

1 SIM-KNX FAQs

1.1 STARTING WITH SIM-KNX

1.1.1 WHAT KNOWLEDGE DO I NEED TO START WITH SIM-KNX.

It's very helpful, that you know KNX from the installer side. This means you know the principals of KNX, the general installation tool ETS. This knowledge is also required to define your product.

It's not necessary that you know the protocol and detailed knowledge about KNX.

1.1.2 CAN I USE SIM-KNX WITHOUT KNX CONNECTION?

No. SIM-KNX is powered from KNX. So it needs the connection to KNX to work.

1.1.3 WHICH TOOLS ARE REQUIRED TO BUILD DEVICES WITH SIM-KNX?

No specific tools are required.

We recommend to use the ETS – so you have the same possibilities as your customer, the installer:

- changing parameters
- monitor telegrams
- ...

If you want to develop the database entry on your own, you need the manufacturer extension of ETS.

1.1.4 WHAT DO I NEED TO START WITH SIM-KNX?

1. SIM-KNX / SIM-KNX Eval-board
2. A device to communicate via the serial interface of SIM-KNX.
This may be a PC with a terminal program or a microcontroller.
3. A small KNX system.
You need a device which reacts on and creates KNX-telegrams. This may be any KNX-device or another SIM-KNX.
Opternus (www.opternus.de) offers a starter kit containing power supply, input, output and interface to the ETS via USB.
4. We recommend to use ETS with an KNX interface to monitor the telegrams on the bus and to configure other KNX devices.

1.1.5 WHERE CAN I GET AN INTRODUCTION TO KNX?

You will find information about KNX on the following web-sites:

- www.konnex.org
In the download area you will find information like:
 - KNX – principles of technology (English and German)
 - KNX System architecture
 - Silver bible
- www.eib-home.de
one of the biggest link page for KNX (in German)
- of the national KNX groups

You will also find introductions in printed form.

On our CD – delivered with our evaluation kit – you will find also introductions to KNX.

1.1.6 HOW CAN I FIND THE CORRECT DATAPOINT TYPE (DPT)?

- The list of the defined DPT and their usage are maintained by Konnex Association.
- For the most common application the DPTs are listed in our documentation.

1.2 CONFIGURATION OF SIM-KNX

1.2.1 HOW CAN SIM-KNX BE CONFIGURED?

SIM-KNX can either be configured via serial interface or ETS (see “SIM-KNX and ETS”)

1.2.2 IS IT REQUIRED TO CONFIGURE SIM-KNX EACH TIME AFTER RESTART?

No. SIM-KNX stores the configuration in non-volatile memory.

1.2.3 IS IT NECESSARY TO CONFIGURE SIM-KNX VIA SERIAL INTERFACE, WHEN I WANT TO USE A ETS DATABASE ENTRY.

No. The complete configuration can be loaded via ETS

1.2.4 HOW ARE DEVICES CONFIGURED BY THE INSTALLER

Mainly the ETS is used by the installer to configure the KNX devices.

1.2.5 HOW CAN I FIND THE CORRECT CONFIGURATION STRING.

As a part of the demo application (Windows and Excel) there is a configuration manager included. Here you can select your requirements and the configuration manager calculates the configuration string.

The configuration manager is described in the documentation of the SIM-KNX evaluation kit (SIM-KNX_EVAL.pdf).

1.2.6 WHAT ARE THE MOST COMMON USED DPTs

- DPT1 “ Boolean”
This is used for switching on and off, enable ...
- DPT 5 “8-Bit unsigned value”
This is used for dimming (0-100%)
- DPT 9 “2-octet float value”
It is used for temperature in °C

1.3 CERTIFICATION / KNX MEMBERSHIP

1.3.1 WHAT ARE THE BENEFITS OF CERTIFICATION?

Certifying your product brings you the following benefits:

- You can use the EIB/KNX logo on your product.
- You can use the EIB/KNX logo in your advertisement.
- You can distribute the ETS database entry as product database.
- So you gain a higher acceptance on the market.

1.3.2 WHY IS THE SIM-KNX NOT CERTIFIED?

By definition, SIM-KNX is not a complete product.

It contains a certified communication system, which is also used in various other devices in high volumes.

Due to the KNX rules not only the communication, but also the interworking of the application is certified.

So also the used datapoint types are checked during certification. The usage of the correct datapoint type cannot be guaranteed by SIM-KNX. This is part of the application build on SIM-KNX.

1.3.3 WHAT IS NECESSARY IF I WANT TO CERTIFY A PRODUCT WITH SIM-KNX?

According to the KNX rules the following requirements have to be fulfilled:

- KNX membership
- Quality management system
- The product has to fulfil the KNX specification.

1.3.4 WHERE CAN I GET INFORMATION ABOUT KNX MEMBERSHIP AND KNX CERTIFICATION?

General information about KNX membership and KNX certification can either be found on the KNX website www.konnex.org, or can be required from the certification department at Konnex in Brussels.

1.4 INFORMATION ON KNX

1.4.1 WHERE CAN I GET FURTHER INFORMATION ON THE KNX-SYSTEM?

You can get further information from the Konnex Association in Brussels (www.konnex.org) or the national organisations (e.g. ZVEI in Germany www.knx.de)

1.5 SIM-KNX AND ETS

1.5.1 HOW CAN I USE SIM-KNX TOGETHER WITH ETS?

There are various possibilities to use SIM-KNX together with ETS.

The choice depends on the effort and certification state you want to reach with your product.

1. generic project database provided by TAPKO
2. specific project database provided by you
3. specific certified product database provided by you

If you decide to use one kind, you are not bound to it, but you can switch to another version anytime later.

1. Generic project database provided by TAPKO

This database entry contains the parameter to switch most of the settings / object types provided by SIM-KNX.

This generic database entry is provided by TAPKO as a project for ETS2/ETS3.

Advantages:

- no costs for database entry
- no certification required

Disadvantages:

- most complex database entry
- unspecified object names / strings
- high possibility for misconfiguration
- use of EIB/KNX logo not allowed
- not certified

This version should normally not be used for distribution to the end customer.

2. Specific project database provided by you

In this case a database entry with an adapted „product“ is supplied by you.

This product entry shows only the settings / communication objects which are available by your device.

As in the first case the database is distributed as a project database.

Advantages:

- database entry is adapted to your product.
- shows only the settings which are available for your device.
- lower costs , only for adapting database.
- no certification required

Disadvantages:

- use of EIB/KNX logo is not permitted
- no certified product

This version should be used, if you don't not want to certify your product.

3. Specific certified product database provided by you

Here you have a product as mentioned in 2, but you distribute a real product database like any custom made KNX-device.

Advantages:

- specific database
- certified product

- use of logo permitted

Disadvantages

- costs: due to certification and membership required

1.5.2 WHAT IS THE DIFFERENCE BETWEEN A PRODUCT DATABASE ENTRY AND PROJECT DATABASE?

- product database: contains only certified EIB/KNX products.

This is the normal way for manufacturers to distribute the KNX database for their products.

- project database :

Project databases are normally used to export / transfer project between ETS installations.

Project databases can (may) also contain uncertified products.

So this way can be used to distribute database entries for uncertified products.

1.5.3 ARE THERE DIFFERENCES TO BE REGARDED BY THE INSTALLER HANDLING PRODUCT / PROJECT DATABASES?

Yes, there are. Products in product databases can be selected via the product catalogue by choosing the manufacturer among further criteria.

With product databases the user opens the distributed project, selects the device and then copies it to his project.

1.5.4 WHAT TOOL DO I NEED TO CREATE A DATABASE ENTRY FOR ETS

To create a database entry for ETS, you need the manufacturer extension for ETS. It is available for members from the Konnex Association.

1.6 OTHER

1.6.1 WHO OFFERS SUPPORT FOR OUR DEVELOPMENT?

Of course we can support you in your development: one of our core businesses is support of KNX developments.