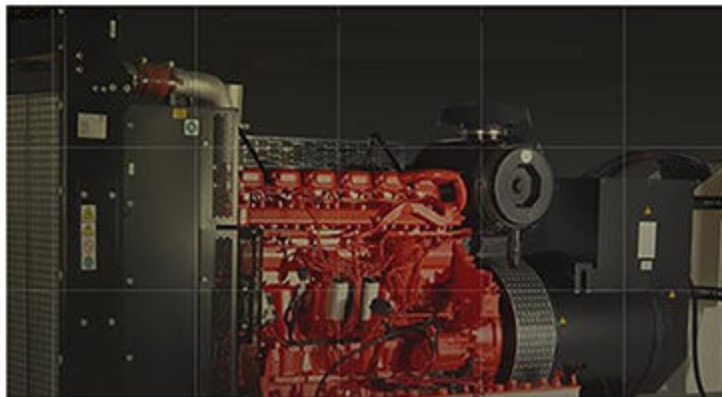




USER MANUAL

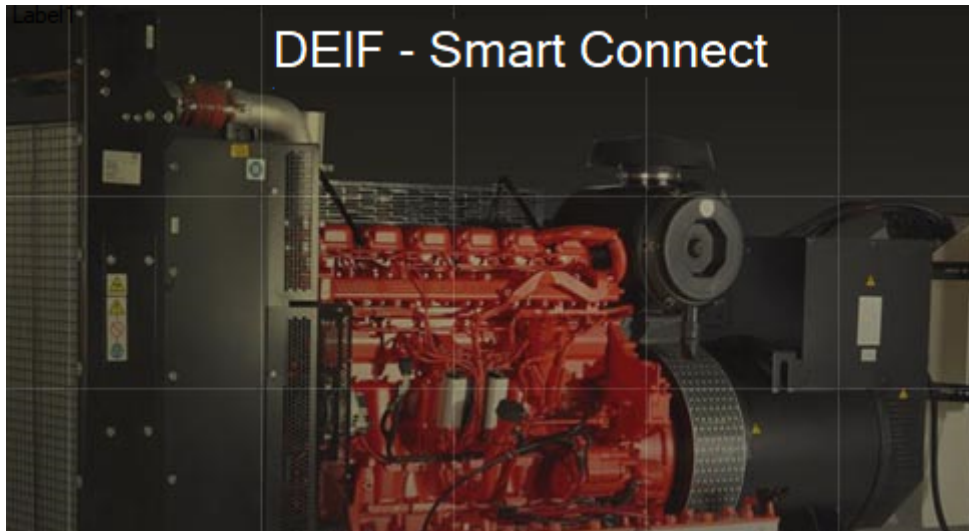


Utility Software DEIF Smart Connect



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1. About DEIF Smart Connect



DEIF Smart Connect is a PC based utility software for Windows operating system, used to configure DEIF's SGC controllers.

The utility software allows controllers from the SGC range to be connected to a laptop/computer via USB, which makes it easy to configure each individual input and output, timers, generator, governor and engine speed monitoring parameters.

2. Installation instructions

2.1 System requirements

- Operating System: Windows 8 and 10 with Microsoft .Net 4.0 framework.
- Communication: USB 2.0 Type A to Type B cable is required for communication with the controller.

2.2 Installing DEIF Smart Connect

Procedure for installation of DEIF Smart Connect:

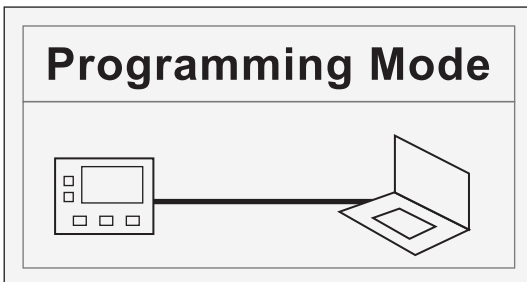
1. Go to DEIFs software download page deif.com/software.
2. Select DEIF Smart Connect.
3. Follow the download instructions.
4. Locate the *DEIF-Smart Connect-Setup.zip* on your system and unzip the archive.
5. Double-click the installation file *DEIF-Smart Connect-Setup.exe*.
6. The *Welcome* screen appears, select *Next*.
7. In the *Install Location* screen, browse to your preferred destination folder, then select *Install*.
8. In the *Completion* screen, select *Finish* to complete the installation.



2.3 Installing the USB driver

When an SGC controller is connected to a PC or laptop via USB, the necessary USB driver is automatically installed.

In some cases it can be necessary to install the USB driver manually:

1. Connect the controller to a PC with a USB cable.
2. Set the controller in the *Programming mode* (press the buttons *Stop/Config*  and *Down*  simultaneously for at least three seconds).
3. The controller shows the *Programming mode* screen.



4. With the controller in *Programming mode*, go to *Device Manager* → *Ports (COM & LPT)* → *SGCSMPL* on the PC.
5. Right click on *SGCSMPL* and select *Update Driver Software*.
6. Select *Browse my computer for driver software*.
7. For 64-bit Windows system, choose a driver path such as *C:\Program Files(x86) \DEIF*, then click *Next*.
8. When the USB driver is installed, a confirmation screen appears *Windows has successfully updated your driver software*.
9. Click on *Close* to finish the installation of the USB driver.
10. To leave the *Programming mode*, press the *Up*  and *Down*  buttons simultaneously for at least three seconds.

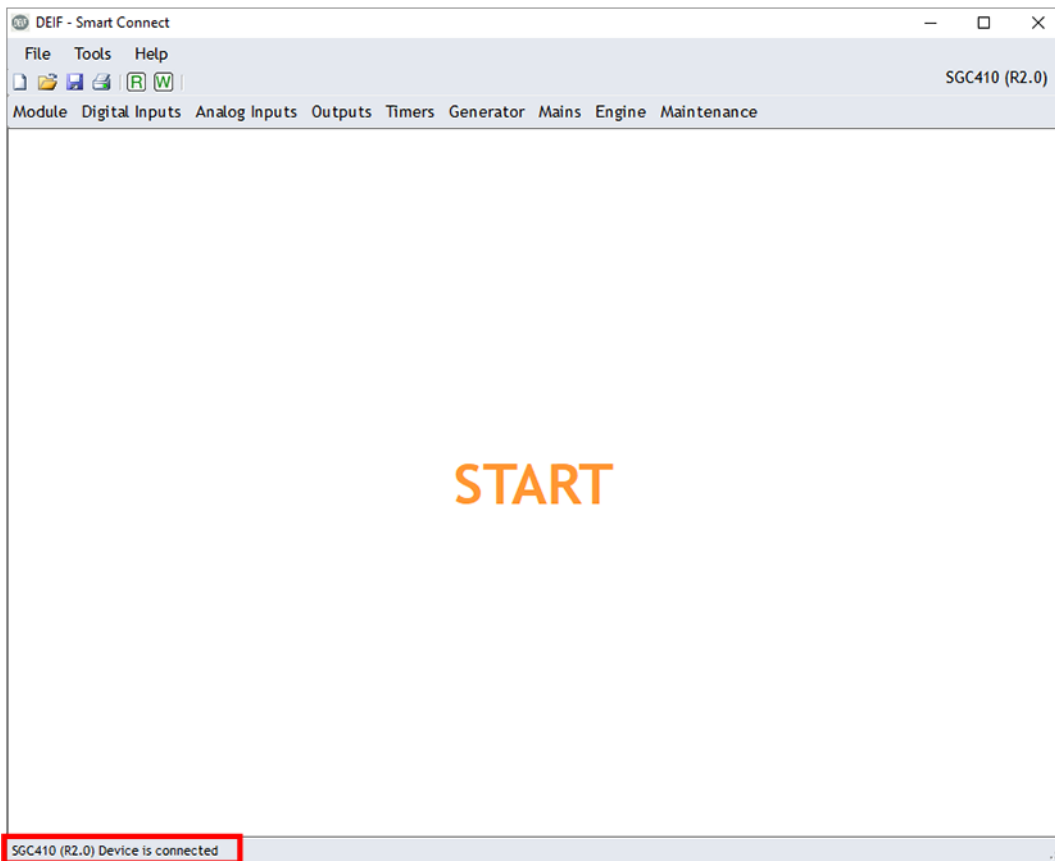
3. Using DEIF Smart Connect

3.1 Connect to the controller

To connect to a controller:

1. Open the DEIF Smart Connect on your PC.
2. Connect the PC to the controller with a USB cable.
3. Set the controller in the *Programming mode* (see **2.3 Installing the USB driver**).

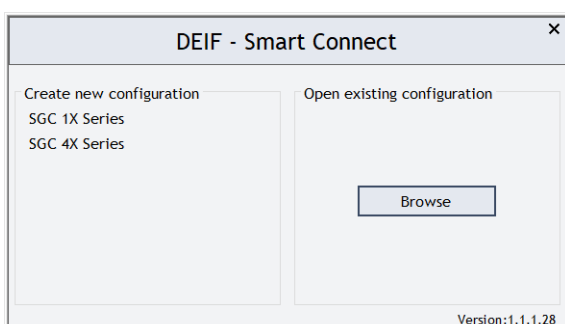
A connection status message is shown at the bottom left corner of the Smart Connect screen.



It is possible to open, create and modify configurations without an active connection to the controller. But read/write to the controller requires an active connection.

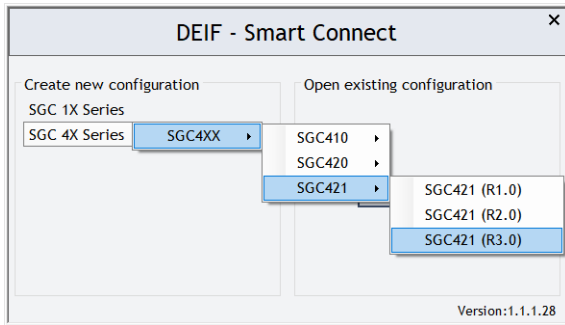
3.2 Starting with DEIF Smart Connect

Run DEIF Smart Connect. On the start-up screen you can choose between *Create new configuration* and *Open existing configuration*.



Create new configuration

Click on the controller type (for example, SGC 1X Series) you wish to create a configuration for, then select the controller/revision.



Open existing configuration

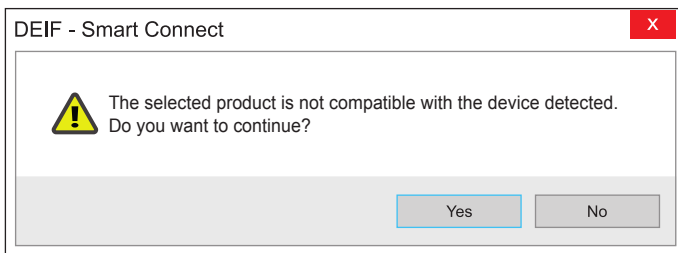
Previously created configurations can be saved on the PC in .smc format. Click on *Browse* to search for a saved smc-file.

Incompatible device

The selected controller can be incompatible if:

- The controller selected in DEIF Smart Connect is different from the connected controller.
- The controller revision and DEIF Smart Connect revision mismatches (for example, SGC R2.0 and DEIF Smart Connect R1.0).

If a controller is incompatible, DEIF Smart Connect gives a pop-up message.



- Select *Yes*, then connect the correct controller or correct the revision mismatch
- Select *No* to close DEIF Smart Connect.

3.3 File menu options

A configuration is a set of parameter values, which determine the behaviour of the controller. The options to handle the configured parameters are all grouped under *File*.



- **New:** To create a new configuration file, click on *File* → *New*.
- **Open:** To open a previously saved configuration file from disk, click on *File* → *Open*.
- **Save:** To save the current set of parameter values as a configuration, click on *File* → *Save*.
- **Save as:** To change the name/location of a saved file, click on *File* → *Save as*.
- **Print:** To print out a table with the configured parameters, click on *File* → *Print*.
- **Exit:** To close DEIF Smart Connect, click on *File* → *Exit*.

Shortcut icons for *New*, *Open*, *Save*, *Print*, *Read* and *Write*  is shown on the screen. They can be used for easy access to these functions.

4. The Tools menu

4.1 Tools menu options

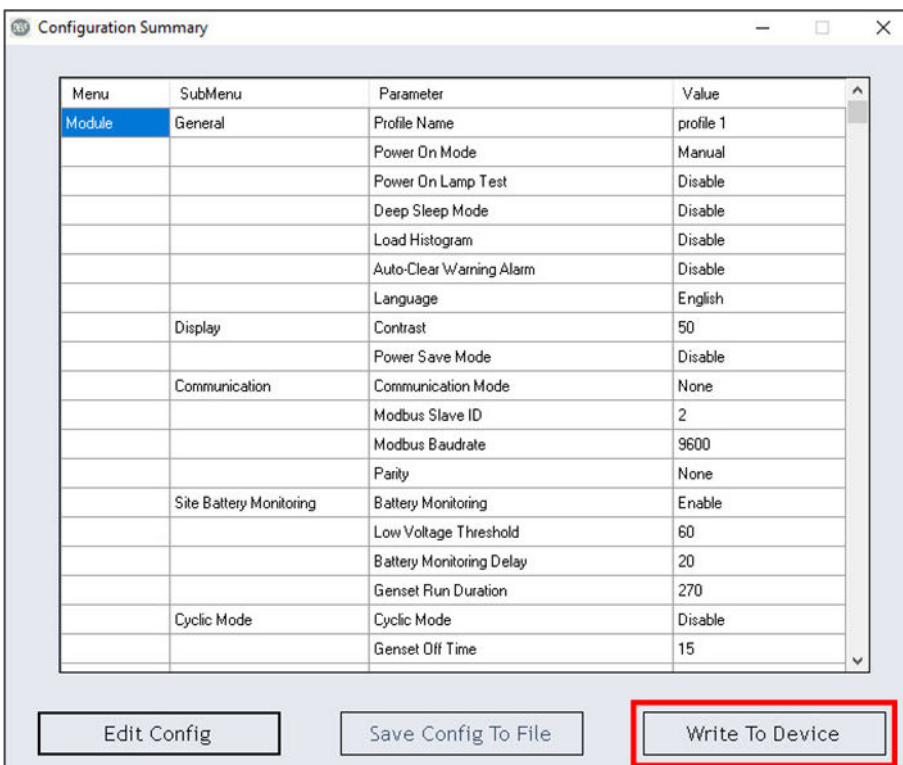
With DEIF Smart Connect a set of actions can be made in addition to editing and saving the configurations. These actions are found in *Tools* menu, and are enabled when an active connection with a controller is detected.



- **Write config to device:** To write the configuration to the controller, click on *Tools* → *Write config to device*.
- **Read config to device:** To read the configuration from the controller, click on *Tools* → *Read config to device*.
- **Read event log from device:** To display and read the event logs from the controller, click on *Tools* → *Read event log from device*.
- **Set date and time on device:** To update date and time in the controller to the system's date and time, click on *Tools* → *Set date and time on device*.
- **Show device info:** To details about the controller, the software and more, click on *Tools* → *Show device info*.
- **Update factory profiles:** To update the controller's factory profile, click on *Tools* → *Update factory profile*.

4.2 Write config to device

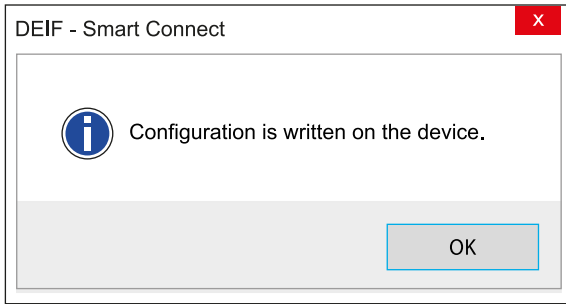
When selecting *Write config to device*, a pop-up window is shown with the existing parameter values.



- Click on *Edit Config* to change any parameter value.

- Click on *Save Config To File* to save the changes.
- When all changes have been made, click on *Write To Device* to send the new parameter values to the controller.

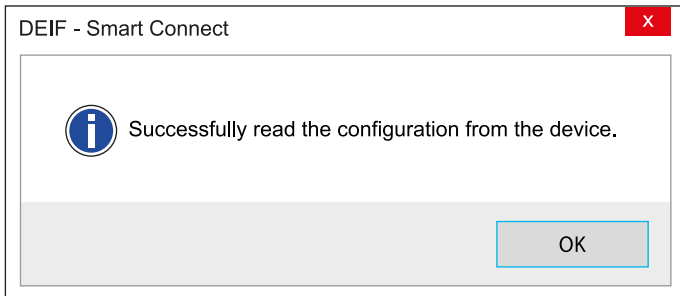
When the writing process is completed, a confirmation window is shown.



4.3 Read config from device

When selecting *Read config from device*, the existing controller configuration is imported to DEIF Smart Connect.

When the reading process is completed, a confirmation window is shown.



4.4 Read event log from device

Select *Read event log from device* to display the event log from the connected controller.

The event log shows the last 100 events (for example, engine start, engine stop, actuator failure, and more), including informations like engine run hours, date and time .

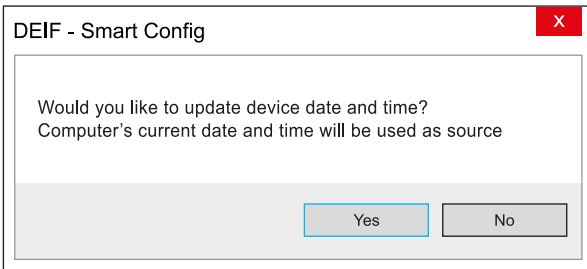
A screenshot of the "Event Log" window. It displays a table with the following columns: Sr. No., Event Description, Event Type, Event Date and Time, Event Engine Hours, Event Engine Speed, Event Total KW, and Event Oil Pressure. The table contains 17 rows of data. At the bottom of the window, there is a button labeled "Save As PDF".

Sr. No.	Event Description	Event Type	Event Date and Time	Event Engine Hours	Event Engine Speed	Event Total KW	Event Oil Pressure
1	Aux_N	Notification	24-03-2020 08:05:20	0 hrs 8 min	0 RPM	0,1 Kw	NA
2	Aux_M	Notification	24-03-2020 07:31:03	0 hrs 8 min	0 RPM	0,1 Kw	NA
3	Aux_L	Notification	24-03-2020 07:31:03	0 hrs 8 min	0 RPM	0,1 Kw	NA
4	Aux_K	Notification	24-03-2020 07:31:03	0 hrs 8 min	0 RPM	0,1 Kw	NA
5	Aux_J	Notification	24-03-2020 07:31:03	0 hrs 8 min	0 RPM	0,1 Kw	NA
6	Aux_M	Notification	24-03-2020 07:30:45	0 hrs 8 min	0 RPM	0,1 Kw	NA
7	Aux_L	Notification	24-03-2020 07:30:45	0 hrs 8 min	0 RPM	0,1 Kw	NA
8	Aux_K	Notification	24-03-2020 07:30:45	0 hrs 8 min	0 RPM	0,1 Kw	NA
9	Aux_J	Notification	24-03-2020 07:30:45	0 hrs 8 min	0 RPM	0,1 Kw	NA
10	Aux_N	Notification	23-03-2020 15:30:48	0 hrs 8 min	0 RPM	0 Kw	NA
11	Aux_N	Notification	23-03-2020 15:30:34	0 hrs 8 min	0 RPM	0 Kw	NA
12	Aux_N	Notification	23-03-2020 15:30:26	0 hrs 8 min	0 RPM	0 Kw	NA
13	Aux_N	Notification	23-03-2020 15:30:04	0 hrs 8 min	0 RPM	0 Kw	NA
14	Aux_N	Notification	23-03-2020 15:29:30	0 hrs 8 min	0 RPM	0 Kw	NA
15	Aux_N	Notification	23-03-2020 15:28:35	0 hrs 8 min	0 RPM	0 Kw	NA
16	Aux_N	Notification	23-03-2020 15:16:45	0 hrs 8 min	0 RPM	0 Kw	NA
17	Aux_P	Notification	23-03-2020 07:39:37	0 hrs 8 min	0 RPM	0,1 Kw	NA

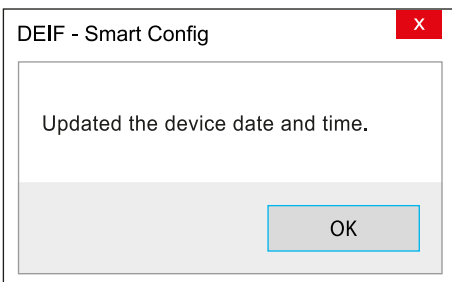
To save the event log in PDF format, click on *Save As PDF*.

4.5 Set date and time on device

Select *Set date and time on device* to synchronise the controller's date and time with your PC. Make sure that the date and time of your computer system are correct, before you start to synchronise.





When the synchronisation process is completed, a confirmation window is shown.

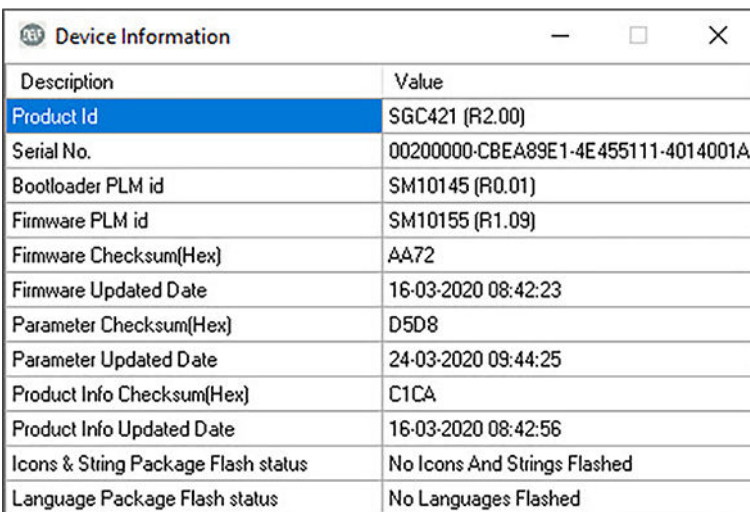


4.6 Show device info

Select *Show device info* to see information about the product, software and other details in the controller.

The controller must be in *Programming Mode* to be able to show device info. Press the buttons *Stop/Config*  and *Up*  simultaneously for at least three seconds to set the controller in *Programming mode* (see **2.3 Installing the USB driver**).

The device info is shown in a pop-up window.



Description	Value
Product Id	SGC421 (R2.00)
Serial No.	00200000-CBEA89E1-4E455111-4014001A
Bootloader PLM id	SM10145 (R0.01)
Firmware PLM id	SM10155 (R1.09)
Firmware Checksum(Hex)	A472
Firmware Updated Date	16-03-2020 08:42:23
Parameter Checksum(Hex)	D5D8
Parameter Updated Date	24-03-2020 09:44:25
Product Info Checksum(Hex)	C1CA
Product Info Updated Date	16-03-2020 08:42:56
Icons & String Package Flash status	No Icons And Strings Flashed
Language Package Flash status	No Languages Flashed

4.7 Update factory profiles

With *Update factory profile* you can update, configure or modify all profiles stored in a controller.

Select the Files that you want to update at the respective profile number

Profile number	File Name		
1	F:\DEIF\ConfigurationFiles\SGC120\	Browse	Clear
2	F:\DEIF\ConfigurationFiles\SGC120\	Browse	Clear
3	F:\DEIF\ConfigurationFiles\SGC120\	Browse	Clear
4		Browse	Clear
5		Browse	Clear
6		Browse	Clear
7		Browse	Clear
8		Browse	Clear
9		Browse	Clear
10		Browse	Clear

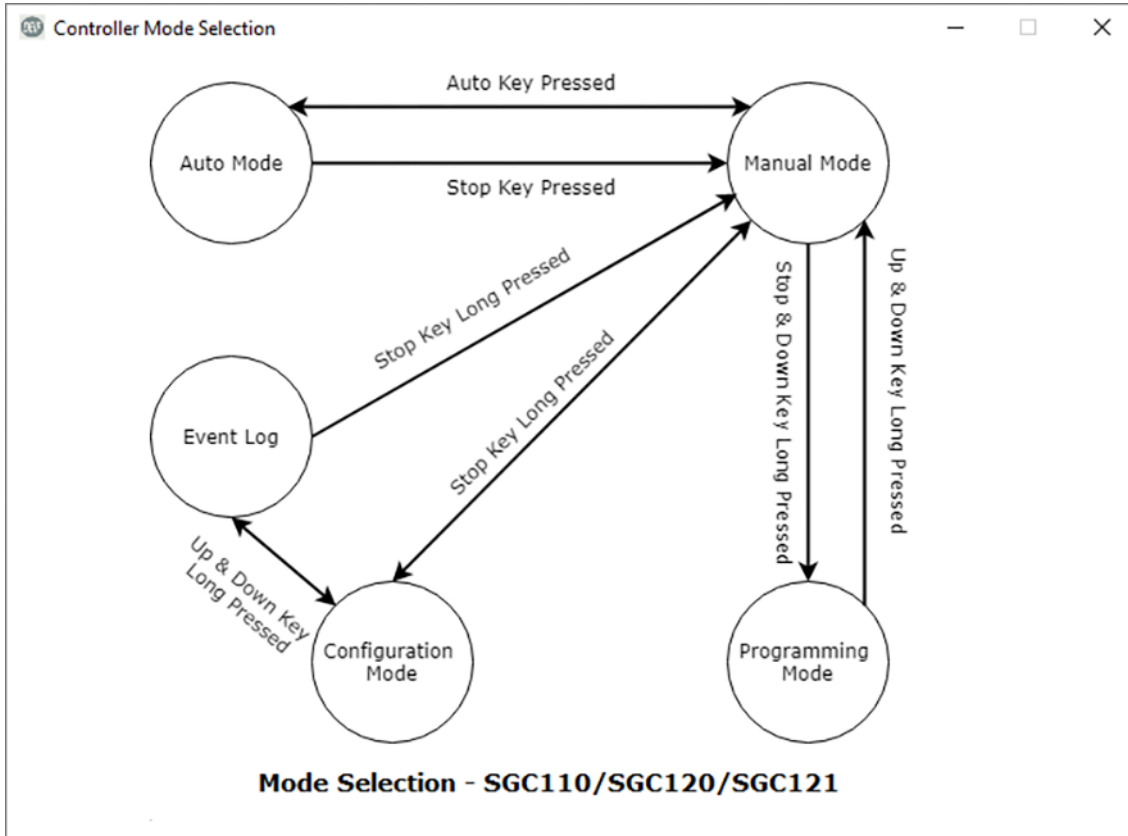
Update Factory Profiles

5. The Help menu

5.1 Mode selection

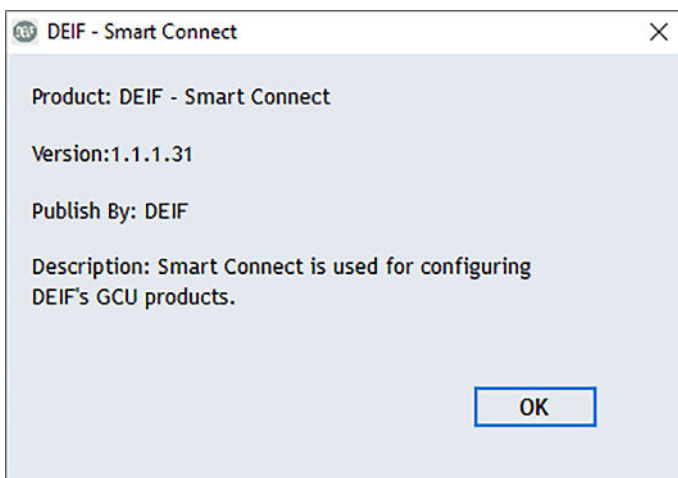
When selecting *Mode selection*, a diagram over the controller modes and how to configure the modes is shown.

The Mode selection diagram is dependent on the chosen controller. This example, shows the diagram for SGC 121.



5.2 About

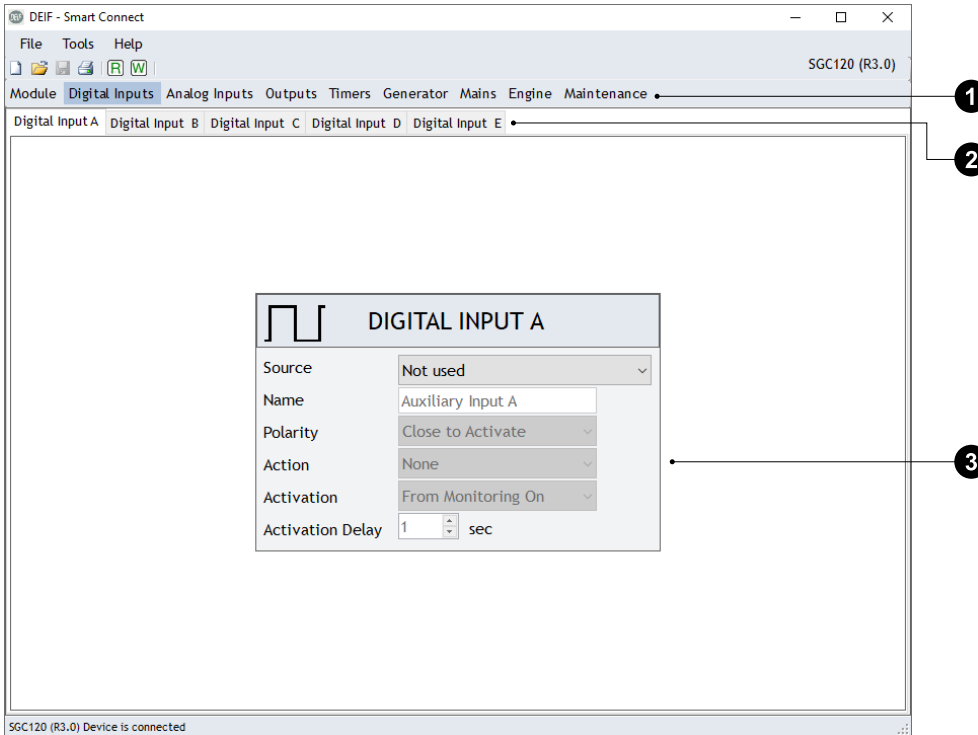
When selecting *About*, a pop-up window with information on the present version of DEIF Smart Connect is shown.



6. Configurable parameters

Many controller parameters (for example, *Digital Inputs*, *Outputs*, *Generator*, *Mains*, *Rotary Actuator*, and more) can be configured by the user to apply to a specific application.

The parameters comes in three levels:



1. Parameter groups: Each parameter group has its own set of Level 1 parameters.
2. Level 1 parameters: Choose a parameter for configuration.
3. Level 2 parameters: Configure the parameter values.

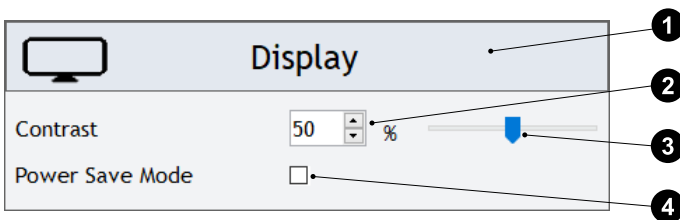


More information

See **Configuration mode, Configurable parameters** in the specific controller user manual for more information about parameters and levels.









Example: Configure a parameter

The options in the Level 2 configuration screen changes with the parameter. This example shows the configuration options for the parameter **Module > Display**:



1. Level 2 parameter configuration window.
2. Increase/decrease parameter value with the arrows.
3. Increase/decrease parameter value with the slider.
4. Check box to enable/disable the parameter.

7. Troubleshooting

Fault	Solution
The USB driver is not detected.	Re-install the USB driver, see 2.3 Installing the USB driver .
Read  and Write  icons are not shown.	Ensure that the controller is in <i>Programming Mode</i> . To enter <i>Programming Mode</i> , see 5.2 Mode selection .
No options       are shown.	Ensure that the right controller name and software version is selected in the start-up screen.
Message: <i>Error in reading the configuration from the device. Please try again.</i>	Disconnect the USB cable, then reconnect the cable.
Message: <i>Cannot communicate with the device. Try re-inserting the USB.</i>	
Message: <i>The selected Product is not compatible with the device detected. Do you wish to continue?</i>	See 3.1 Starting with DEIF Smart Config .

8. Legal information

Warranty



WARNING

The controller is not to be opened by unauthorised personnel. If the controller is opened anyway, the warranty will be lost.

Disclaimer

DEIF takes no responsibility for installation or operation of the generator set. If there is any doubt about how to install or operate the engine/generator controlled by the SGC controller, the company responsible for the installation or the operation of the set must be contacted.

DEIF A/S reserves the right to change any of the contents of this document without prior notice.

The English version of this document always contains the most recent and up-to-date information about the product. DEIF does not take responsibility for the accuracy of translations, and translations might not be updated at the same time as the English document. If there is a discrepancy, the English version prevails.

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