

How to proceed in case of an error

Device cannot be programmed

GPG BUILDING AUTOMATION

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Despite checking that the contents of this document are consistent with the current versions of the related hard and software of the products mentioned within, deviations cannot be completely excluded. We therefore assume no liability for correctness. Necessary corrections will be introduced as and when new versions of the document are generated.

Introduction

There is a variety of reasons why a device cannot be programmed.

This document outlines these along with their solutions.

Objectives of the document

- Provide system integrators with suggestions for structured, independent troubleshooting that they can work through step by step.
- Provide practical tips and tricks for technical support.

Content

1. Checking if you can program a different bus device on the same line

To narrow down the cause of the fault, you need to establish if other devices on the same line can be programmed. If they can't, there may be a problem with the interface or line coupler.

Interface: Check settings in ETS

Line coupler: Check connection terminals on main line and line (transposed?)
Disconnect the lines from the line coupler and check each one separately

2. Checking the bus voltage/auxiliary voltage on the affected device

When you press the programming button, the red programming LED on a KNX device should light up. If it doesn't, check the bus voltage and auxiliary voltage (if there is one) with a multimeter.

If there is an operating voltage but the red LED does not light up, you can assume the device has a fault.

3. Checking the physical address

If the programming LED lights up when you press the programming button, you can use the ETS diagnostics function to check the device's physical address. Go to "Diagnostics – Physical addresses – Programming mode" for a list of all devices currently in programming mode (Fig. 1). Only the required device should appear in the diagnostics function. If the physical address does not match the one displayed in ETS, you need to amend it in the project or assign the device a new address.

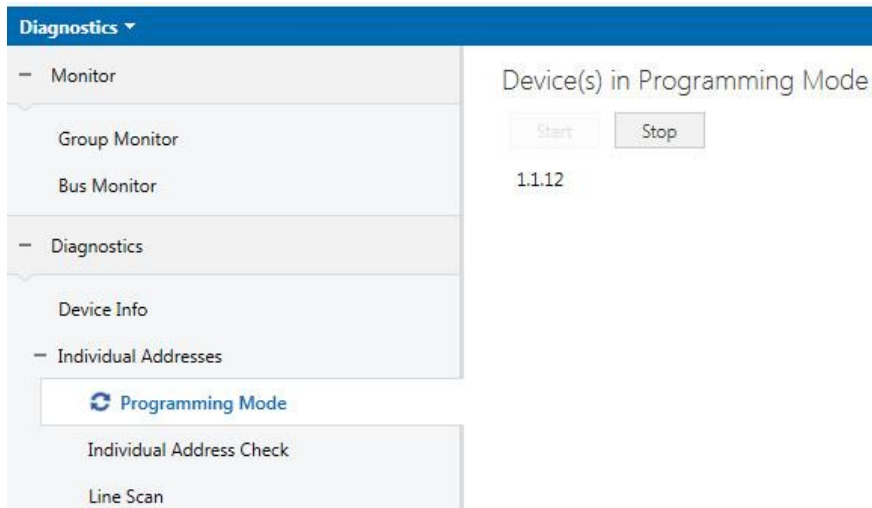


Fig. 1 ETS diagnostics, devices in programming mode

In addition, make sure that each physical address is unique. If there are two devices with the same physical address, one of them will not be programmable because the system can't identify it as unique. The "Line Scan" diagnostics function in ETS is designed to establish whether there are two devices with the same physical address on one KNX line.

4. Reading out the application version loaded on a KNX device

The application version currently loaded on a KNX device is indicated in the device's information.

To read this out, select the relevant device in the topology and right-click to access "Info" and then "Device Info" (Fig. 2).

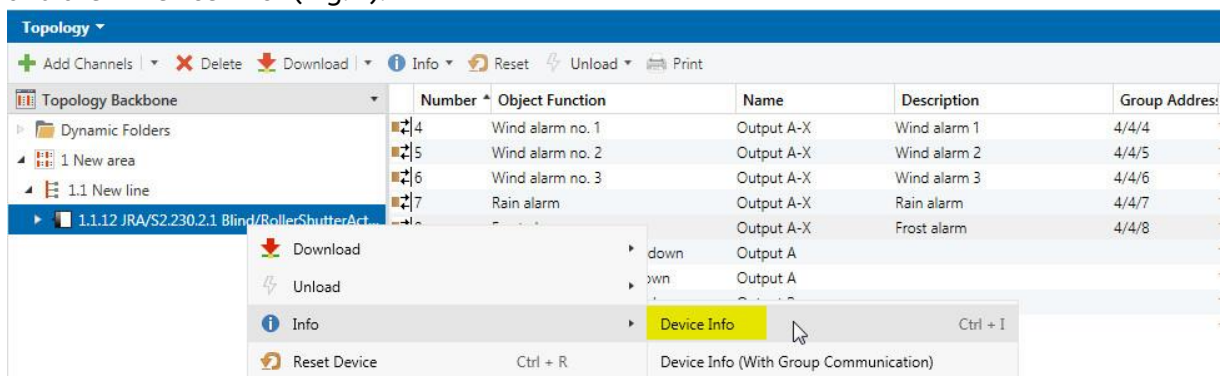


Fig. 2 ETS function, reading out device information

The screenshot below (Fig. 3) is an example of the device information for an ABB blind actuator.

Device Info of Device 1.1.12

General

Item	Value
Mask Version	0701
Individual Address	1.1.12
Serial Number	0002:7A6A2F51
Bus Voltage	29,8V (±0.5V)
Programming Mode	On

Application Program

Item	Value
Application program	ABB Blind/Roller Shutter 2f 230V M/1.4 V1.4
Load State	Loaded
Run State	Running

Fig. 3 Device information

In the device information, make sure the load state is “Loaded” and the run state of the application is “Running”.

Check the application version on the device to make sure it’s up to date (see section 5).

5. Checking that the application version is up to date

- Select the product on the [ABB i-bus KNX homepage](#)
- Open the product information and select the “Downloads” tab.
- In Downloads you will find all the available documents for the product, including software information and the latest application.

Detailed information for: JRA/S2.230.2.1

This page contains technical data sheet, documents library and links to offering related to this product. [Print...](#)
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Data Sheet **Downloads**

Downloads for Blind Actuators 230 V AC

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Document Type	Document Name	Summary	Language	Release Date	Size	Download Icon
EXE	Software (.EXE) [XX] ABB i-bus Tool	Summary: Version 1.9.37.0 ABB i-bus Tool supports system integrators during commissioning and service of KNX ... (Show more)	German, English, Spanish, French, Italian, Dutch, Polish, Russian	2019-02-25	23,33 MB	EXE
PDF	Software Information (.PDF) [EN] JRA/S x.x.x.1	Summary: No summary available	English	2018-07-26	0,02 MB	PDF
PDF	Product Manual (.PDF) [EN] JRA/S x.x.x.1	Summary: No summary available	English	2018-07-25	4,03 MB	PDF
ZIP	Selection table (.ZIP) [EN] Shading Control (InDesign file)	Summary: ABB i-bus KNX - Shading Control Product Selection Guide	English			ZIP

Fig. 4 Product page and downloads, JRA/S x.x.x.1

The application version is listed in device properties (Fig. 5).

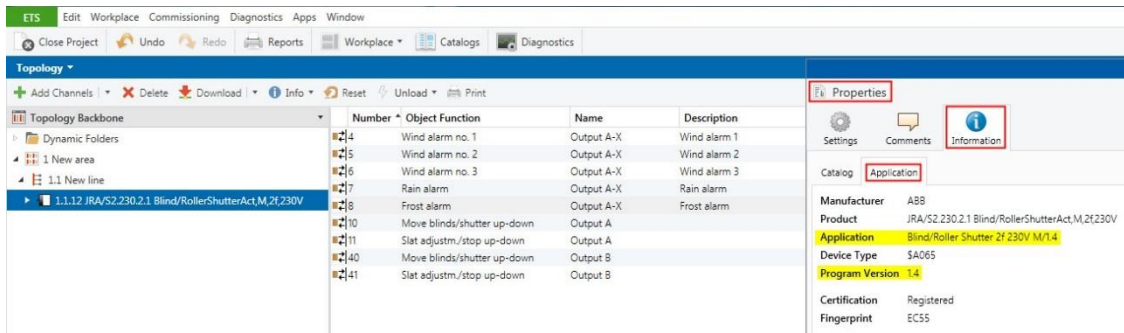
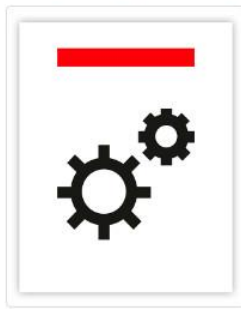


Fig. 5 Device properties, ABB JRA/S 2.230.2.1

Note:

To convert an application, you can use the “ABB Copy Convert” app.

[ABB Update Copy Convert by ABB Stotz-Kontakt GmbH](#)



This app provides a series of useful functions for device configuration (parameters and Group Addresses) in an ETS project.

The functions are:

Update: Changes the application program to a later or earlier version while retaining current configurations.

Convert: Transfers/adopts a configuration from an identical or compatible source device.

Channel Copy: Copies a channel configuration to other channels on a multichannel device.

Channel Exchange: Exchanges configurations between two channels on a multichannel device.

Import/Export: Saves and reads device configurations as external files.

[Show less](#)

Fig. 6 ETS app, Update Copy Convert

As well as the latest application, you should always make sure you have the latest version of ETS installed.

This is shown bottom right on the ETS launch page.

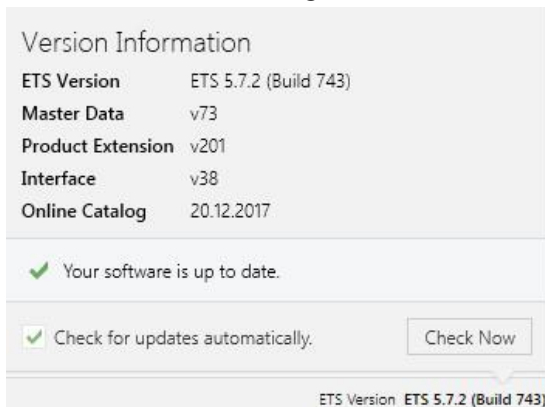


Fig. 7 ETS launch page, version information

6. Are you programming all the lines?

In the topology, if the KNX interface is not on the same line as the device you wish to program, you run the risk of entering the wrong settings in the coupler, which can lead to errors.

In such cases, it's advisable to put the interface on the same line as the device you wish to program so that you can locate fault sources through a process of elimination.

If you are able to program a device in this configuration (without coupler), check the line coupler and its settings.

7. Separating a device

You can now check whether only one device is faulty, or whether there is an underlying fault in the system as a whole, by using a "Lab setup".

A lab setup consists of a KNX power supply, a KNX interface and the device you wish to program.

If you are able to program the device in this configuration, you can rule out a device fault.

References to other documents

- [FAQ Home and Building Automation](#)
- [FAQ Reaction on error](#)
- [Engineering Guide Database](#)