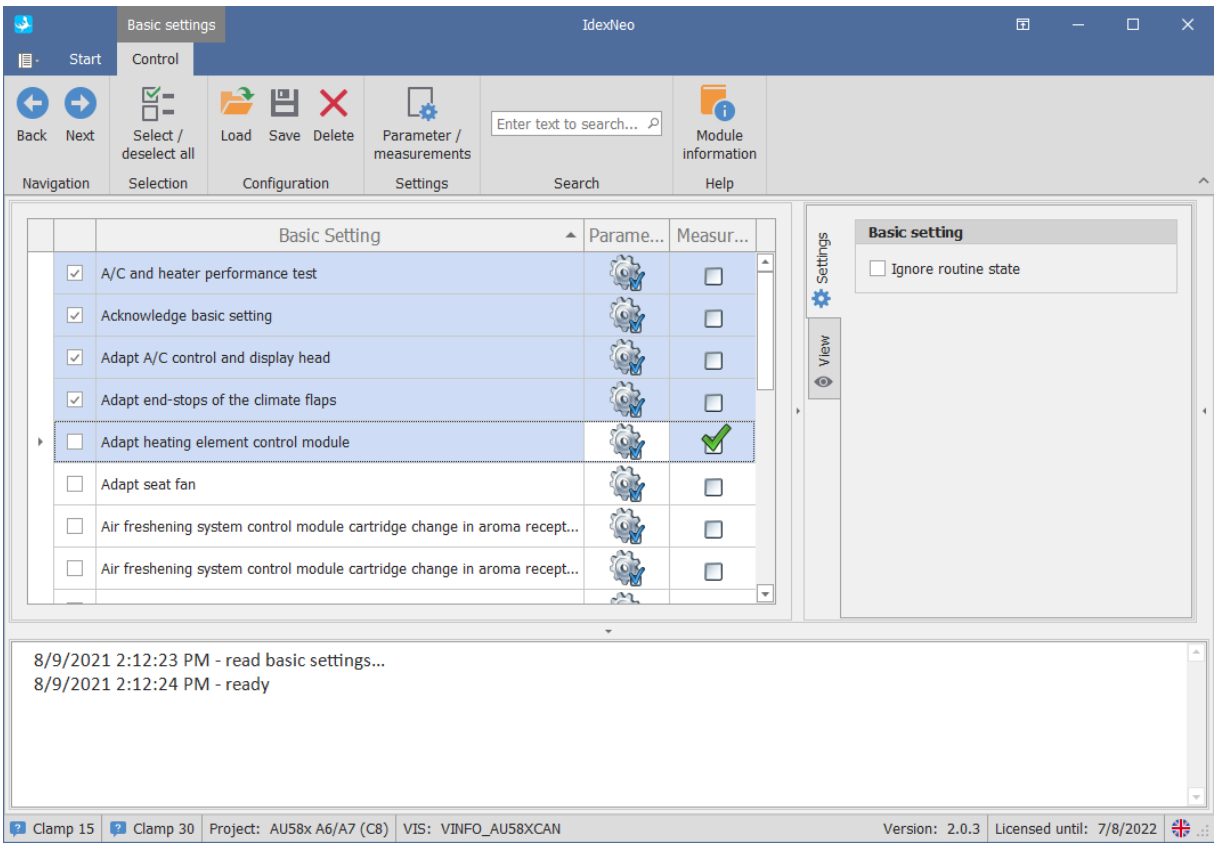
After you are done configuring the basic settings, you will see, that the main view was updated.

Indicator, to show, that you changed at least one parameter to a none default value.

Indicator, to show, that you selected at least one measurement which gets polled during this basic setting.

Click “next” after you are satisfied with your configuration to change the view.



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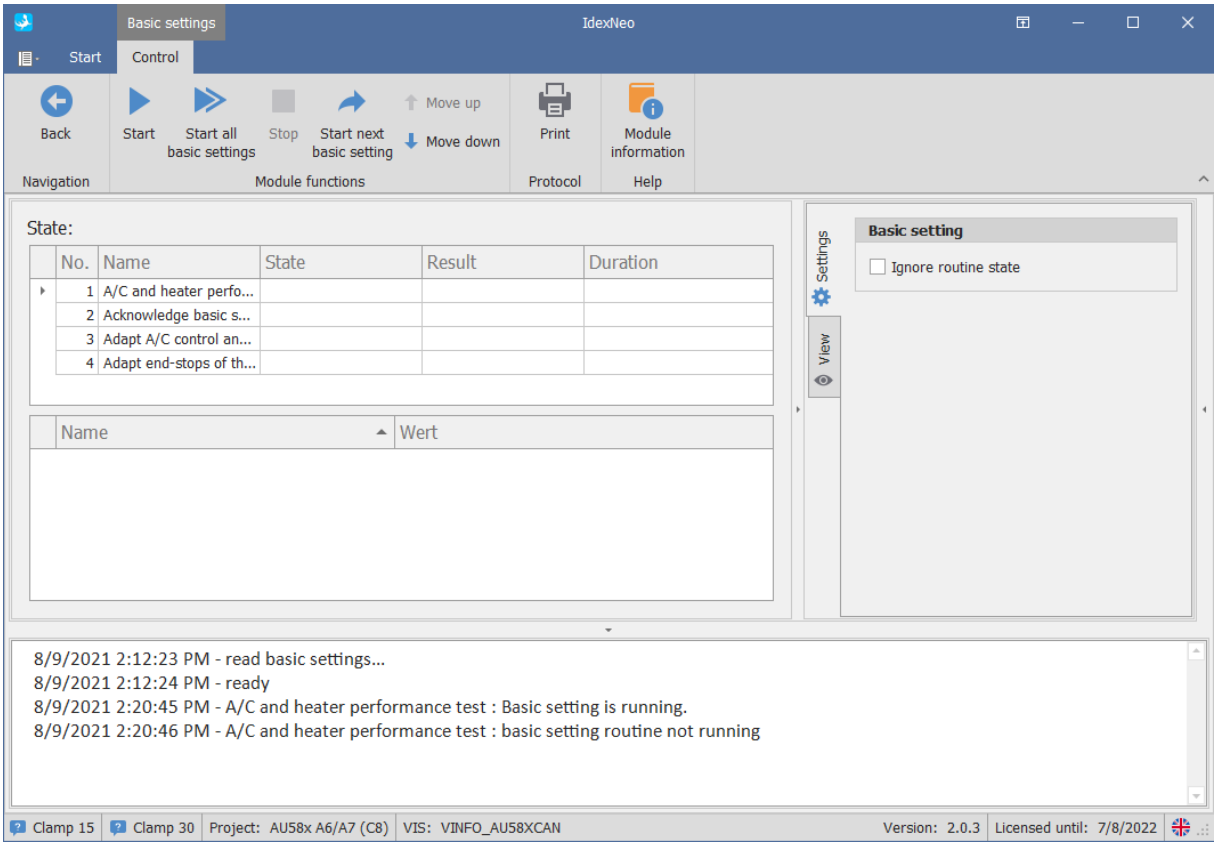
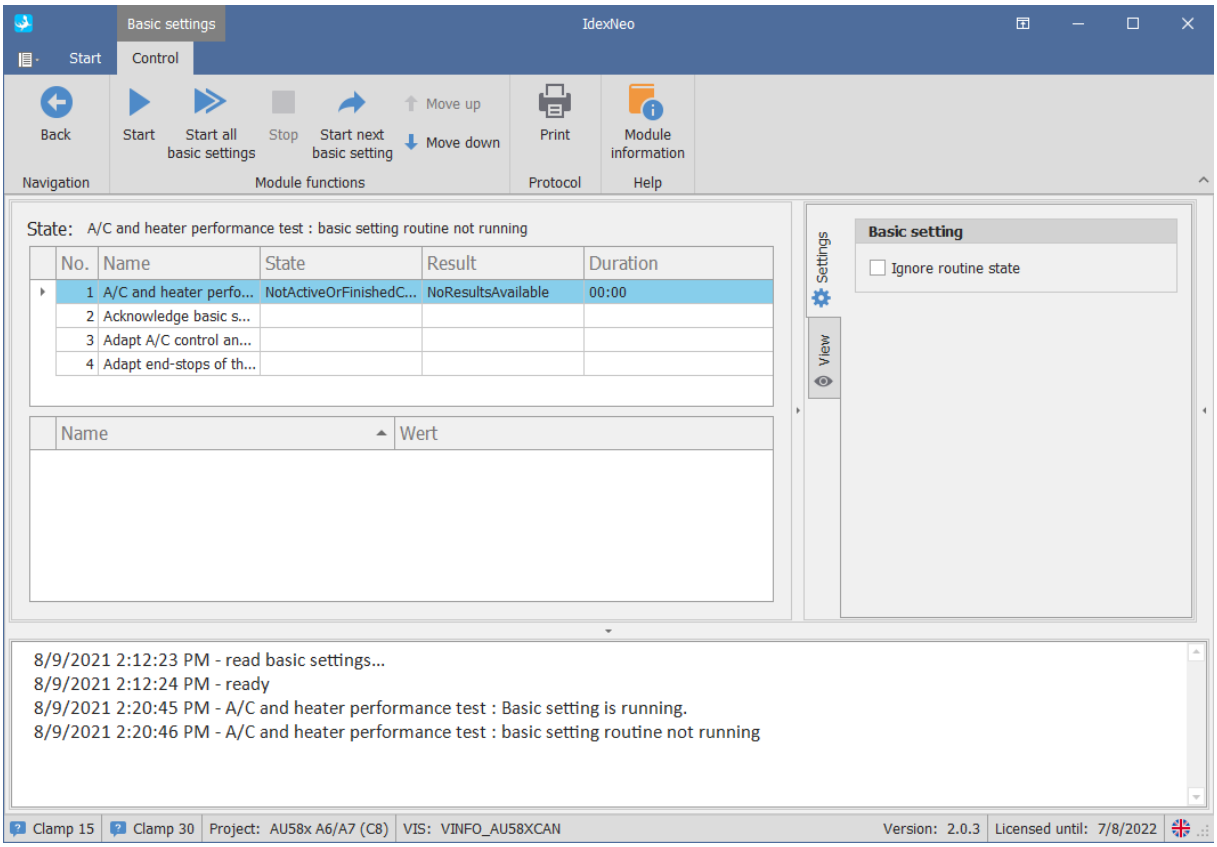
Select the basic setting you like to start at the upper grid and click “Start”





The selected basic setting will get started and you will see the measurements you configured in the previous step.

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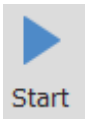
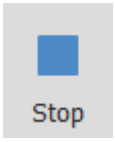
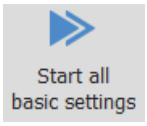
All options to choose from are:



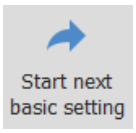
Starts the selected basic setting



Stops the currently active basic setting



Starts all basic settings in a sequence (one by one)



Starts the next basic setting of your configuration

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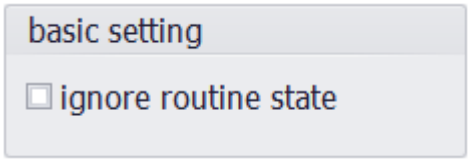
SETTINGS

Click „settings“ to open the settings tab page.

You will have the option to ignore the routine state of a basic setting.

If you activate this setting, the result of the service 0x22,01,02 (ReadDataByIdentifier) will be ignored and you will have to manually stop the basic setting.



To activate this setting, just check the box.

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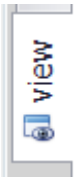
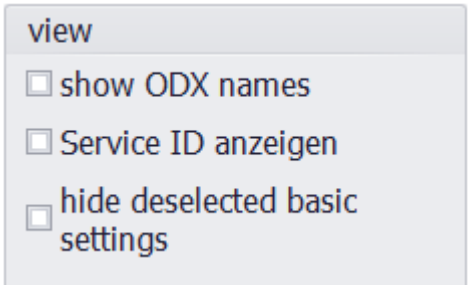
VIEW

Click „View“ to open the view settings tab.

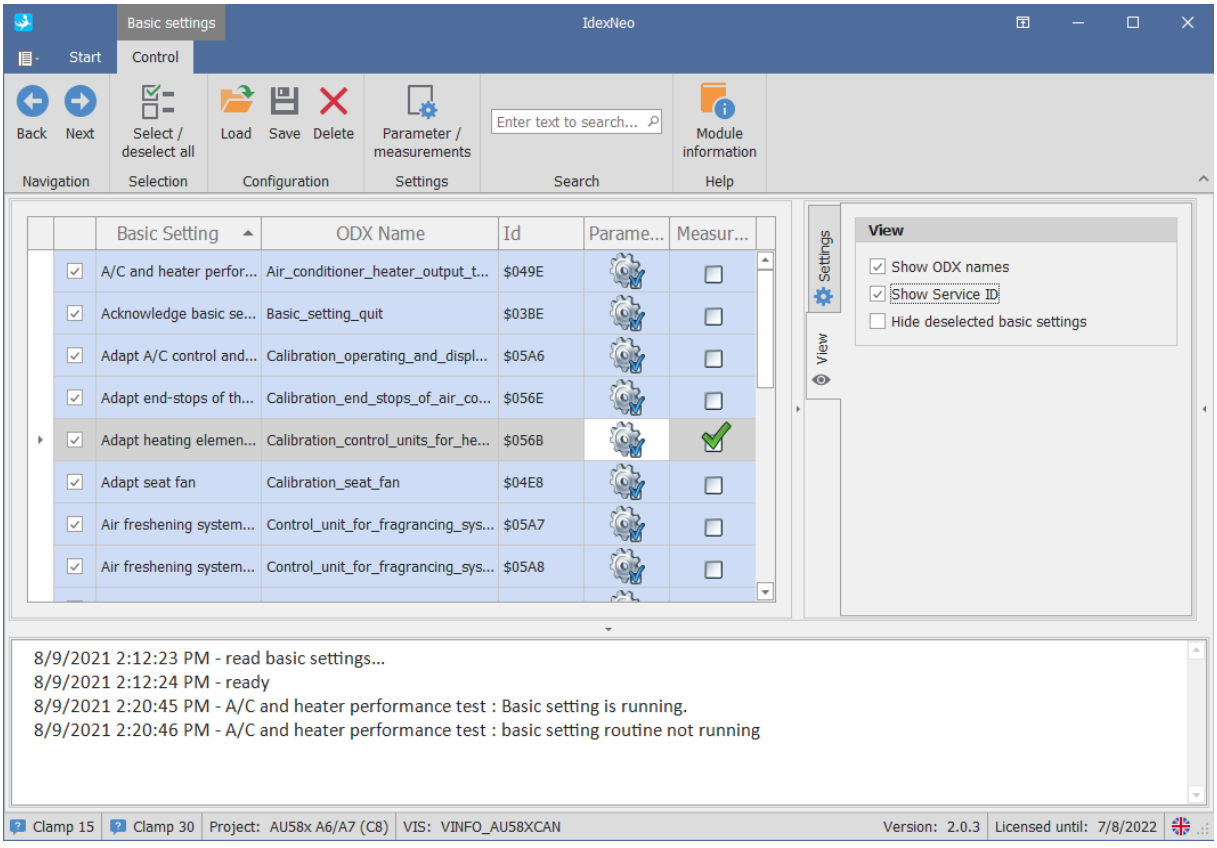




You can activate additional columns in the grid to give you more details about the basic settings.

There is also an option to hide all basic settings which are not selected.

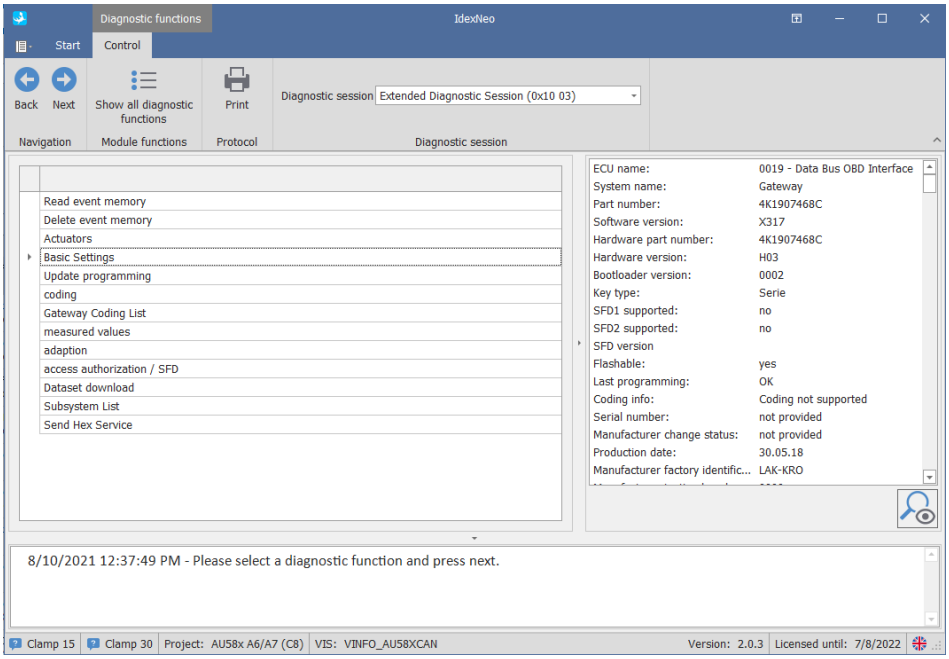
If you activate all of the check boxes the resulting view would be something like the one shown below.



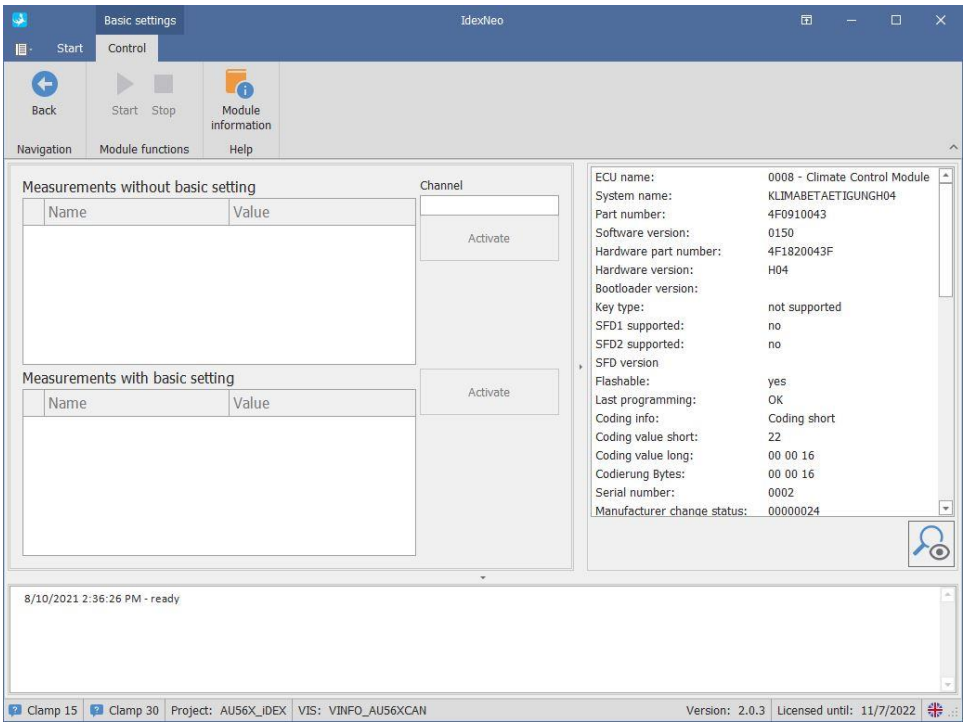
CONFIDENTIAL

BASIC SETTING - KWP

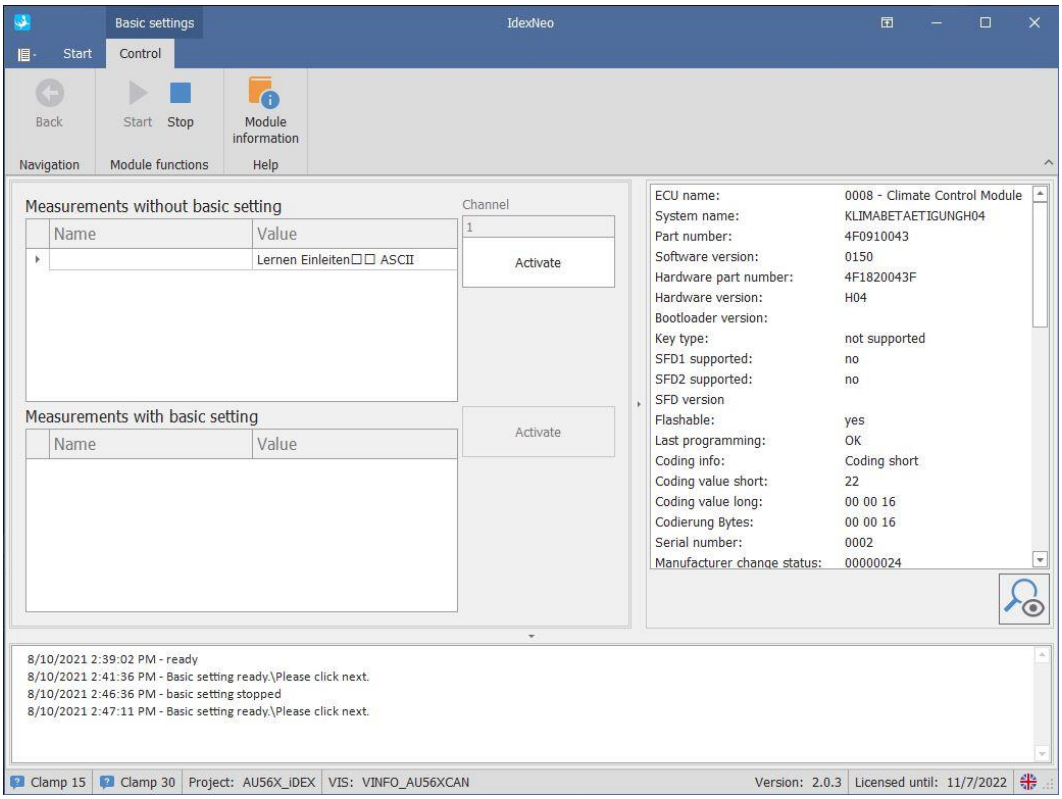
You can open the module by selecting „Basic settings“ from the function list and clicking „next“.



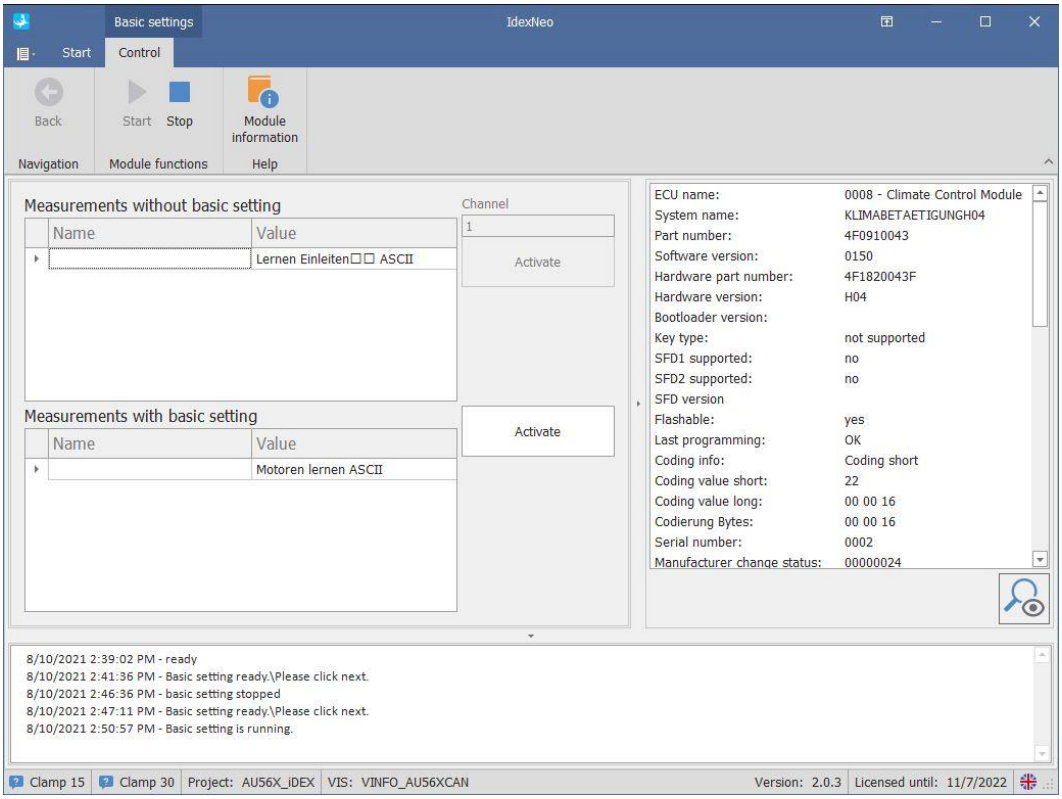
Enter a channel number at the top right box and click „Start“.



CONFIDENTIAL



Afterwards you have to click the „Activate“ button on the right side of the upper grid.



You can finish the basic setting by clicking the „Activate“ button on the right side of the lower grid.

You can also stop the basic setting any time you like by clicking the „Stop“ button at the bottom.

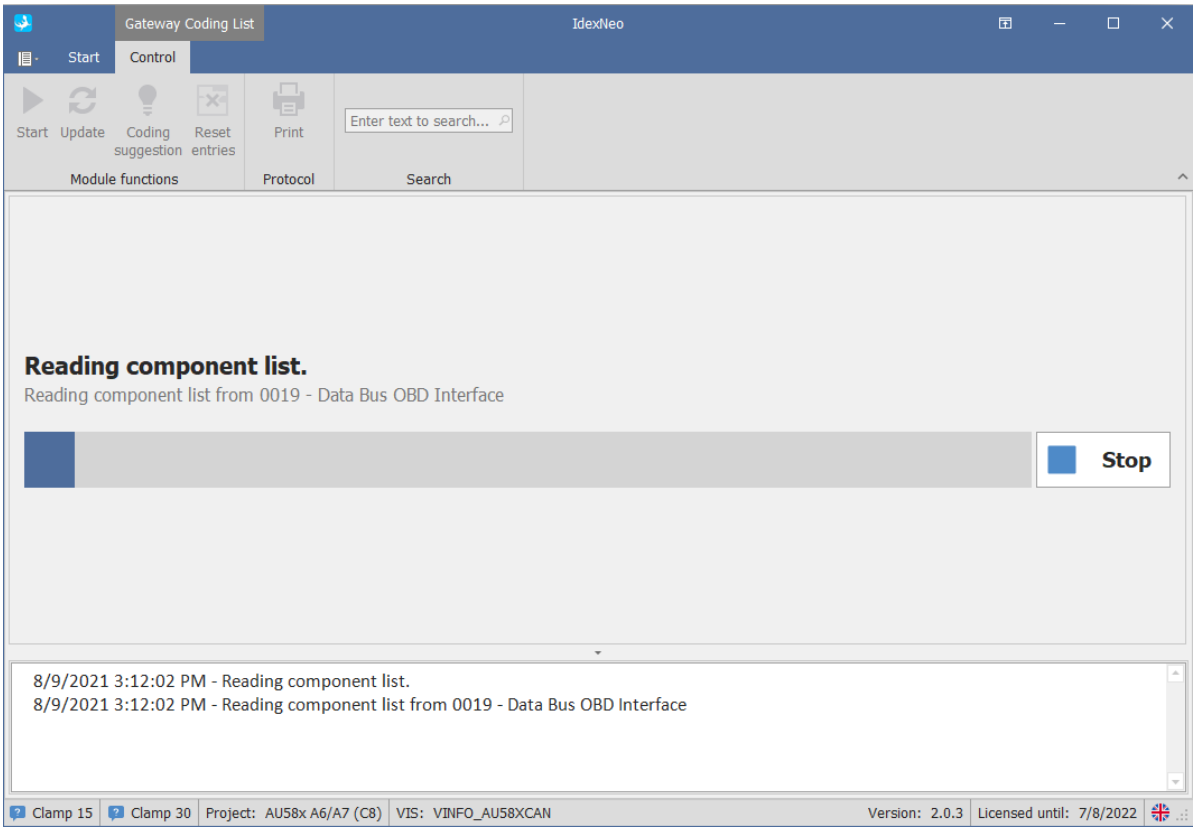
CONFIDENTIAL

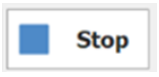
GATEWAY-CODINGLIST

CODINGLIST APPEARANCE

With this module, the coding of the subcomponents of the gateway coding list can be changed.

When calling the module, the latest coding list is loaded:





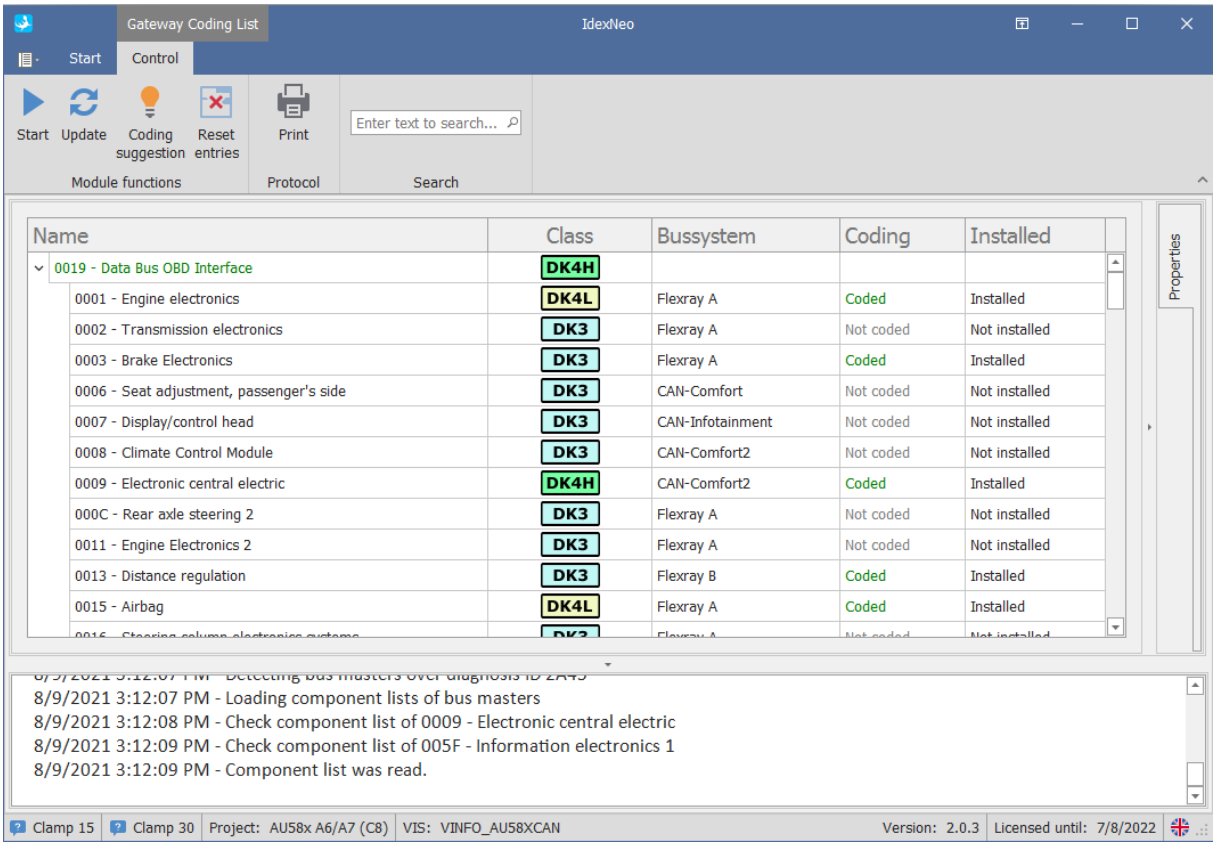
Cancels the loading process. The list is loaded empty.

CONFIDENTIAL

The following explains individual control buttons.

Coding suggestion	Reset
Reload list	Protocoll print
Enter text to search...	Suchfeld für die Baumliste

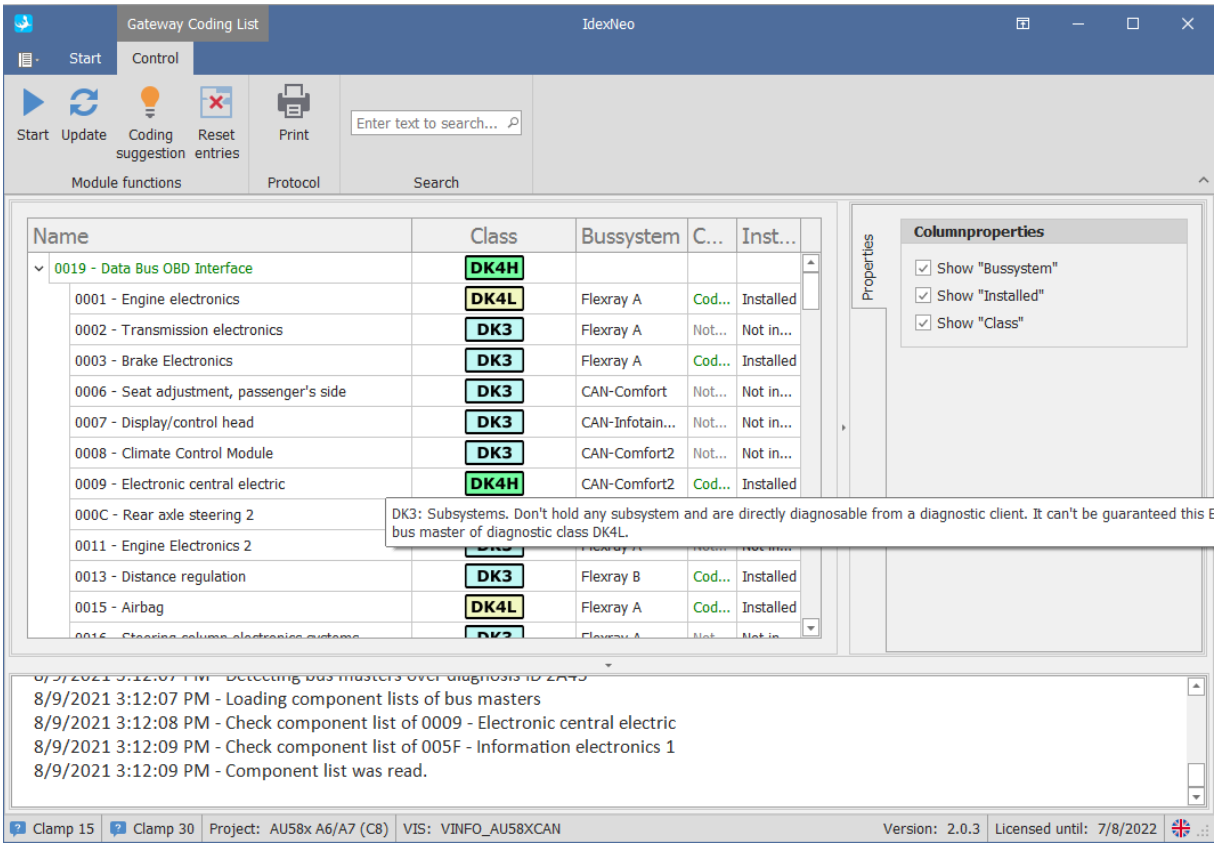
Coded controllers are displayed in green and unencoded gray.



CONFIDENTIAL

PROPERTIES

The settings menu can be opened with the mouse by clicking on the "Settings" tab.



Folds the settings menu again.

Opens the user manual for this module.

▪ Show "Bussystem" Column	Displays the column "Bussystem" in the list
▪ Show "Installed" Column	Displays the column "Installed" in the list
▪ Show "Class" Column	Displays the column "Class" in the list

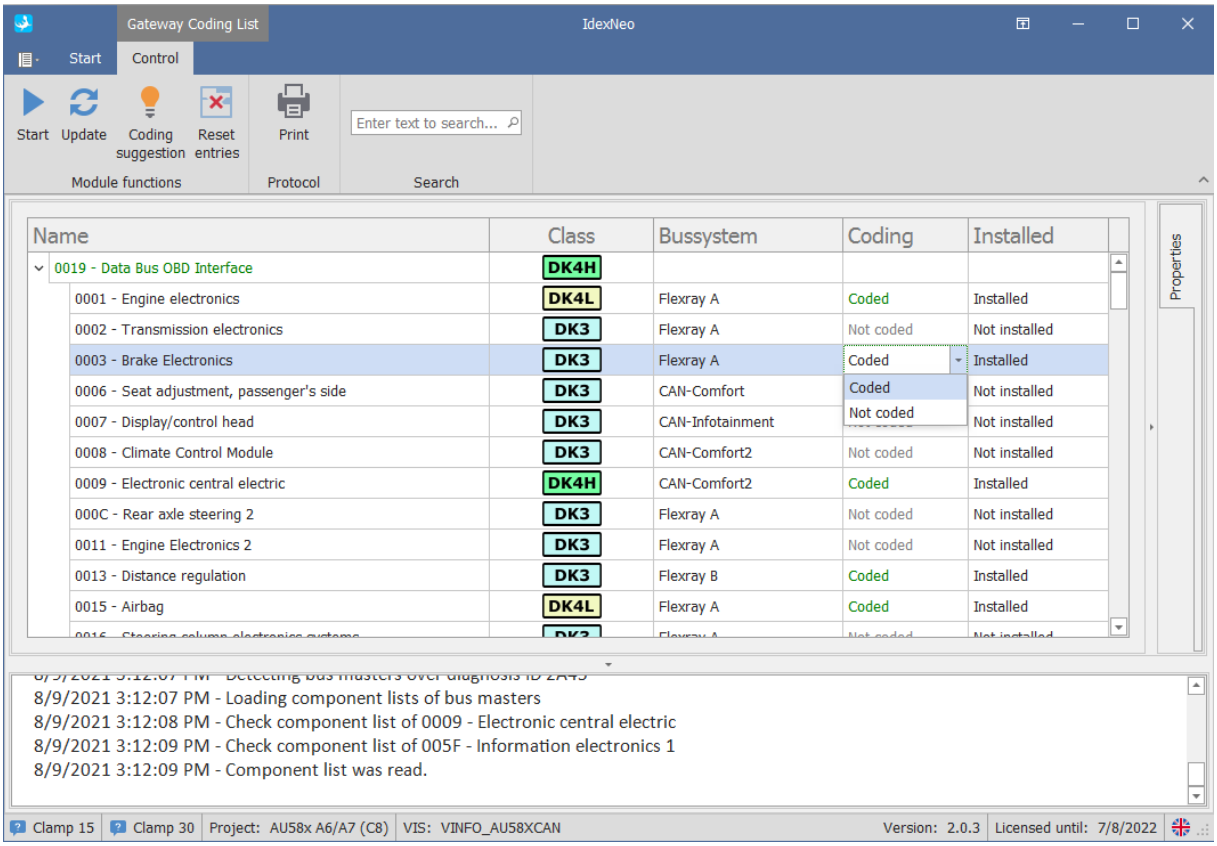
CONFIDENTIAL

CHANGE CODING

To change the coding of a control unit, several procedures can be used:

Selection with the mouse	To do this, you have to click in a cell of the coding column. A selection of the possible coding for the control unit appears
Space-Key or doubleclick	Changes the encoding when you press the keyboard or double-click on a row. When pressing the space bar, a row in the list must be selected
CTRL + Space or	Executes a coding suggestion. The coding cells of the currently installed but not coded control units are set to "coded".

The module checks whether the coding currently entered by the user corresponds to the current coding of the control unit. If this is not the case, the coding is displayed blue.

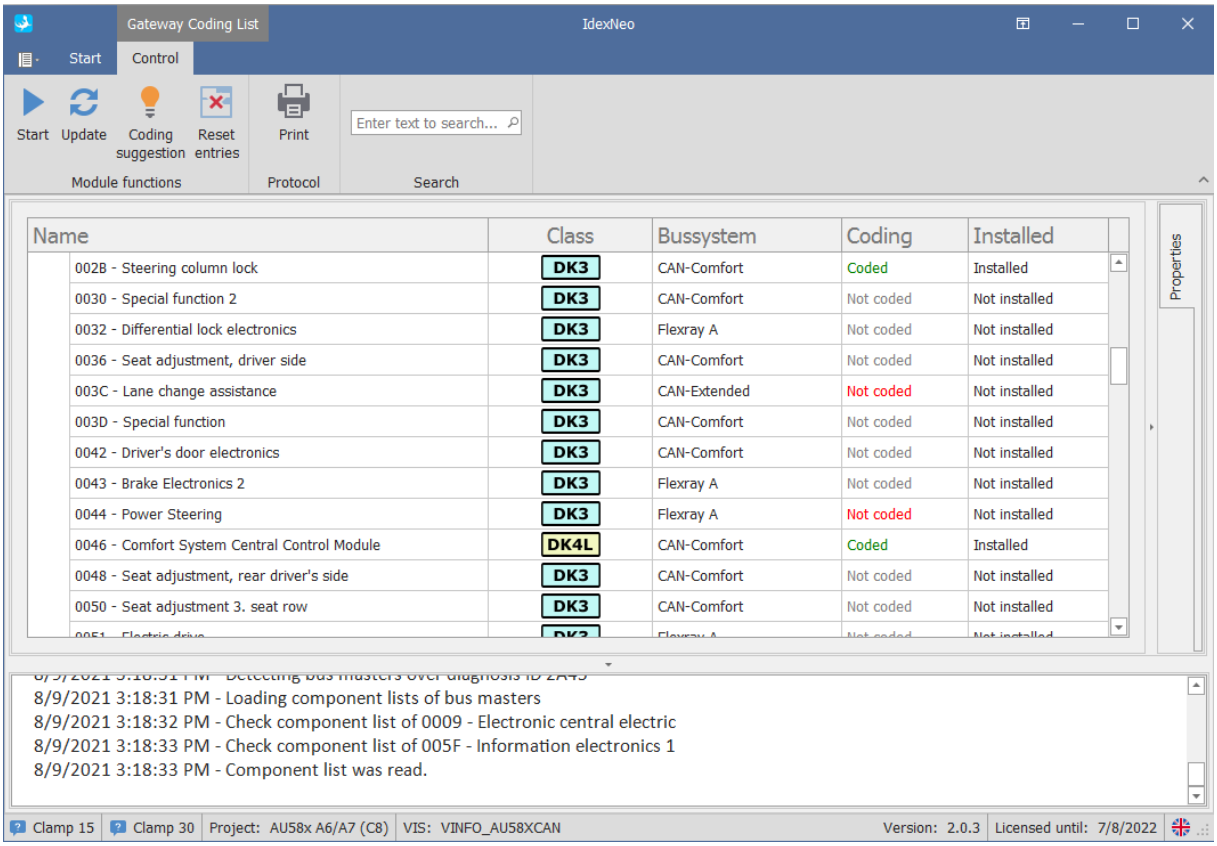


CONFIDENTIAL

EXECUTE WRITING

Once the desired codings have been entered, the start button can be clicked to start writing the coding list. The coding list is sent to the interface. After the writing process has been carried out, the coding list is immediately read out again and displayed in the module as it was the first time the module was displayed.

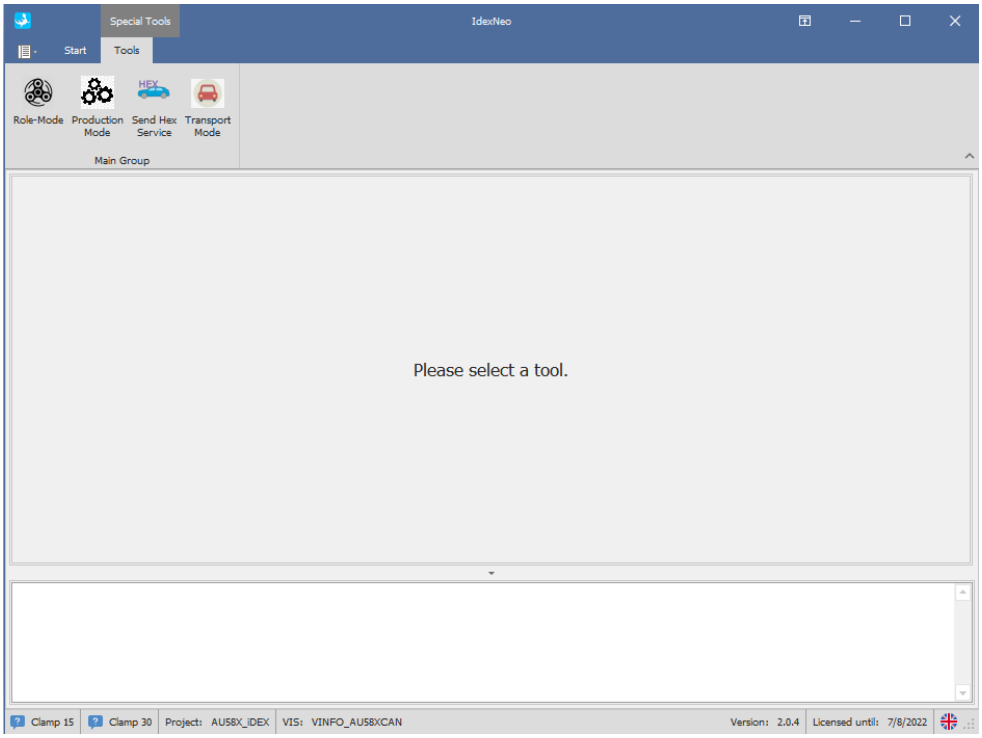
If errors have occurred while writing the coding list, they are output accordingly in the lower output line. The control units that do not correspond to the desired coding during the last writing process, their coding, are displayed in red.



CONFIDENTIAL

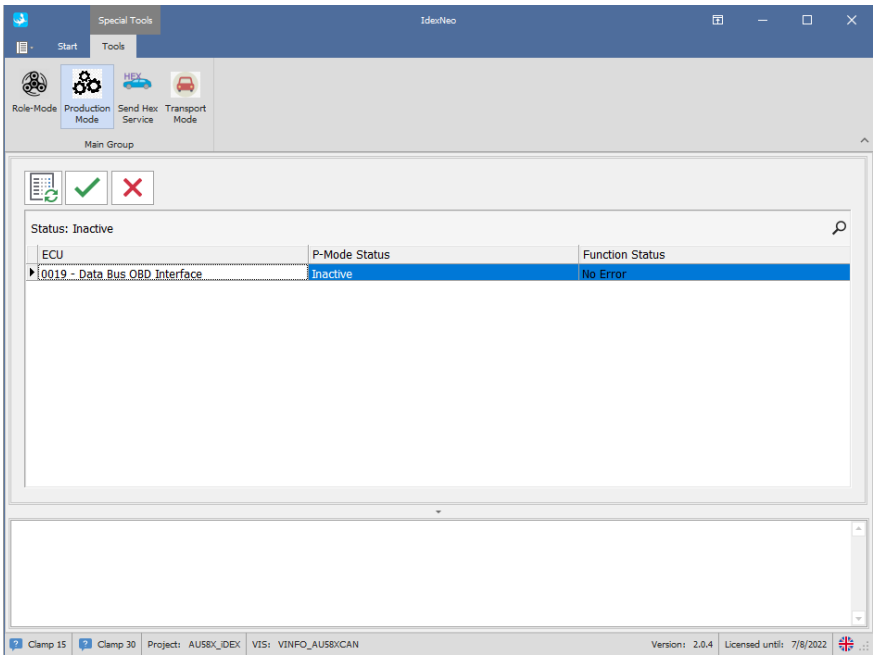
SPECIAL

To call up this module, please click in the Diagnosis group on “Special (F8)” or press the “F8” key.



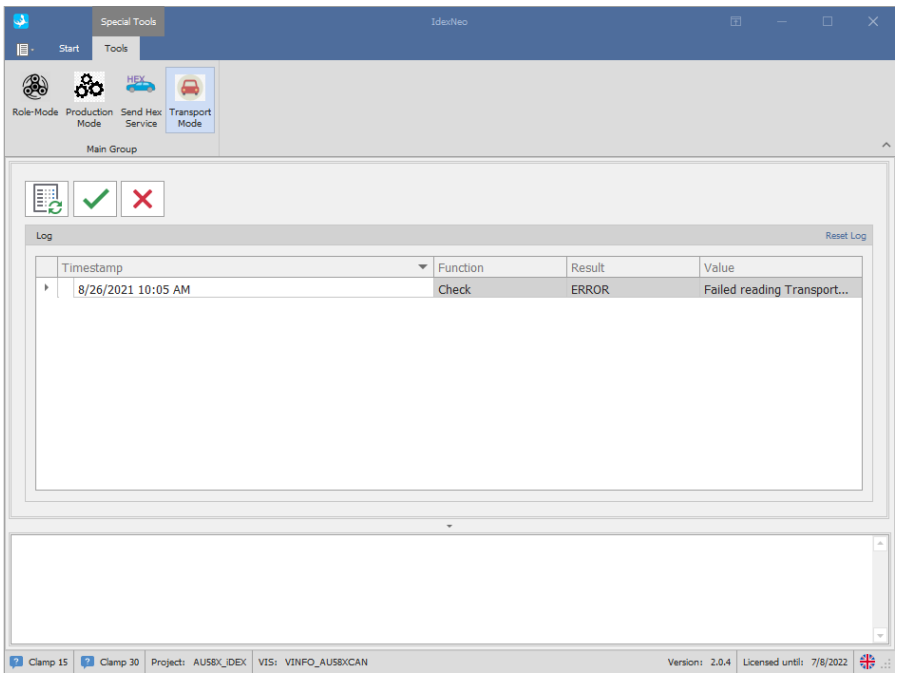
CONFIDENTIAL

PRODUCTION MODE



In this module you can activate and deactivate the production mode.

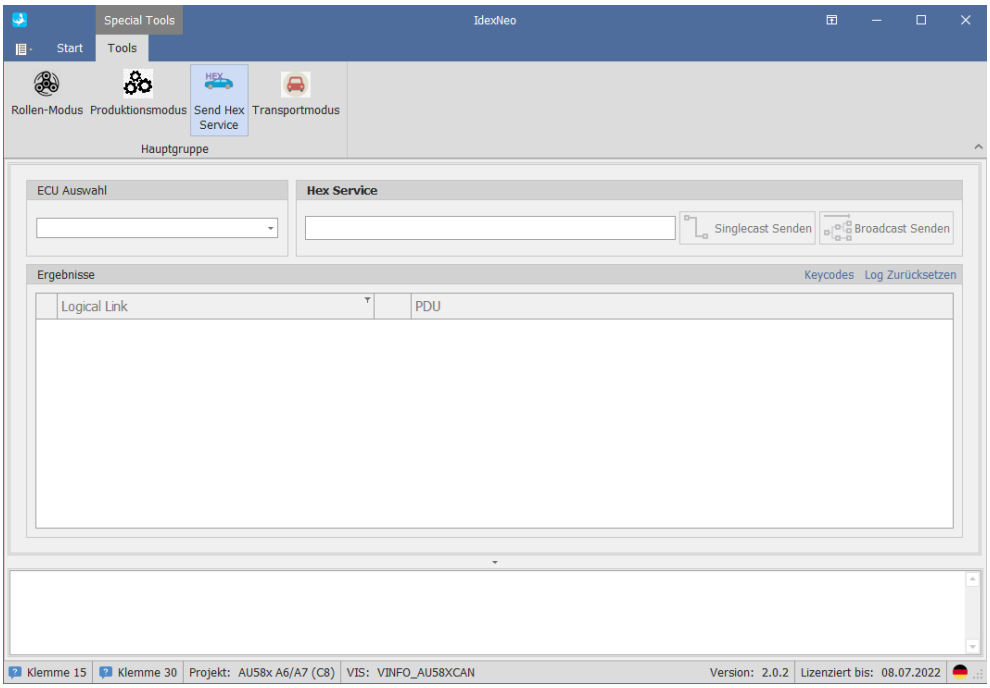
TRANSPORT MODE



In diesem Menü kann der Transportmodus gesetzt werden.

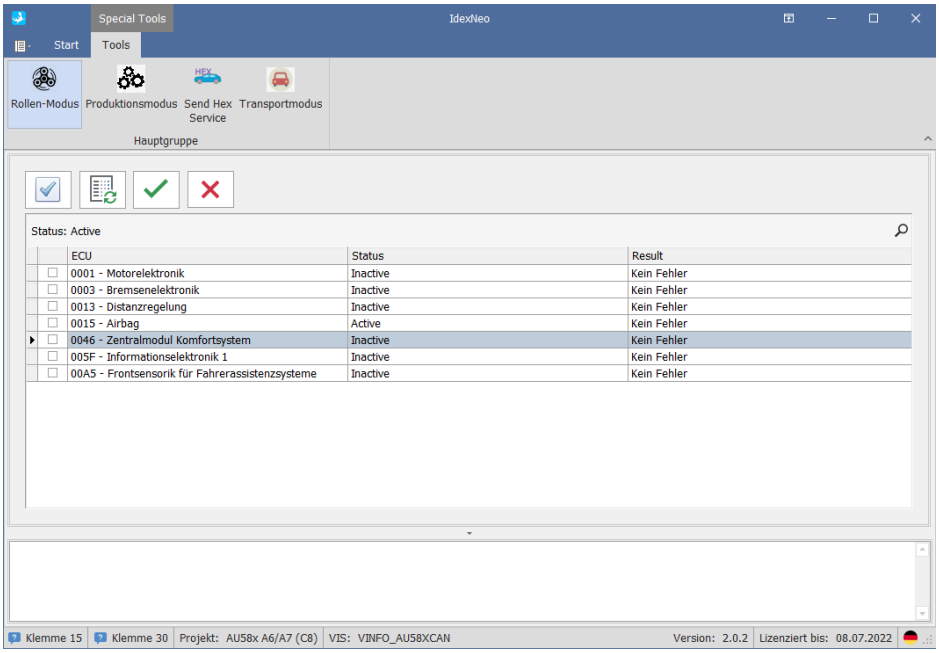
CONFIDENTIAL

SEND HEXSERVICE



In this module you can send hex commands to individual control devices or to all control devices (broadcasts).

ROLE-MODE



CONFIDENTIAL

GROUP: WHOLE VEHICLE

COLLECTION OF SERVICES

To call up this module, please click in the group whole vehicle on "Collection services (F9)" or press the "F9" key

Opens a configuration

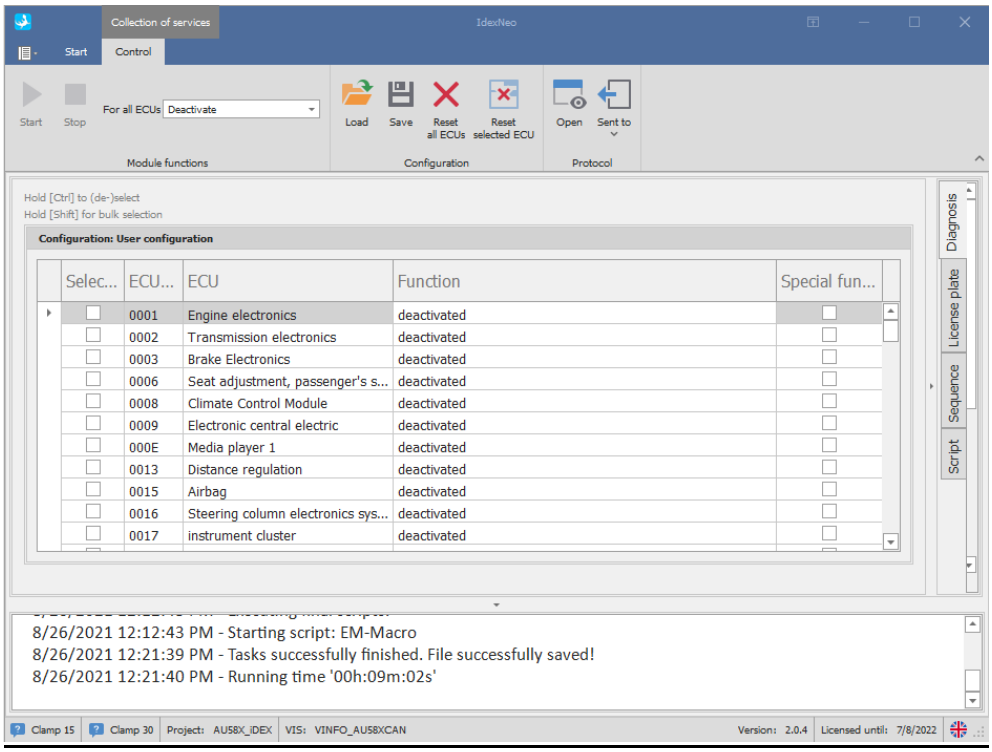
Reset the configuration of all control unit

Save a configuration

Reset the configuration of the selected control units

Generates and opens the iDEX protocol in the browser

Saving and sending the iDEX protocol



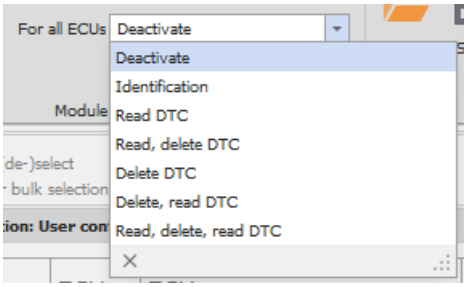
CONFIDENTIAL

In this view you can configure individual or all control units.

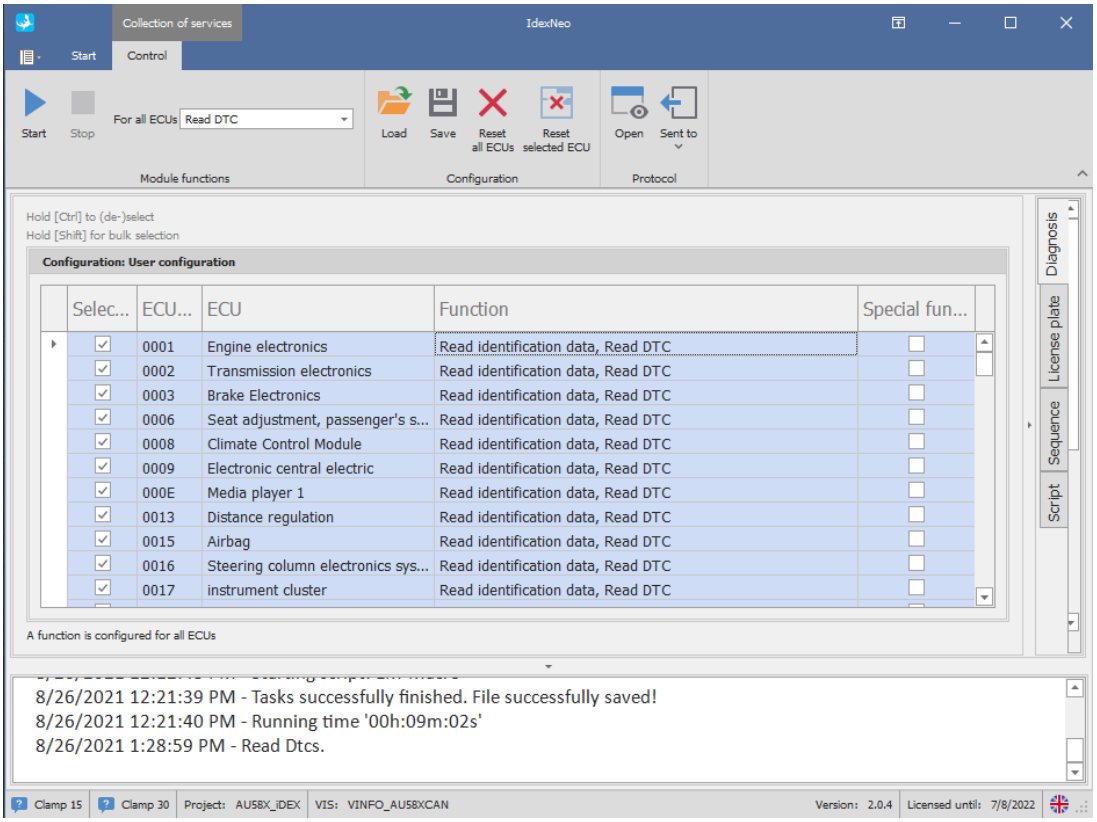
CONFIDENTIAL

CONFIGURATION OF ALL CONTROL UNIT

Wählen Sie bitte die gewünschte Funktion in der Gruppe „Für alle Steuergeräte“ aus.



The selected configuration is adopted for all control units. See picture.



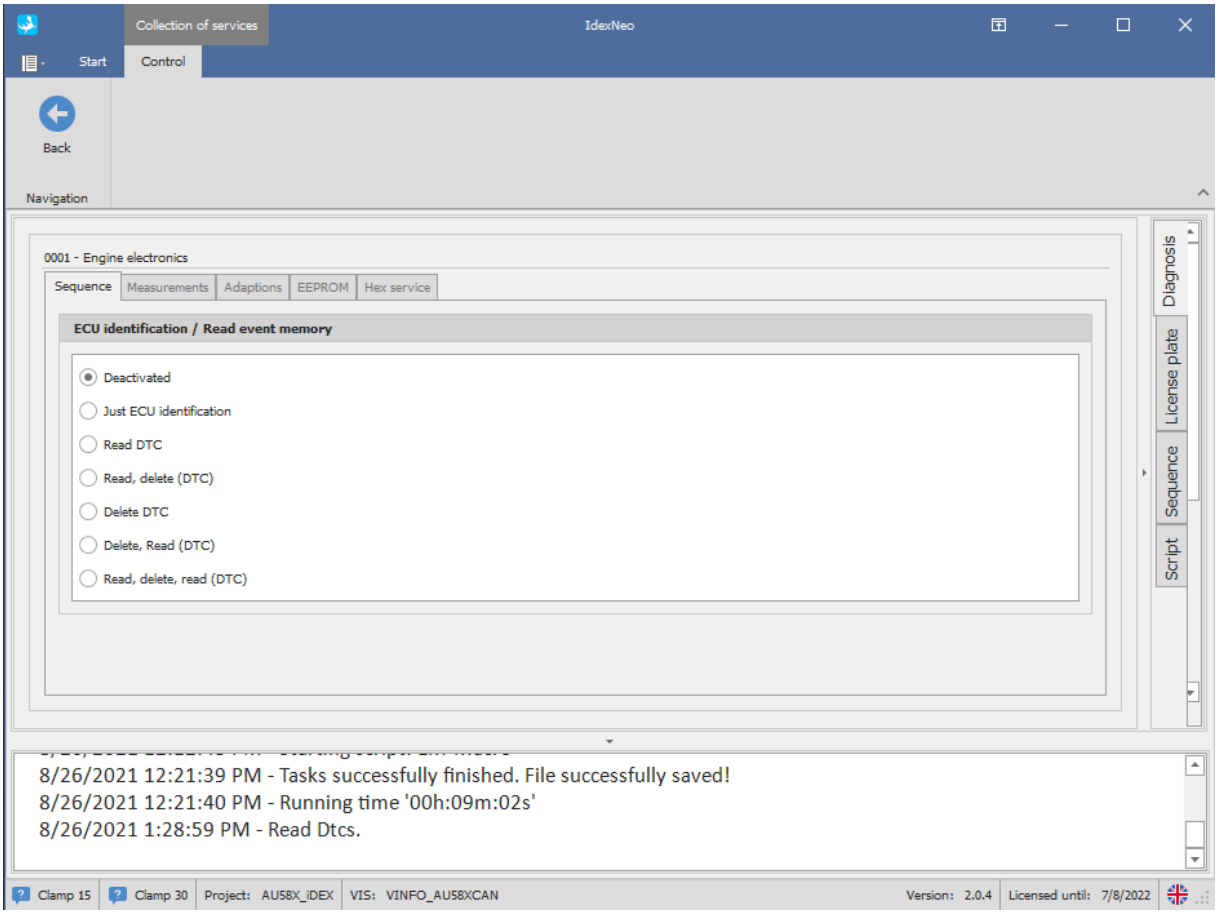
Die gewählte Konfiguration können Sie über den Button „Konfiguration speichern“ sichern.

CONFIDENTIAL

CONFIGURATION OF SINGLE CONTROL UNIT

PROCESS

Click on a control device in the control device list. The following view opens.



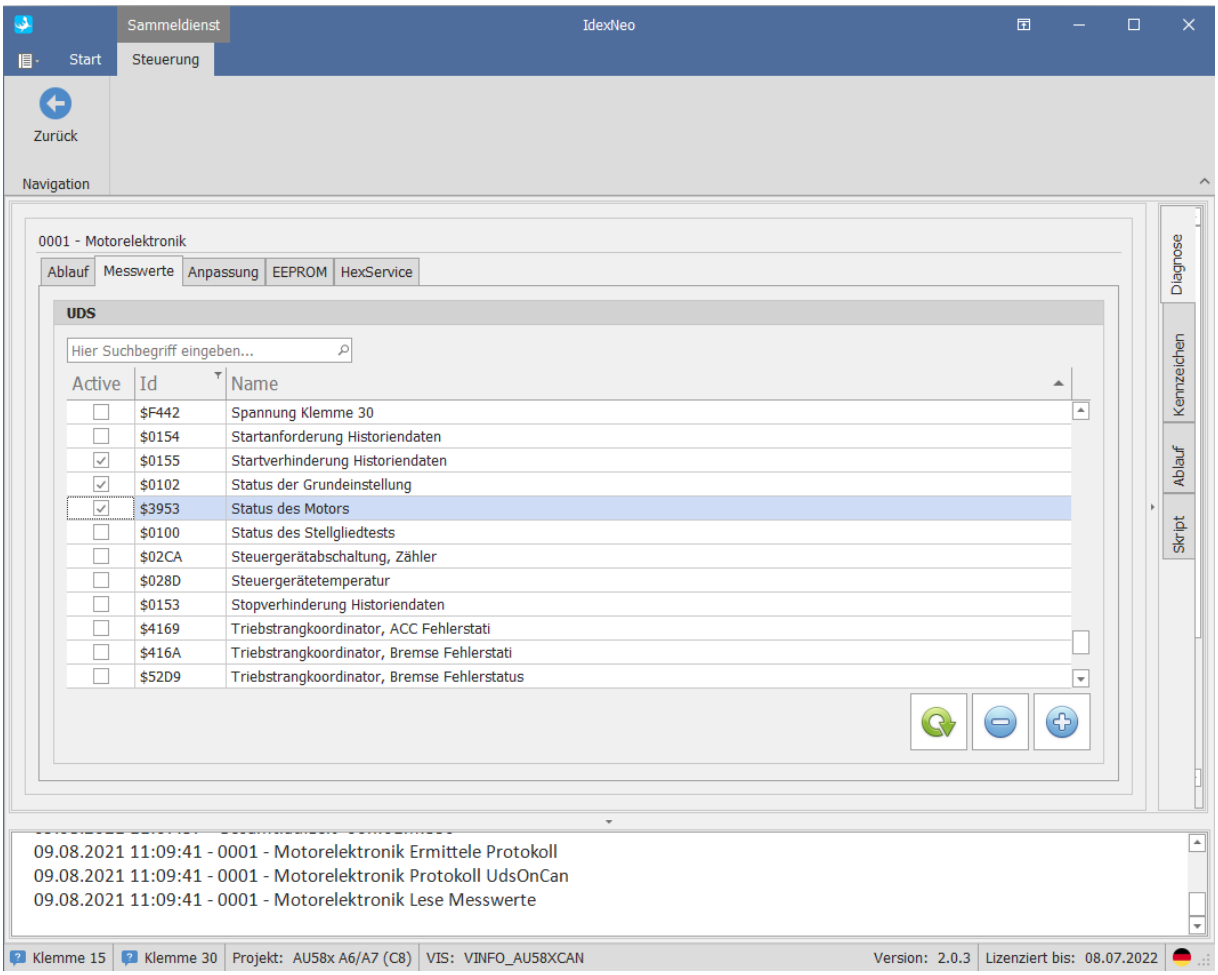
In this view you can make your own configuration for the selected control device. You also have the option of reading out measured values, adjustments and EEPROM cells.

You can also send various hex services at the end of the process.

CONFIDENTIAL

MEASSUREMENTS

You can select the desired measured values in the "Measured values" tab.

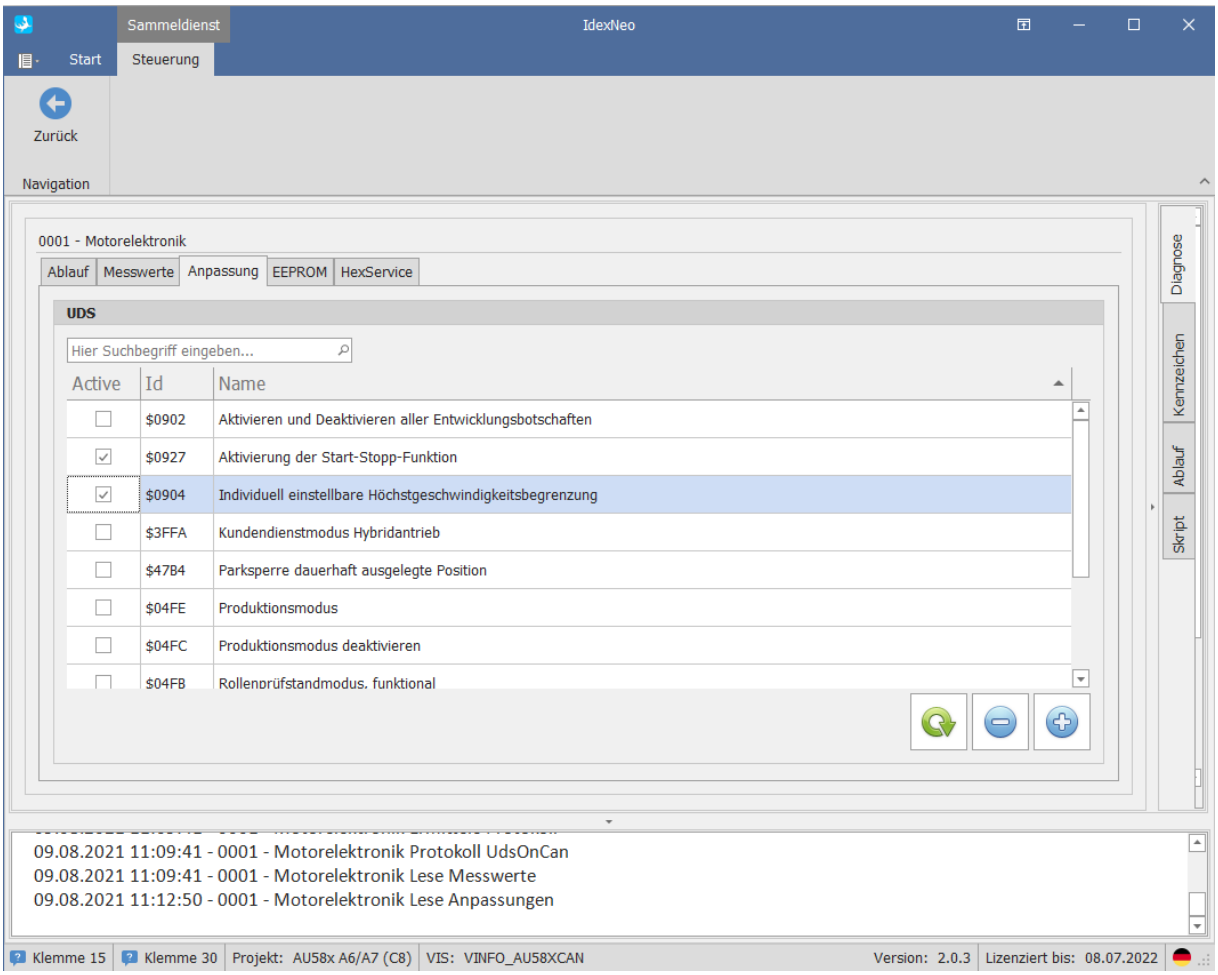


The selected measured values are read out at the start of the collection service process.

CONFIDENTIAL

ADAPTIONS

You can select the desired adjustments in the "Adjustment" tab.

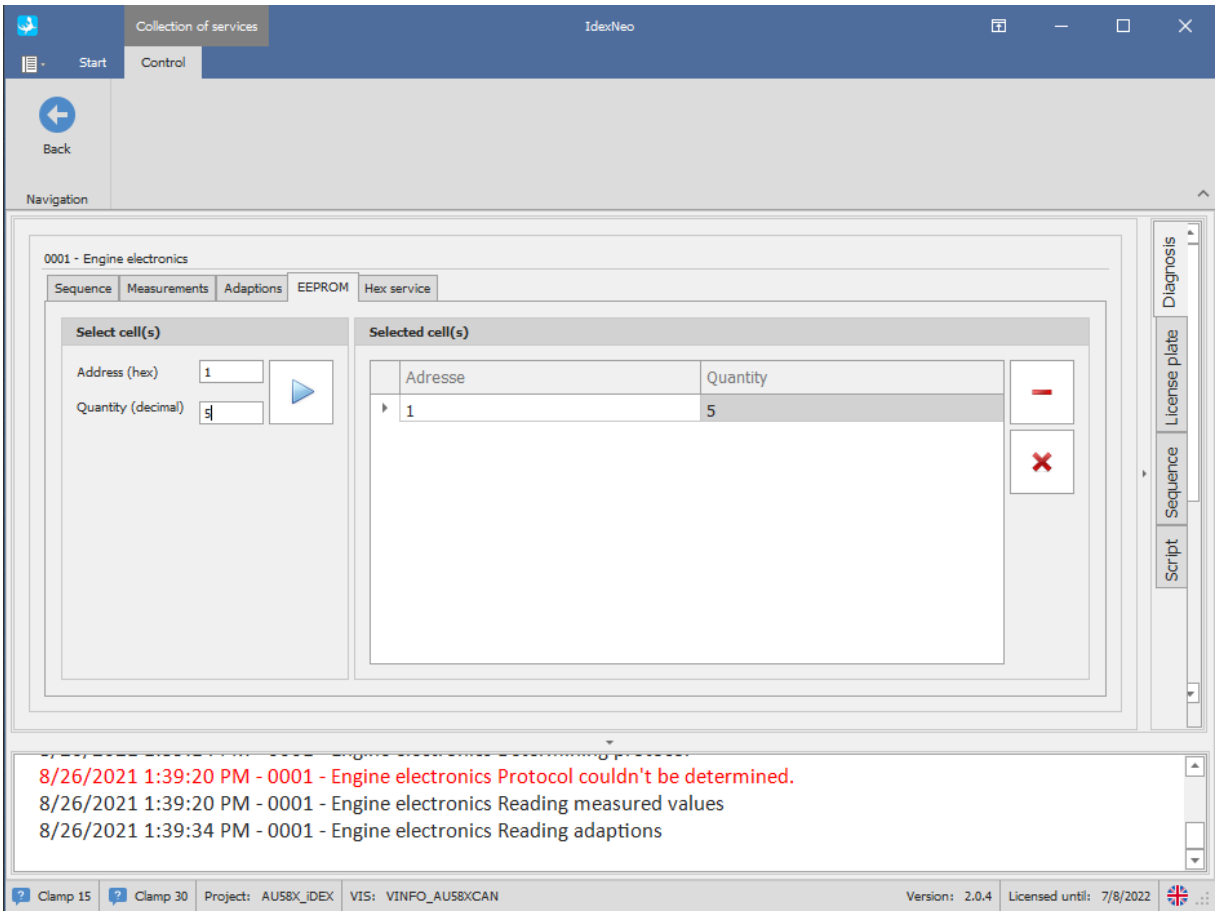


The selected adjustments are read out when the collection service process starts.

CONFIDENTIAL

EEPROM

In dem Reiter „EEPROM“ können Sie die gewünschten EEPROM-Zellen auswählen.



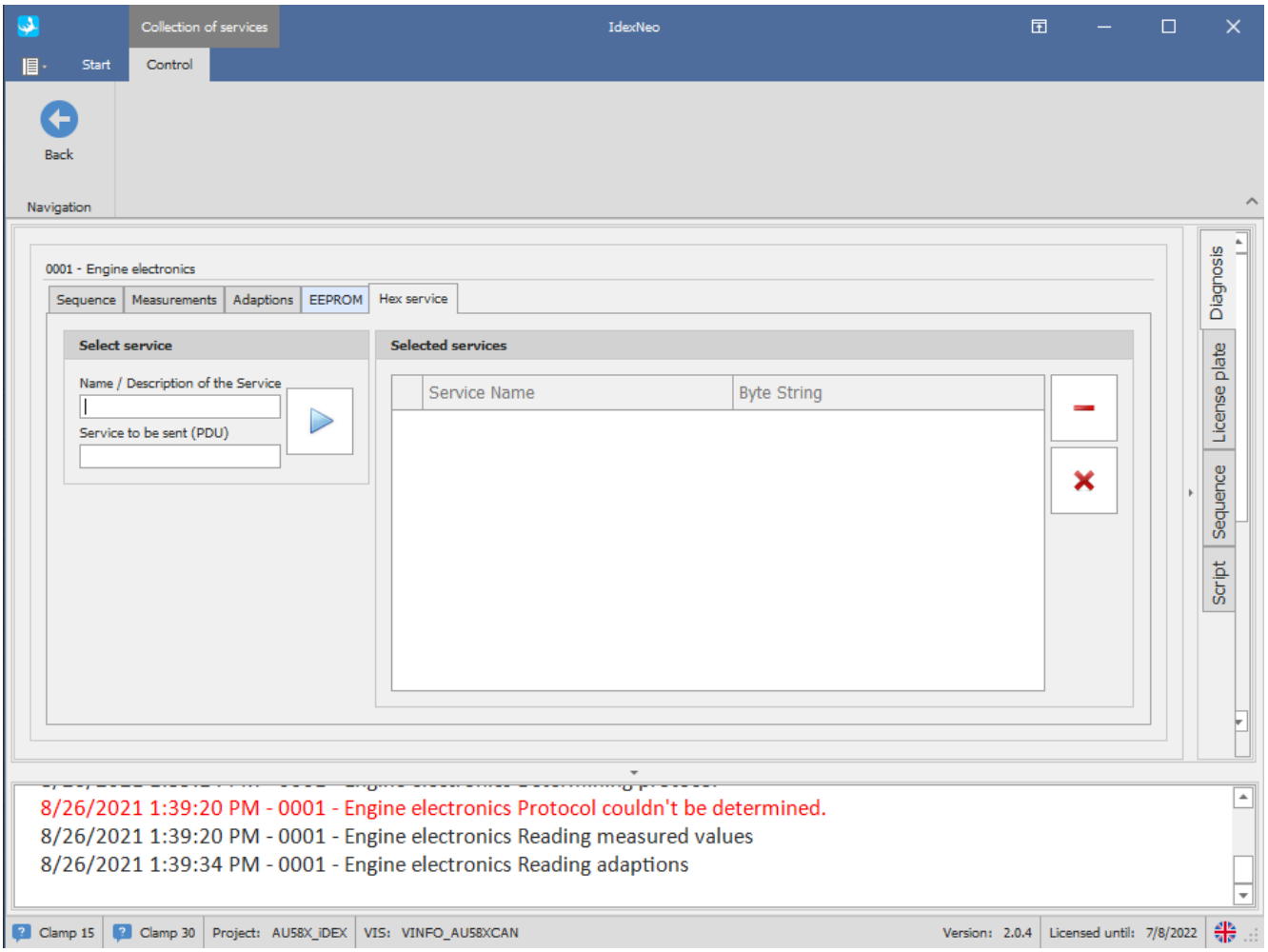
To do this, please enter the start address ("Address (hex)" field) and the number ("Number (decimal)" field) of the cells to be read out in the corresponding fields

With the button apply the setting to the list.

CONFIDENTIAL

HEXSERVICE

In the "HexService" tab you can configure the diagnostic services that are also carried out during the collective service process.

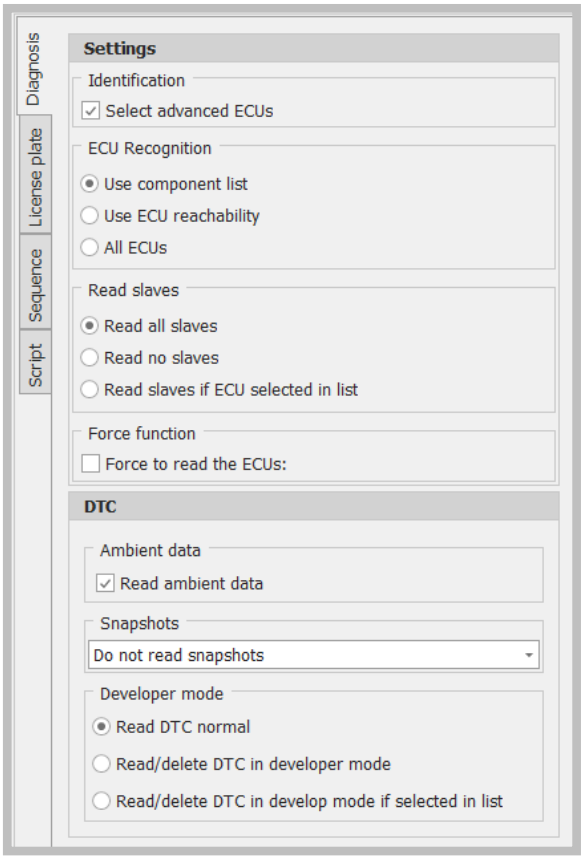


Enter the diagnostic service to be performed and assign a meaningful name (see figure).

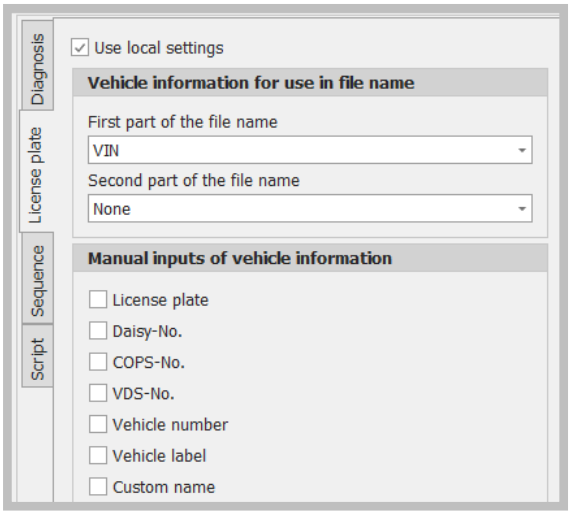
With the button apply the setting to the list.

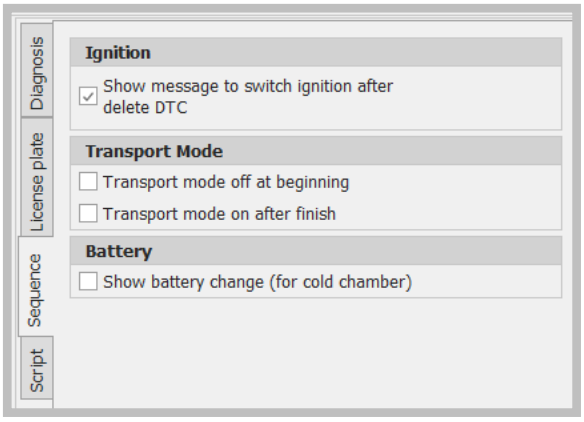
CONFIDENTIAL

SETTINGS

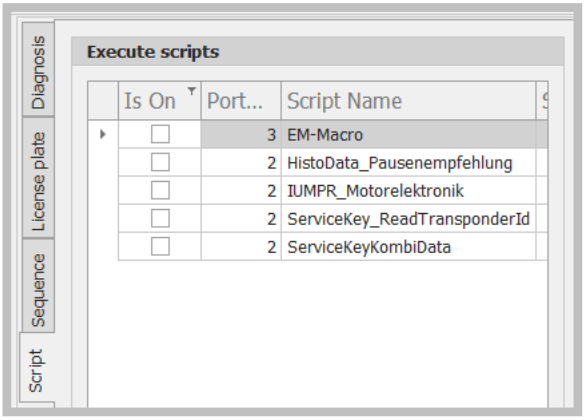


The settings menu opens by clicking on the corresponding tab on the right-hand side.



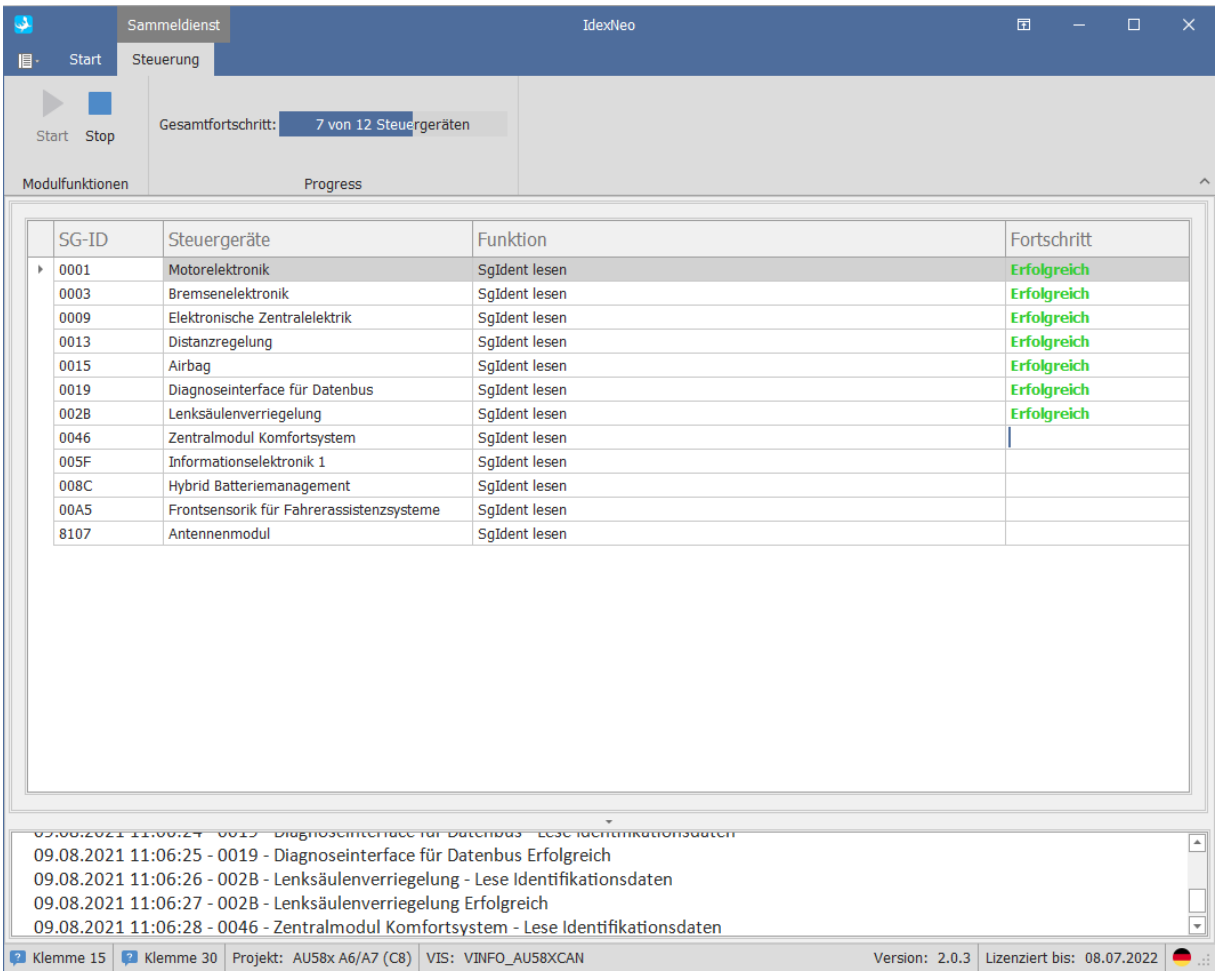


In these menus you can make settings which are to be carried out when the collection service is run. The setting is saved after closing iDEX.



CONFIDENTIAL

Configure your process as described above and press the “**Start**” button.



The control units are queried according to their configuration. The status of each control device is shown in the list. After completing the process, you can open the log using the "Open log (s) in browser" button.

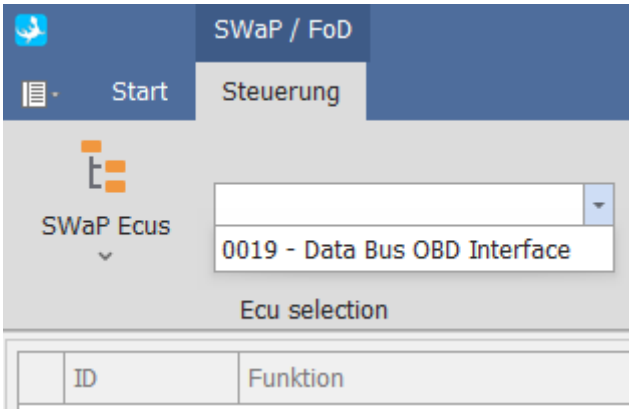
CONFIDENTIAL

SWAP-MODULE

The SWaP module provides features to read, release and cancel SWaP functions in an ecu. Additionally you can read the public key and the release code of a SWaP function.

ECU SELECTION

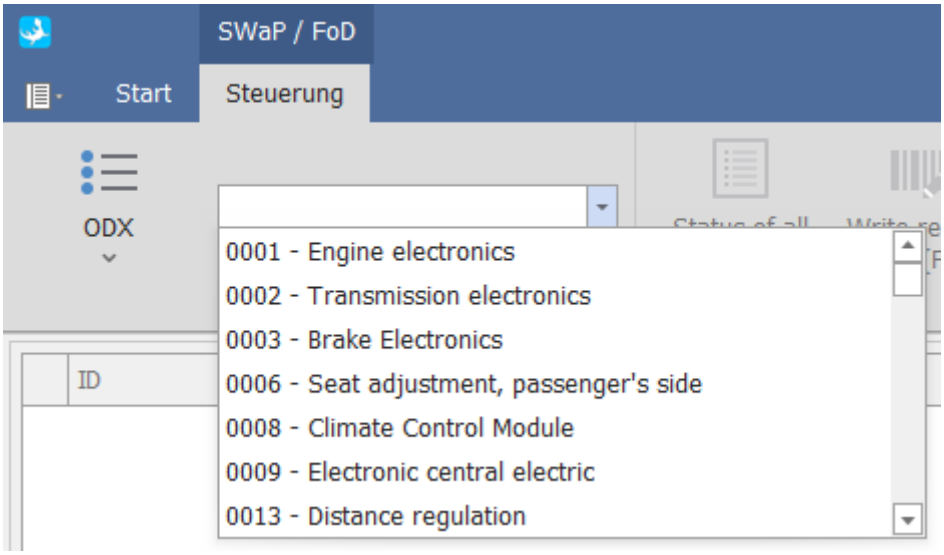
After loading SWaP module all SWaP ecus, which are build in the vehicle, will be identified and shown in the dropdown selection.



Additionally you can switch between “SWaP ecus”

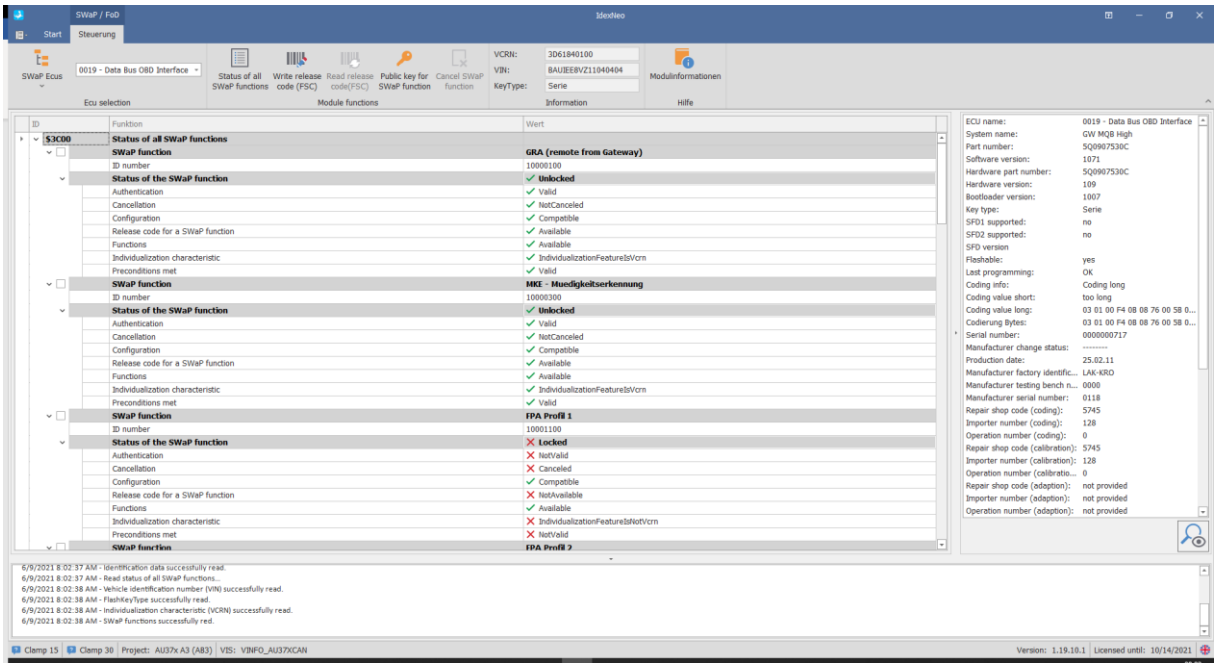
and “ecus of vehicle project”

.



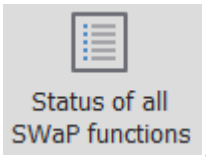
Please select an ecu. Afterwards the identification data, the individualization feature (VCRN), the vehicle identification number, the keytype and the status of all SWaP functions will be read and shown in the table below.

CONFIDENTIAL

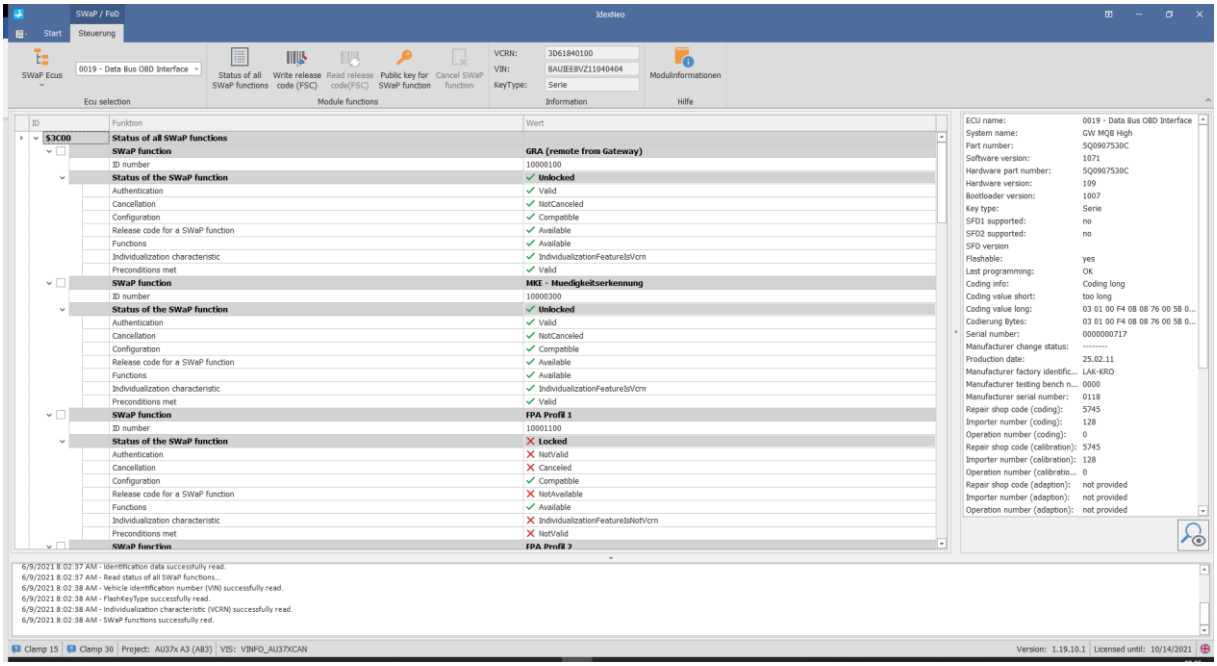


MODULE FUNCTIONS

STATUS OF ALL SWAP FUNCTIONS

The status of all SWaP functions can be read about the button 

.



This function will be executed automatically after ecu selection.

CONFIDENTIAL

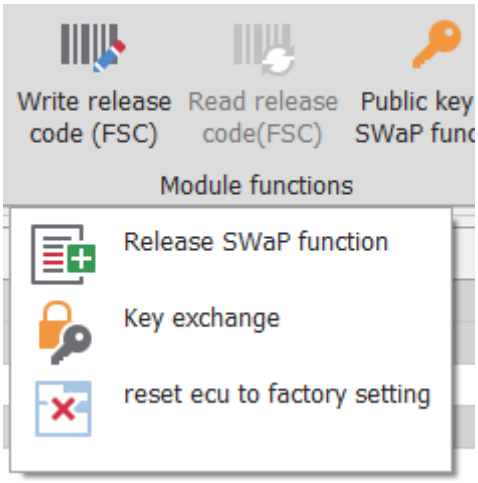
WRITE RELEASE CODE (FSC)

A release code can be written into an ecu about the button

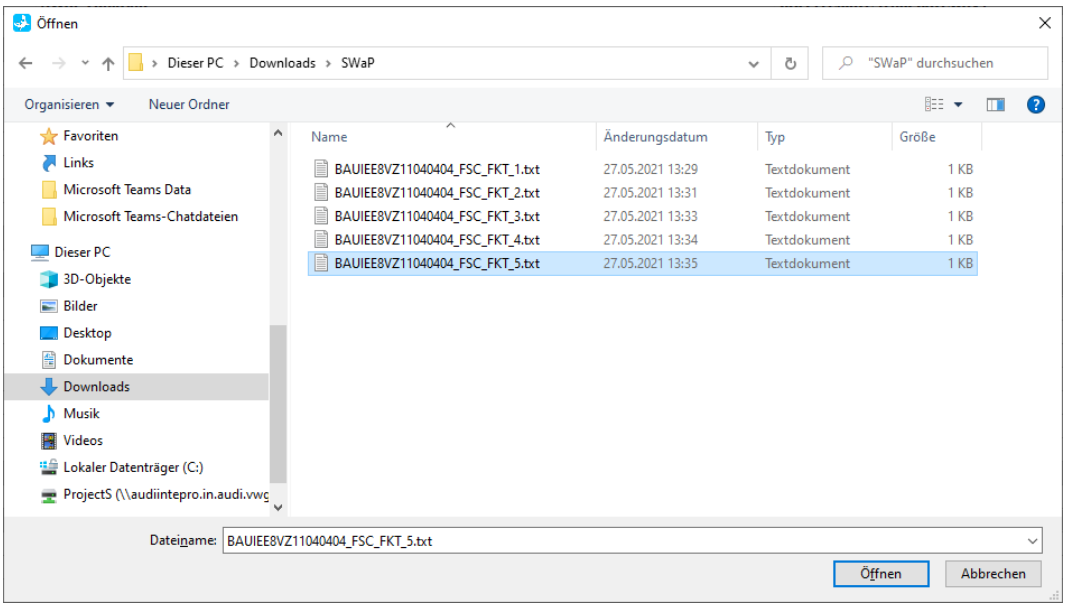
. By writing an activation code, 3 different functions can be carried out. The function depends on the release code.

- Release a SWaP function
- Key exchange
- Reset ecu to factory setting

This functions will be shown in a tooltip if you hover with your mouse about the button.



After clicking the "Write activation code (FSC)" button, a window opens for you to select the activation code. The activation code must be generated in advance via krypto42 FSC.



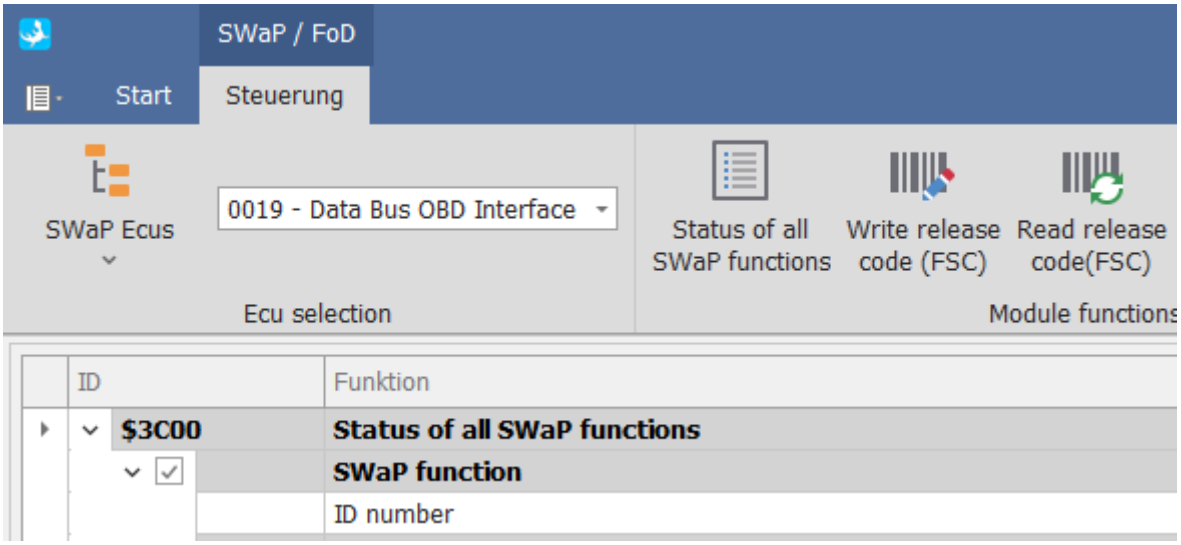
After the activation code has been selected, it is written to the ecu and the status of all SWaP functions is queried again.

CONFIDENTIAL

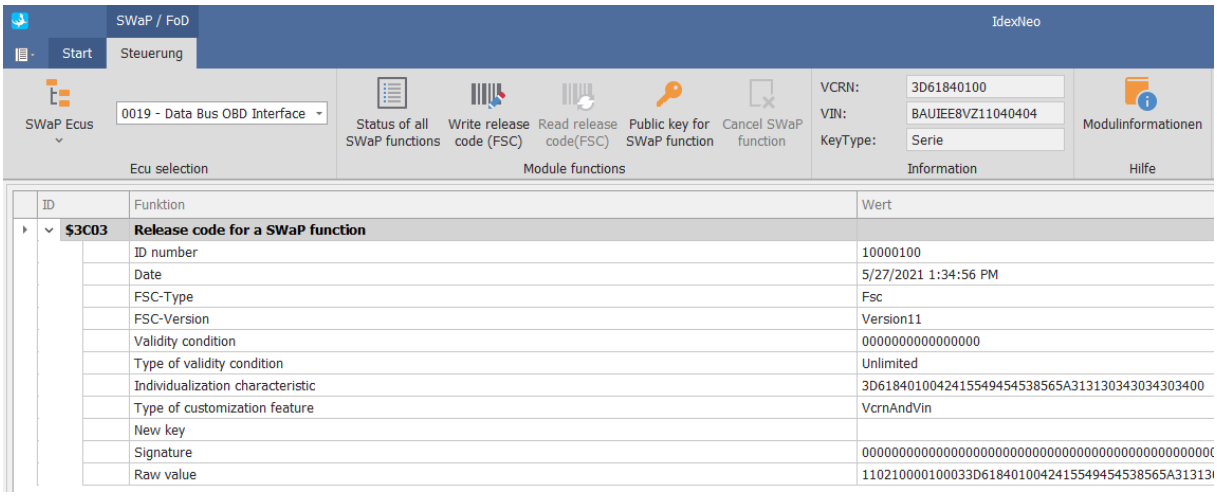
READ RELEASE CODE (FSC)

A release code (FSC) can be read out about the button

. To activate the button you have to select a swap function about the checkbox.



After reading all information of release code will be shown in the table below.

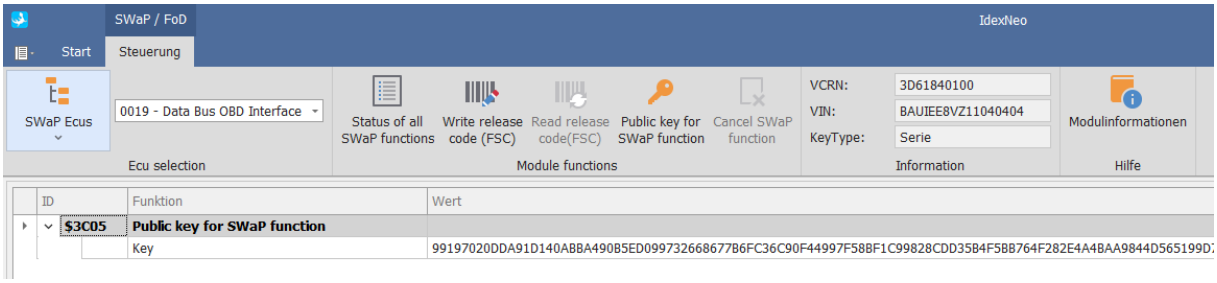


CONFIDENTIAL

PUPLICKEY FOR SWAP FUNCTIONS

The public key for SWaP function can be read out about the button

.

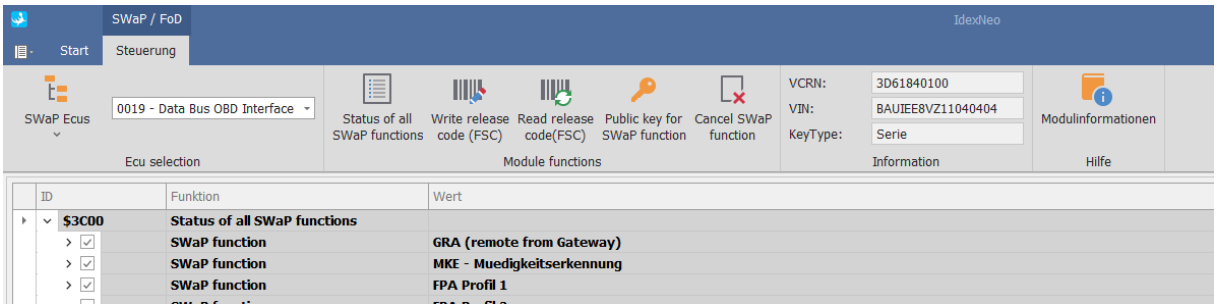


CANCEL SWAP FUNKTION

SWaP functions can be canceled about the button

.

For this you must select one or more swap functions about the checkbox and click to the button “Cancel SWaP function”.

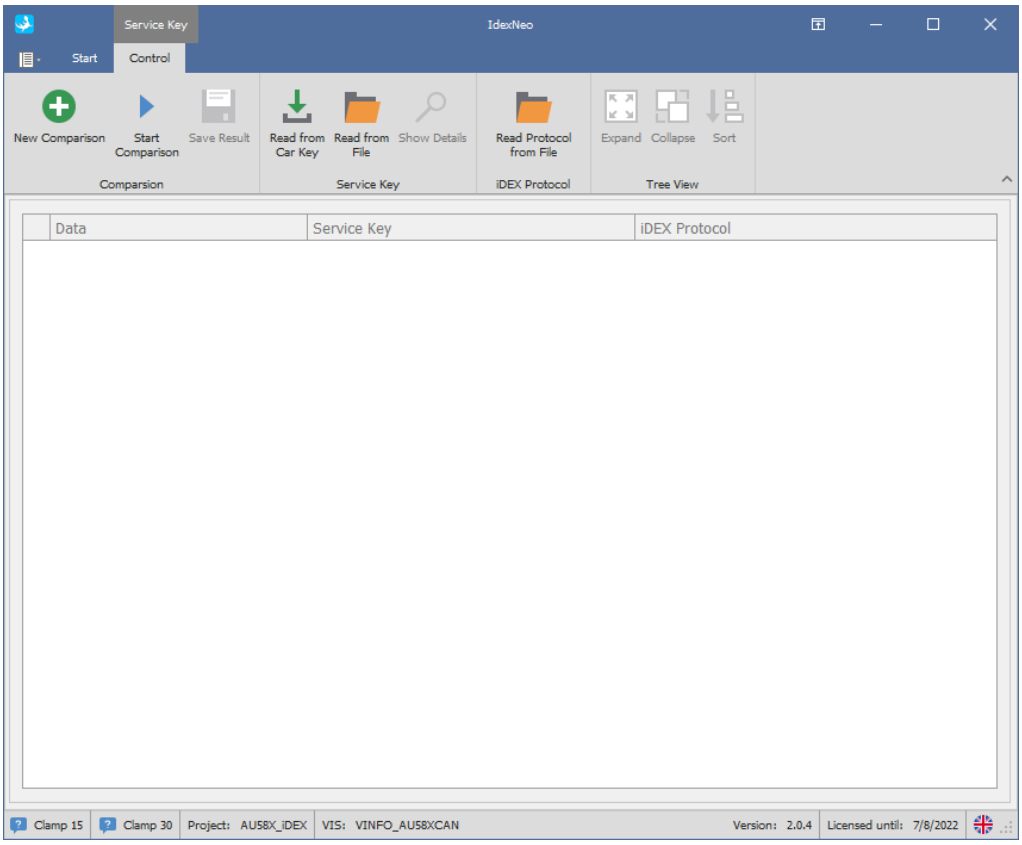


After cancelation of all selected SWaP functions the status of all Swap functions will be queried again.

CONFIDENTIAL

SERVICEKEY

Um diese Modul aufzurufen, klicken Sie bitte in der Gruppe Gesamtfahrzeug auf den Button „ServiceKey“.



The ServiceKeyReader module enables you to read in the event memory data on the vehicle keys using a special reader (via USB) and to compare it with an iDEX protocol (which matches the key data).

The results of the comparison are displayed in the module in list form and can be saved as a result report (XML format).

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The data can also be read from a key file without a reader. These key files are either created by iDEX itself when a key is read in, or they can also be created with the "iKEY" software when a key is read out.

This are the supported keyformats:

- ✓ b8t
- ✓ fks12
- ✓ mlbevo

Depending on the key format, different data is available on the key:

- b8t: header data (with mileage and date), diagnostic data records (ECU and DTC)
- fks12: header data (with mileage and date), diagnostic data records (ECU and DTC)
- mlbevo: data group current combined messages (WarnIDs), data group history combined messages (WarnIDs with timestamp), data group DTC (ECU and DTC)

Requirements:

- ✓ Reader or Keydata
- ✓ iDEX-Protokoll

t is not necessary to load a vehicle project in order to use the ServiceKeyReader module. No connection to a vehicle or test setup is required.

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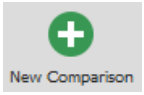
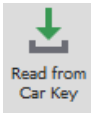
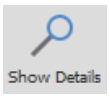
CONTROL BUTTONS

	Creates a new comparison
	Start the comparison
	Saves the read out result
	Reads out the key
	Reads the information of a key from a file
	Displays the data of the comparison
	Reads the information of a key from a file
	Expand all tabs in the display
	Collapses all tabs in the display
	Sorts the comparison

When transferring saved comparison results, the stylesheet file "*CompareIDEXReportServiceKey.xsl*" must also be copied

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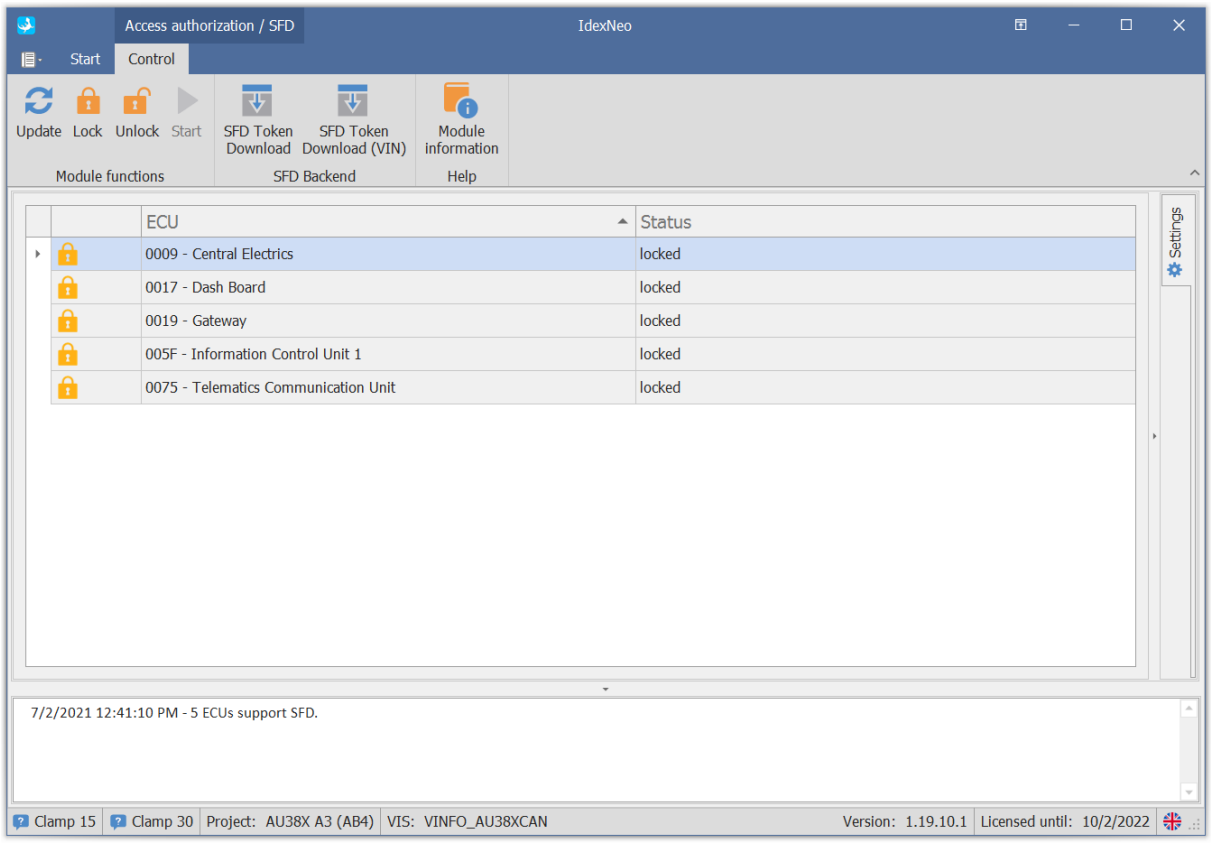
SFD

To open this module, you have to click on the group „Whole Vehicle“ and select the entry SFD.



In the main view you can see all SFD supported ECU’s. The following buttons provide you some features.

Updating the list of SFD supported ECU’s and their current state.

Unlock all ecu’s with the in settings defined configuration.

Lock all ecu’s.

Download unlock tokens for the current vehicle.

Download unlock token with help of the VIN. The VIN could be inputted.

To change the state of a single ecu you have to click on the lock symbol in front of the list entry.

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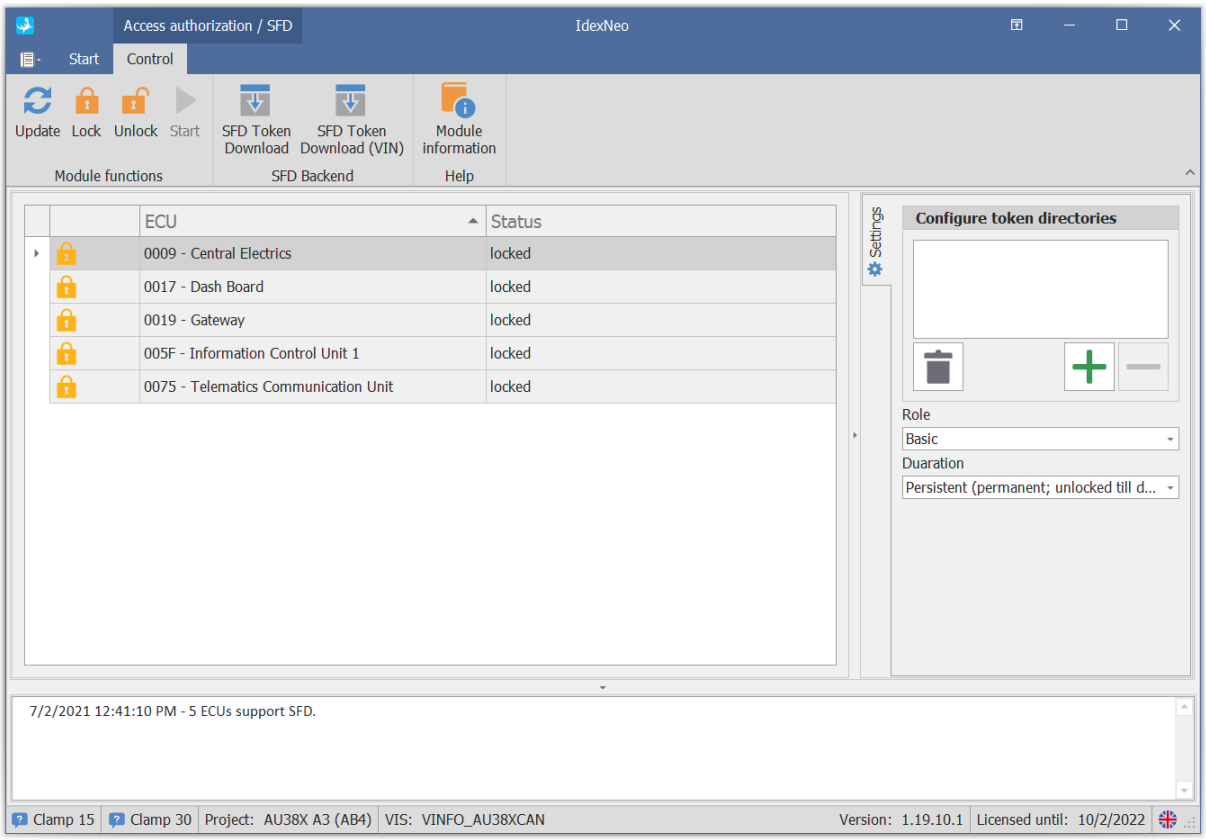
SETTINGS MENU



In the settings you can define the following configurations:

- Token directories:
  By clicking the plus button you can add a directory to store tokens. With the minus button you can remove a selected directory. The configured folders where used to store token for using it without a network connection.
- Role:
  With the dropdown field role you can define the role for unlocking ECUs by using the lock buttons in the main view.
- Duration:
  With this dropdown field you can decide the duration of the ECU unlocking.

For duration you are able to select one of the following values:

- Short:
  time-based: unlocked for 90 minutes
- Long:
  Distance-based: unlocked for 200 km
- Persistent:
  Permanently unlocked till deactivation

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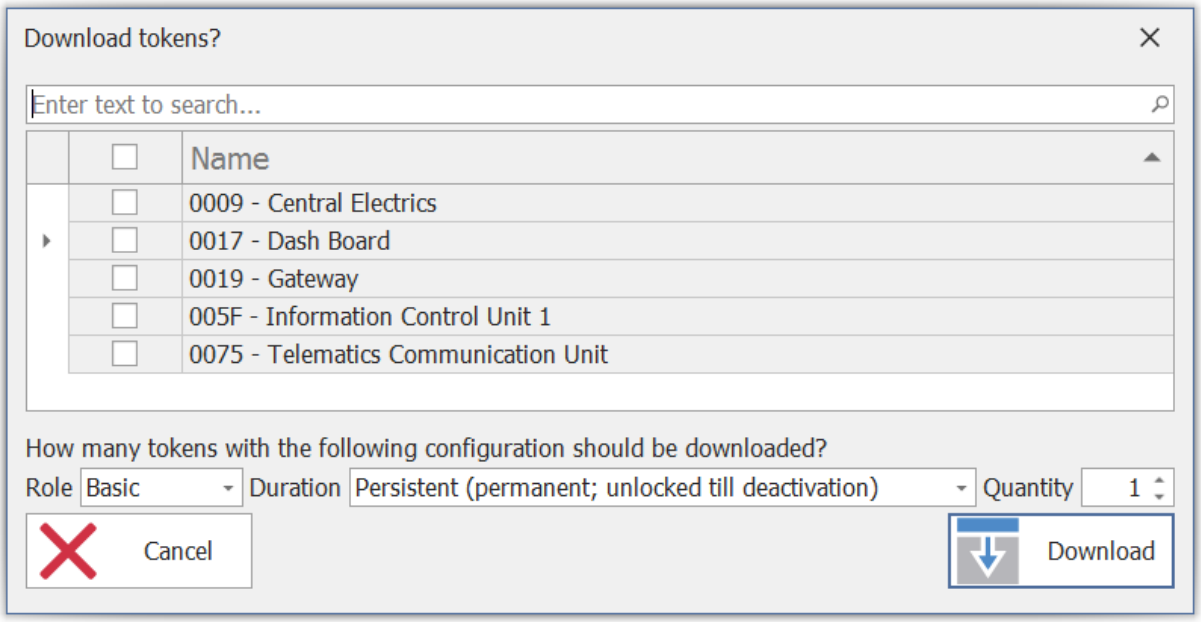
TOKEN DOWNLOAD

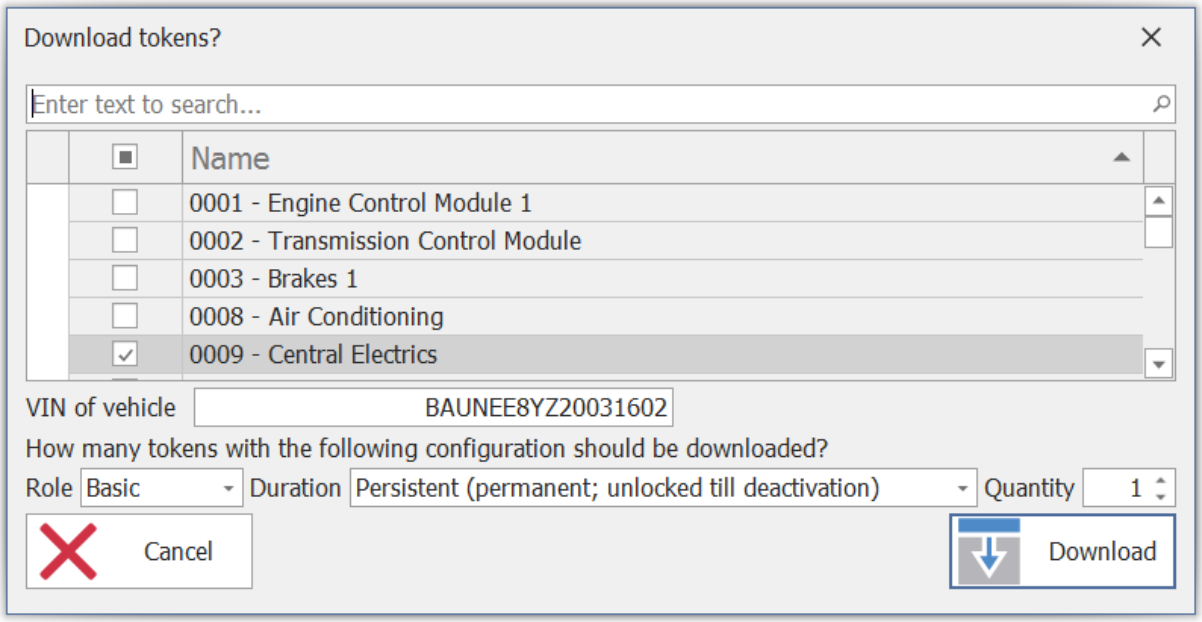
To download token you can choose between two different ways. One way to download for the current vehicle and the other ways is to download over VIN.

By clicking the download button without VIN the following dialog would be open.



You can select the ECUs for what the token should be downloaded. Also you can select the role and duration of the token and how many tokens you want to download.

By clicking the download button with VIN the following dialog would be opened.



Additionally to the dialog from before you can input the VIN of the vehicle you want to download the tokens.

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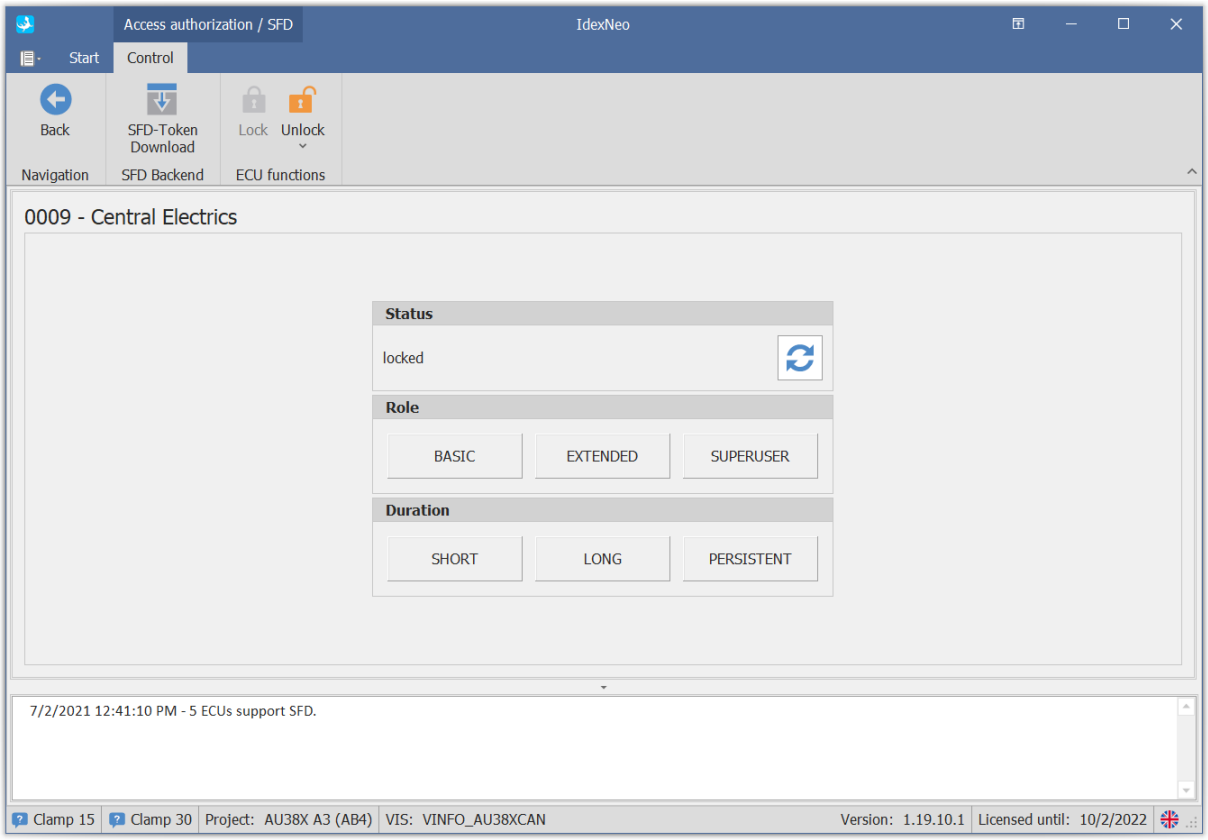
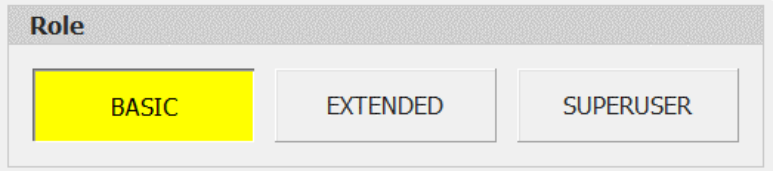
FUNCTION MODULE

If you double click an ECU entry in the main view, it will open the following view. In this view you can select the values for only this ECU.





By clicking a role you choose the role for unlocking the ecu. The selected value will be showed with a yellow background.

The same you can do for the duration.

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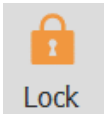
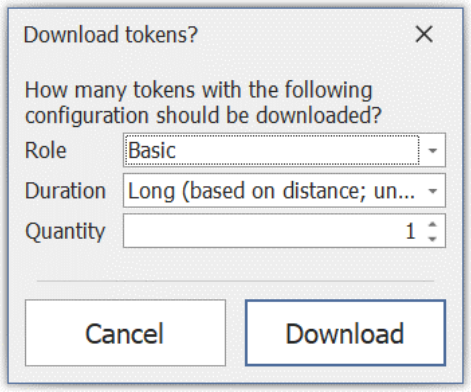
The following buttons are available on the view



Lock this ecu.

Unlock the ecu with the selected values for role and duration.

By clicking this button, you open the dialog for downloading tokens.



In this dialog you can select the role and the duration of the tokens you want to download. Also you can select how many tokens will be downloaded for this ecu.

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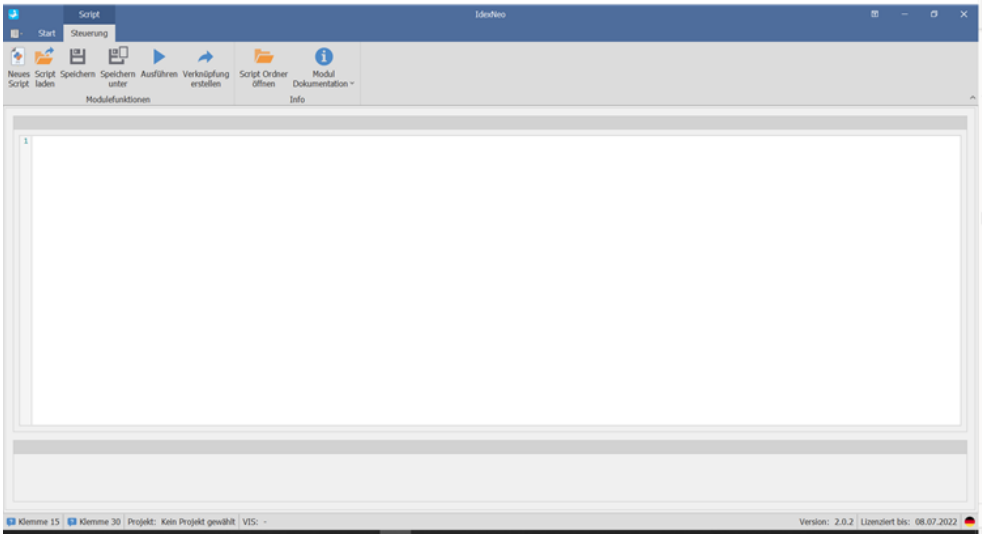
GROUP: SCRIPT

MACRO

You can access the module via the menu on the left “Macro” – “Script” or with the use of the F11 keyboard shortcut



	Create a new macro template.
	Load a macro.
	Save the current macro.
	Execute the current macro.
	Create a desktop shortcut of current macro.
	Open the macro folder.
	Open the module manual

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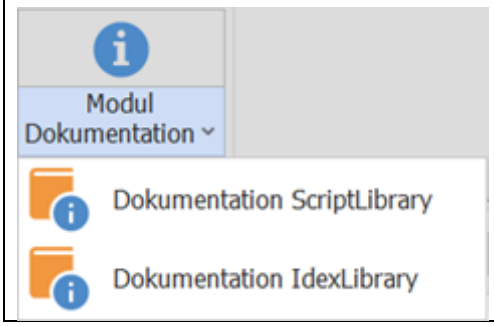	Open the manual of the following libraries: - ScriptLibrary - IdexLibrary

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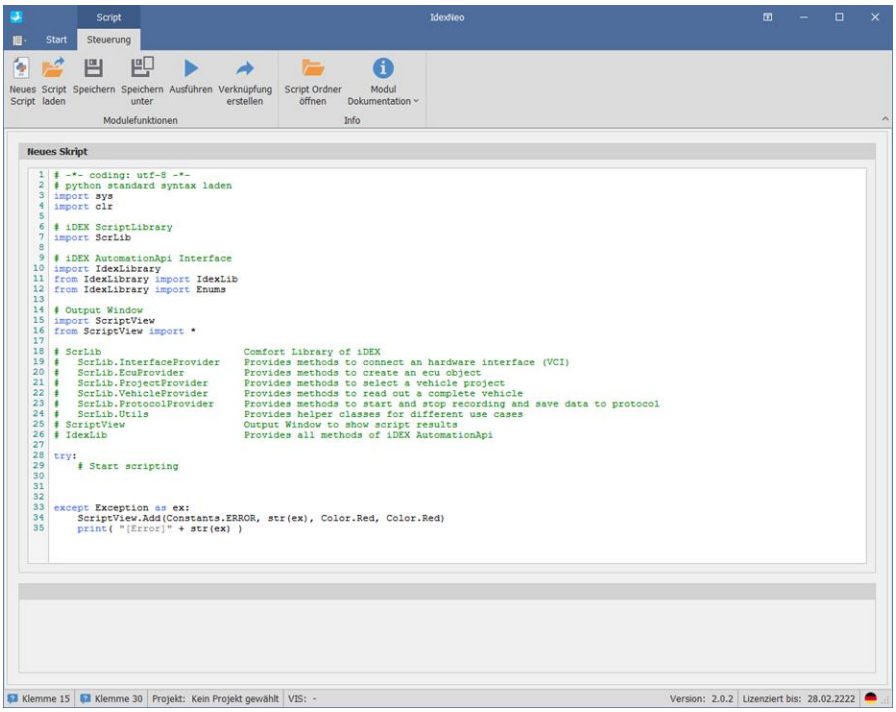
HOW TO CREATE A MACRO

Click the “**New Python Macro**” button to create a new script.

Please do not edit the pre defined variables at the start of the script file and always start writing your macro commands at the bottom of the created file.

Use the “Save script” button to actually write the script file to your hard disk.
The saved file will be located under C:\Users\Public\Documents\VWAudi\iDEX\Macro\



For a more detailed description please see the documentation of ScriptLibrary.

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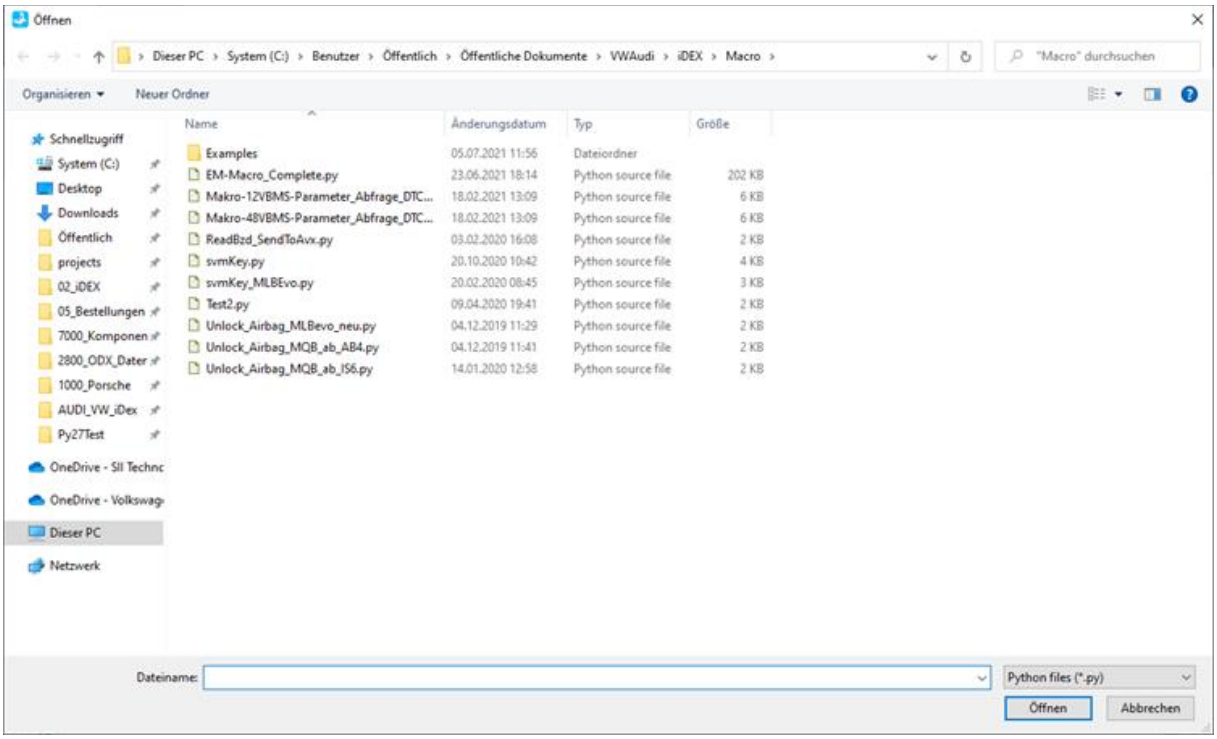
LOAD MACRO

Click on "**Load Python Macro**" to browse already saved scripts.



Select a macro to open and click “open”.

Afterwards you can further edit and save the script to apply some custom commands if needed.

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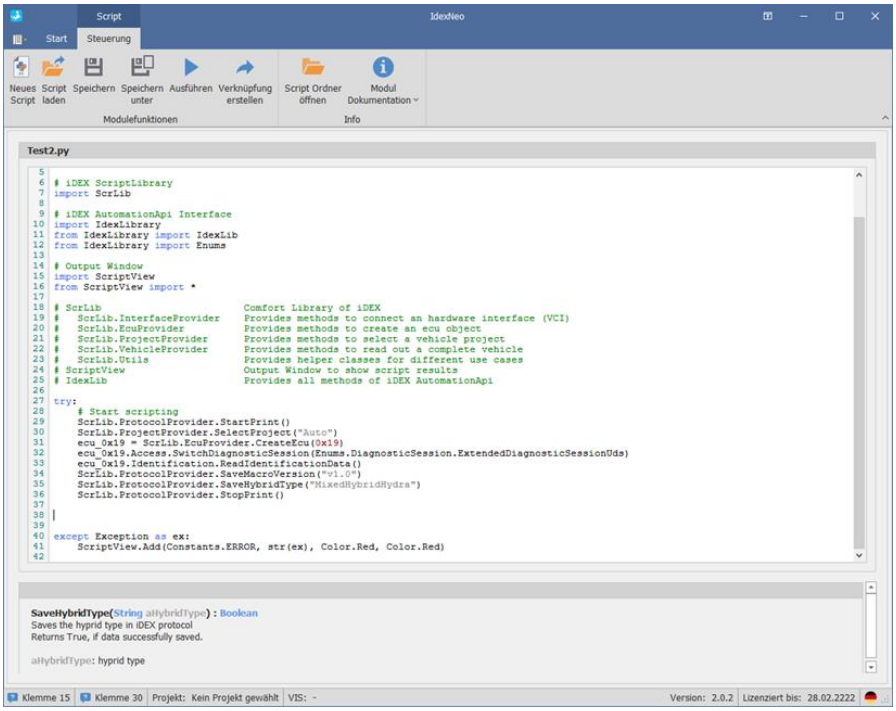
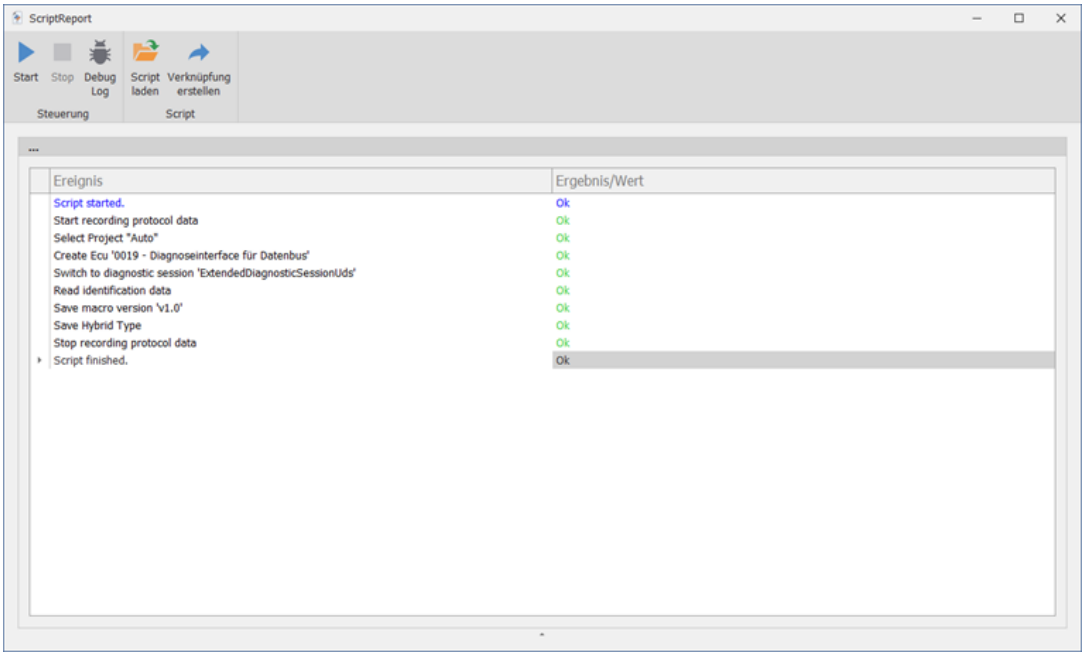
START MACRO

After you have loaded or written a new script you can start it with the “Run Script” button on the bottom right.



A new window will appear – depending on the commands it may also disappear – which will provide you with some text output to inform you about the progress of the macro.



After the macro has completed you can close the window.

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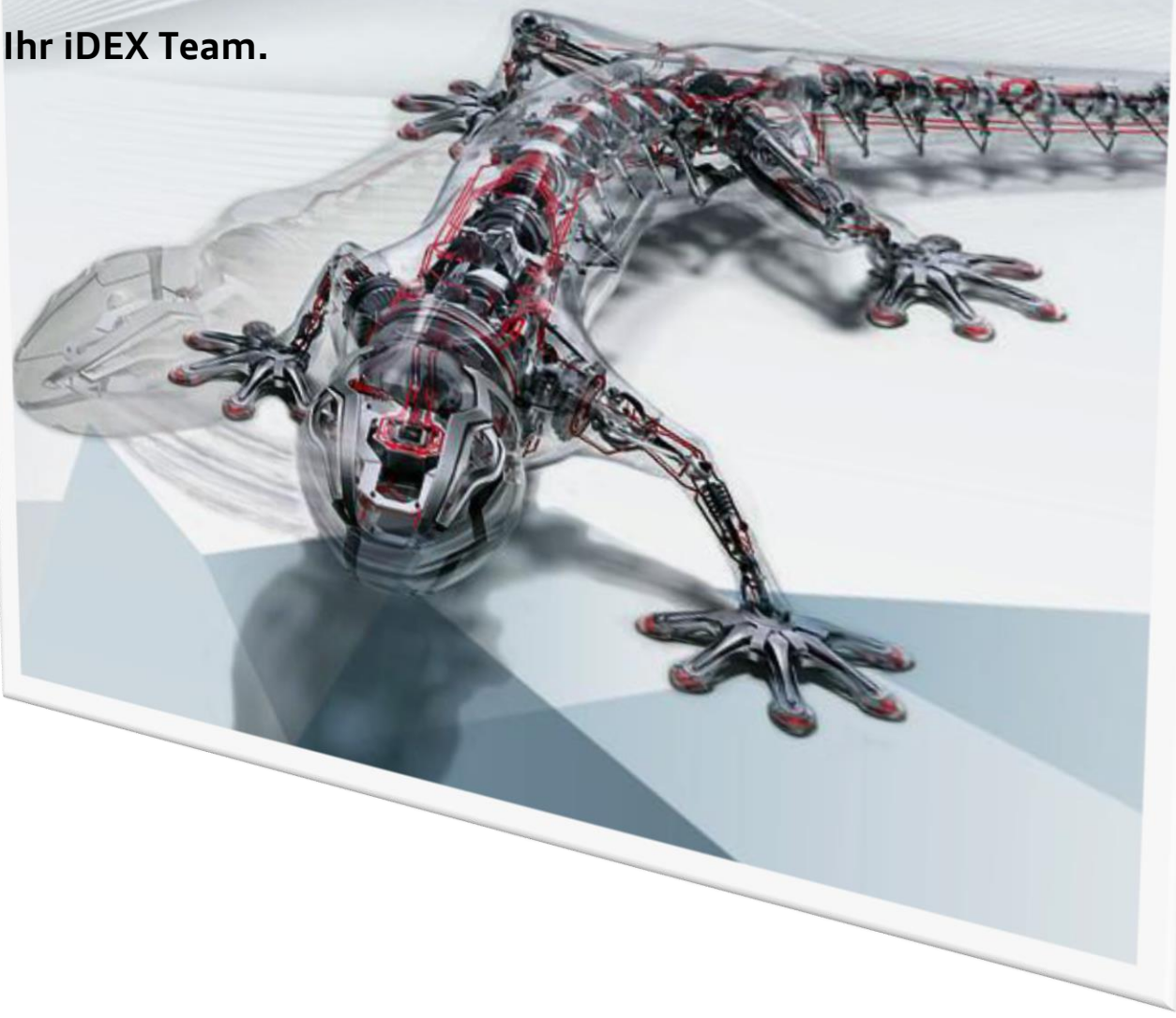
QUESTIONS / SUPPORT CONTACT

If you have any questions or suggestions, please do not hesitate to contact us.

You can contact us by email at: **IDEX@AUDI.DE**

Ihr iDEX Team.



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