



enertexbayern gmbh
simulation entwicklung consulting

Manual

Enertex® KNX Update

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General

The tool "Enertex KNX-Update" features update-ing the firmware of Enertex KNX devices. For routers, interfaces and couplers update is only possible in manual mode because updates are often accompanied by a reset to factory settings and require a reconfiguration of the connection.

Requirements

- PC with Microsoft Windows 7 or higher
- ETS software and your project file
- KNX interface (LAN or USB)
- For automatic mode: Internet connection

No additional driver(s) needed. All libraries needed, are published in the downloaded archive. Please do not change the directory tree.

General notes

- **The tool (*.exe) cannot be started multiple times. Please also do not run the program on multiple computers at the same time to run updates in parallel. Parallel operation is not possible because it could negatively affect the update process and damage your devices!**
- **Please note that you must retransmit your ETS application after the update. Do not transmit any updates, if you don't own the ETS software and your corresponding project!**
- When using a high resolution monitor and Windows 10 avoid using a scaling factor greater than 200%. Otherwise the UpdateTool's user interface could be displayed incorrectly.
- The error notification „Not able to read property 25 from device“ can be ignored. Property 25 is the VERSION-Property, which has been not implemented in early firmware versions of some Enertex devices. The stack model of the KNX TP Secure Coupler does not support this property. In this case you have to verify the FW version in the device display.
- The error notification „Not able to read property 12 from device“ occurs during linescan in automatic mode if a device is accessible but has not implemented the manufacturer property (12). You can also ignore this because this will not affect any Enertex devices.
- If BCU (German: „BAU“) password in use: Ensure to delete it before update process -

otherwise it will fail.

KNX Secure

If the bus interface and/or another device to be updated is operated in secure mode, you have to follow these steps before updating (same for manual and automatic mode):

1. In ETS (5.7.4 or higher required!):
 1. Export Keyring of the **whole project** in ETS from your project settings tab „Security“

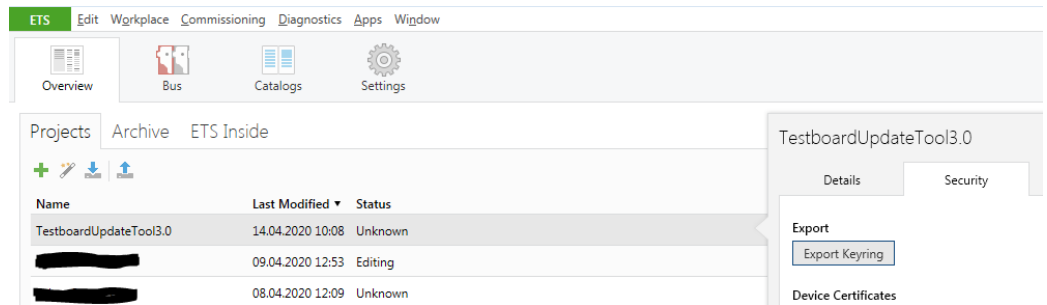


Figure 1: Project settings with button „Export Keyring“

2. Set a password during keyring export
2. In the firmware update tool enable the secure settings by checking the appropriate checkbox on top of the window and then
 1. Import the keyring file using the button 'knxkeys file'
 2. Enter the previously assigned password behind „Keyring password:“
 3. Enter the tunnel address to be used

Troubleshooting USB Interface

In case of problems with connecting via a USB interface, please check these advices of the KNX association for troubleshooting: <https://support.knx.org/hc/en-us/articles/115001443670-KNX-USB-interface-not-recognized>

Support

If you have problems with the update tool or the update process please contact support@enertex.de . Please attach the latest log file from the sub-folder 'log' to your email.

Manual Mode

General procedure

- Download the latest firmware update file for the device from our homepage: <http://enertex.de/e-downloads01.php>
- Connect the KNX interface to the PC (Ethernet or USB) and to the KNX bus
- Set up the individual address of the KNX device to be updated
- Click button 'Update File' and select the appropriate update file
- Click button 'Transmit' and choose the KNX connection. Note: Even if further options are displayed, only the connection types 'KnxIpTunneling' and 'USB' are supported.
- The update process will start immediately. Please observe the messages displayed be-

low the progress bar.

Expert Options

In very few cases it may be necessary to make adjustments to the default transmission settings. Change these settings only after consultation with Enertex Support (support@enertex.de) or, if you know what you are doing!

Options:

- Transmission Mode
 - Normal Mode (connection-orientated UserMemoryWrite)
 - Fast Mode (connectionless ExtendedMemoryWrite) (default)
- APDU length (default=55)
- Unloading device before update (highly recommended for most updates! Works only for mask version 0705; parameter ignored for other masks)
- Read/Write Retries when Transmission Error (default=3)

Automatic Mode

General procedure and notes

The automatic mode allows several firmware updates to be performed automatically one after the other after an initial configuration and selection of the devices to be updated.

Notes:

- For the automatic mode, an Internet connection is required, because the latest firmware versions are downloaded from the Enertex servers during the line scan.
- Enertex routers, interfaces and couplers cannot be updated in automatic mode, because updates are often accompanied by a reset to factory settings and require a reconfiguration of the connection.
- Expert settings are only available in manual mode.

At first the selected lines are scanned for Enertex devices and the firmware versions running on the devices are compared with the updates available online.

In addition to the firmware files, the corresponding changelogs are also downloaded. These can be viewed within the update tool to help you to decide easily whether to install an update or not.

To update devices in automatic mode please follow these steps (for details have a look at the following chapters):

1. Scan line for Enertex devices
2. Choose updates to instal
3. Transmit updates
4. Re-download applications using ETS

Line scan

Add one or more lines to the line scan list. If you don't want to scan a whole line but online a part of it you can set limits. It's recommended to use this function, because otherwise the line scan would take more time.

You can remove a line from the „scan-list“ by selecting it and clicking 'Remove selected line(s)'.

In the following example the following line sections are scanned for Enertex devices after clicking the button 'Scan line(s)':

- 1.0.10 – 1.0.100
- 1.1.10 – 1.1.50
- 1.1.100 – 1.1.110

Figure 2: Example line scan

You can abort a running line scan by clicking 'Abort scan'.

Update selection and changelogs

After line scan completed all Enertex devices found are shown in a table with running and available firmware version. You can sort this table by the column you want by clicking the column header.

	Instal update	Address	Product name	Order number	Device version	Available version	Load state	Status	Transmission progress	Installation progress
▶	<input checked="" type="checkbox"/>	0.1.73	Smartmeter	1149	1.010	1.010	loaded	up-to-date		
	<input type="checkbox"/>	0.1.75	LED-Dimmer	1160	1.049	1.049	loaded	up-to-date		
	<input type="checkbox"/>	0.1.77	PowerSupply960...	1152	2.011	2.012	loaded	update available		
	<input type="checkbox"/>	0.1.78	MeTa	1157	1.040	1.040	loaded	up-to-date		
	<input type="checkbox"/>	0.1.79	SynOhr	1144	N/A	2.005	loaded	auto-check failed		
	<input type="checkbox"/>	0.1.80	MeTa	1157	1.040	1.040	loaded	up-to-date		
	<input type="checkbox"/>	0.1.81	MeTa	1157	1.037	1.040	loaded	update available		

Figure 3: Device overview

The 'Status' column shows if a device is up-to-date or not:

- up-to-date: The firmware running on the device is the latest released version
- update available: The firmware running on the device is older than the latest released version
- beta running: The firmware running on the device is newer than the latest released version. This may occur if you've manually installed a beta firmware.
- auto-check failed: This may occur if the device is running a firmware that has not implemented the version property yet (Device version: N/A)

Please check or uncheck the „Instal update“ checkbox in the first column, depending on whether the update should be installed or not.

You can select and read the changelogs for all devices found during line scan.

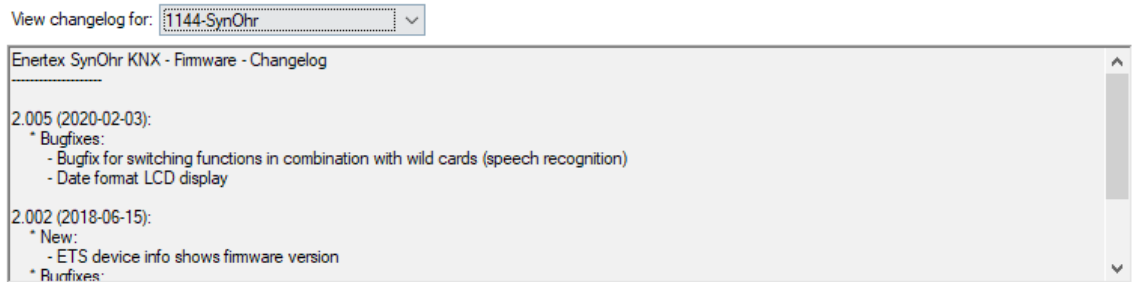


Figure 4: Integrated changelog viewer

Update transmission

When you have selected all the updates you want to instal and deselected all the updates you want not to instal, you can start the update process by clicking the button 'Update selected devices'.

During operation the columns 'Status', 'Transmission progress' and 'Installation progress' show progress information.

You can abort a running transmission by clicking 'Abort update transmission'. This also stops all pending updates.

Re-downloading applications in ETS

As already indicated at the beginning, all applications must be re-downloaded by using ETS after update installations.

By clicking 'Re-scan device versions' you can refresh all device versions in the list to check if updates successfully installed.

By clicking 'Re-scan load states' you can refresh the load states of all devices to check if you've already re-downloaded the application with ETS.

Changelog of manual

Version 1 (2018-09-17)	<ul style="list-style-type: none"> • Initial Version
Version 2 (2018-09-20)	<ul style="list-style-type: none"> • New expert option: Read/Write Retries
Version 3 (2018-11-20)	<ul style="list-style-type: none"> • Added support for Enertex KNX IP Secure Router and Interface
Version 4 (2018-11-20)	<ul style="list-style-type: none"> • Added support for Enertex KNX TP Secure Coupler • Additional note regarding connection types
Version 5 (2020-04-14)	<ul style="list-style-type: none"> • Complete revision due to major release 3.000 with new automatic mode and KNX secure functionality
Version 6 (2020-04-24)	<ul style="list-style-type: none"> • Minor changes for better understanding
Version 7 (2020-04-30)	<ul style="list-style-type: none"> • Additional notes for high-resolution displays • Additional notes for KNX Secure