EUCHNER

Software Manual

Transponder Coding 2 TC2

Application Software

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Contents

1. General notes

1.1. Use of the manual

This manual describes the function and use of the Transponder Coding 2 TC2 application software (order no. 8000151), version 1.X.X.X.

1.2. Requirement for the user

Proper use of the software requires knowledge about handling the Identification System CIS and/or the Electronic-Key-System EKS.

1.3. System requirements

Hardware:	Standard PC
Operating system:	Windows® 10, 32-bit
	Windows® 10, 64-bit

1.4. Use of brand names

Microsoft Windows® is a registered trademark of Microsoft Corporation.

2. General function of the application

The Transponder Coding 2 TC2 application software is used for reading and writing CIS data carriers or EKS Electronic-Keys on a standard PC. The software is used in conjunction with a read/write station with serial interface or USB interface.

The following transponders can be written:

System	Transponder
Identification System CIS	CIS3(A) with 16-byte read/write memory
	CIS3A-Mini with 116-byte read/write memory
	CIS3A-Mini with 5-byte read-only memory
Electronic-Key-System EKS	Electronic-Key with 116-byte read/write memory

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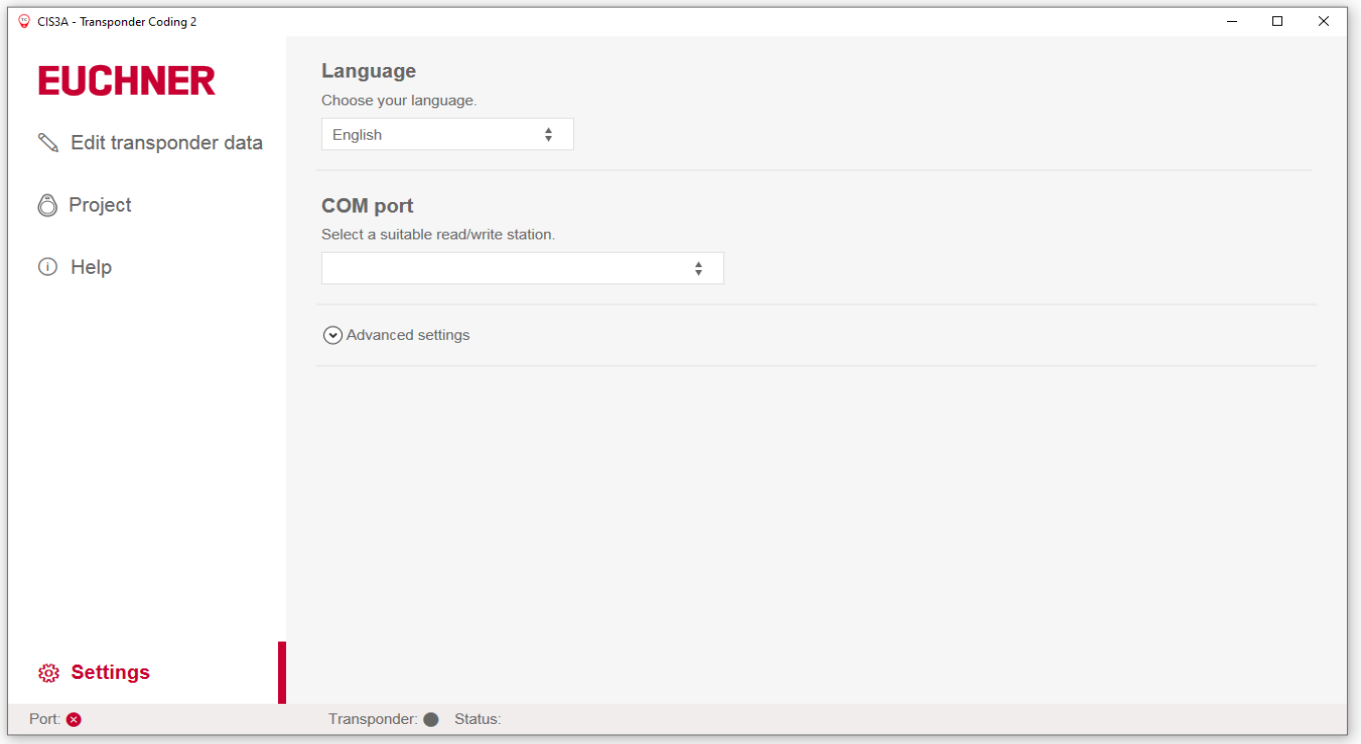
3. Installing the program and starting it for the first time

1. Use the supplied link to download the ZIP folder Euchner_Transponder_Coding_2_8000151-....zip. Unzip the folder and save it to a local directory on the PC.
2. Run the *TC2.exe* application.

➡ The start window appears.



3. Select the language.
4. Connect the read/write station with the PC.
5. Select the COM port where the read/write station is connected.

➡ The connection to the read/write station is set up only after a project has been selected (see chapter *4. Selecting project on page 5*).

Important!

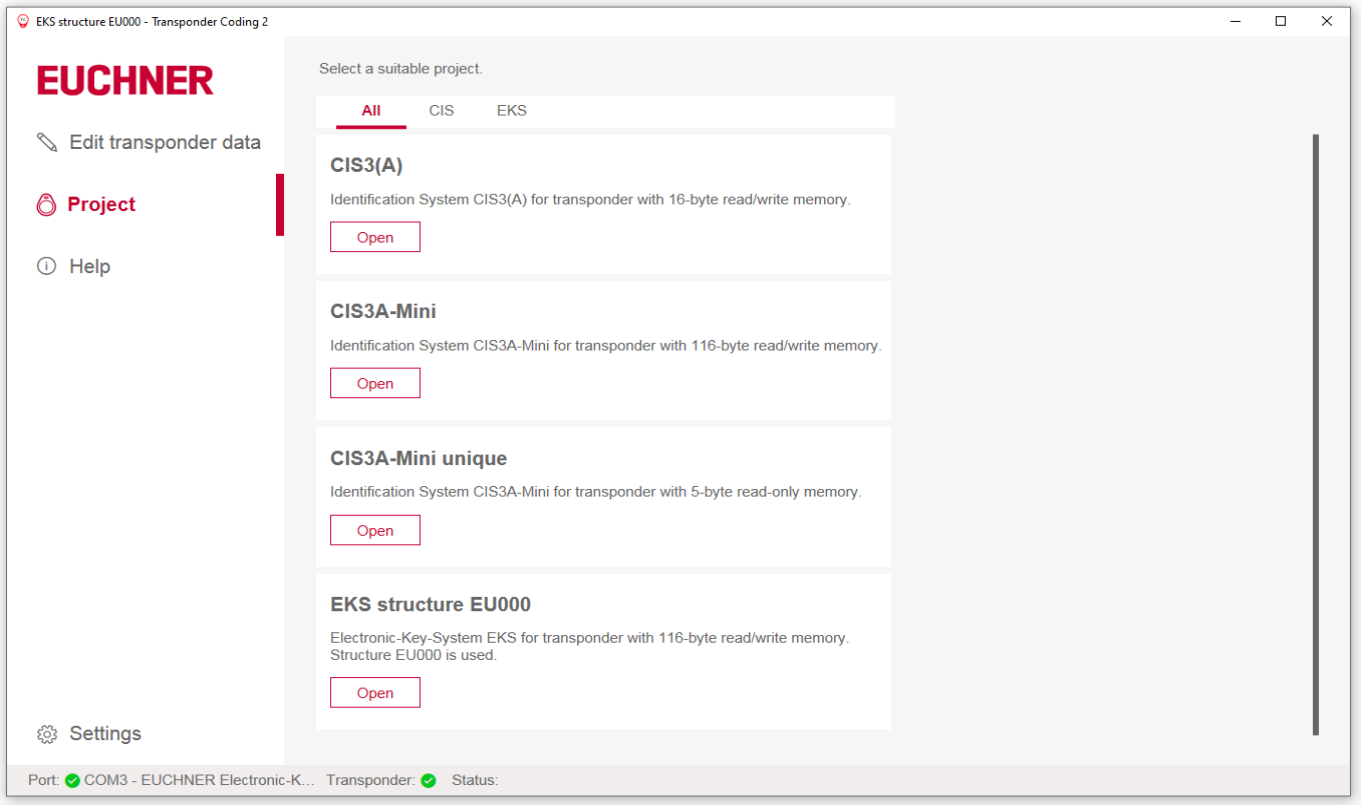
- Whenever the program is started again, the *Edit transponder data* menu item will display the most recently used window.
- If you would like to change the settings after starting the program for the first time, select the *Settings* menu item in the navigation area.

4. Selecting project

Prerequisite:

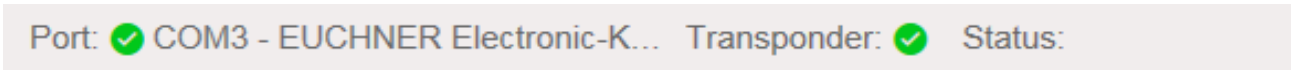
‣ A read/write station is connected.

1. Click *Project* in the navigation area.
2. Select a project using the *All* tab or the tab for the corresponding system. The following selection options are available:



➡ The corresponding hex/ASCII editor in the *Edit transponder data* menu item is loaded. The transponder data can be edited.

➡ The status bar at the bottom of the screen displays the COM port used and the selected system:



If the connection to the read/write station is interrupted, this is indicated in the *Status* field.

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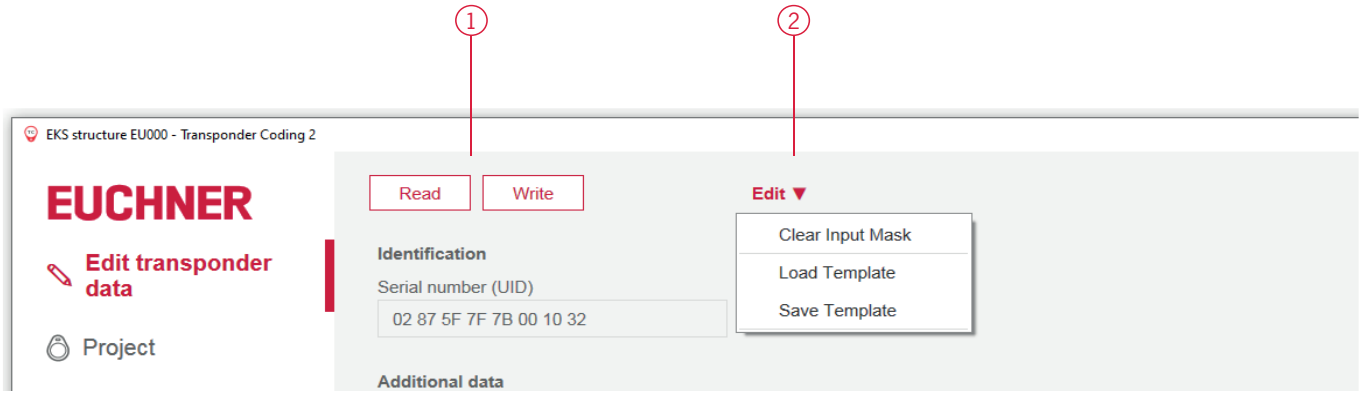
5. Editing transponder data

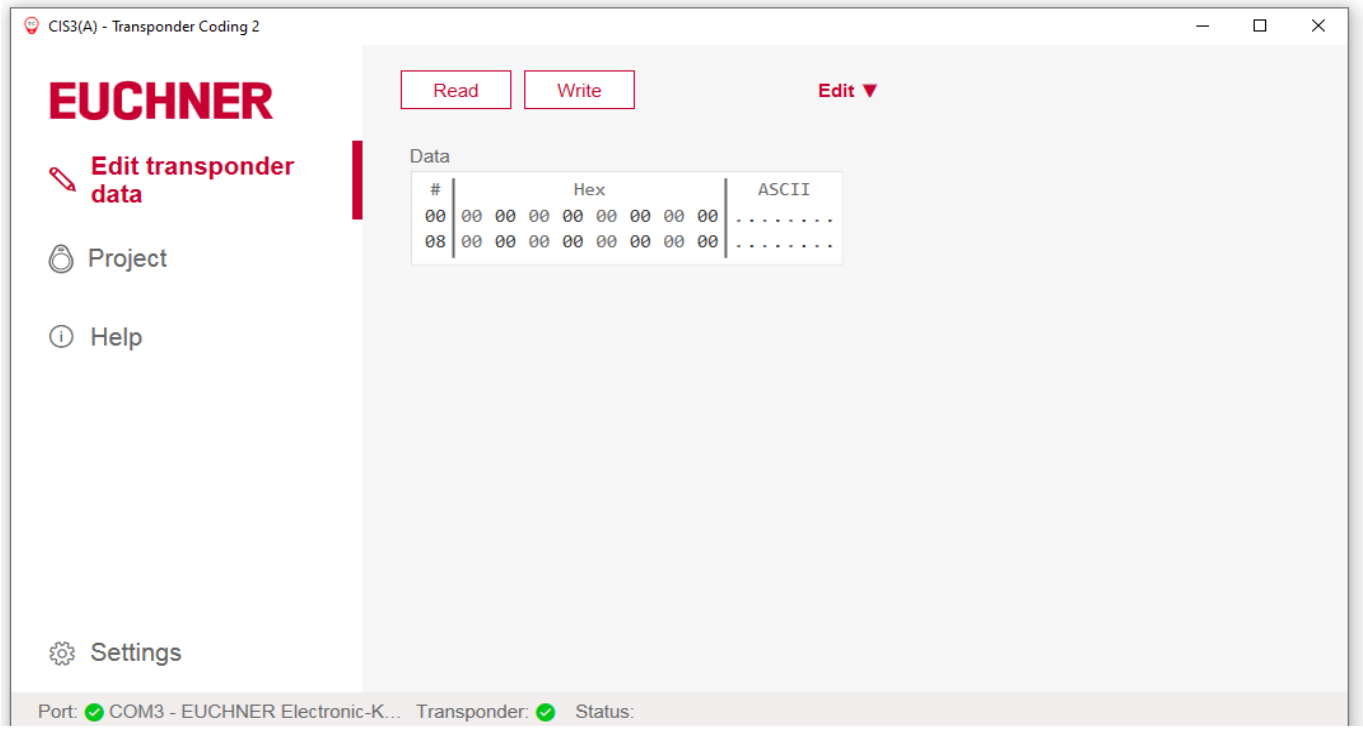
The following options are available for editing the transponder data:



1	**Transponder data** Prerequisite: a transponder is located in the read/write station's actuating range.	
	Read	The data of the transponder are read.
	Write	The data from the hex/ASCII editor are written directly to the transponder.
2	**Editing template**	
	Clear Input Mask	The hex/ASCII editor fields are cleared.
	Load Template	The most recently saved template is loaded.
	Save Template	The data in the hex/ASCII editor are saved as a template. This can simplify the following tasks: › Writing additional transponders with the same characteristics. › Writing several transponders with similar characteristics. Only the currently filled hex/ASCII editor can be saved as a template. One template can be saved per project.

The transponder's unique serial number (UID – unique identifier) is factory defined and cannot be edited.

A hex/ASCII editor corresponding to the selected project is displayed.



The following project is available for the Electronic-Key-System EKS:

- EKS structure EU000 (see chapter *8. Electronic-Key-System EKS project and data structure on page 9*)

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6. Writing transponder

Prerequisites:

- A read/write station is connected.
- The data to be written were prepared in the corresponding hex/ASCII editor.

1. Bring a transponder into the read/write station's actuating range.

➡ The *Write* button is active.

2. Click the *Write* button.

➡ The data are written to the transponder. The data in the hex/ASCII editor change from red to black.

7. Hex/ASCII editor

Edited data or data loaded from a template are displayed in red in the hex/ASCII editor. The data are displayed in black only after they have been written to the transponder.

Additionally, filling characters can be used to write transponder data uniformly from a defined byte.

The filling characters can be customized as follows:

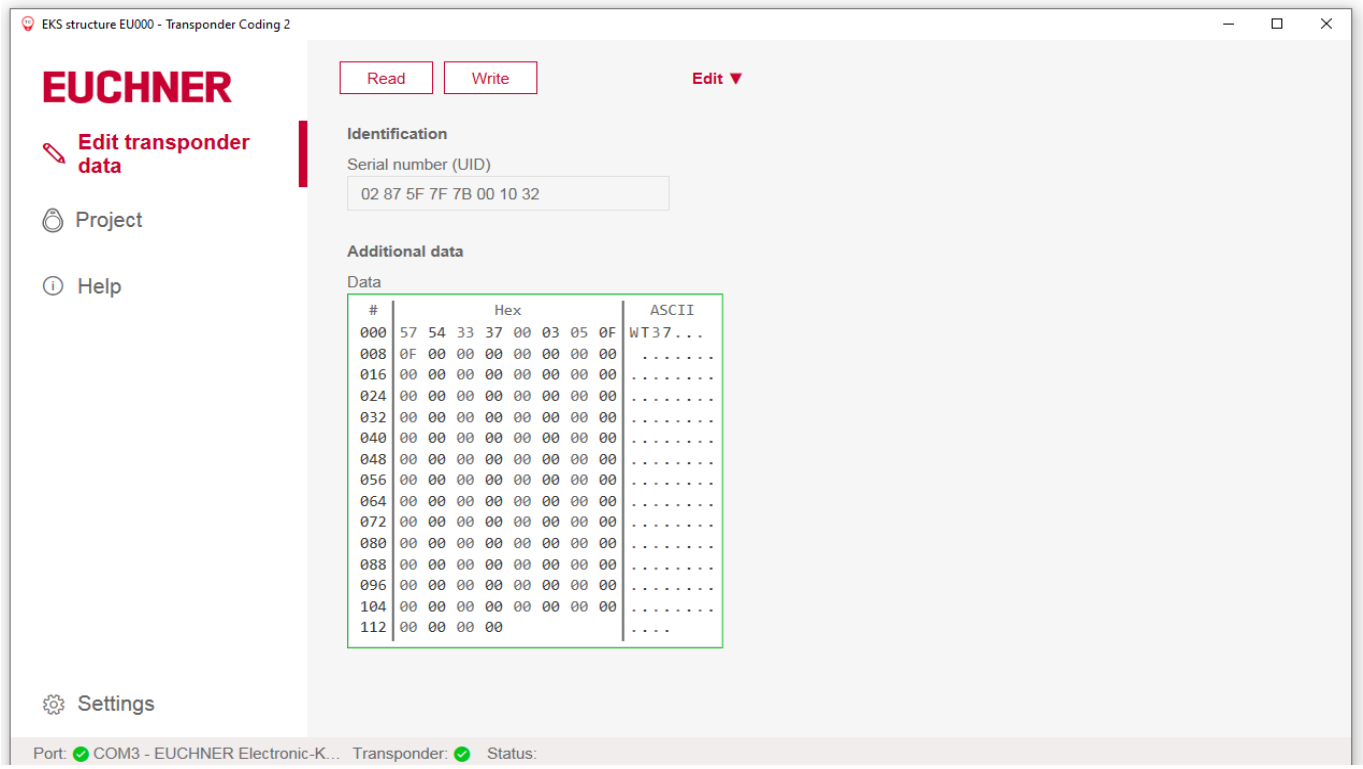
1. Place the cursor on the corresponding hex field and then click the right mouse button.
2. Click the *Filling characters* button.
3. Enter a hexadecimal value in the dialog window as specified and confirm with *OK*.

➡ The hex fields are filled with the filling character from the cursor position to the end of the programmable character string.

Alternatively, the filling characters can also be adapted under *Advanced settings* in the *Settings* menu item.

8. Electronic-Key-System EKS project and data structure

The *EKS structure EU000* project is available for the Electronic-Key-System EKS.



A typical example for the utilization of the freely programmable memory for an EKS with data interface could be as follows:

- Department (here: WT)
- Personnel number (here: 37)
- Reserve block
- Access rights for process 1, e.g. milling (here: 3)
- Access rights for process 2, e.g. turning (here: 5)
- Mode of safe operation MO 0 (here: 0F0F)
- Unused memory (freely available)
- Fixed serial number (here: 02...32)

Byte no.	0	1	2	3	4	5	6	7	8	...	112	113	114	115	116	...	123
Value [hex]	57	54	33	37	00	03	05	0F	0F						02	...	32
Value [ASCII]	W	T	3	7													
Function	Department		Personnel number		Res.	Rights	Rights	Selection of safe operating mode		Freely available					Serial number		

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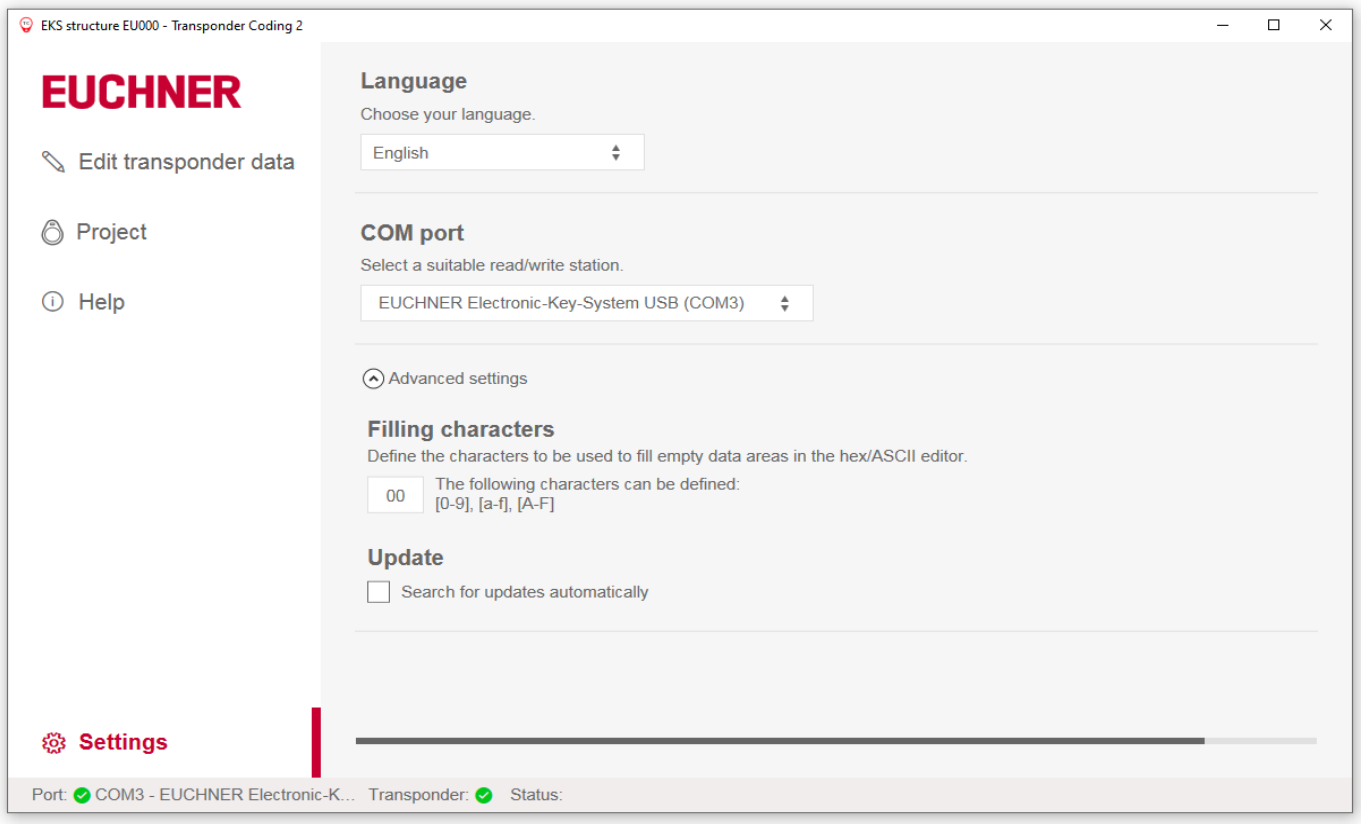
9. Changing settings

The language and COM port can be selected under *Settings* in the navigation area.

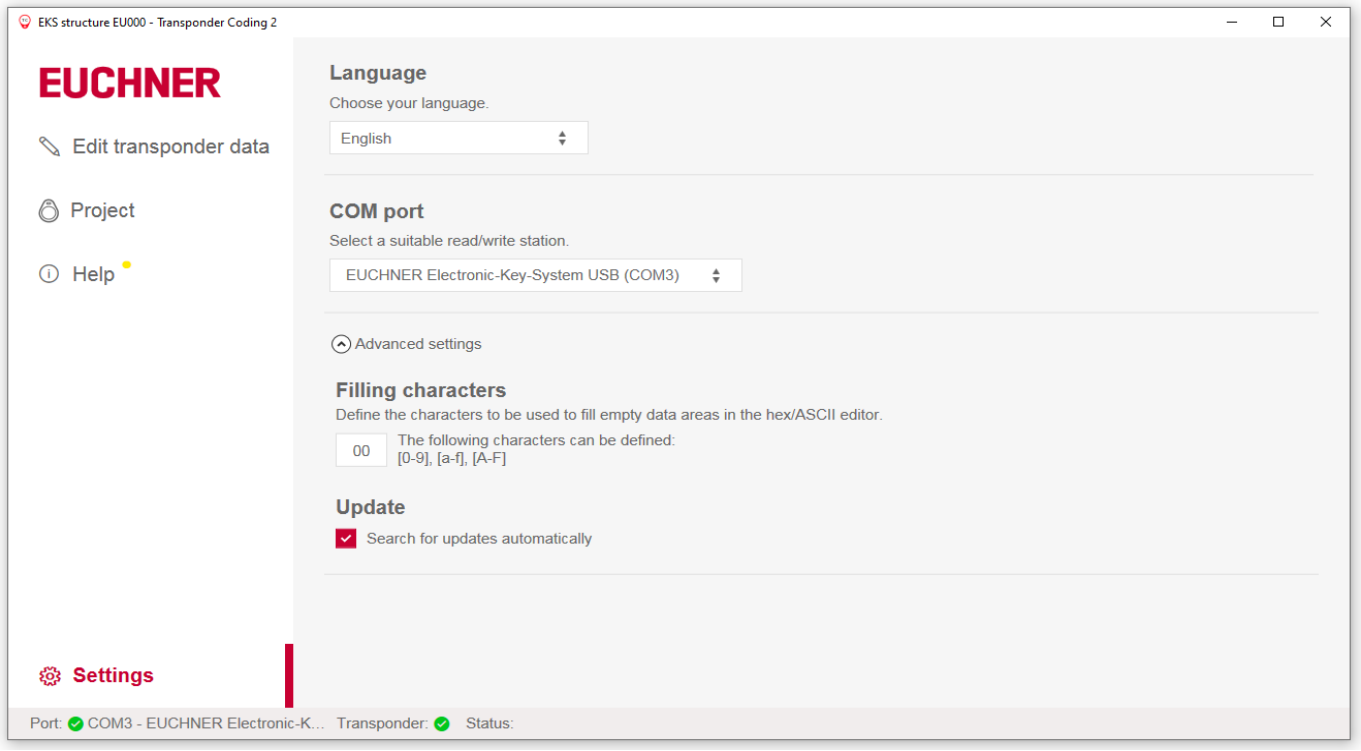


The following configurations can be carried out in the *Advanced settings* drop-down menu:

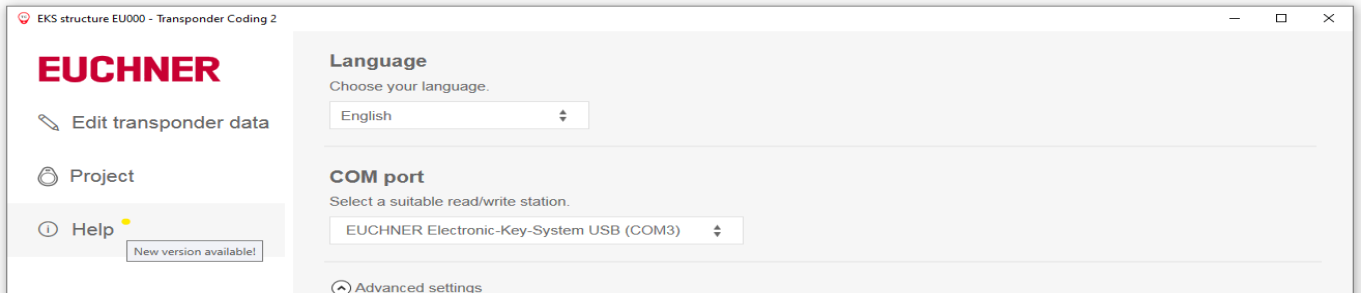
- Define filling character (see chapter *7. Hex/ASCII editor on page 8)*
- Search for updates automatically (see chapter *10. Updating software on page 11*)

10. Updating software

1. Activate “Search for updates automatically” under *Update* in the *Settings* menu item in the navigation area:



➡ A yellow dot will appear next to the *Help* menu item when a new update becomes available:



2. Click the *Download new version* button in the *Help* menu item.
➡ A ZIP file is downloaded.
3. Click the *Start Transponder Coding 2 update* button.
4. Open the ZIP file.
➡ The application is closed.
➡ The Windows input prompt opens automatically.
5. After the update is complete, click any button to close the Windows input prompt.
➡ The application is opened again.

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