Firmware Download Tool

KNX devices can be updated using the Firmware Download Tool. The download takes place over the KNX bus. It is possible to use a KNXnet/IP interface or an USB interface (see 4. Notes).
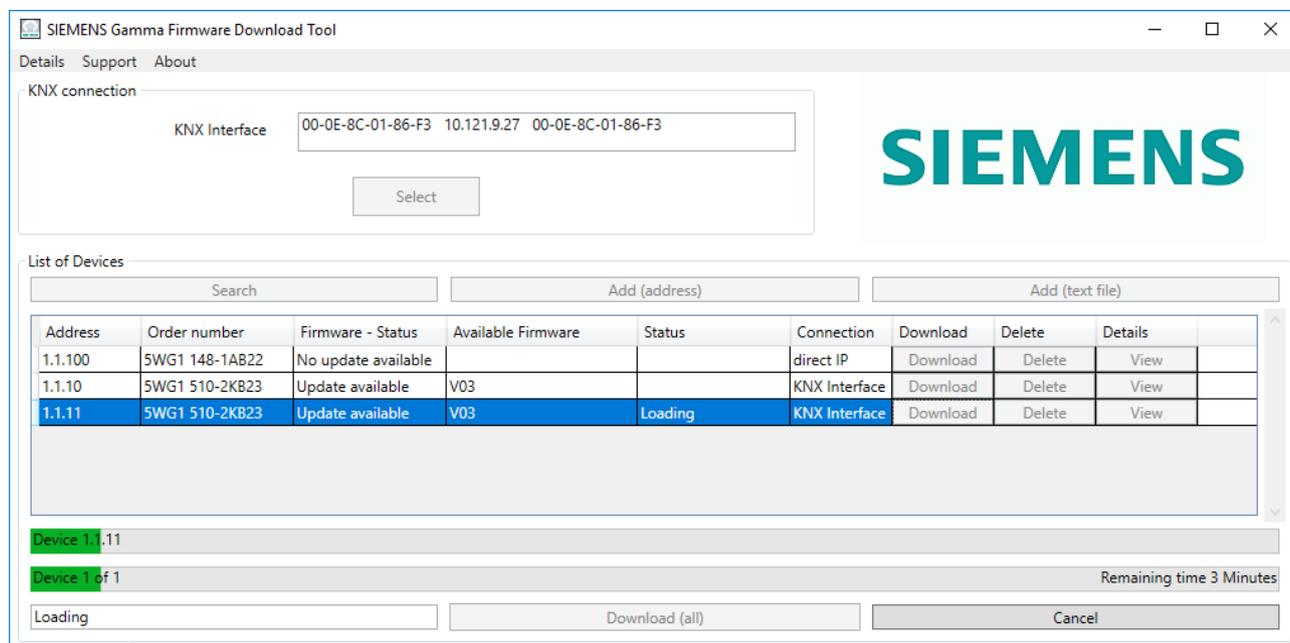
⚠ **NOTE**

WHILE THE UPDATE IS DOWNLOADING TO KNX DEVICES, THE KNX DEVICE IS NOT FUNCTIONAL. THIS IS WHY IT IS ESSENTIAL, <u>BEFORE BEGINNING</u> THE DOWNLOAD PROCESS, THAT YOU ENSURE THE FUNCTIONS CONTROLLED BY THE DEVICE CANNOT BE USED DURING THE DOWNLOAD PROCESS.

- During download a permanent connection to the device is required
- Parallel programming with ETS is not allowed
- High KNX bus load slow down the download

If the download process has not been completed successfully, or has been suspended, it must be repeated, because the KNX device will not work properly.
If a download fails the compatibility mode can be enabled via menu "Support".
If a download fails many a time, please contact Siemens Support immediately on the numbers given below.
(see Chap. 5).

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Update: http://www.siemens.com/gamma-td

Firmware Download Tool

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1. Applications

The Firmware Download Tool ("SOFTWARE") can update various KNX devices.
You can view the precise types in the dialogue "Details – Available Firmware Updates"
or in the internet http://www.siemens.com/gamma-fdt.

2. System requirements

The software (FDT) requires Windows 7 or higher, .NET Framework 4.5 and .NET Framework 3.5.
In the case of OS Windows 8 and Windows 10 .NET Framework 3.5 is not active as default.
The activation is carried out manually in the Windows Features.
Subsequently, the .NET Framework 3.5 installed automatically via Windows Update.

3. Usage

During the installation the Licence agreement has to be confirmed. Therefore the licence text has to be red and scrolled
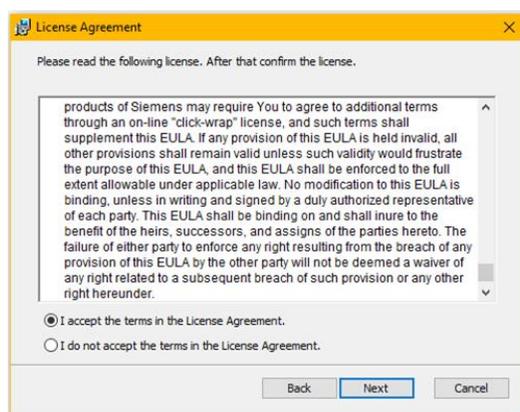down completely.

Fig. 1 Dialogue licence agreement

After a successful installation the software can be launched via the Start menu
START – Siemens – Firmware Download Tool – Firmware Download Tool

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Firmware Download Tool

Menu bar

Select
KNX Interface

List of all devices
for a update

Progress bar with
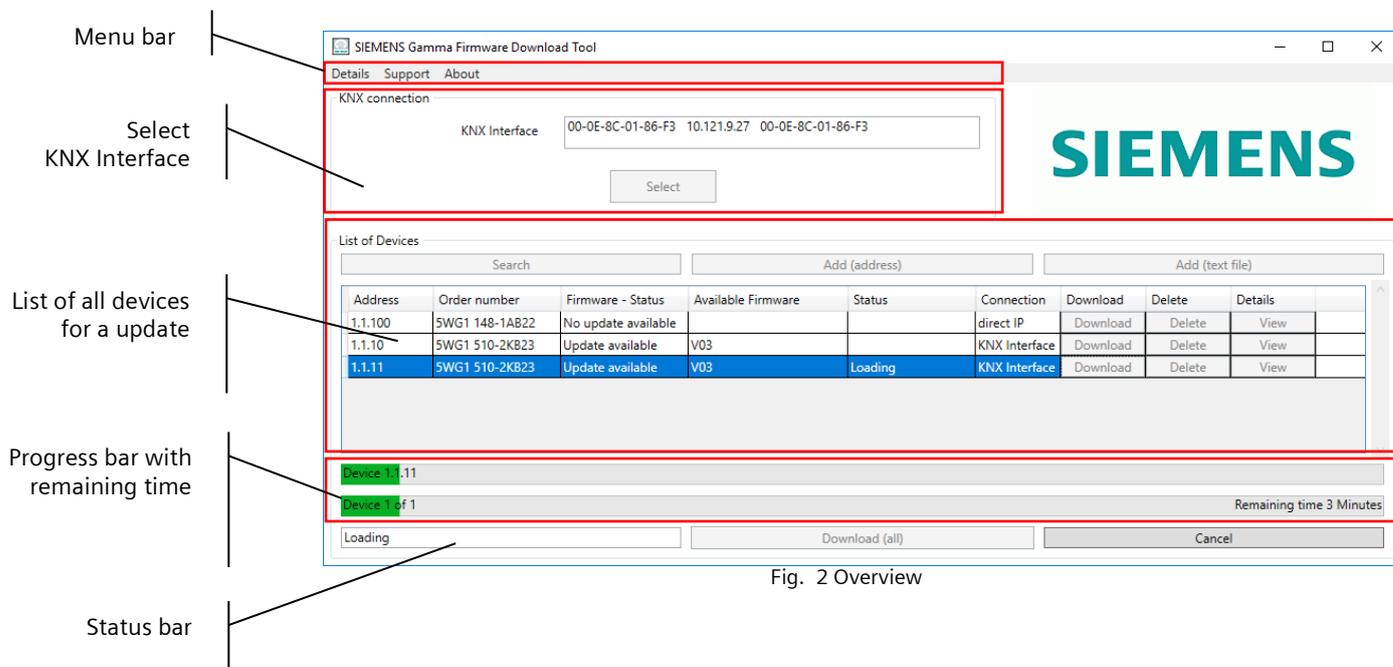remaining time

Status bar

Fig. 2 Overview

Additional to the software the Software Manger will be installed optionally, which checks for new versions, if a internet connection is available.
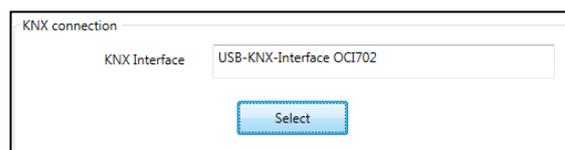
Menu bar

Menu title	Submenu	Description
Details	Available Firmware Updates	Lists all available firmware updates
	Device properties	Shows additional information about the selected device.
Support	Support info	Shows additional information for diagnostics for the support team.
	Identify all devices	Checks selected device manually for updates.
	Open external images directory	Into this directory the user can copy single firmware files, which are offered by support team. After a restart of the software these firmware updates are additional available.
	Compatibility mode (use short messages)	This option can solve problems when loading a device. The download time increases to twice as only short telegrams are used.
About		Shows current version, licence texts and link to documentation.

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Firmware Download Tool

Select KNX interface

The connection to KNX works with USB- or IP-Interface.

In the area „KNX connection" the KNX interface can be selected. The current used interface is displayed. With „Select" all available KNX interfaces will be searched and displayed.

The search process can be repeated with "Search" button.
Select the matching KNX interface with double click or click at a line and use the "Select" button.
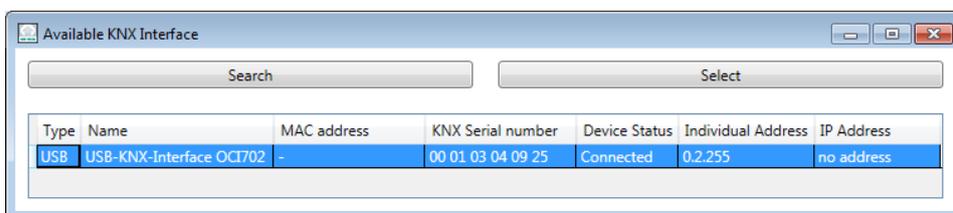
Fig. 3 Dialogue KNX interface

The software supports USB and KNXnet/IP interfaces (see 4. Notes).

Device list

Within the device list all recognized and manually edited devices are listed, which should be updated. There are three methods to add additional devices.

1) Search KNX devices

With the „Search" button all KNX devices will be added, which are in programming mode.

2) Add devices with physical address

With the button „Add (address)" an additional device can be added by entering the relevant physical address of a known device.

3) Add devices via text file

With the button „Add (text file)" additional devices can be added by a text file containing all physical addresses in lines.

The txt file is a list of devices. In the file all physical addresses are listed line by line.
e.g.
1.1.32
1.1.44

Firmware Download Tool

Fields of device list

Name	Example	Description
Address	1.1.2	Physical address
Order number	5WG1 220-2DB31	Order number of the device
Firmware - Status		Update available: device can be updated with a new firmware.
		Up-to-date: Device contains already the latest firmware. This can be reloaded again.
		No update available: there is no firmware available.
Available Firmware	V03	The firmware version will be displayed, if available.
Status		Pending: device is queued for loading .
		Loading: device is loading.
		Done: device was successfully loaded.
		Cancelled by user: download was cancelled by user.
		Failure: there was an error during downloading.
Connection	KNX interface Or Direct IP	KNX interface: Device can be downloaded via the selected KNX interface only. Direct IP: Device can be downloaded faster by a direct IP connection.
Download		Starts download for this device. The button „Download (all)" in the status bar starts downloading all devices of the device list.
Delete		Deletes line (device) in the device list.
Details		Shows device features.

Progress bar

The progress bar shows the current status of updating the devices for the current device and of all devices.

Fig. 4 Progress bar

Additional the remaining time is displayed.

Status bar

The status bar shows the current step of the update process.
The button „Download (all)" starts loading all devices in the device list
The button „Cancel" stops current processes.

Fig. 5 Status bar

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Firmware Download Tool

4. Notes

- Supported interfaces:
    - USB interface N 148/ 12   5WG1148-1AB12
    - Interface OCI702 USB   S55800-Y101
    - IP Interface N 148/22 5WG1148-1AB22
    - IP Router N 146/02 5WG1146-1AB02
    - IP Interface Secure N 148/23 – 5WG1148-1AB23
    - IP Router Secure N 146/03 – 5WG1146-1AB03

- The application program hast o be downloaded again with ETS after a successful update of the firmware. (The physical address remains).

- The typical duration of an update with a KNXnet/IP interface:
    - RL 521/23:   ~ 3 min.
    - N 141/31:   ~ 23 min.
    - UP 258D12: ~ 3 min.
    - UP 258E22: ~ 6 min.
    - N 53xDx1: ~ 12 min.
    - N 554D31: ~ ca. 12 min.

- The typical duration of an update via direct IP connection:
    - N 146/03:   ~ 1 min.

- The software can be started several times on a PC. Downloads can be started parallel. With this parallel download, the devices must be in different lines. If a download is executed for a device in a line, this line cannot be used to download another device.

- The software can be set to Compatibility Mode via the Support menu. This only sends shorter telegrams. This can help with download problems in the KNX network, if the download aborts.

    Important for IP Secure Devices:
- It's only possible to use the Firmware Download Tool with IP Secure Interface, it the Device has been commissioned without KNX IP Secure Interface. Otherwise the parameterized IP Secure Interface has to be marked in the ETS at the section "Topology" or "Devices" and set the 'Secure commissioning option" to "Deactivated" in the "Properties" are of the Setting tab. Alternatively reset the device to factory settings (press the Learn button at leas for 20 seconds) to use it as an IP Secure Interface.

5. Service

For any technical questions, please consult:

Technical Support

☏   +49 (911) 895-7222
🖷   +49 (911) 895-7223
✉   support.automation@siemens.com

http://www.siemens.com/automation/support-request

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