EUCHNER

Software Manual

Electronic-Key-Manager EKM2

Application Software

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Contents

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1. General notes

1.1. Use of the manual

This manual describes the function and use of the Electronic-Key-Manager EKM2 application software in the following versions:

Version	Order no.	Version	Further information
Electronic-Key-Manager EKM2 Demo	8000211	See EKM2 Single User	*1.8. Notes on cybersecurity on page 5*
Electronic-Key-Manager EKM2 Basic	8000201	V1.0.0	
Electronic-Key-Manager EKM2 Single User	8000220	V1.0.0	

1.2. Scope

Important!

- Make sure to use the software manual valid for your product version. Please contact the EUCHNER support team if you have any questions.
- Your software may have been updated. Make sure that the software documentation corresponding to the update is available and is observed.

1.3. Requirement for the user

Proper use of the Electronic-Key-Manager EKM2 application software requires knowledge about handling the CIS Ident System and/or the EKS or EKS2 Electronic-Key-System.

1.4. System requirements

Hardware:	Standard PC
Operating system:	Windows® 10, 64-bit
	Windows® 11
Software:	CodeMeter User Runtime for Windows from version 8.40 from WIBU-SYSTEMS AG

1.5. Supplementary documents

The overall documentation for this device consists of the following documents:

Document title (document number)	Contents	
Software manual (MAN20001766)	(this document)	www
Information_EU-DA_110 (ECO20001824)	Information on data usage in accordance with the EU Data Act	www

Important!

Always read all documents to gain a complete overview for safe use of the application software. The documents can be downloaded from www.euchner.com. To do this, enter the doc. no. or order number of the software in the search box.

1.6. Use of brand names

Microsoft Windows® is a registered trademark of Microsoft Corporation.

MIFARE® DESFire® is a registered trademark of NXP Semiconductors.

1.7. Notes on the EU Data Act

In accordance with EU Data Act 2023/2854, we wish to point out that data are generated during operation of the product.

The type of data generated and access to the data are described in this manual.

You will find further information in the document “Information on data usage in accordance with the EU Data Act”, see *1.5. Supplementary documents on page 4*.

1.8. Notes on cybersecurity

EUCHNER components and systems must not be integrated into public networks. EUCHNER components are intended only for use in private networks. Use a VPN for remote access.

1.9. Versions

Functions	EKM2 Demo	EKM2 Basic	EKM2 Single User
Usage period	90 days	unlimited	unlimited
System installation	Local client	Local client	Local client
Editing transponder data			
Saving templates	•	•	•
Importing/exporting templates	•	•	•
Project			
Editing predefined projects	•	•	•
Exporting/importing predefined projects	•	•	•
Creating/editing individual projects	•	-	•
Exporting/importing individual projects	•	-	•
Managing transponders			
Filtering/sorting data records	•	•	•
Deleting data records	•	•	•
Exporting/importing data records	•	-	•
Creating a history	•	-	•
Miscellaneous			
Managing security settings (only EKS2)	•	•	•

2. General function of the application software

The Electronic-Key-Manager EKM2 application software is used for reading, writing and managing CIS data carriers or EKS or EKS2 Electronic-Keys on a standard PC. The software is used in conjunction with an EUCHNER 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 EKS with 116-byte read/write memory
Electronic-Key-System EKS2	Electronic-Key EKS2 with MIFARE® DESFire® transponder

You will find further information about writing data to the transponders in the manuals for the related read/write stations.

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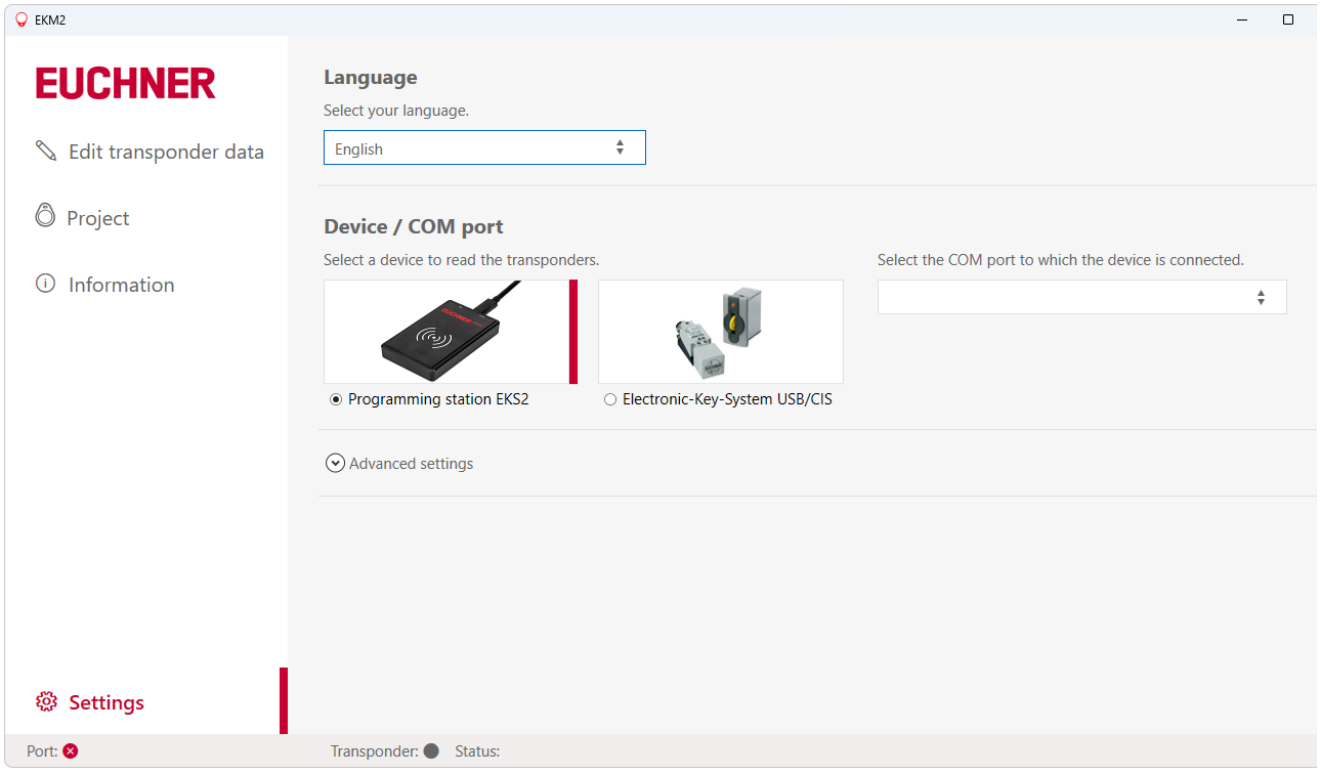
3. Installing Electronic-Key-Manager EKM2 and starting it for the first time

Important!

You will require the CodeMeter Runtime from WIBU-SYSTEMS AG to use the EKM2 application software. You will find further information in our license document.

1. Use the supplied link to download the ZIP folder of the EKM2 application software, then unzip it and save it to a local directory on the PC.
2. Run the *EKM2.exe* application.

➡ The *Settings* window appears.



3. Select your language.
4. Connect the read/write station to the PC and select the corresponding device.
5. Select the COM port where the read/write station is connected.

➡ The connection to the read/write station is established.

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.

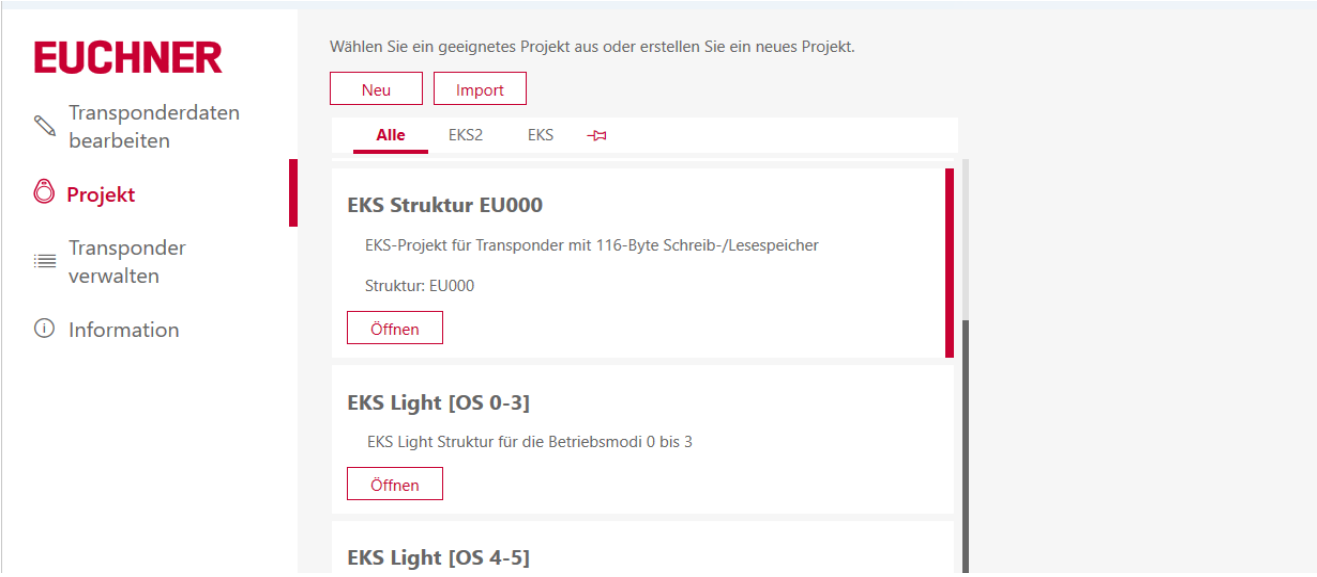
4. Project

4.1. Selecting project

Prerequisite:

‣ A read/write station is connected and is selected under *Settings*.

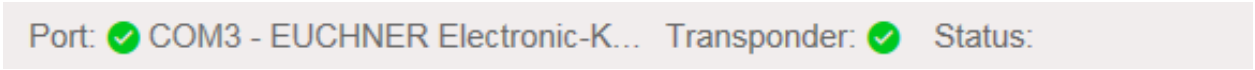
1. Click *Project* in the navigation area.
2. Select a project using the *All* tab or the tab for the corresponding system and open it.



The following selection options are available:

System	Project	Further information
Electronic-Key-System EKS2	EKS2 structure EU001	*9.1. EKS2 structure EU001 on page 16*
	EKS2 structure EU002	*9.2. EKS2 structure EU002 (only for machine manufacturers) on page 16*
Electronic-Key-System EKS	EKS structure EU000	*7.1. EKS structure EU000 on page 14*
	EKS Light [OS 0-3]	*8. Predefined EKS Light projects and data structures on page 15*
	EKS Light [OS 4-5]	
	EKS Light [OS 6-7]	
Identification System CIS	CIS3(A)	Related operating instructions
	CIS3A-Mini	
	CIS3A-Mini unique	

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



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

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➡ Depending on the selected project, different menu items are displayed in the navigation area:

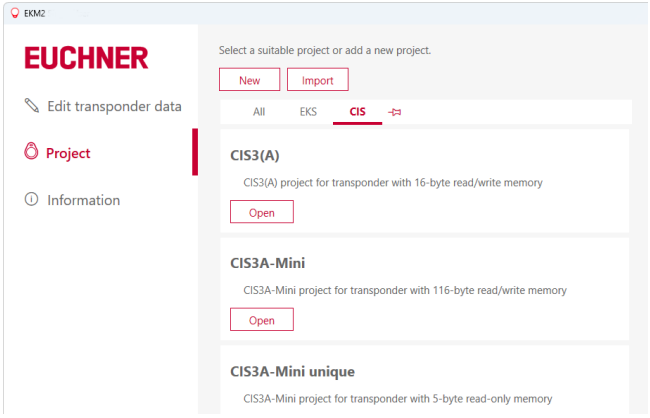


Fig. 1: Navigation area, EKS/CIS projects

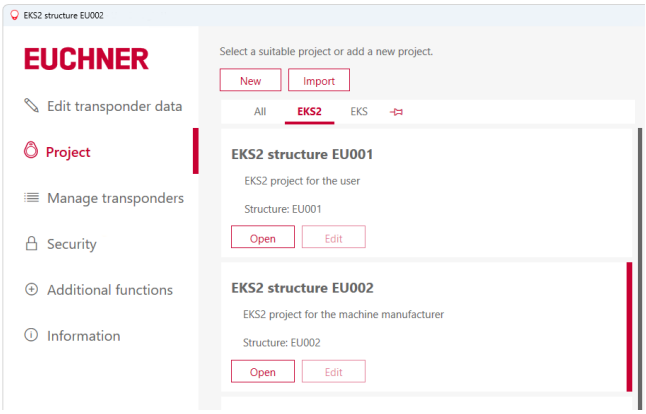


Fig. 2: Navigation area, EKS2 projects

➡ The corresponding Hex/ASCII editor or an input mask is opened in the *Edit transponder data* menu item. The transponder data can be edited.

4.2. Resetting project

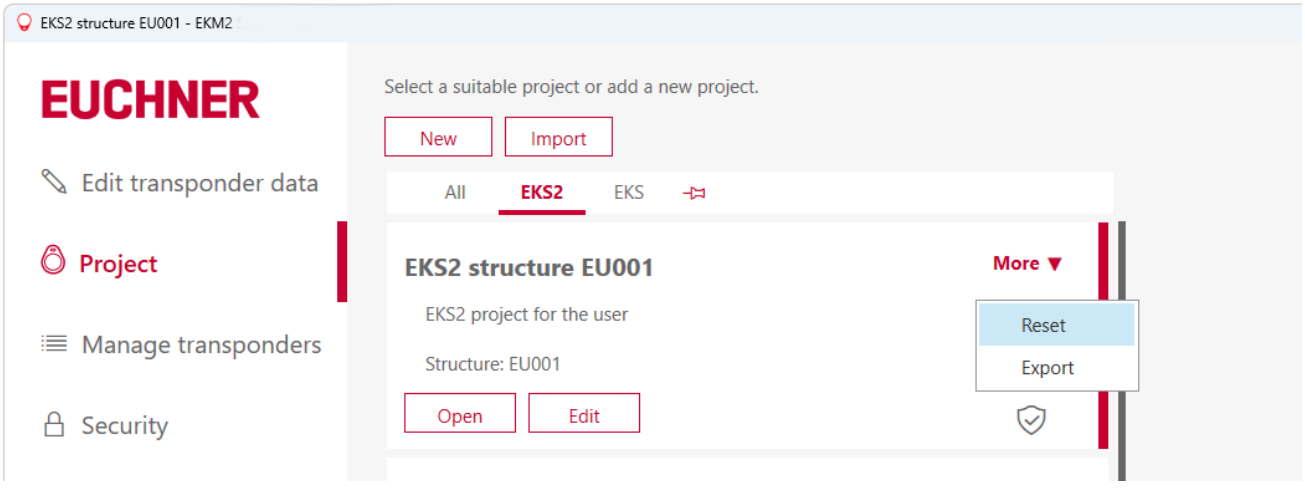
If transponders have already been written in a project with a predefined structure, the project can be reset. Depending on the project, the following settings and values will be deleted or reset to the factory settings:

- Entries in the database in the *Manage Transponders* menu item, see *6. Managing transponders on page 13*
- Saved templates
- Changes in text editor (only EKS2)
- Security settings (only EKS2)

Important!

- Data of reset projects cannot be restored.
- To continue using already written transponders, see *11.3.1. Using transponders after resetting the project on page 20*.

1. In the *Project* menu item in the corresponding project, click the *Reset* button under *More*.



➡ The project is reset.

4.3. Deleting project

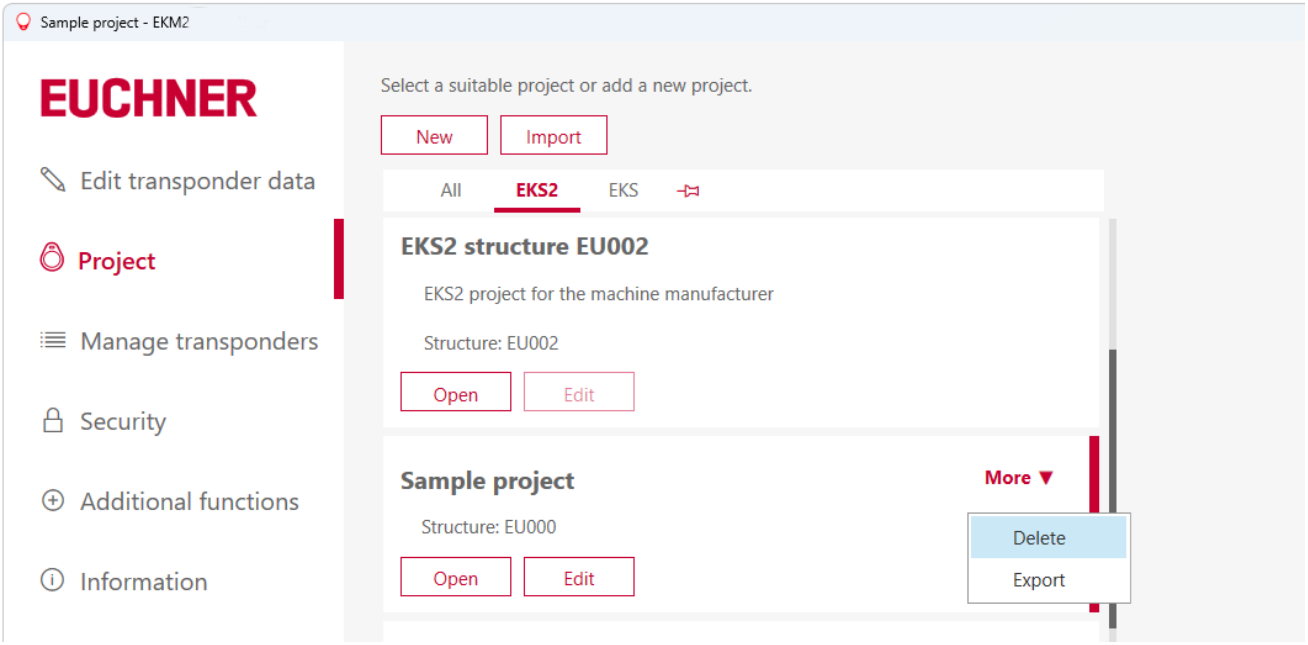
An individually created project can be deleted. The following are deleted:

- Database fields and database structure
- Input mask
- Templates
- Security settings
- Current data and history of already written transponders

Important!

- Data from deleted projects cannot be restored.
- To continue using already written transponders, see *11.3.1. Using transponders after resetting the project on page 20.*

1. In the *Project* menu item in the corresponding project, click the *Delete* button under *More*.



➡ The project is deleted.

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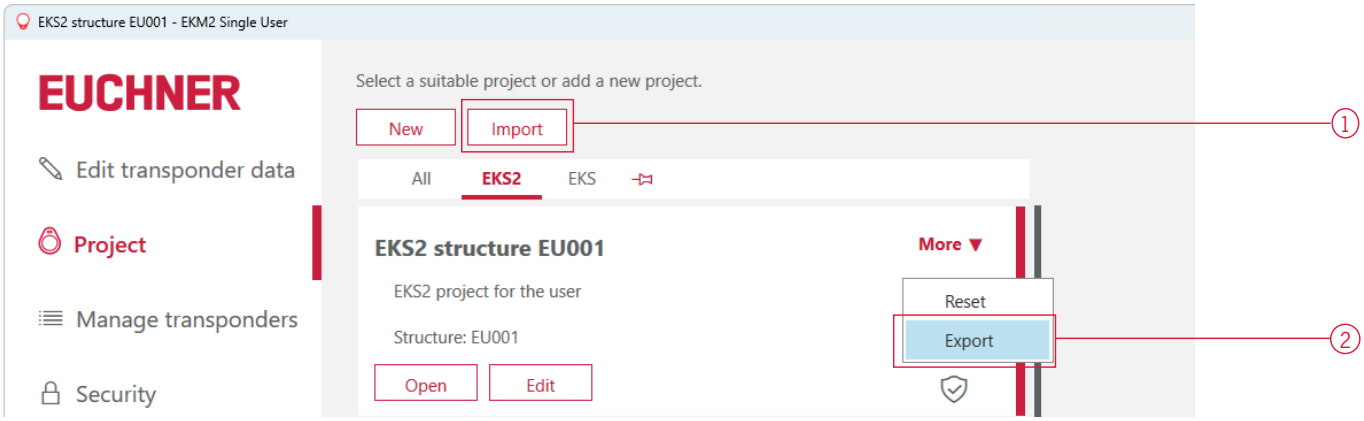
4.4. Exporting and importing project

Projects can be exported and imported for saving projects and for passing them on to another programming workstation.

The project is encrypted by means of a password during export. This password will be required again to import the project.

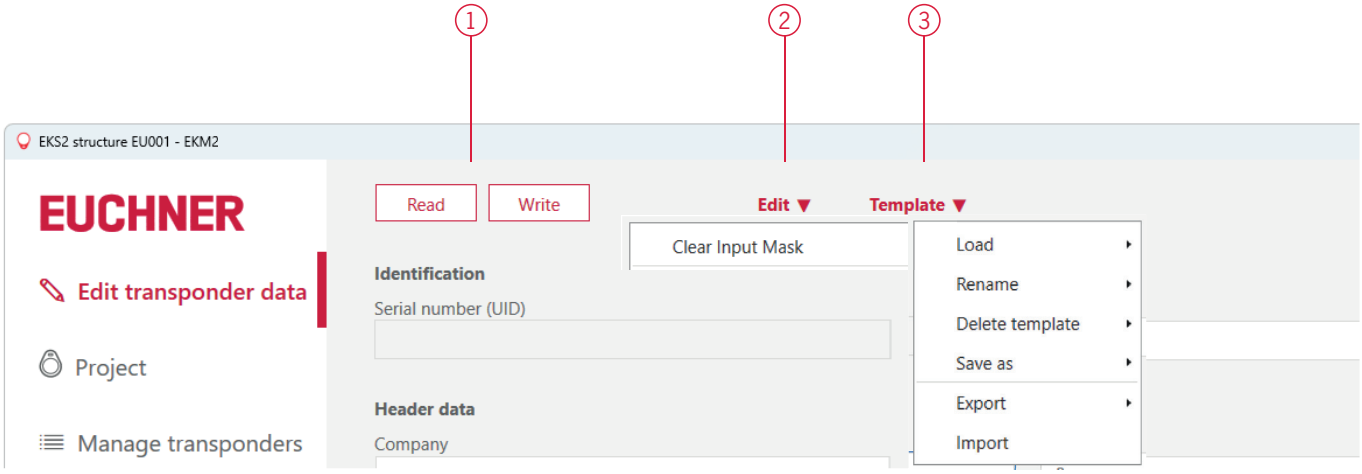
	Important! The password for encrypting exports and imports must be kept safe and protected from unauthorized access.



1	Import of a previously exported project
2	Export of the project to a directory to be defined

5. Editing transponder data

The following functions 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 are written to the transponder.
2	**Edit**	
	Clear Input Mask	All fields are cleared.
3	**Template**	
	Load	A template to be selected is loaded.
	Rename	A template to be selected is renamed.
	Delete template	A template to be selected is deleted.
	Save as	The data are saved as a template. This can simplify the following tasks: › Writing additional transponders with the same characteristics. › Writing several transponders with similar characteristics. It is only ever possible to save the data currently displayed as a template.
	Export	A template to be selected is exported as an xml file.
	Import	A template from the drive is imported into the application.

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

Depending on the selected project, either a Hex/ASCII editor or an input mask with input fields is displayed.

5.1. Writing transponder

Prerequisites:

› A read/write station is connected and is selected under *Settings*.
› The data to be written have been prepared in the corresponding input mask.

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.

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5.2. Hex/ASCII editor

Edited data or data loaded from a template are displayed in blue 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.

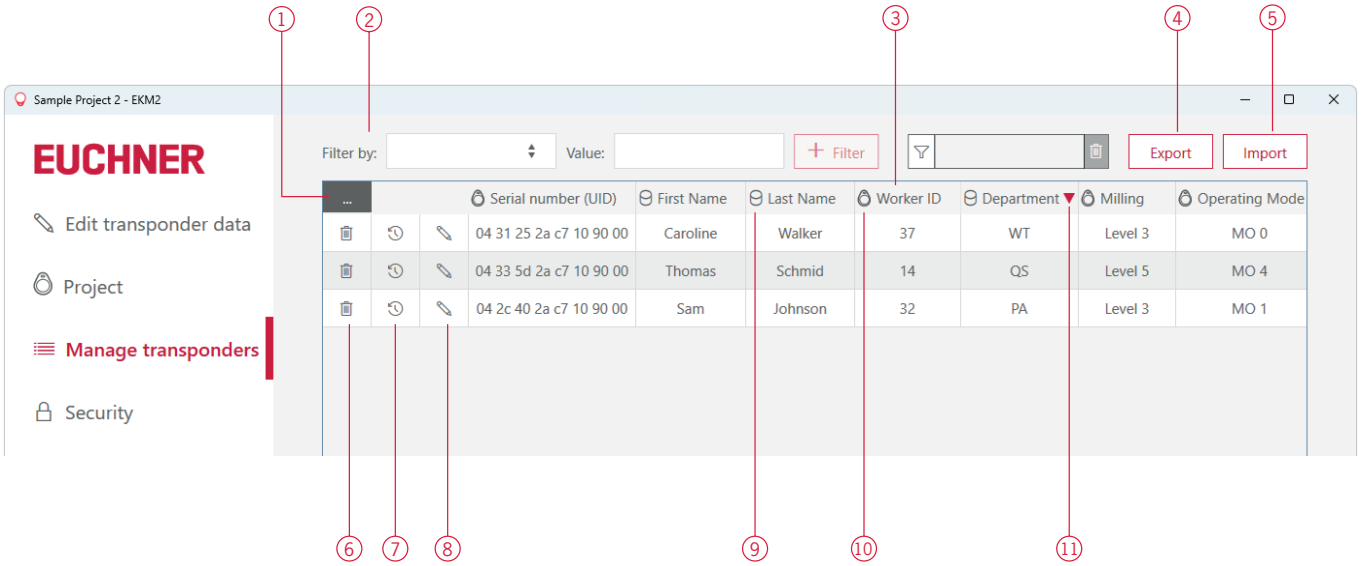
6. Managing transponders

The data of the transponders that have been written in a project are displayed in the *Manage transponders* menu item.

Prerequisites:

- A project is open.
- Transponders have already been written in this project.

The following functions are available:



	Description of functions	Function included in	
		EKM2 Basic	EKM2 Single User
1	Show or hide columns.	•	•
2	Filter. Several filters can be set.	•	•
3	Move columns using drag&drop.	•	•
4 5	The data records of written transponders can be exported and imported. The Electronic-Key data can therefore be transferred from one PC to another.	-	•
6	Delete data record: Lost or expired transponders can be deleted. The following data from the data record are deleted: › Transponder data › Data in the database › History	•	•
7	Open history: All changes that were written on the corresponding transponder are displayed. The following editing functions are available: › Filter › Sort › Move columns using drag&drop › Delete data records	-	•
8	Edit data: You can edit only data that are stored solely in the database.	-	•
9	Data are stored solely in the database.	•	•
10	Data are stored on the transponder and in the database.	•	•
11	Sort in ascending or descending order.	•	•

Important!

When a data record is deleted, only the corresponding entry in the database will be deleted. The data on the corresponding transponder remain unaffected by this.

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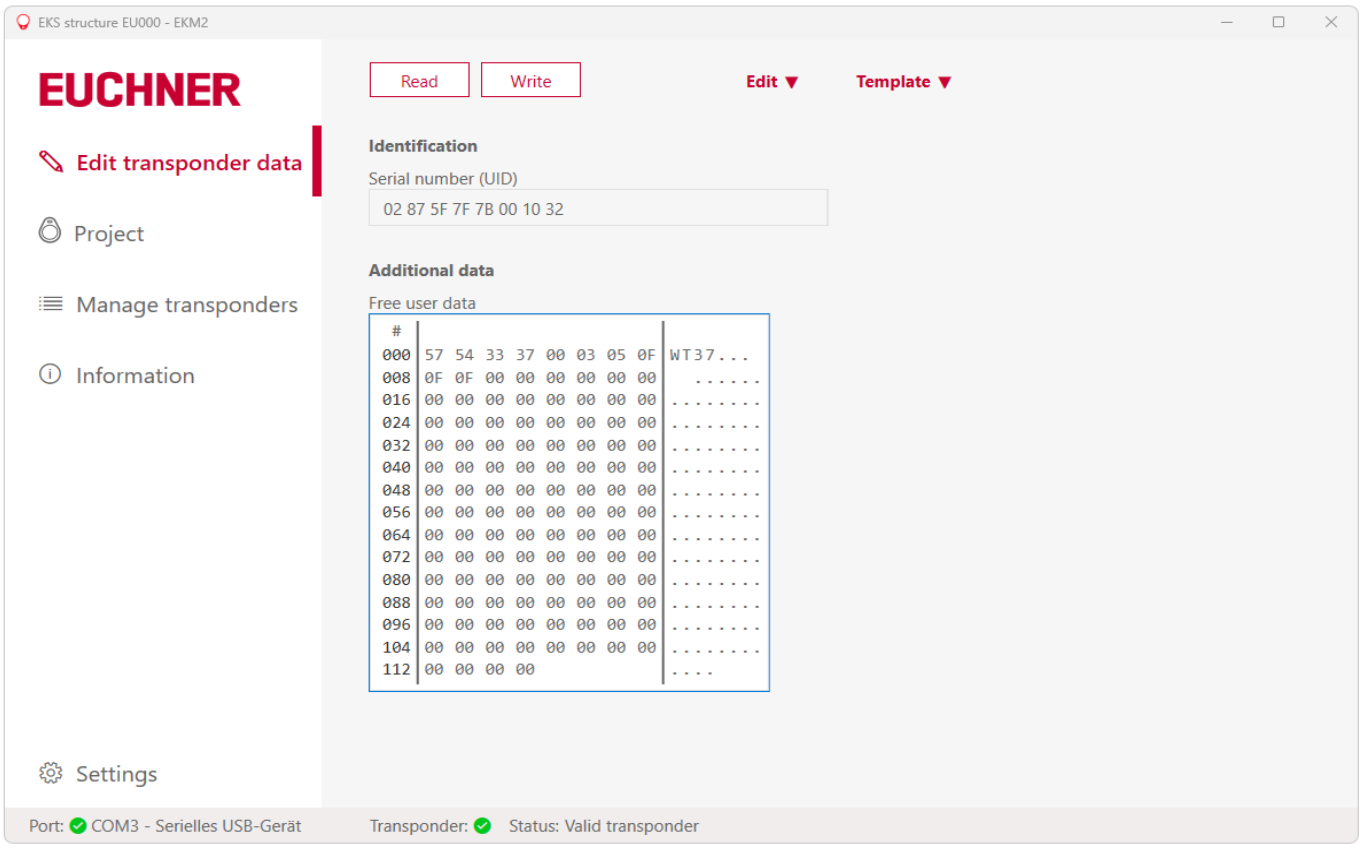
7. Predefined Electronic-Key-System EKS projects and data structures

7.1. EKS structure EU000

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



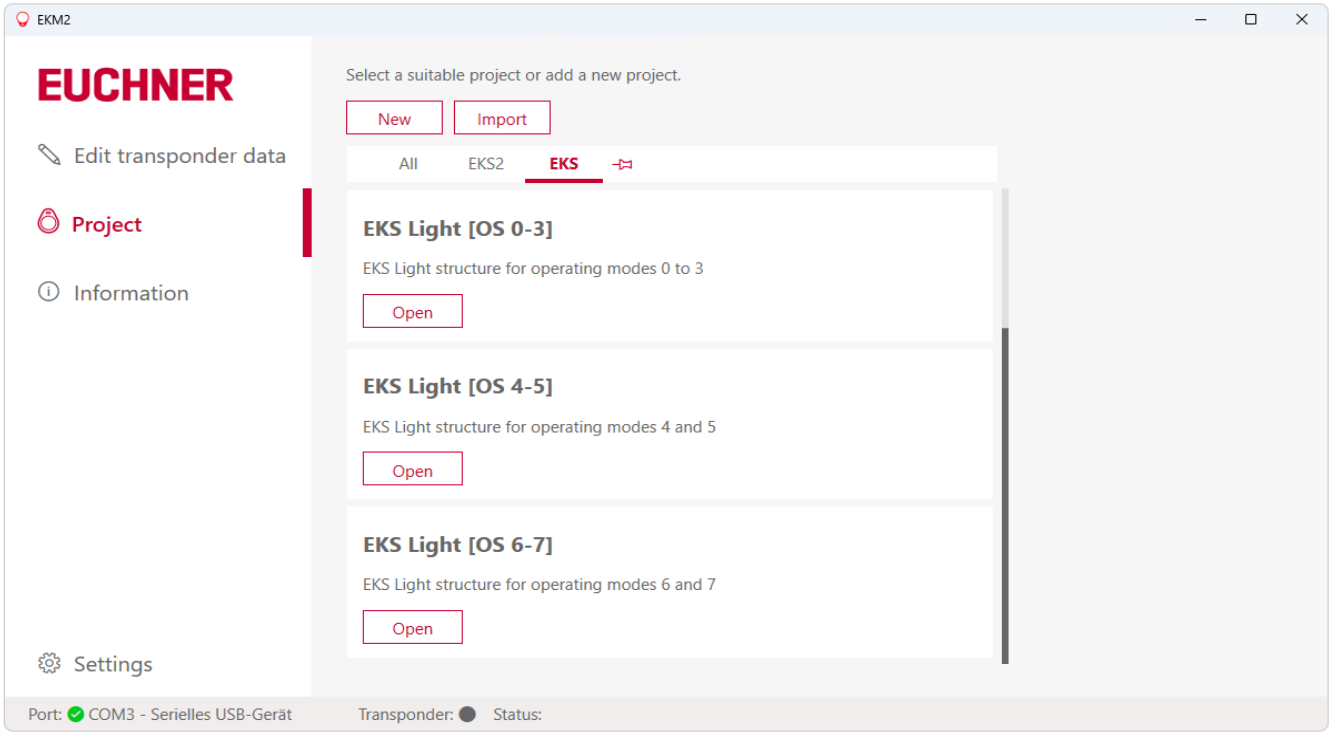
A typical example for the utilization of the freely programmable memory for an EKS with data interface could be as follows:

- 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 operating mode		Freely available					Serial number		

8. Predefined EKS Light projects and data structures

Three projects for EKS Light can be selected for the Electronic-Key-System EKS.



You will find further information about the function and application in the following manuals:

Document	Document number
Manual EKS Light and Light FSA	110845
Additional manual EKS Light and Light FSA	2513217

The documents can be downloaded from www.euchner.com. Enter the document number in the search box.

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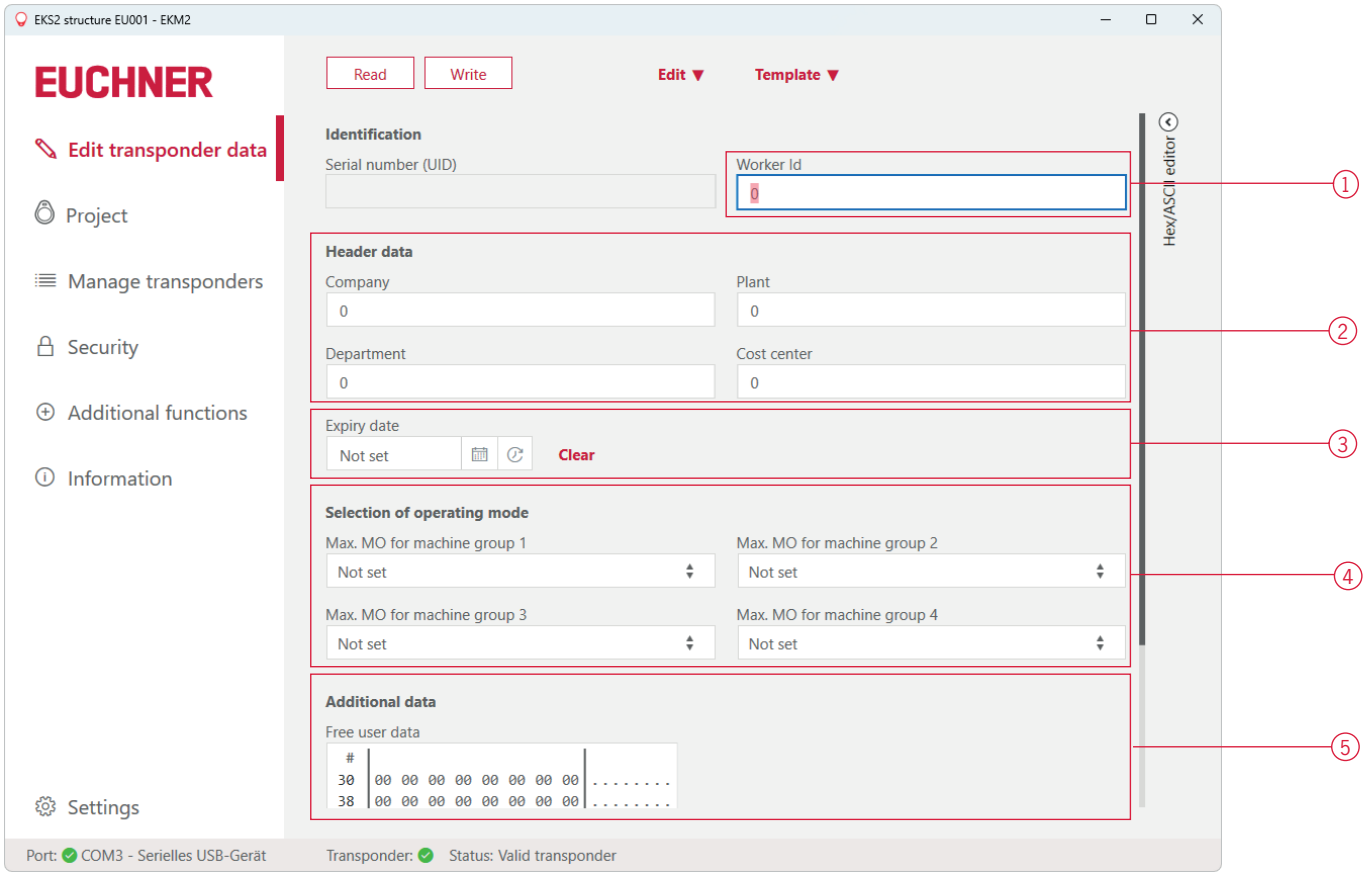
9. Predefined Electronic-Key-System EKS2 projects and data structures

9.1. EKS2 structure EU001

The *EKS structure EU001* project is available to the user for the Electronic-Key-System EKS2. It contains a data structure with predefined functions and a corresponding input mask.

In the EKS2 structure EU001, the validity of the transponder can be checked in up to four hierarchical levels. The operating mode can be specified for a maximum of four machine groups.



1	Personnel number
2	Area where the transponder is to apply. A descending hierarchical order applies to the *Company*, *Plant*, *Department*, *Cost center* fields.
3	Expiry date The expiry date can be set with the aid of the calendar, by entering the number of days or manually.
4	Selection of operating mode Individual machines can be combined into up to four groups. An operating mode can be assigned to each group.
5	Additional data A further 86 bytes are available for use as required, e.g. for additional authorizations.

The evaluation of the values set here is specified in the Electronic-Key-System EKS2. You will find further information in the operating instructions for the Electronic-Key-System EKS2 (doc no. MAN20001715).

An invalid entry is marked with a red border.

9.2. EKS2 structure EU002 (only for machine manufacturers)

The *EKS structure EU002* project is available to the machine manufacturer for the Electronic-Key-System EKS2.

You will find further information in the corresponding application at www.euchner.com.

10. Individual projects and data structures

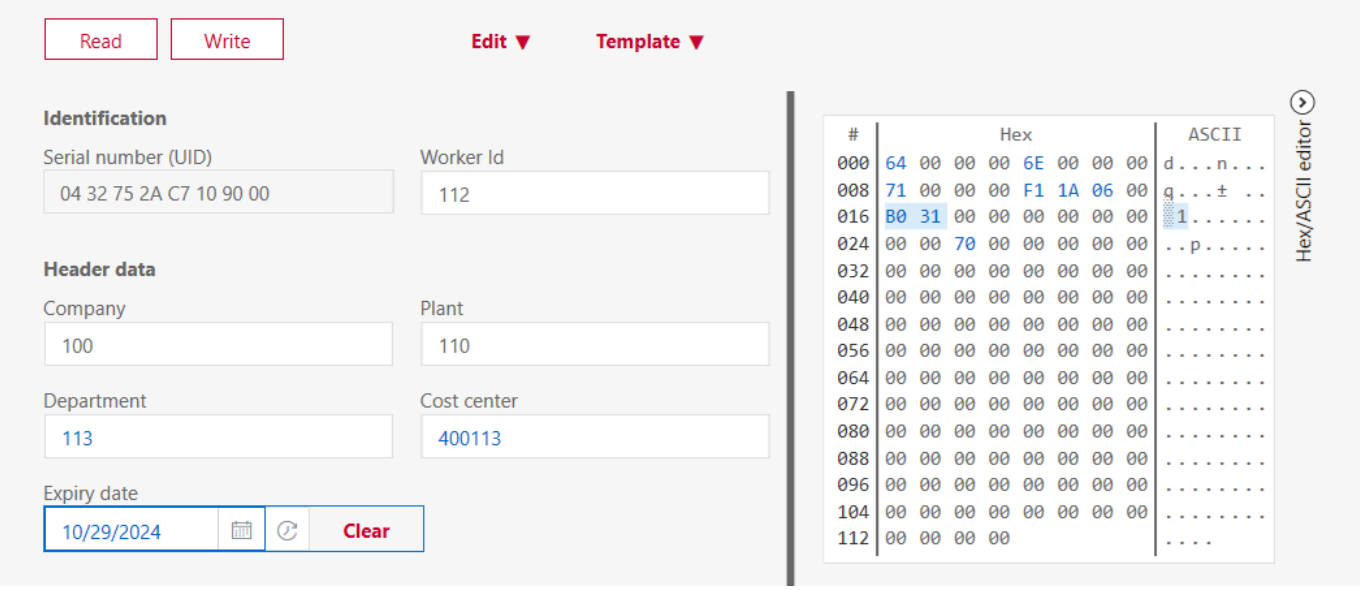
Individual projects can be created for the Electronic-Key-Systems EKS and EKS2. Databases are individually created and structured using the Database Designer. The corresponding input mask for writing the transponders is also created in the Database Designer.

You can find further information on using the Database Designer in chapter *12. Database Designer on page 22*.

11. Additional editing functions (only for EKS2 projects)

11.1. Using Hex/ASCII editor

The transponder's memory area is displayed in the hex/ASCII table in the right *Hex/ASCII editor* drop-down box:



As you edit the fields, the corresponding bytes in the Hex/ASCII editor are displayed with a light-blue background.

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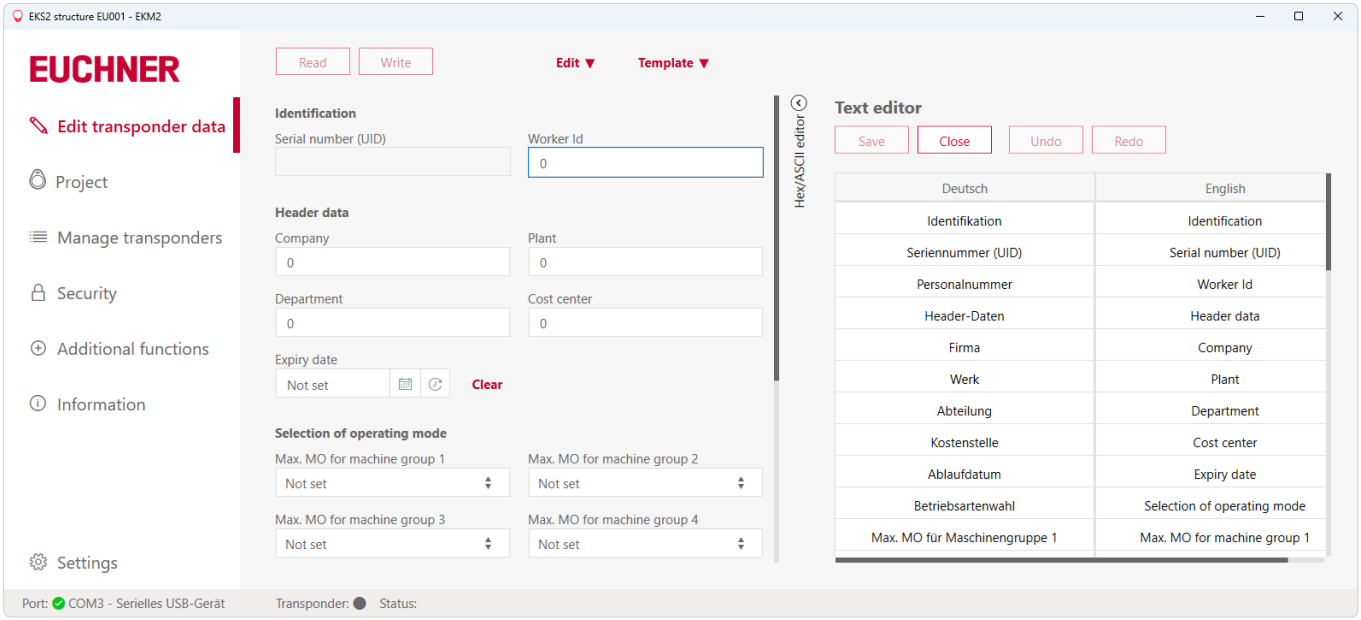
11.2. Using text editor for projects

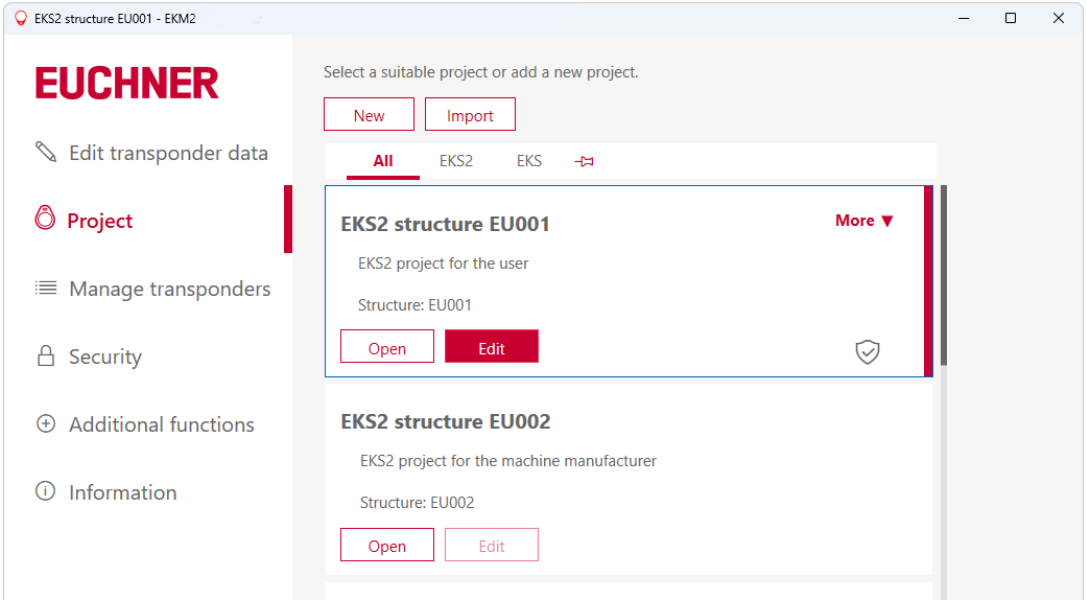
For the EKS2 structure EU001 and EKS2 structure EU002 projects, the input field designations of a project can be edited using a text editor.



1. Open the project to be edited in the *Project* menu item.

➡ The *Edit transponder data* window opens.

2. Click the *Project* menu item.
3. Click the *Edit* button for the project to be edited.



➡ The most recently saved input mask and the text editor are opened under *Edit transponder data*.

4. Edit field names and save.

➡ The changed field names are saved together with the project.

11.3. Managing security settings

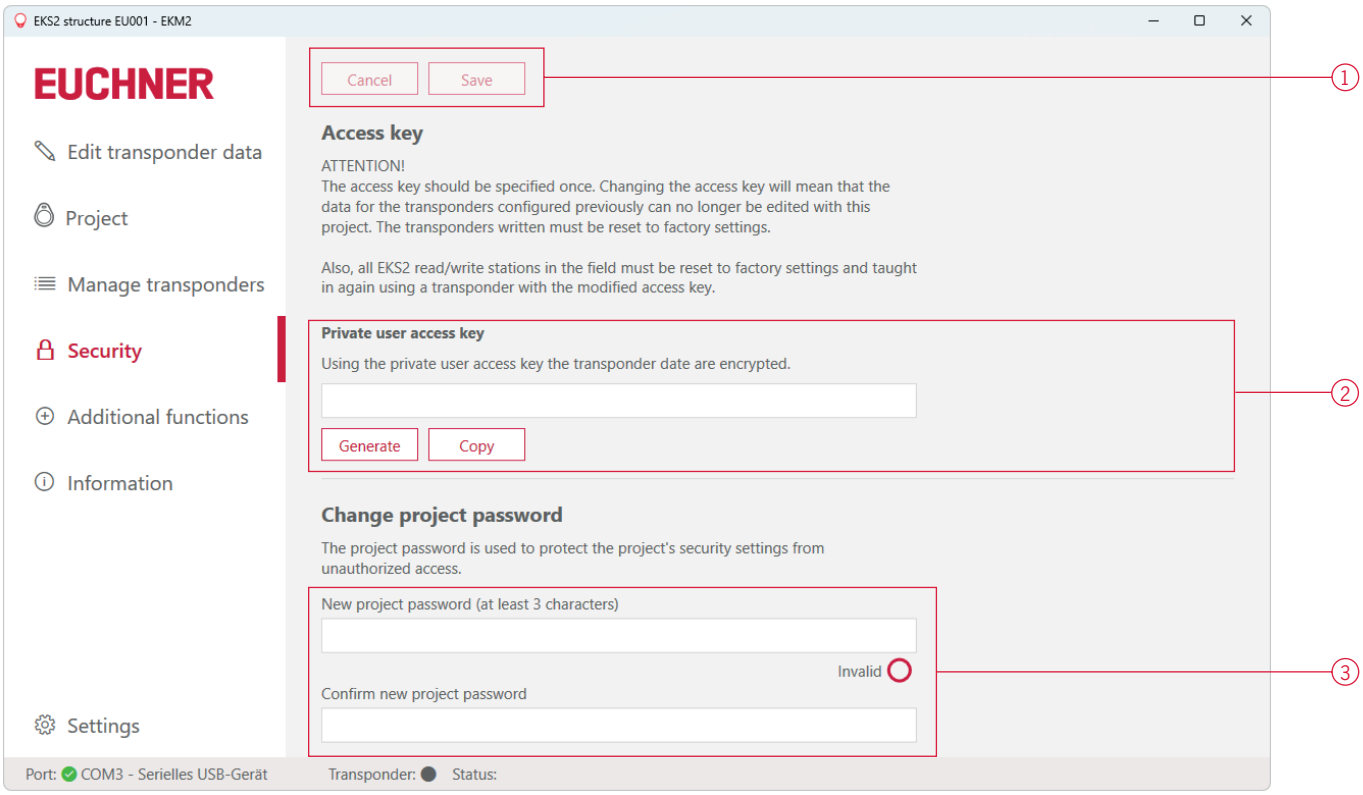
A multilayer security concept is used to protect the project and transponder data for EKS2. Each EKS2 project is protected with a project password. In addition, the data written to the transponder with the aid of the Electronic-Key-Manager EKM2 application software are encrypted using a private user access key.

The project password prevents unauthorized personnel from viewing or changing the user access key in the application software. The project password is assigned specifically by the user. If the project password is lost, it is necessary to reset the project, see chapter *4.2. Resetting project on page 8*.

The user access key is created by a password generator and can be copied for safe keeping.

Important!

If the user access key is changed by generating the key again, transponders already written can no longer be edited using the related project. For further information, see chapter *11.3.2. Using transponders after changing the user access key on page 20*.



1	**Security settings**	
	Cancel	Changed security settings are discarded.
	Save	Changed security settings are saved.
2	**User access key**	
	Generate	A user access key is created with the aid of a password generator.
	Copy	The user access key is copied to the Clipboard.
3	**Project password**	
	The project password must consist of at least 3 characters.	

A public user access key is additionally used for the data area for machine manufacturers; this key can be saved in the control system (PLC). You will find further information in the corresponding application at www.euchner.com.

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11.3.1. Using transponders after resetting the project

All security settings and templates already saved will be lost when the project is reset, see: *4.2. Resetting project on page 8*.

Proceed as follows to be able to continue to use transponders already written:

1. Re-open the related project under *Project*.
2. Enter the previously used user access key in the corresponding field under *Security* and save.
3. Assign a new project password and save.

➡ It is possible to read and edit transponders already written.

11.3.2. Using transponders after changing the user access key

If the user access key is generated again and saved, transponders already written can no longer be edited using the related project.

To write data to the already written transponders again and continue using them, proceed as follows:

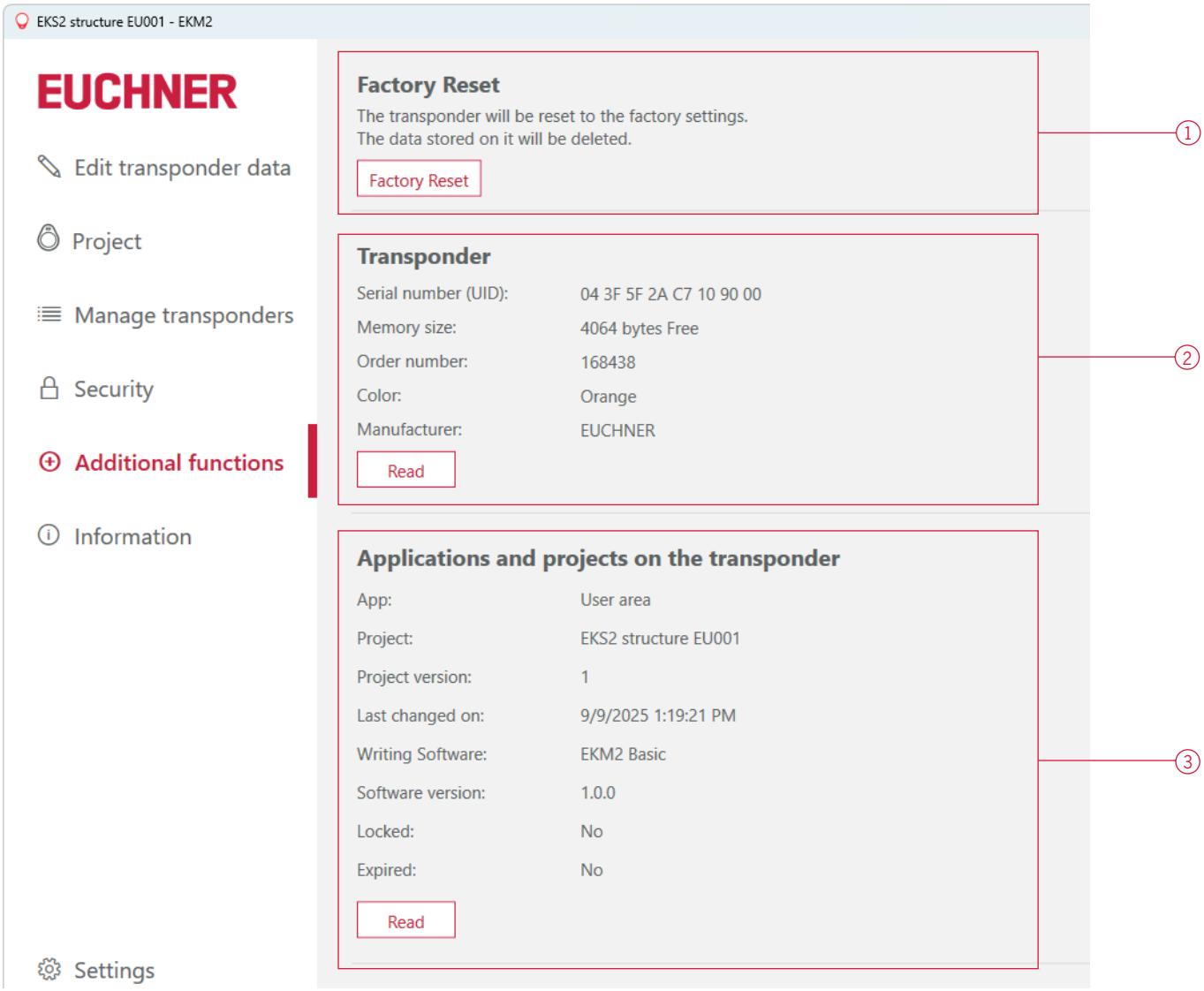
1. Reset the transponders to factory settings under *Additional functions*, see chapter *11.4. Reading and resetting transponders on page 21*.
2. Reset all EKS2 systems in use to factory settings. You will find further information in the operating instructions for the Electronic-Key-System EKS2 (doc no. MAN20001715).
3. Write data to the transponder again.

➡ The newly generated user access key is written to the transponder.

4. Teach-in the new user access key in the EKS2 system, see operating instructions for the Electronic-Key-System EKS2.

11.4. Reading and resetting transponders

Under *Additional functions*, transponders can be reset to the factory settings; it is also possible to read their properties and the projects saved on them.



1	Factory reset: A written transponder is reset to the factory settings.
2	Read the transponder properties.
3	Read the application and the project with which the transponder was most recently written.

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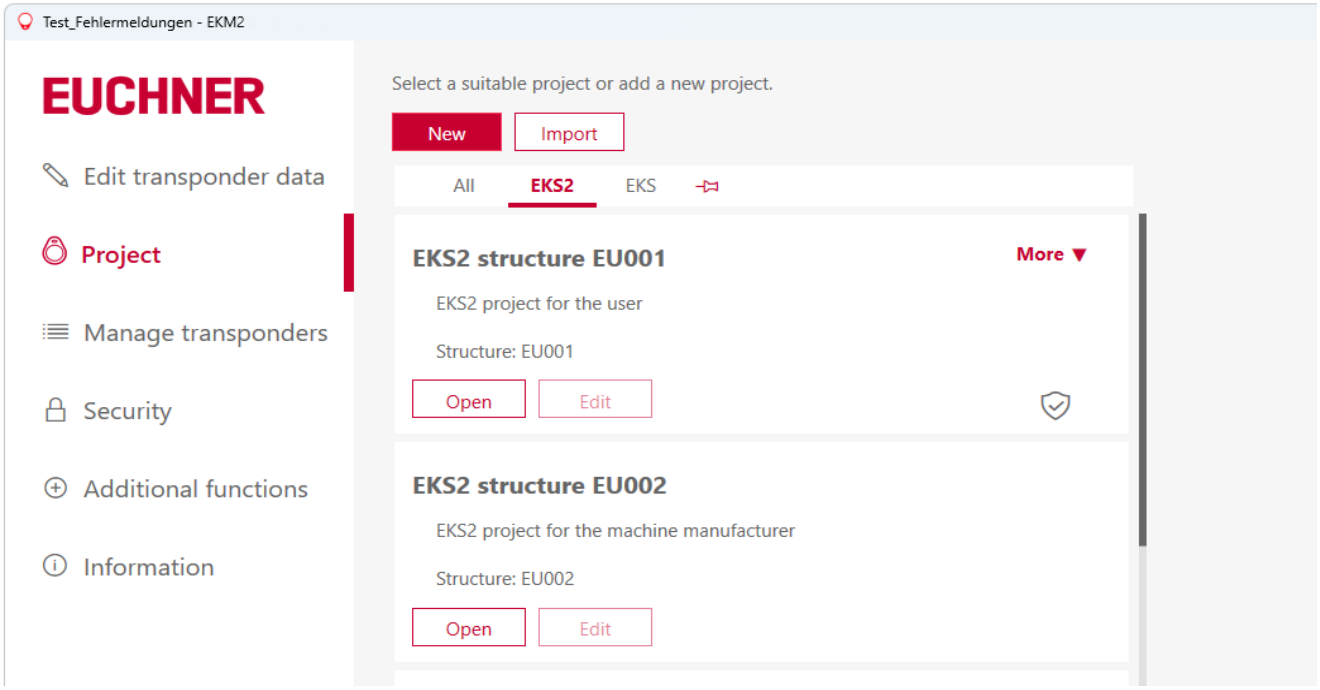
12. Database Designer

Using the Database Designer, individual EKS and EKS2 projects with their own database and an individual input mask can be created.

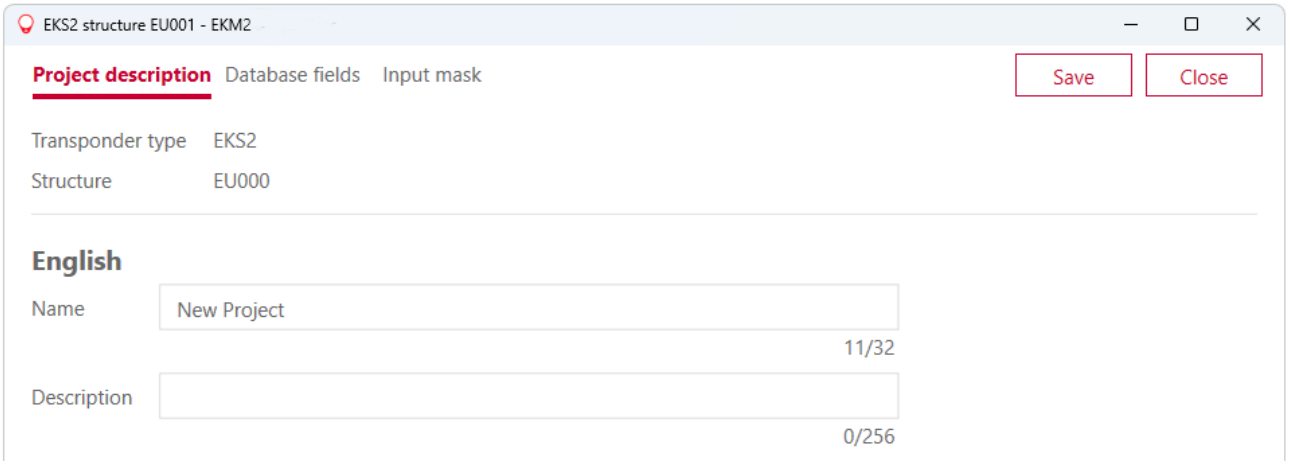
12.1. Creating an individual project

1. Click the *New* button in the *Project* menu item.



2. Select the transponder type for which you wish to create the project.
3. If required, select a template.

➡ The Database Designer opens.



4. On the *Project description* tab, assign a name to the project and, if you wish, a description of the project.
5. Save the new project.

	Tip! An existing individual project can be selected and copied to use as a template for a new project.

12.2. Defining database fields

The database fields that the new project is to contain are defined on the *Database fields* tab. The following distinction is made between:

- Database fields that are stored both on the transponder and in the database
- Additional database fields that are stored solely in the database

	**Important!** The transponder has limited memory space. › Pay attention to how much memory is available when defining the database fields to be written on the transponder. › It is a good idea to store long database fields only in the database, so as not to overfill the transponder's memory.

	**Tip!** Please note the following points when creating an individual project: › Avoid making changes or modifications to the database structure if transponders have already been written with the project, see *12.2.2. Database structure on page 26*. › Subsequent changes or modifications to the database structure can cause already written transponders to no longer be read correctly. › For planned subsequent additions, reserve bytes can be defined in advance using data areas with the *not used* data type. › When database fields are deleted, the corresponding data in the data records of already written transponders are lost. Alternatively, we recommend leaving database fields that are no longer needed empty and possibly removing them from the input mask.

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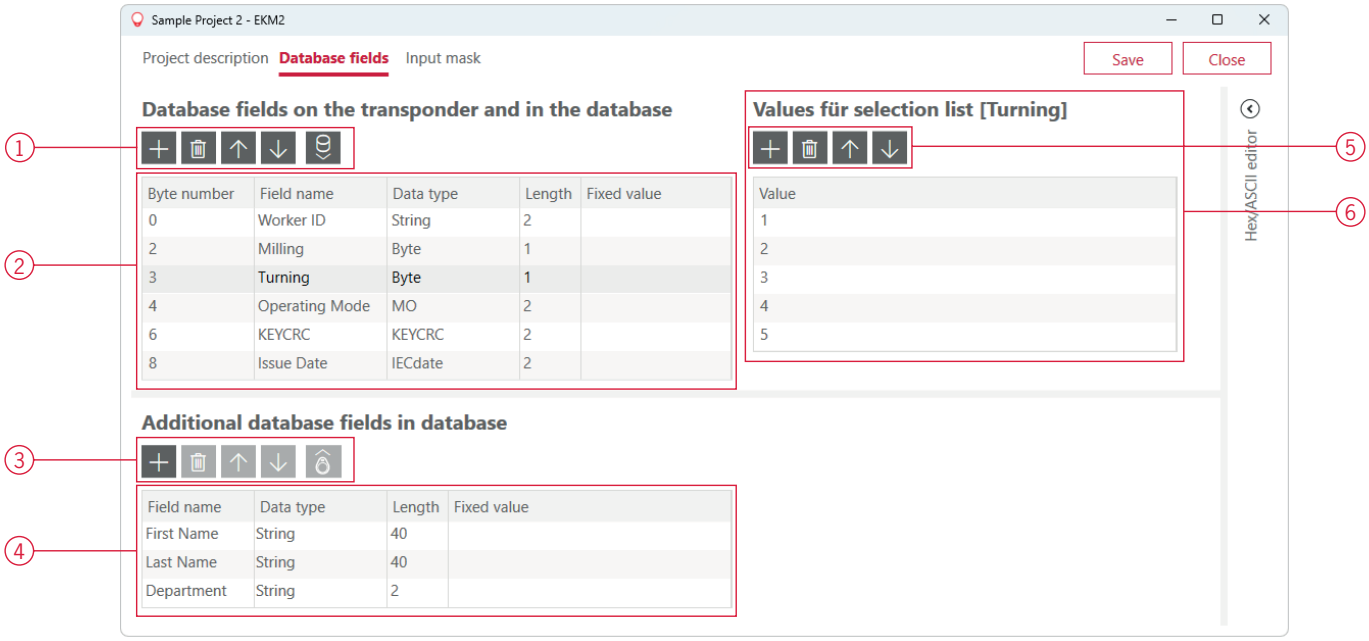

1 / 3 / 5	*Add*	Add database field.
	Delete	Delete database field.
	Move up	Move database field up or down in the table. Database fields can also be moved using drag&drop.
	Move down	
	Save only in database	The database field is moved to the *Additional database fields in database* area and stored only in the database.
	Write to the transponder	The database field is moved to the *Database fields on the transponder and in the database* area. It is therefore stored both on the transponder and in the database.
2/4	*Byte number*	The byte number indicates the first byte of the corresponding database field in the transponder memory.
	Field name	A unique field name must be assigned for each database field.
	Data type	For further information on data types and their length, see *12.2.1. Overview of data types on page 25*
	Length	
	Fixed value	A fixed value in the input mask cannot be changed. In addition, no other values can be defined for a selection list.
6	*Values for selection list [ ]*	‣ Depending on the selected data type, values for a selection list can be entered here. The selection list in the database is the basis for the drop-down menu in the input mask. ‣ You can enter either a fixed value or values for a selection list, not both.

1. Add database field.
2. Define the field name, data type and length. For further information, see *12.2.1. Overview of data types on page 25.*
3. Enter a fixed value or values for a selection list, as required.
4. Establish whether the database field is to be stored on the transponder and in the database or in the database only.
5. Create and store further database fields as described in steps 1 to 4.

12.2.1. Overview of data types

The following data types are available for the database:

Data type	Length (bytes)	Character format	Data values/value range	Additional options		Description/input mask standard element
				Fixed value	Values for selection list	
not used	1-116		-	-	-	‣ The data type is used only for the transponder. ‣ With this data type, you can define a memory area on the transponder that will not be overwritten during the writing process. This could be existing data from a different data structure/project that must not be overwritten, or a reserve area for subsequent additions.
Int8	1	decimal	-128...127	•	•	‣ Standard element: TextBox ‣ Standard element for selection list: ComboBox
Int16	2		-2^{15}... $2^{15}-1$	•	•	
Int32	4		-2^{31}... $2^{31}-1$	•	•	
Int64	8		-2^{63}... $2^{63}-1$	•	•	
Uint8	1		0...255	•	•	
Uint16	2		0... $2^{16}-1$	•	•	
Uint32	4		0... $2^{32}-1$	•	•	
Uint64	8		0... $2^{64}-1$	•	•	
byte	1		0...255	•	•	
Word	2		0... $2^{16}-1$	•	•	
MO	2		0, 3855, 21845, 13107, 23130, 15420, 26214	-	See description	‣ The data type is intended for selection of operating mode. You will find further information in the operating instructions for the Electronic-Key-System EKS2 (doc no. MAN20001715). ‣ The values of the MO data type are predefined and cannot be changed. ‣ Standard element: ComboBox
String	1...x	ASCII	Any	•	•	‣ Standard element: TextBox
ByteArray	1...x	Hex/ASCII	Any	-	-	‣ Standard element: Hex/ASCII editor
BitArray	1...x	decimal	0/1	•	-	‣ Standard element: CheckBox
DateASCII	8	Date	Any	-	-	‣ Standard element: DatePicker ‣ Storage format YYYYMMDD
IECdate	2		1.1.1990...6.6.2169	-	-	‣ Standard element: DatePicker ‣ Storage format: Uint16 (number of days since January 1, 1990)
KEYCRC	2	decimal	0... $2^{16}-1$	-	-	‣ The data type is used only for the transponder. ‣ A checksum is formed based on the serial number (UID) and a specific area of the user data. The start byte and length of the area to be calculated can be individually set. ‣ The KEYCRC checksum must not lie within the area defined by the start byte and byte length. ‣ Standard element: TextBox

For the additional options *Fixed value* and *Values for selection list*, you can enter only one or the other. A combination is not possible.

- Fixed value:
  - The entry defined as a fixed value cannot be edited or changed in the input mask.
  - Example: Individual ID for identifying all transponders written with this value.
- Values for selection list:
  - Using the values for a selection list, a drop-down menu can be created in the input mask.

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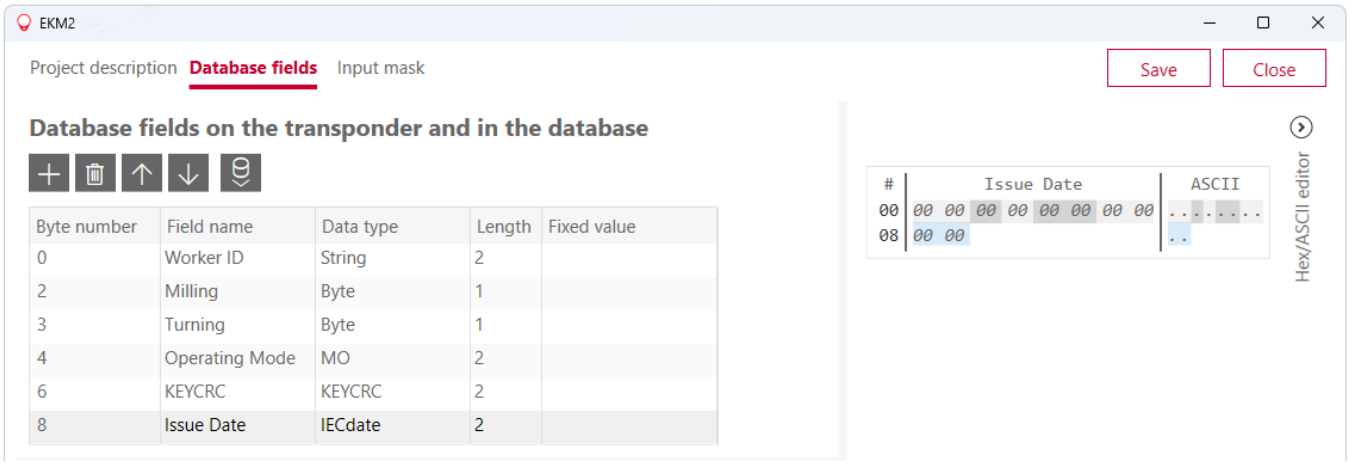
12.2.2. Database structure

For an overview of the layout of data stored on the transponder, open the Hex/ASCII editor on the right-hand side of the *Database fields* tab:



If subsequent changes are made to the database structure, already stored data must be migrated to the new structure.

Important!

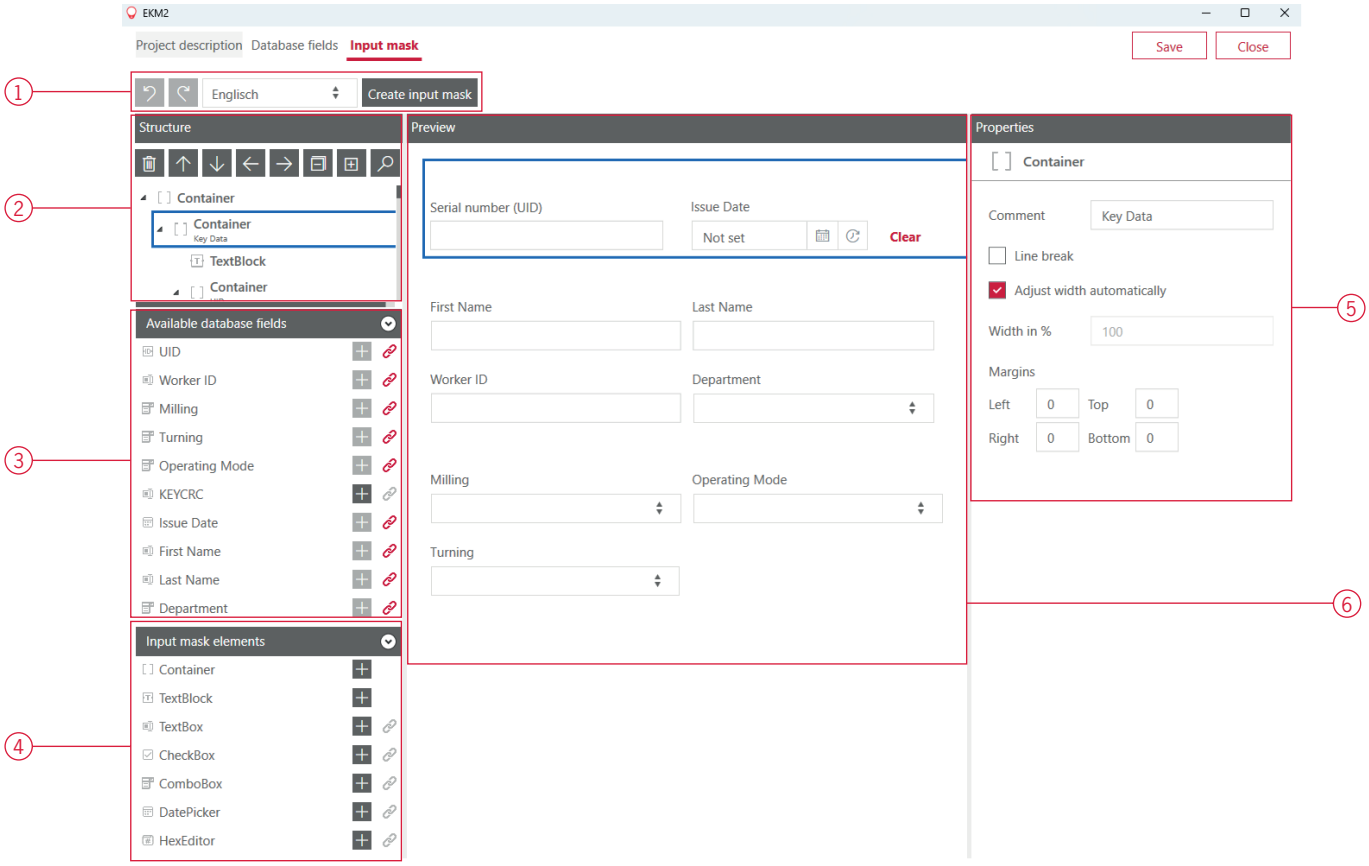
When migrating data, pay attention to the following:
- Migration starts when the Database Designer is saved.
- The migration of existing transponder data can take some time.
- For projects that are already in use, it may be necessary to reprogram control systems in the field.

12.3. Creating an input mask

The individual input mask for the new project is created on the *Input mask* tab.

Important!

The structural element for the serial number (UID) is already created automatically in each individual input mask.



1	*Undo*	Undo the last action.
	Redo	Redo an action that was undone.
		Language selection: The texts and designations of input fields can be individually defined for English and German.
	Create input mask	An input mask is generated automatically based on the previously defined database fields. For further information, see *12.3.1. Generating an input mask automatically on page 29*.
2	*Structure*	Structure of the input mask: This consists of containers and other elements and the available database fields.
	Delete	Delete an element.
	Move up	Move an element up.
	Move down	Move an element down.
	Move to a higher level	Move element to a higher level.
	Move to a lower level	Move element to a lower level.
	Collapse structure	Collapse the structure.
	Expand structure	Expand the structure.
	Search	Search function for structural elements
3	*Available database fields*	The database fields available here are the ones that have been defined on the “Database” tab. They can be added to the structure either automatically or manually, see *12.3. Creating an input mask on page 27*.

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4	*Input mask elements*	Elements for creating the input mask
	Container	Groups elements that belong together and can be arranged hierarchically.
	TextBlock	Contains write-protected text such as field names, descriptions and comments.
	TextBox	Input field
	CheckBox	Enables or disables the action in question.
	ComboBox	Drop-down menu for a selection list
	DatePicker	View and select a calendar date
	HexEditor	Display in the Hex/ASCII editor
6	*Properties*	The corresponding properties can be changed or defined, depending on the structural element that is selected in the *Structure* or *Preview* panel.
	Comment	Internal comments that are displayed for the relevant element in the *Structure* panel. *Comments* can be used to make the structure of the input mask clearer.
	Line break	Line break before the selected container or element
	Adjust width automatically	The width of the selected container or element is adjusted automatically.
	Width in %	Width of the selected container or element in relation to the neighboring elements
	Margins	Distances from the respective neighboring element
	*Style**	Style
	*Font**	Font
	*Text**	Text to be shown in the TextBlock structural element
	*Database field binding**	Binding of the element to a database field.
	*Designations for selection list**	Designations for the entries in the input mask drop-down menu. The values for the selection list from the *Database fields* tab are stored in the database, however.
7	*Preview*	Preview of the input mask for writing the transponders

*Available only for certain structural elements.

The individual input mask can be created as follows:

› *12.3.1. Generating an input mask automatically on page 29*
› *12.3.2. Creating an input mask manually on page 29*

12.3.1. Generating an input mask automatically

Important!

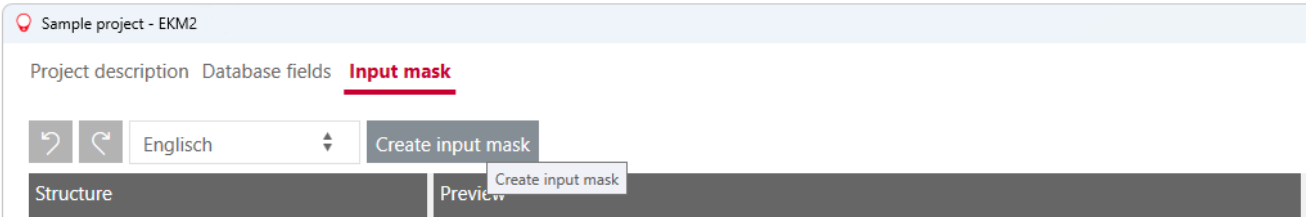
When an input mask is generated automatically, all existing input fields and their properties are overwritten.

- All manual changes are overwritten and reset to the default settings. This applies to:
  - Structure
  - Properties of structural elements
  - Bindings to database fields
  - Texts and designations
- If further database fields are created after the first input mask was automatically generated, we recommend adding the new database fields to the structure manually, see *12.3.2. Creating an input mask manually on page 29*.

Prerequisite:

- Database fields have been defined in the *Database fields* panel.

1. Click the *Create input mask* button.



➡ The newly generated input mask is displayed in the *Preview* panel.

2. In the *Structure* panel, move the individual elements via drag&drop or the relevant buttons as required.
3. In the *Properties* panel, define comments and texts and edit layout features as required.
4. Save the project.

12.3.2. Creating an input mask manually

Prerequisite:

- Database fields have been defined in the *Database fields* panel.

1. In the *Input mask elements* panel, select the *Container* element and use ⊞ to add it.

➡ The newly added container is displayed in the *Structure* panel.

2. In the *Available database fields* panel, select the required database field and use ⊞ to add it.

➡ The database field along with the respective standard input element and data binding is added to the selected container in the *Structure* panel.

3. If necessary, use the *Input mask elements* panel to select the *Textblock* element and use ⊞ to add it.
4. If required, use the *Structure* panel to move containers and elements via drag&drop or the relevant buttons.
5. Add further database fields as described in steps 1 to 4.
6. In the *Properties* panel, define comments and texts and edit layout features.
7. Save the project.

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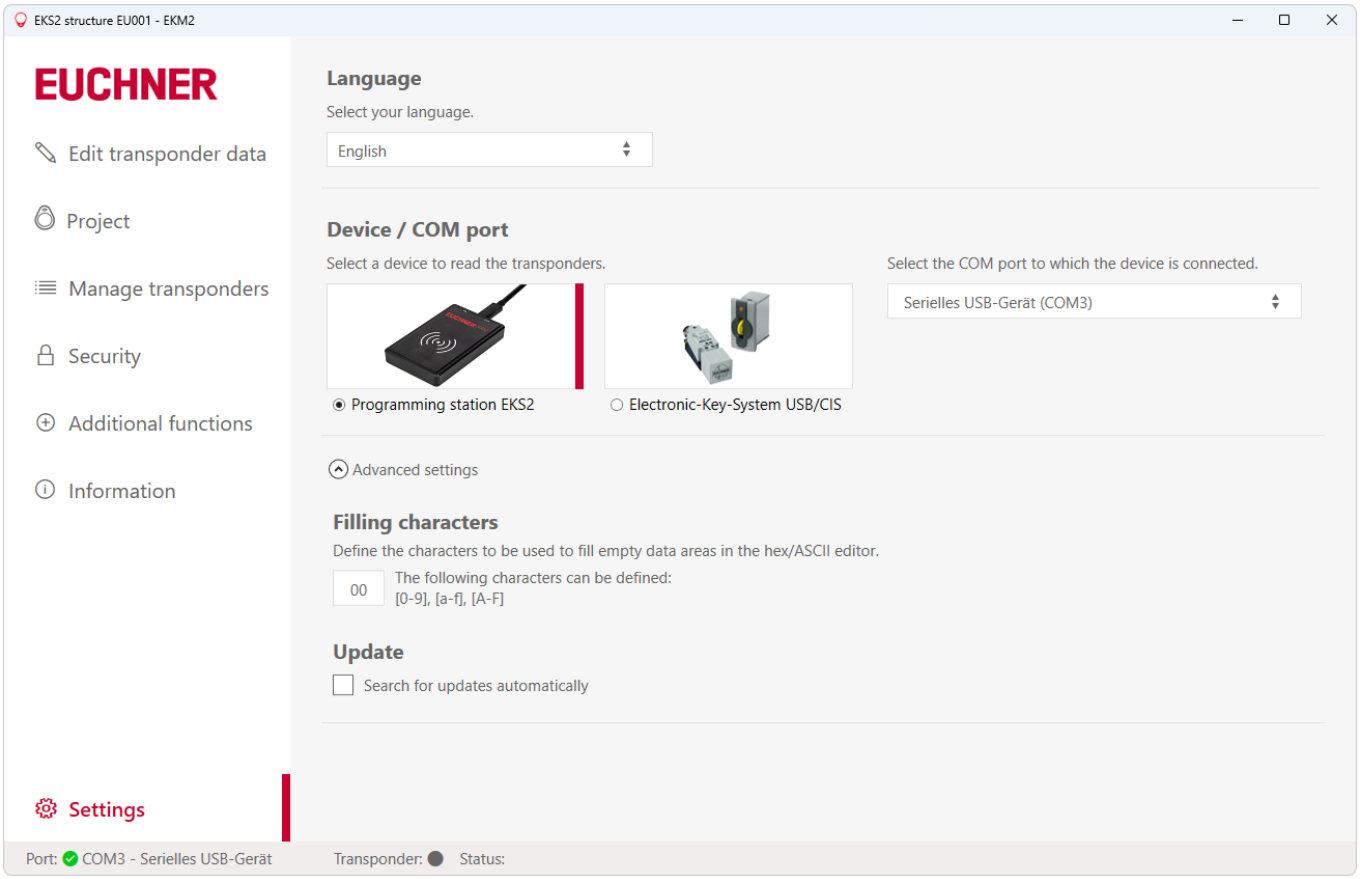
13. Changing settings

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



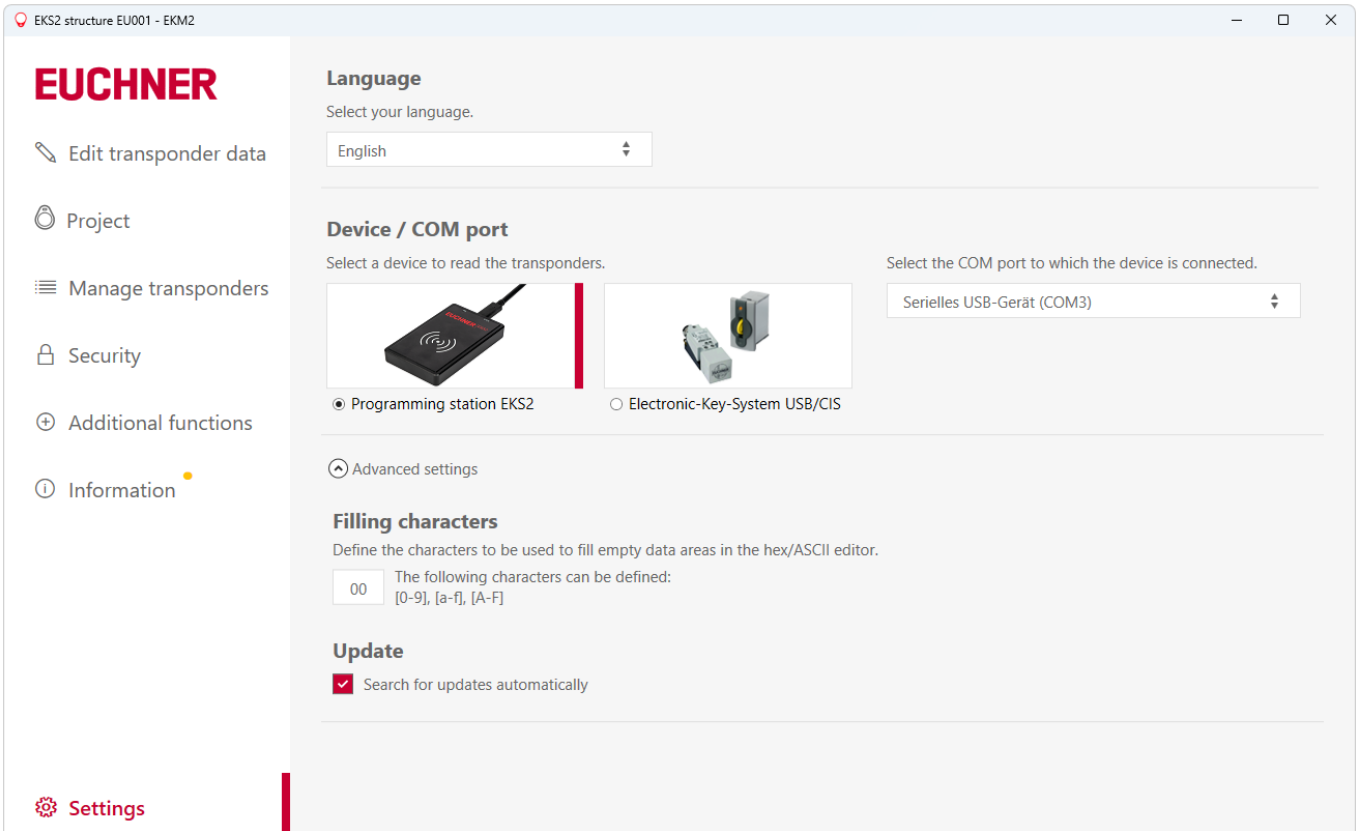
The following configurations can be carried out in the *Advanced settings* drop-down menu:

- Define filling character (see chapter *5.2. Hex/ASCII editor on page 12)*
- Search for updates automatically (see chapter *14. Updating software and firmware on page 31*)

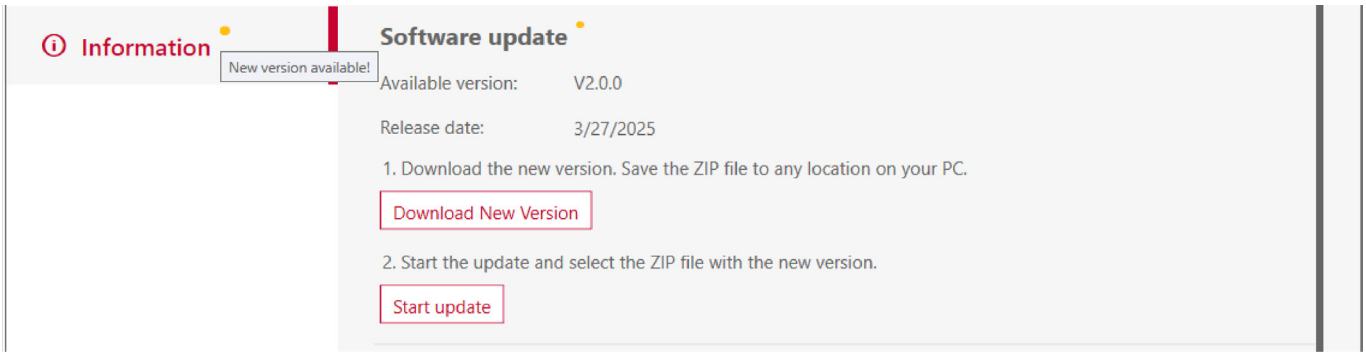
14. Updating software and firmware

14.1. Updating Electronic-Key-Manager EKM2

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 *Information* menu item when a new update becomes available:



2. Click the *Download New Version* button in the *Information* menu item.

➡ A ZIP file is downloaded.

3. Click the *Start Update* button.
4. Select the ZIP file.

➡ The application is closed.

➡ The Windows input prompt opens automatically.

➡ Once the update is complete, the application will open again automatically.

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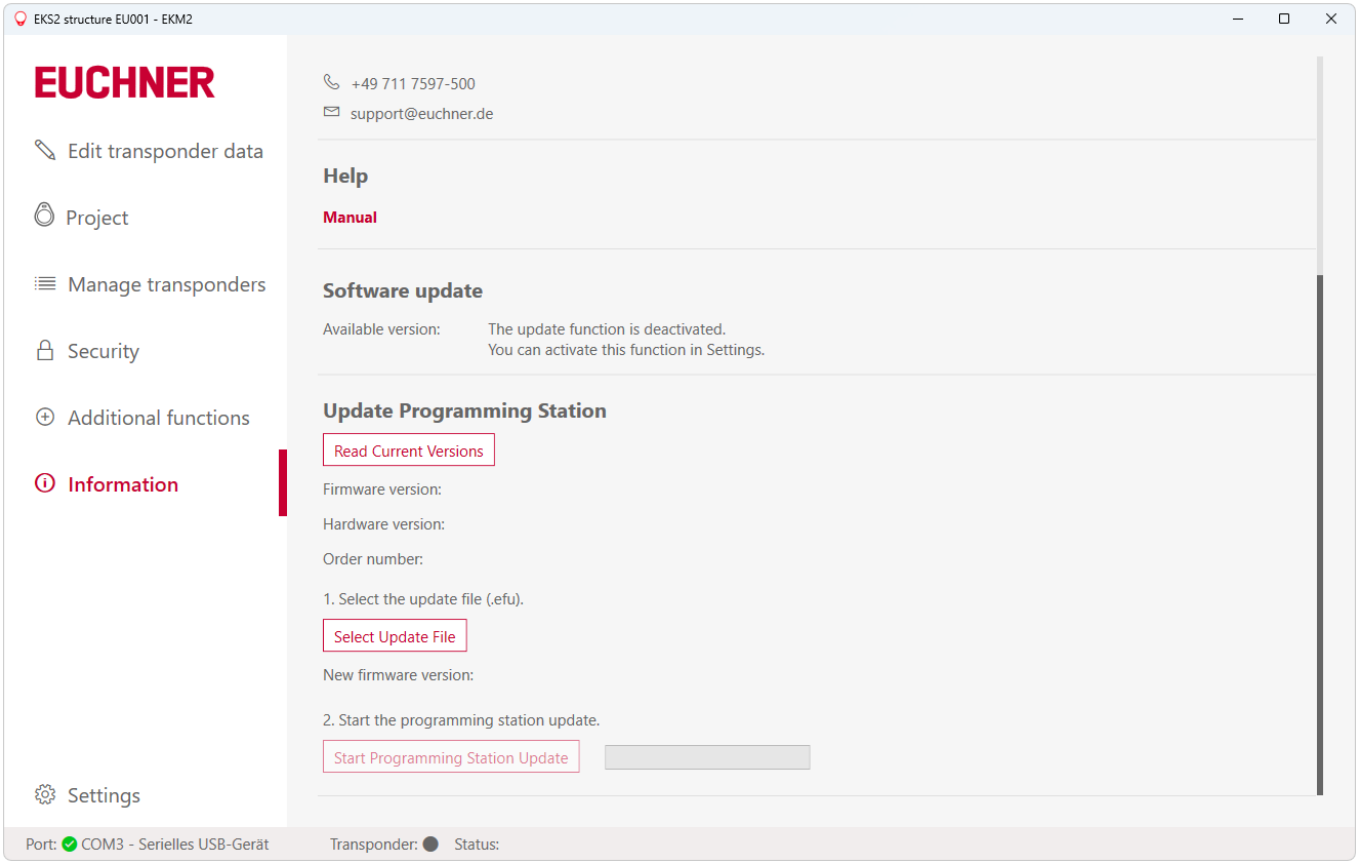
14.2. Updating EKS2 programming station firmware

With the aid of the Electronic-Key-Manager EKM2 software, it is also possible to update the firmware in the EKS2 programming station.



	Important! You will require the corresponding firmware file (.efu) to update the programming station's firmware. It can be requested from the EUCHNER support team.

1. Copy the firmware update file to a local directory on the PC, then unzip and save it.
2. Click *Select Update File* and select the new .efu file in the directory where it is saved.
3. Click *Start Programming Station Update*.

➡ The new firmware for the programming station is installed.

15. Data backup

The application software does not have a function for performing automatic or manual data backups. Therefore, to back up data that are created with the Electronic Key-Manager EKM2, appropriate measures must be taken in the external IT environment.

16. FAQ – Frequently Asked Questions

16.1. For what is the project password required?

The project password is required:

- to display the current user access key
- to generate a new user access key, see chapter *11.3. Managing security settings on page 19*

It is not required to edit the transponder data.

16.2. Can I assign a new project password without changing the user access key?

The project password is independent of the user access key. If it is changed, there is no effect on the user access key.

16.3. I have changed the user access key. Can I continue to use transponders already written in my project?

No, that is not possible. Transponders already written and the EKS2 systems in use must be reset to the factory settings.

You will find further information in chapter *11.3.2. Using transponders after changing the user access key on page 20.*

16.4. I have written transponders. Why aren't they displayed under *Manage Transponders*?

Possible causes are:

- The project with which the transponders were written is not open.
- The project with which the transponders were written has been reset.
- A user deleted the data records because the transponders have been lost or are expired.
- No new data were written to the transponders; only the existing data were read.

16.5. I would like to use the application software on another PC. How can I transfer the license?

To transfer the license, you will require the license document for your software.

1. Click the activation link to activate the license.
2. Click the *Transfer licenses* button and follow the instructions.

16.6. I would like to change the structure of a predefined project and individually adapt it to my requirements. How do I edit a predefined project?

You cannot change the structure of a predefined project. However, you can create a new project and use a predefined project as a template. You can then change the structure with the help of the Database Designer.

You will find further information in chapter *12. Database Designer on page 22.*

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Edition:
MAN20001766-03-06/26
Title:
Software Manual
Electronic-Key-Manager EKM2
(translation of the original operating instructions)