

Installation and Operating Manual

HJS ACU Diagnostic Tool

Tool for diagnosing and repairing
faults/errors in HJS SCRT® systems

1.General

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1. General

1.2 Introduction

The HJS ACU Diagnostic Tool makes the connection between the HJS control unit and a computer. It supports all necessary diagnostic functions for troubleshooting, repair and the commissioning of HJS SCRT® systems. The values depicted in the screenshots serve merely as examples. The software will display different values when you are actually using the tool.

1.3 System requirements

Computer	PC, notebook or tablet
Hardware	CPU clock \geq 2 GHz (depending on system configuration and data complexity) RAM (depending on data complexity): \geq 1 GB for Windows 7 (32-bit) \geq 2 GB for Windows 7 (64-bit) \geq 2 GB for Windows 10 (64-bit)
Display resolution	min. 1280 x 768
Operating systems supported	Windows 7 (32-bit and 64-bit, SP 1 or higher) Windows 10 (64-bit)

2. Installation

2.1 Checking which version of .NET is installed

NOTE



Administrator rights are required in order to install this software!

NOTE

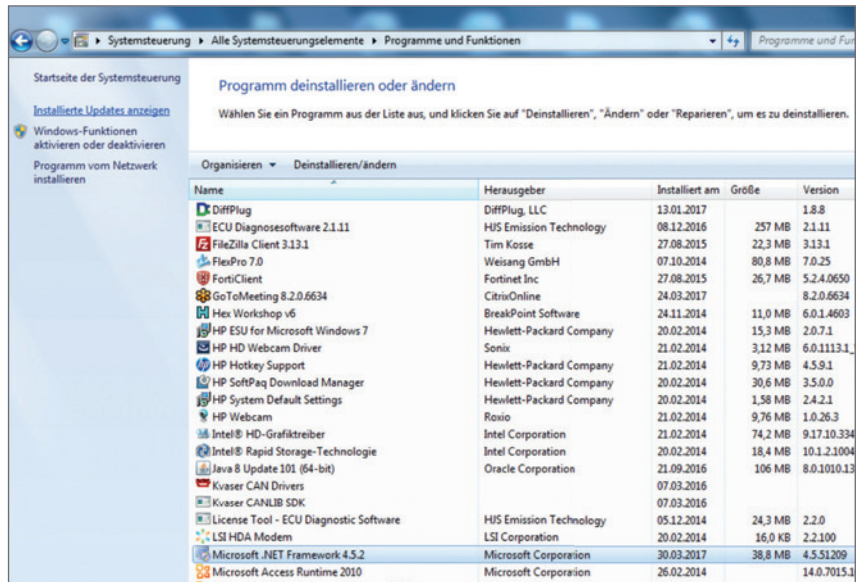


The diagnostic interface must not be connected to the PC during installation!



> Check which version of .NET is currently installed.

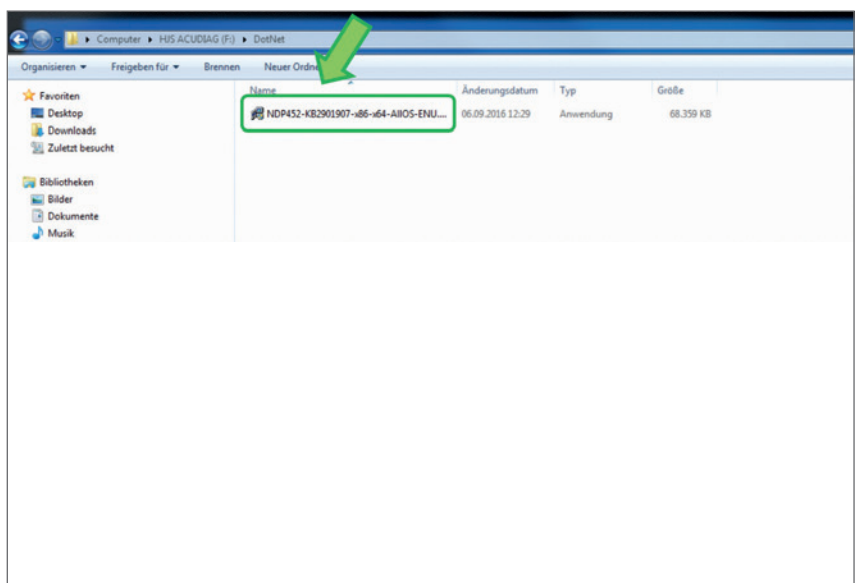
> If .NET 4.5.2 or higher is already installed, continue with step 2.3.



2.2 Installing .NET 4.5.2

> Run NDP452-KB2901907-x86-x64-x64-AL-10S-ENU.exe in the DOTNET subfolder.

> Follow the instructions on the screen.



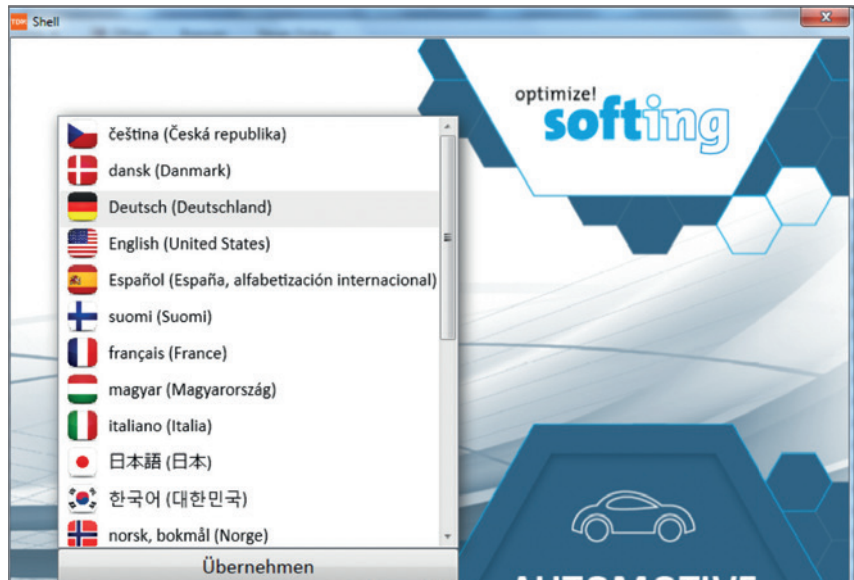
2. Installation

2.3 Installing the ACU Diagnostic Software

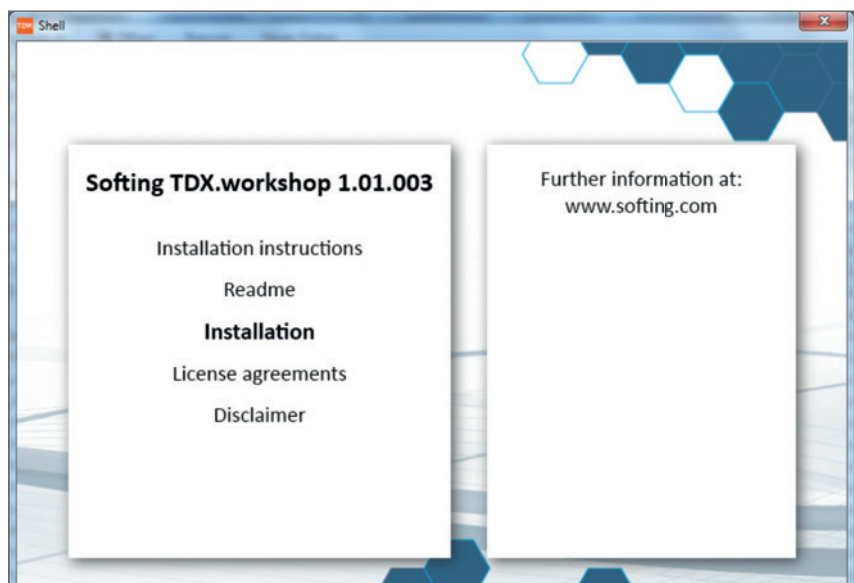
> Run Start.exe.

InstallationGuide_en-US.pdf	13.09.2016 12:27	Adobe Acrobat D...
License.txt	06.09.2016 13:28	Textdokument
LicenseAgreement_de-DE.pdf	06.09.2016 13:15	Adobe Acrobat D...
LicenseAgreement_en-US.pdf	06.09.2016 13:15	Adobe Acrobat D...
ReadMe_de-DE.txt	14.12.2016 15:56	Textdokument
ReadMe_en-US.txt	14.12.2016 15:58	Textdokument
Start.exe	06.09.2016 13:29	Anwendung

> Select the language you want.



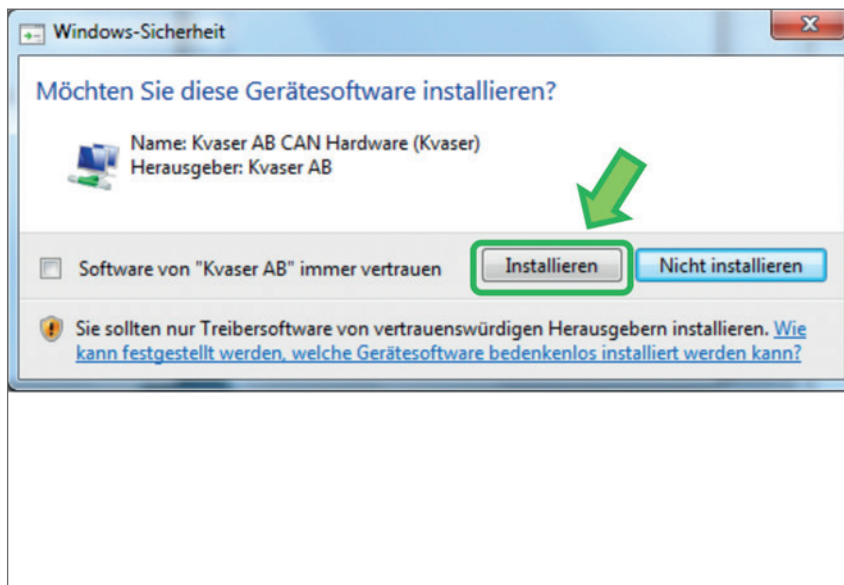
> Start the installation process.



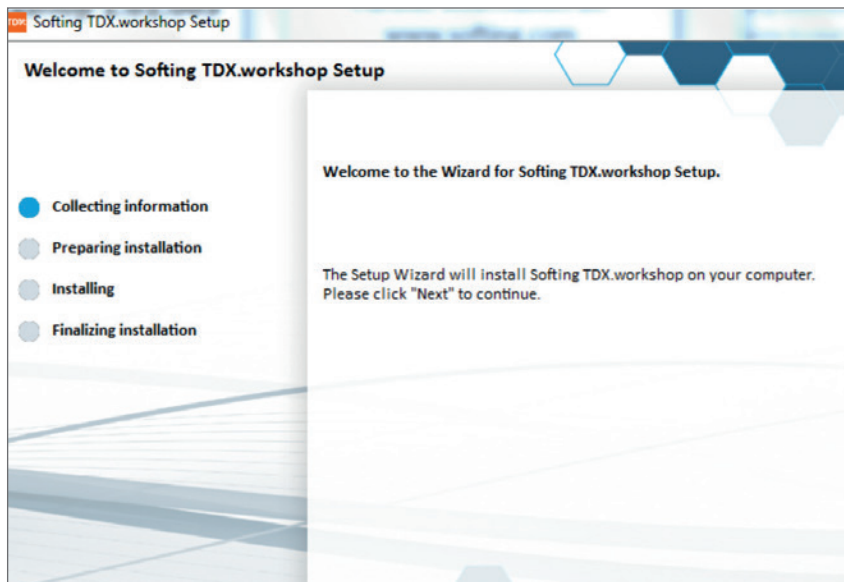
2. Installation

2.3 Installing the ACU Diagnostic Software

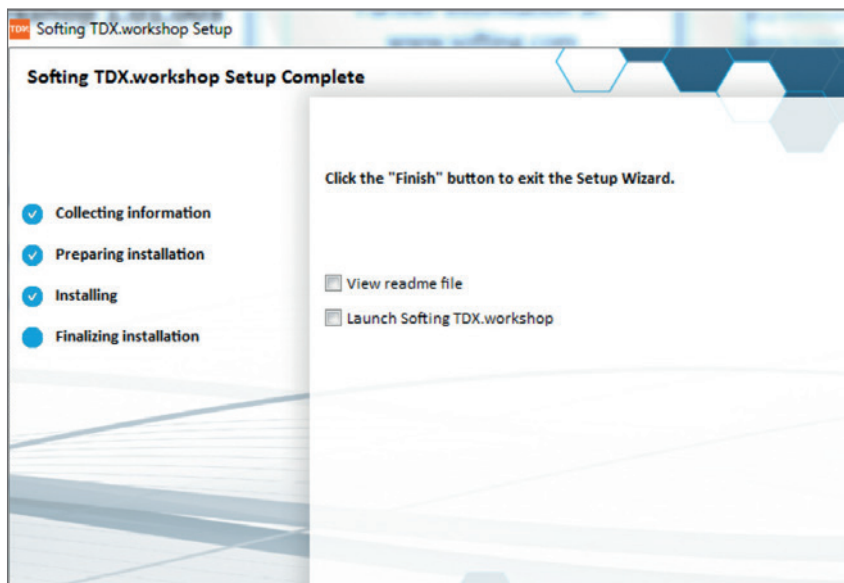
> Click the Install button to install the Kvaser AB CAN software.



> Follow the instructions on the screen.



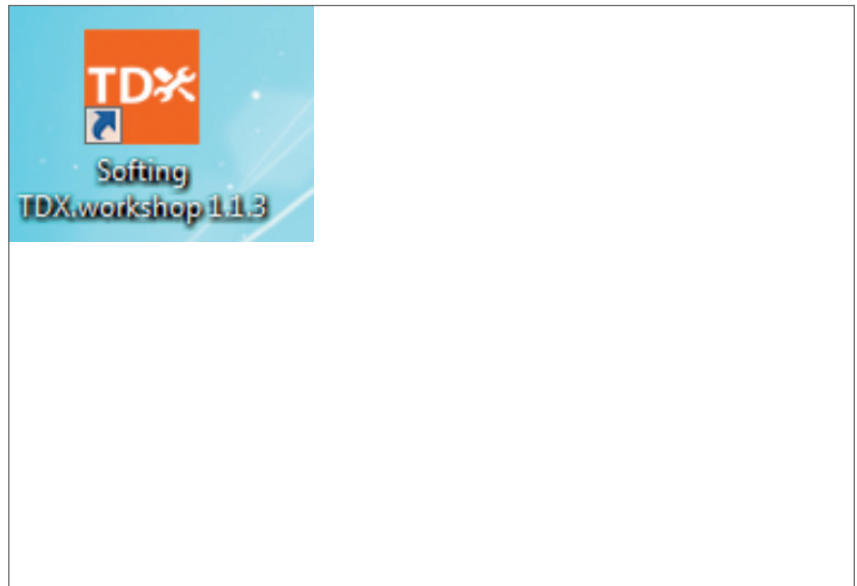
The installation process has been completed.



2. Installation

2.4 Activating the ACU Diagnostic Software

> Start TDX workshop (ACU Diagnostic Software).

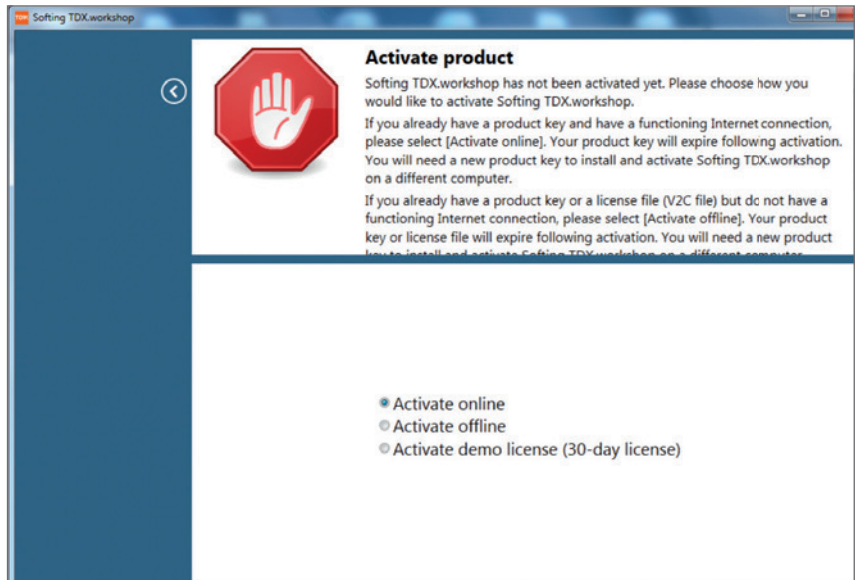


> Activate the product.

> Select the Activate online option.

> Enter the license key (32-digit number).

Software activation has now been completed.



2. Installation

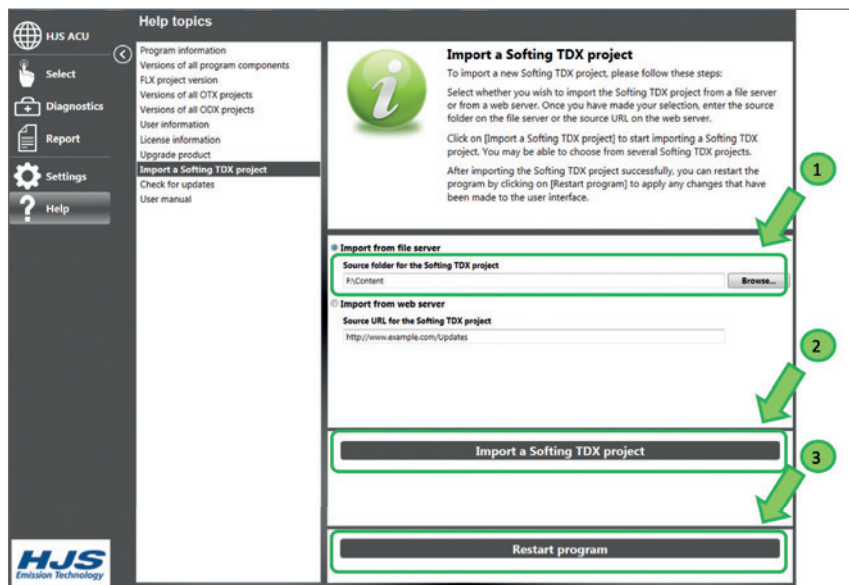
2.5 Importing the ACU project

> Start TDX workshop (ACU diagnostic software)

> Click Help > Import a Softing TDX project.

> Download the latest version of the ACU diagnostic software by browsing to hjs.com > Service > Downloads.

> Click Import a Softing TDX project.



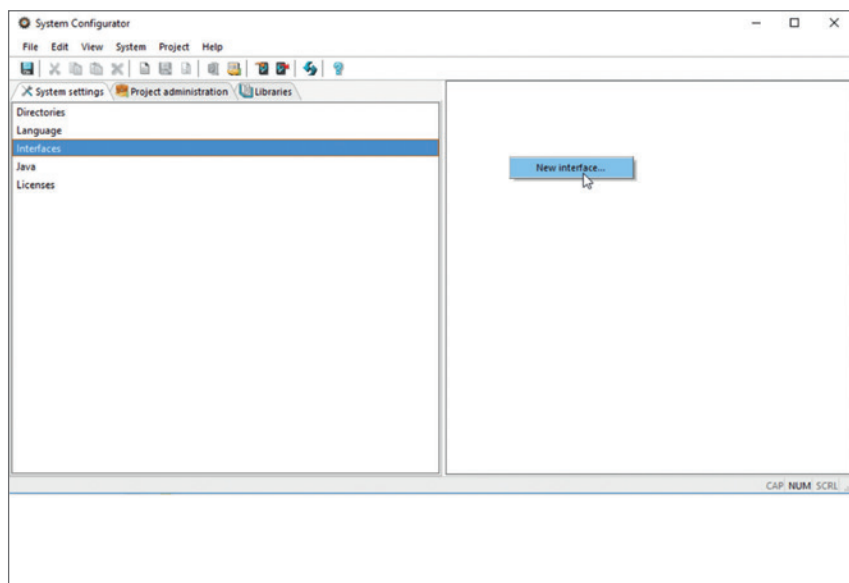
2.6 Configuring the system

> Connect the diagnostic interface to your PC.



> Start the System Configurator.

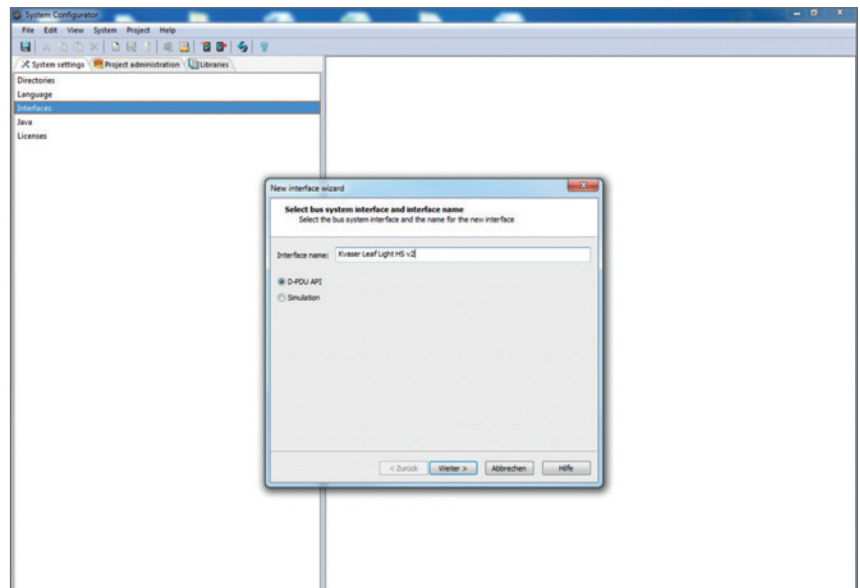
> Select New interface....



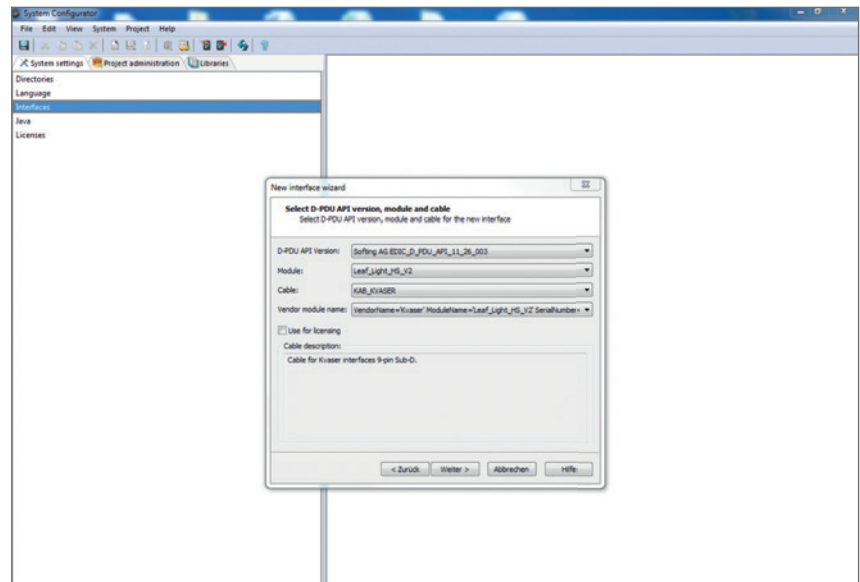
2. Installation

2.6 Configuring the system

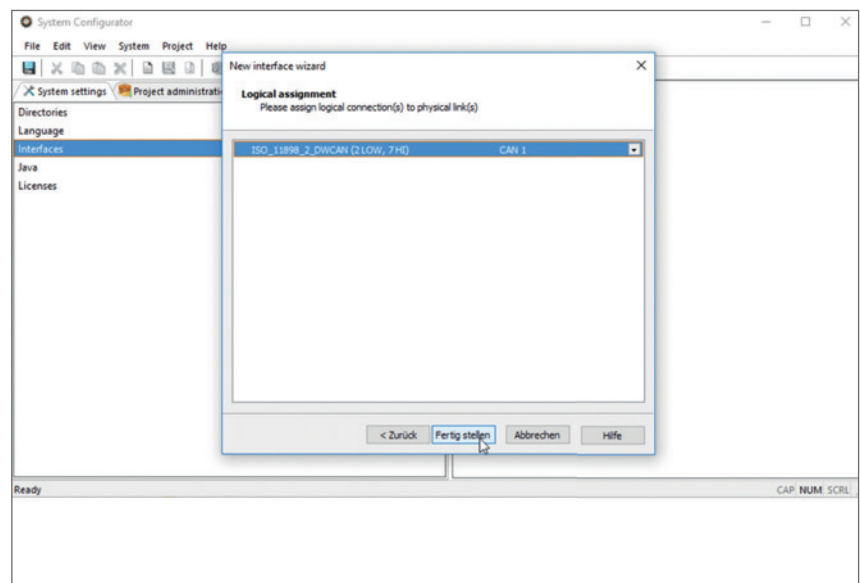
> Enter a name for the interface.



> Select the following settings based on these screenshots.



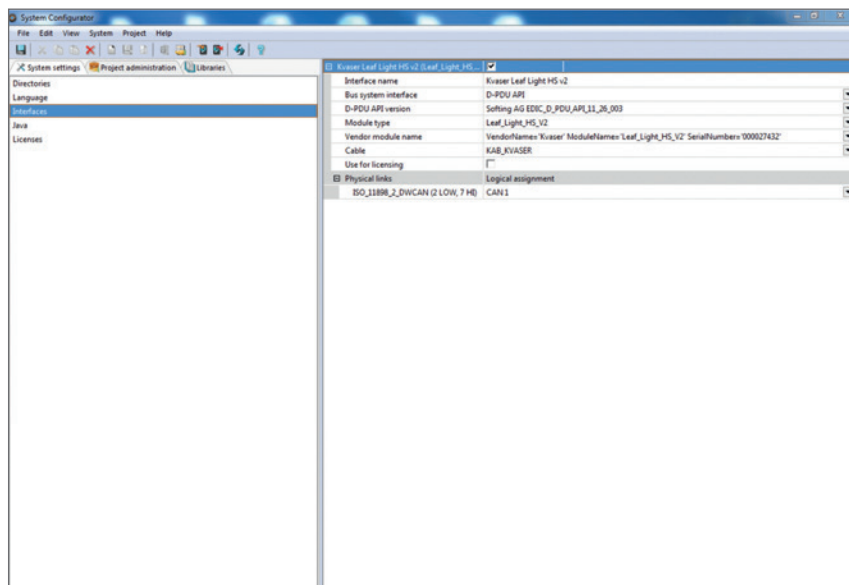
> Assign channel CAN 1.



2. Installation

2.6 Configuring the system

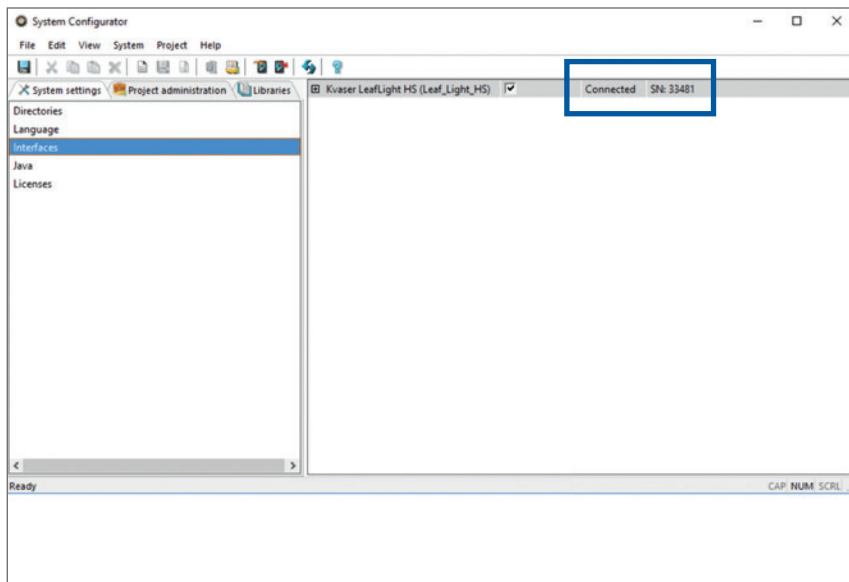
> Press F5 (Update Status)



> Check that the connection status „Connected“ is displayed and that the correct serial number is displayed for the diagnostic interface.

> Close the System Configurator.

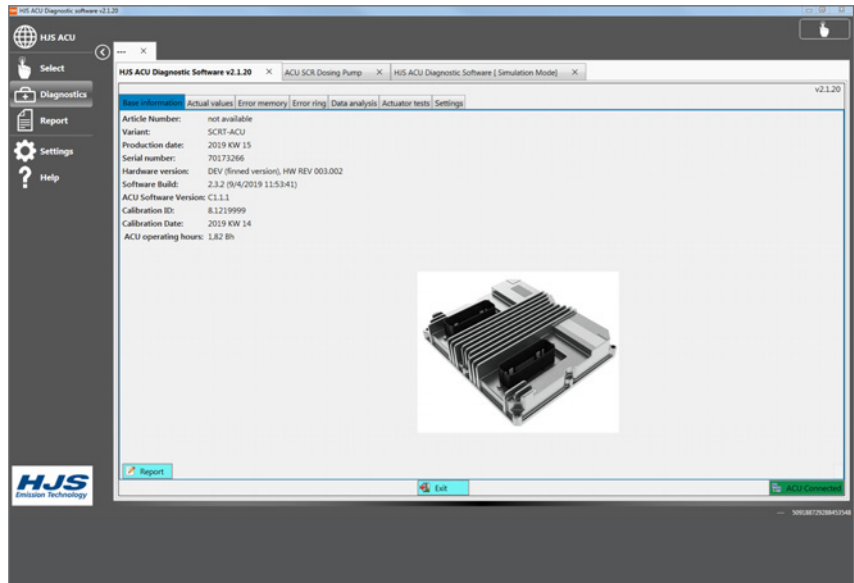
The software and diagnostic interface are now ready for use.



3. Using the HJS ACU Diagnostic Software

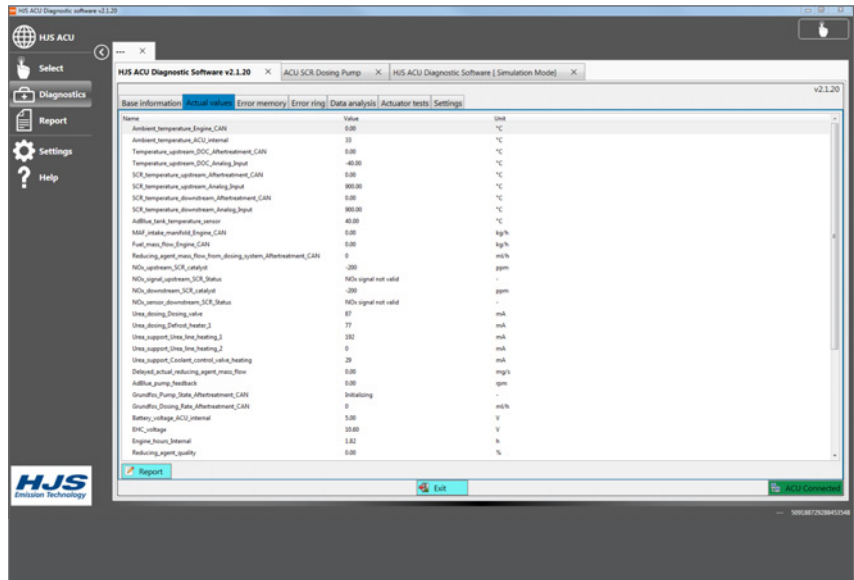
3.1 Base information tab

When opening the main menu item [Diagnostics], the [Base information] subtab is displayed first. This subtab displays information about the ACU installed in the vehicle.



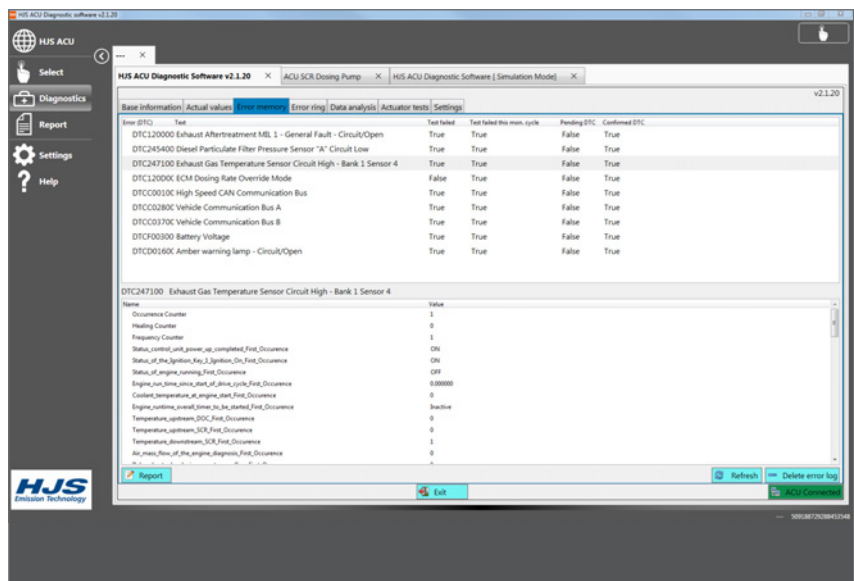
3.2 Actual values subtab

The [Actual values] subtab displays the values currently being measured by the ACU. You can use the [Settings] subtab to select which values are displayed.



3.3 Error memory subtab

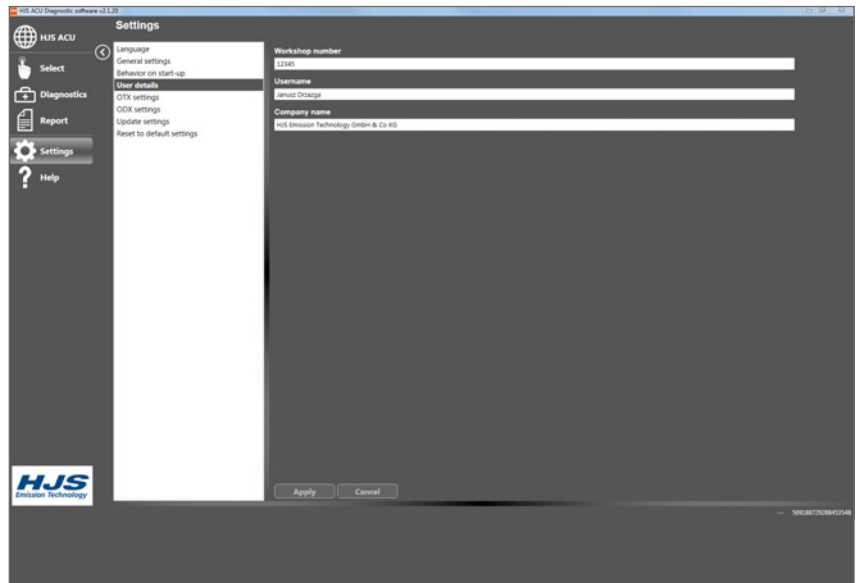
The [Error memory] subtab displays those errors that are active. If you activate an error by clicking it, the [DTC] box below displays the conditions and ambient data active at the moment the error occurred. The error memory can be deleted by clicking the [Delete error log] button. If you click [Refresh], the error memory is read out again.



3. Using the HJS ACU Diagnostic Software

3.4 User details

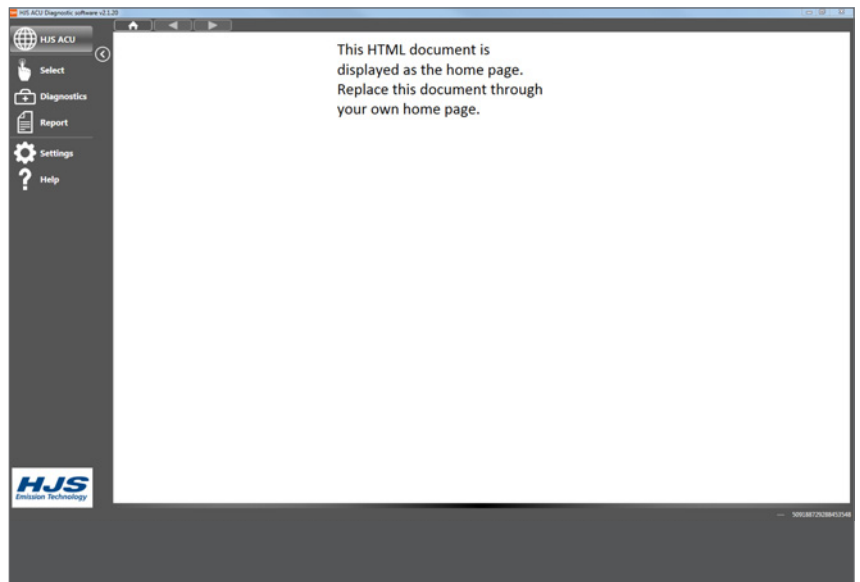
- > Start the HJS ACU diagnostic software.
- > Enter your user details under **[Settings > User details]**. These will be output in logs, printouts and exported files.



3.5 Structure of the user interface

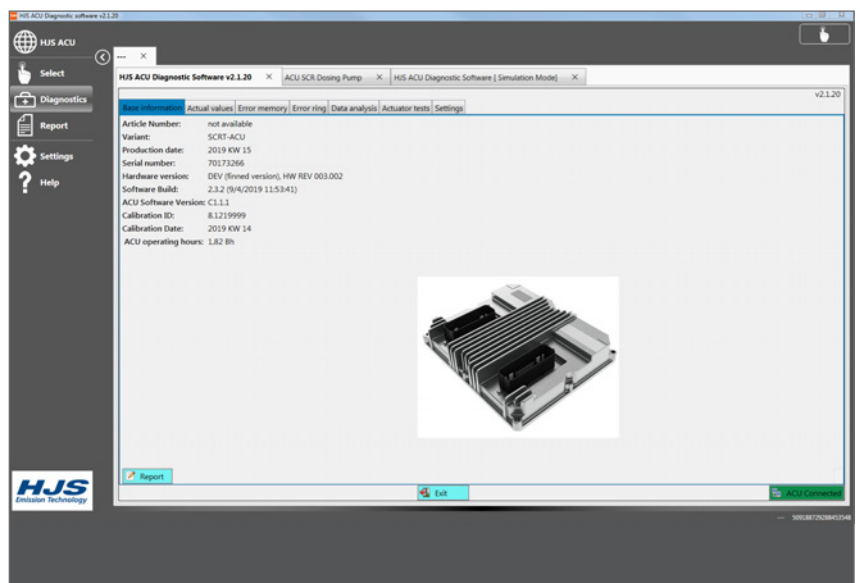
The program opens at the homepage. You can replace this homepage with your own homepage in the **[Storage location for the homepage]** field under **[Settings > General settings]**.

Clicking the **[HJS ACU]** field above the main menu will take you back to the homepage. Main menu item **[Selection]** lets you choose between **[Diagnostic Software, Simulation Mode]** and **[SCR Dosing Pump]**. The **[SCR Dosing Pump]** subitem is used only in conjunction with selected SCRT® systems.



3.6 Main menu item [Diagnostics]

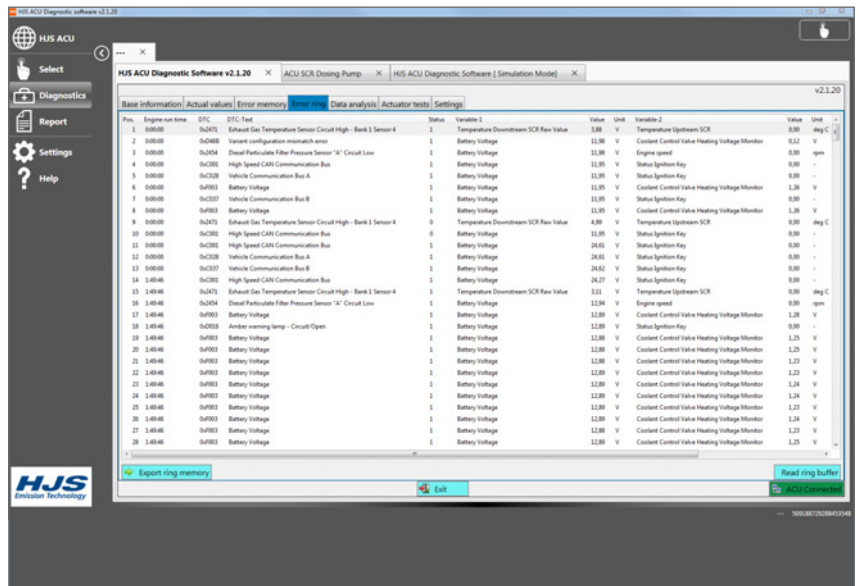
Under the main menu item **[Diagnostics]** the HJS ACU diagnostic software is opened in submenus. The software is connected automatically to the ACU installed in the vehicle connected, but this does necessitate that the vehicle's ignition system is switched on. The program can be closed by clicking the **[Exit]** button. An active connection between the HJS ACU diagnostic software and the vehicle is indicated by the green **[ACU Connected]** field at the bottom right of the screen. If the software is not connected to vehicle ACU, this field is red.



3. Using the HJS ACU Diagnostic Software

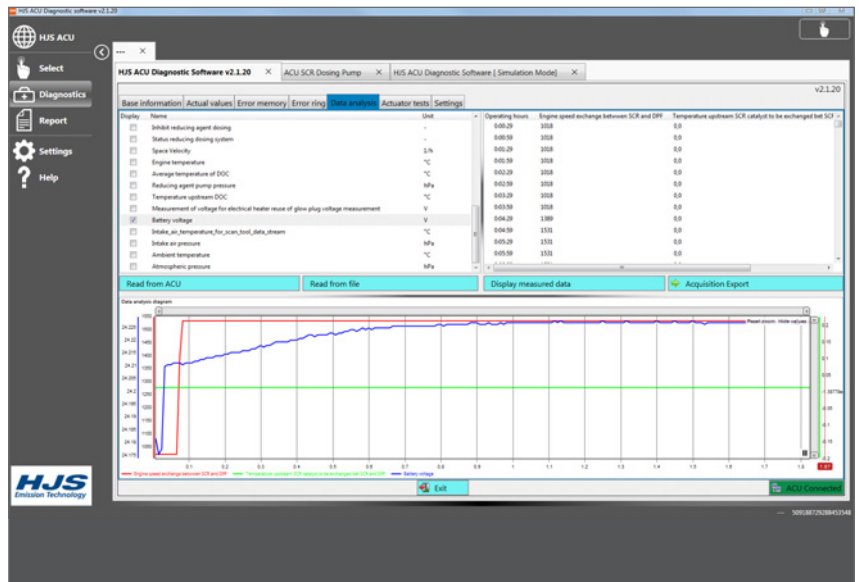
3.7 [Error ring] subtab

All errors are stored in a ring memory or buffer that can contain 500 data records. This data can be read out by clicking the [Read ring buffer] button. By clicking the [Export ring memory] button you can save the data from the ring buffer to a csv file in a folder of your choice on the computer for later analysis.



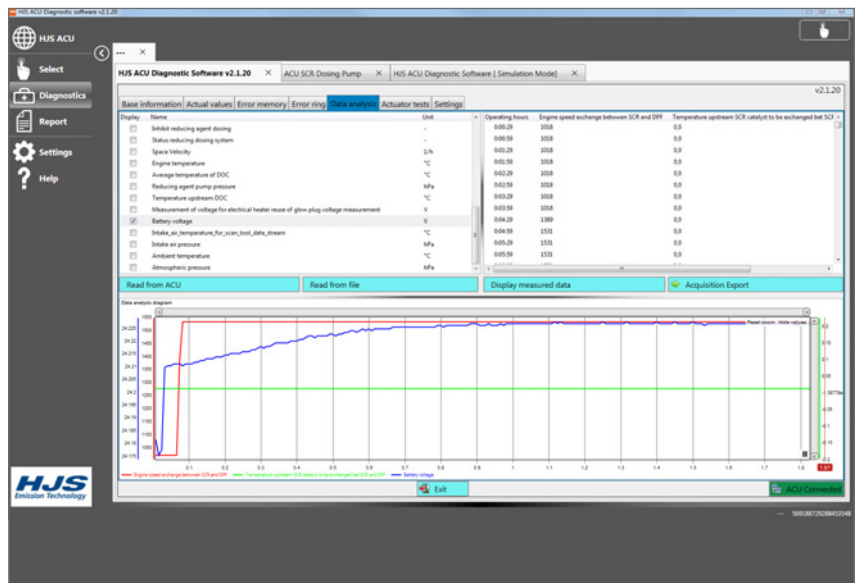
3.8 [Data analysis] subtab

The data records stored in the ACU (approx. 30 hours of records) can be read out in the [Data analysis] subtab. It can take up to 10 minutes to read out the data. By clicking the [Acquisition Export] button you can save the data to a csv file in a folder of your choice on the computer. Of the data read out, up to 3 data records can be marked and displayed in a graph by clicking the [Display measured data] button.



The scale and the section of the graph that is visible on the screen can be adjusted by moving the slider at the top. If the mouse pointer is moved across the graph, the actual values at the current pointer position are displayed. By clicking on the respective legend point, you can display or hide the corresponding graph.

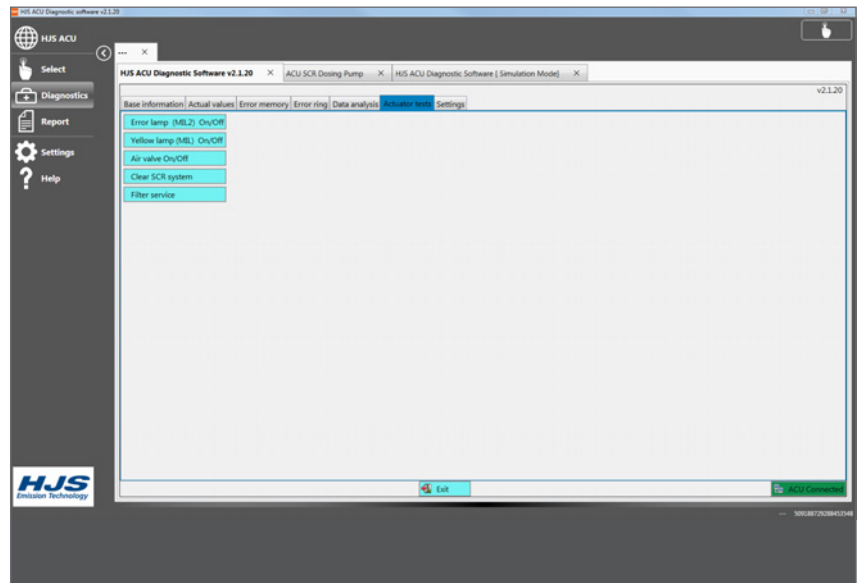
The size of the windows can be adjusted by holding the mouse over the border between two windows (the mouse pointer changes), clicking and dragging the border.



3. Using the HJS ACU Diagnostic Software

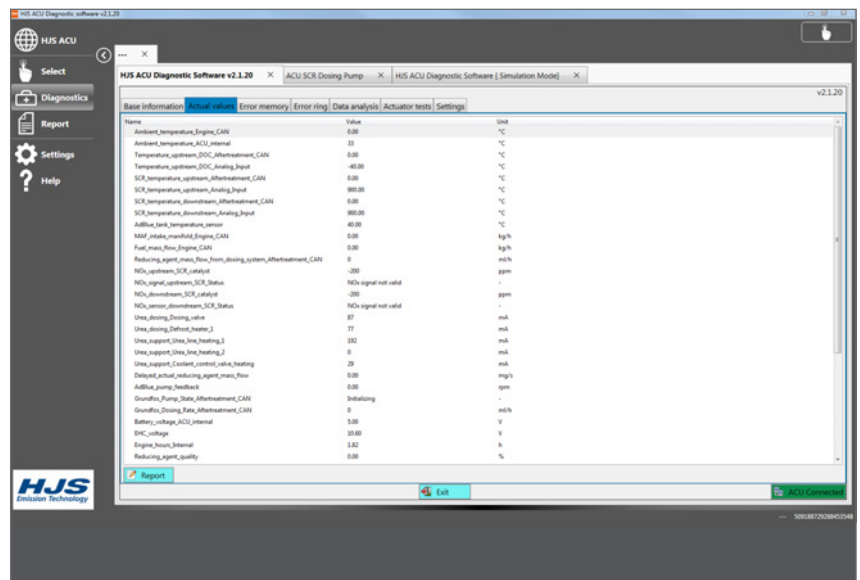
3.9 [Actuator tests] subtab

The [Actuator tests] subtab is used only in conjunction with selected SCRT® systems.



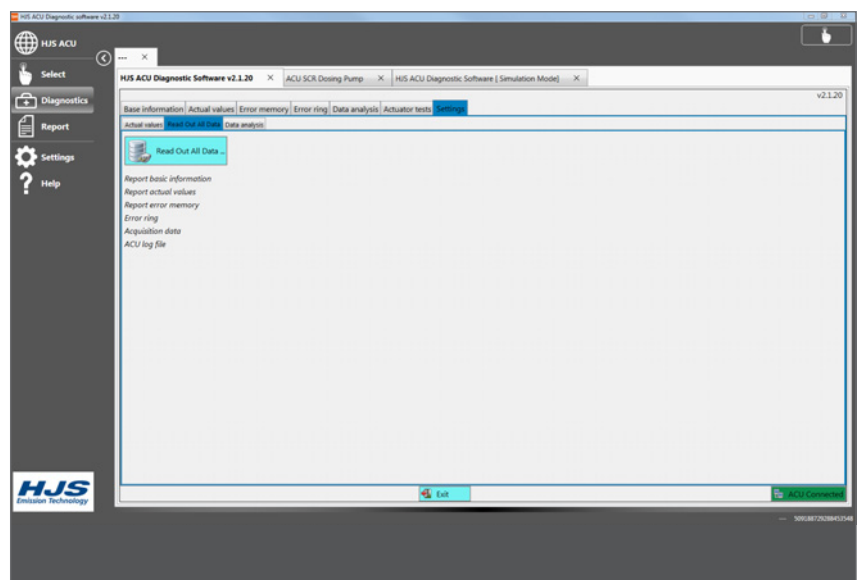
3.10 Settings [Actual values] subtab

The [Settings] subtab lets you select the data records that are loaded and displayed on the [Actual values] subtab. In order to keep the loading time as short as possible you should select only those records that are really of interest. Click the [Save] button to confirm your selections. The following message then appears: „The program must be restarted in order for the actual value settings to take effect!“



3.11 Settings [Read Out All Data] subtab

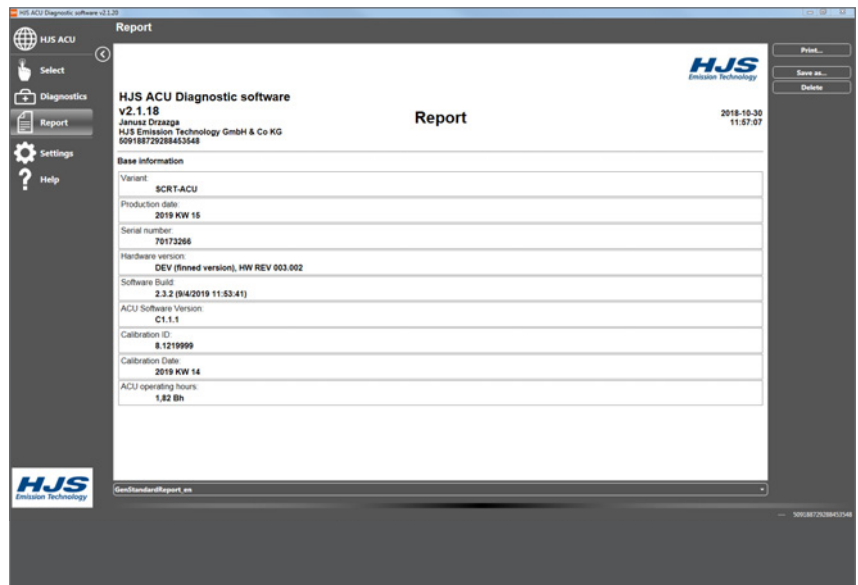
When you click the [Read Out All Data ...] button, the basic data, actual values, error memory data, ring memory data, acquisition data and the ACU log file are automatically read out. You can then save and archive them to a folder of your choice on the computer. Four different files are created for this purpose.



3. Using the HJS ACU Diagnostic Software

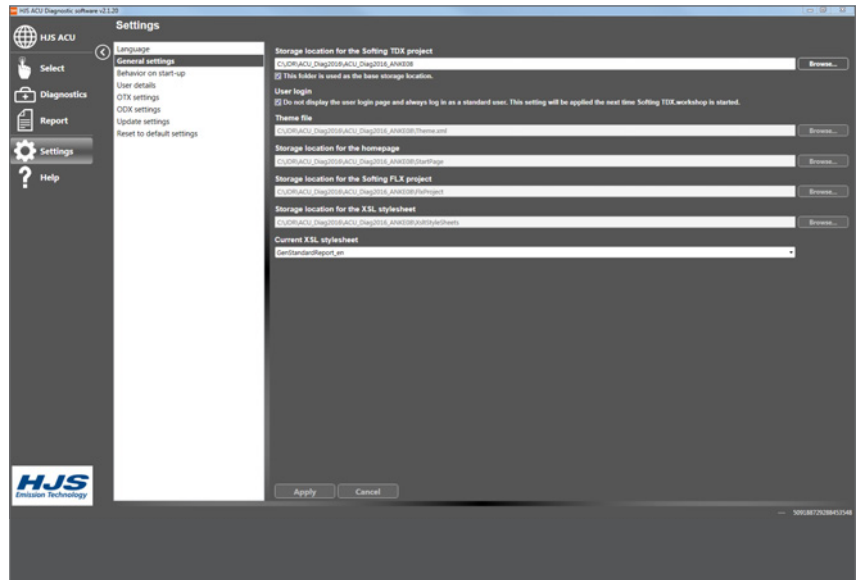
3.12 Main menu item [Report]

Reports can be printed or saved from the **[Report]** item of the main menu. Before you generate a report, you should begin by clicking the **[Delete]** button to delete any previous report. The **[Base information, Actual values]** and **[Error memory]** subtabs under **[Diagnostics]** in the main menu all contain a **[Report]** button at the bottom left. Clicking this button adds the data currently displayed on the respective subtab to the current report. If you want to add all errors on the **[Error memory]** subtab together with their respective ambient data to the report, each error must be clicked individually and added to the report by clicking the **[Report]** button.



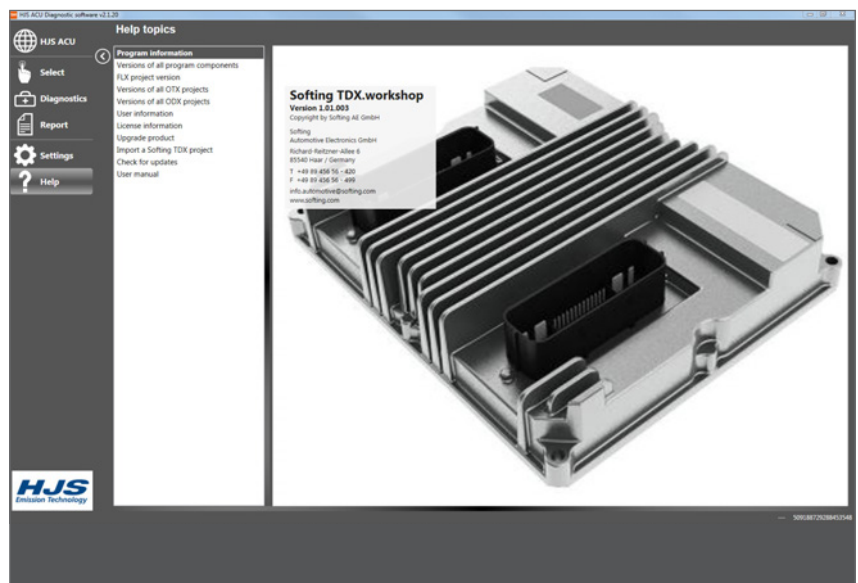
3.13 Main menu item [Settings]

The **[Settings]** item of the main menu enables you to customise this HJS diagnostics tool to your requirements. The **[General settings]** menu contains a field entitled **[Storage location for the homepage]** that lets you set your own homepage. To do this, your homepage must be stored in the path and under the file name specified under **[Storage location for the homepage]**. Enter your workshop number, username and company name on the **[User details]** page. These will then be included in all exported files and reports. The **[Settings]** menu also contains a **Reset to [default settings]** option.



3.14 Main menu item [Help]

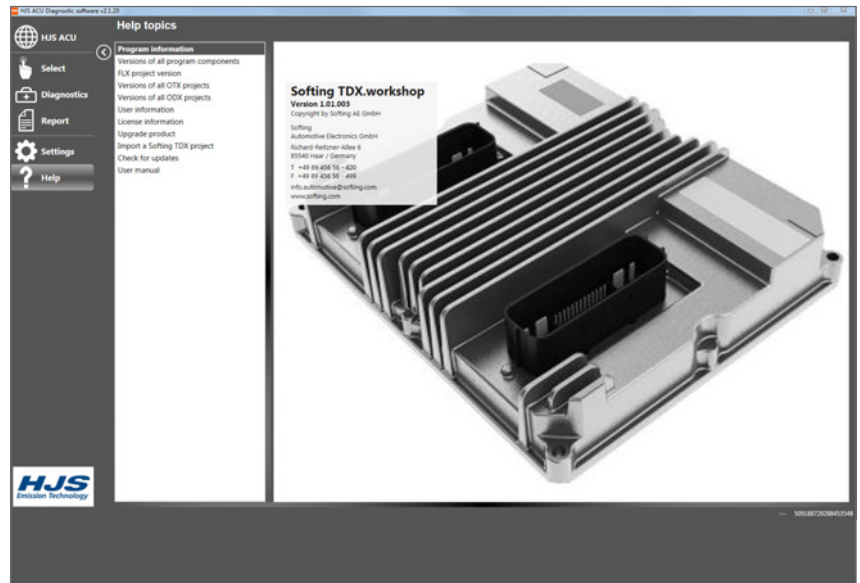
The **[Help]** item in the main menu contains information about the program, licenses and the program components installed.



3. Using the HJS ACU Diagnostic Software

3.15 Softing TDX Projects

Updates provided by HJS can be integrated using the **[Import a Softing TDX project]** menu item. These are initially saved to a folder of your choice on the computer. Select **[Import from file server]**. Click the **[Browse]** button next to the **[Source folder for the Softing TDX project]** input field, select the appropriate folder and file and import the file by clicking the **[Import a Softing TDX]** project button. The program must be restarted in order for the update to take effect. Click the **[Restart program]** button.



3.16 User manual

The **[User manual]** option lets you either read the user manual on the screen or export it as a pdf file.



Notes

Notes

Notes



HJS Emission Technology GmbH & Co. KG is a medium-sized company based in Menden in central Germany and has many years of experience and expertise in the field of exhaust-gas aftertreatment. Some 500 employees are engaged in the development, production and marketing of modular systems for reducing pollutant emissions. These innovative environmental protection technologies can be used either as original equipment or for retrofitting in passenger cars, commercial vehicles as well as a wide range of non-road mobile machinery and stationary applications.

In addition to systems for spark-ignition engines, HJS today focuses on solutions for diesel engines – especially for reducing the emissions of soot particles (PM) and nitrogen oxides (NOx). With extensive patents for DPF® (diesel particulate filter) and SCRT® (Selective Catalytic Reduction Technology) systems, HJS sets benchmarks.

HJS technology portfolio for OE and retrofitting

- > Diesel Particulate Filters (DPF®)
Reduction of soot-particle emissions (PM)
- > SCR-Systems
Reduction of nitrogen-oxide (NOX) emissions
- > SCRT®-Systems
Simultaneous reduction of soot-particle (PM) and nitrogen-oxide (NOX) emissions
- > Thermal Management
For DPF®-regeneration and SCR-functionality
- > Electronic Control Units and Software
Monitoring and controlling of all system functions

A clean future with HJS!

