ESFVISU
EIB editor, version 1.2

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1 Technical requirements

1.1 Hardware

Processor	Pentium IV or equal, running at 1200 MHz.
Main memory	256 MB
Free disk space (additional disc space requirements depend on the configured archives)	40 GB
Screen resolution	1024 x 768 Pixel
Colors	Color depth min. 16 Bit per Pixel.
Interfaces	Serial or USB interface to connect EIB with EIBA FALCON driver

1.2 Software

WINDOWS 95	NO
WINDOWS 98, First Edition	NO
WINDOWS 98, Second Edition	YES
WINDOWS ME	YES
WINDOWS NT	NO
WINDOWS 2000, all versions	YES
WINDOWS XP, all versions	YES

1.3 Process interface

For the purpose of European Installation Bus (EIB), the FALCON driver of the EIBA (EIB Association) is used.

Optional the ESFVISU is equipped with an OPC (OLE for Process Control)- client, so that instead of EIB, or additonal to EIB, OPC- servers, that are available for a multitude of automation systems, can be used for the processing connection.

> ***Attention:*** *Under Windows 2000 the FALCON driver has to be installed manually from the setup CD !*

1.4 Import from ETS (EIBA Tool Software)

ETS 2 version 1.3	YES, use ETS "OPC - Export"
ETS 2 versions 1.1, 1.2 and 1.3	YES, use print report redirected to file.
Older ETS - versions	NO

1.5 Microsoft Internet Explorer, Version 6; DirectX, Version 9.0b

These applications are required; they can be installed or updated from the setup CD.

2 First steps

The ESFVISU EIB editor is part of the ESFVISU visualization package. It is used to connect to the European Installation Bus (EIB) and helps to put EIB into operation with the ESFVISU system.

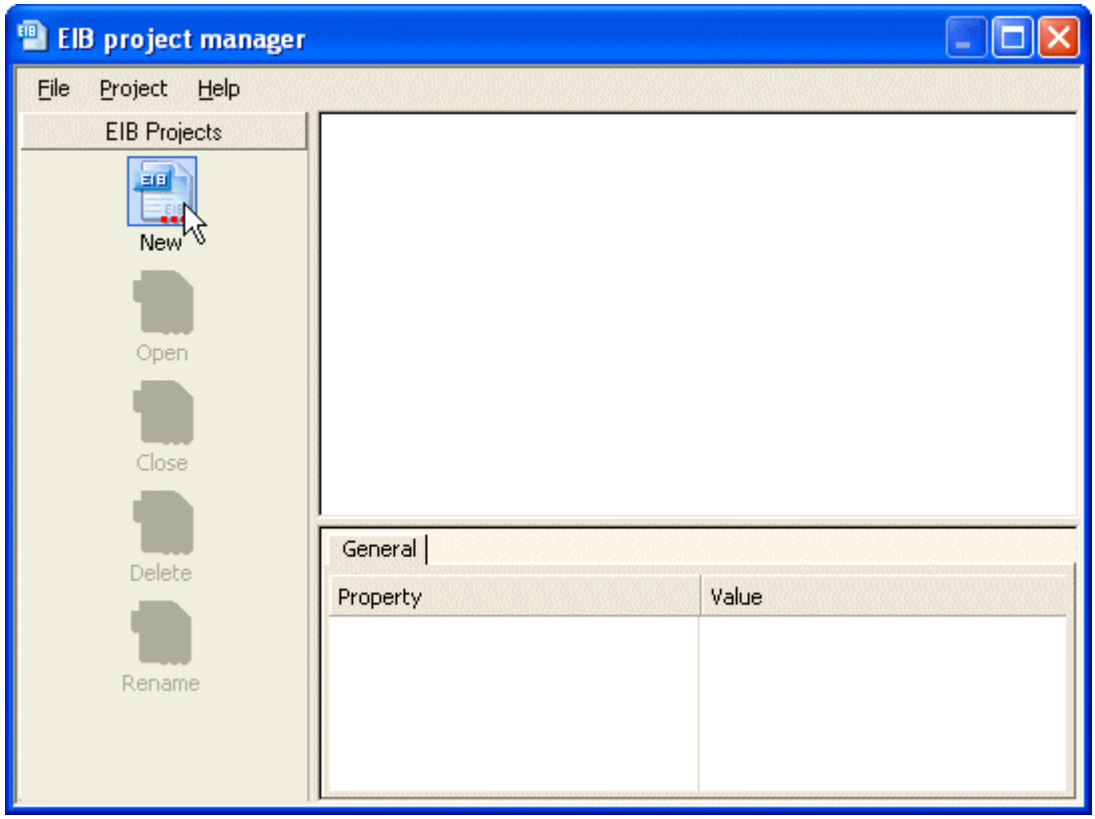
In order to clearly distinguish different applications, we use different colors for the application's icons, **blue** for the **EIB editor**.

2.1 Step 1: Create EIB project

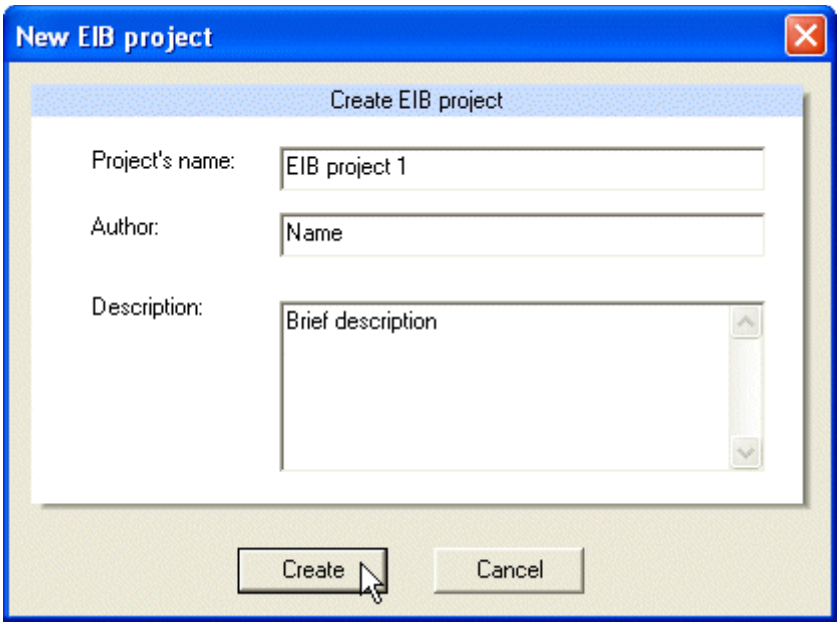
After the EIB editor has been started, the projects management dialog is started automatically.

The projects management dialog also can be started with the menu option **File – Projects** or with a click on the symbol  in the toolbar.

In the projects management dialog new projects can be created and existing projects can be maintained.



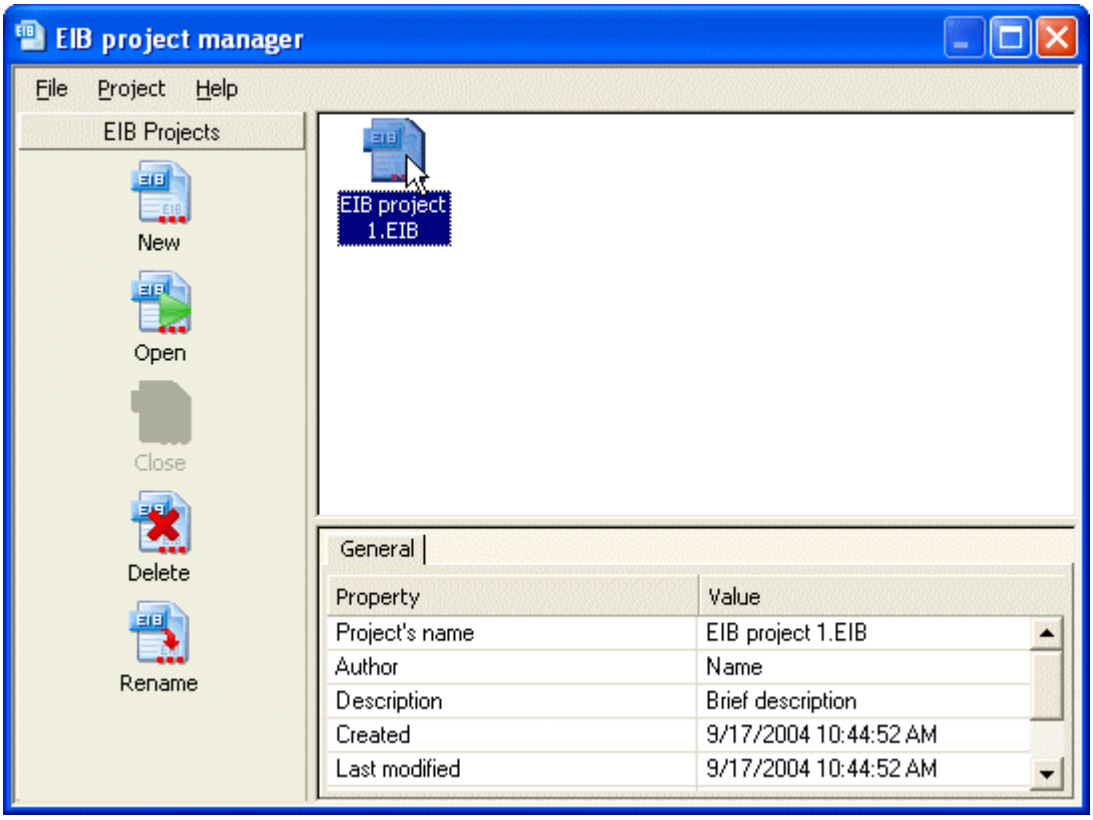
New: Click on button **New** starts a dialog to define a new EIB project.



Project's name: Unique name of the EIB project.

Author and description: It is useful but not mandatory to enter the author's name or the project description. These entries can be changed later.

Create: Press button **Create** to create the project. It will appear in the projects list of the projects management dialog.



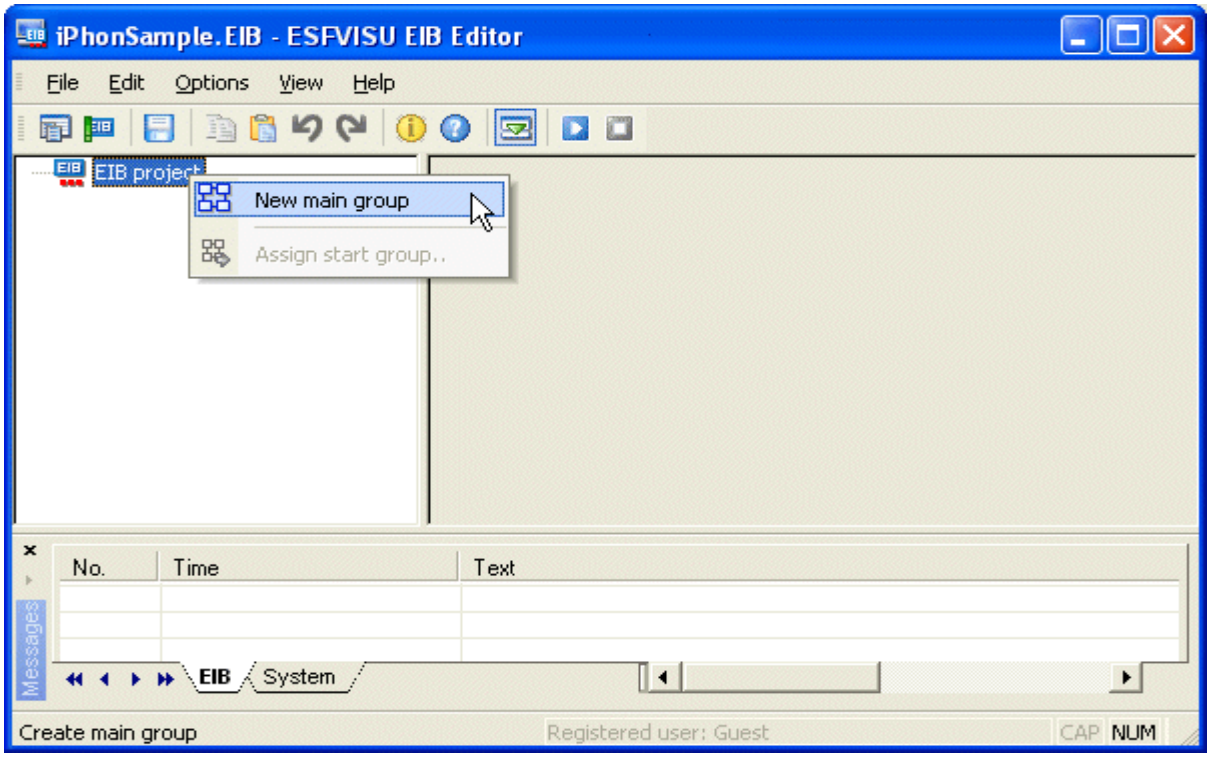
Open: Click on button **Open** to open the selected project. Alternatively double click on the project's icon.

2.2 Step 2: Configure EIB group addresses

EIB group addresses can be imported from an ETS project. This method will be described later. Alternatively, they also can be configured manually.

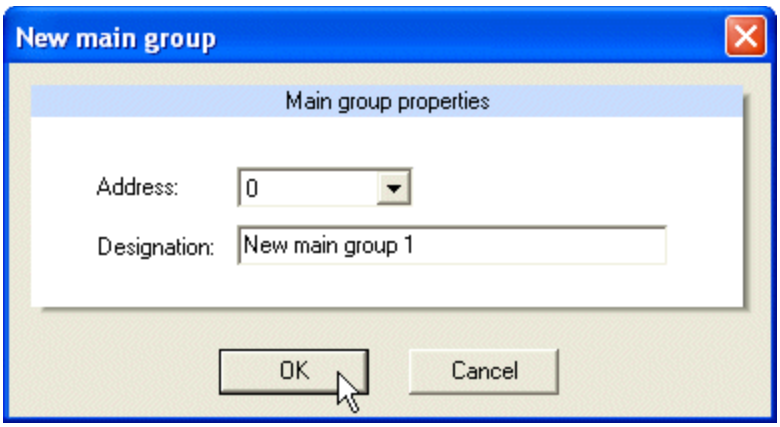
2.2.1 Create EIB main groups

First open the newly created EIB project.



Create EIB main group:
Click right on the project symbol in the tree view to open the context menu.

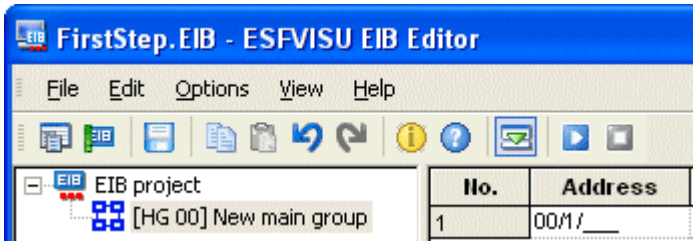
Click on menu option **New main group** opens a dialog to define a new EIB main group. Enter the main group address and a name for the main group. Press button **OK** to commit the data and close the dialog.



This method can be used to create more EIB main group addresses. Click right on a main group address to create an EIB middle group address, click right on an EIB middle group address to create an EIB subgroup address. This description applies if the EIB 3- level address scheme has been activated, otherwise – when the EIB 2- level address scheme is activated - you can create subgroups from main groups and middle groups do not apply.

2.2.2 Create EIB subgroups

With a left click on a main group – in case of the EIB three- address scheme click on the middle group – the editor displays a list of subgroup addresses which is initially empty.



Now to define a complete group address, a subgroup must be defined. The subgroup along with other address parts forms the complete EIB group address.

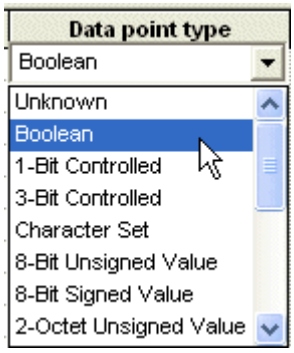
Click on column **Address** in the empty row to start defining the subgroup address. The cell will show a formatted edit field for an EIB group address with already filled- in parts for the main group (and possibly the middle group in case of the three- address scheme)..

In addition to the group address value, some more information is required to properly interpret EIB telegrams.

Name:

Enter a name for the group address. This is a mandatory field! The EIB editor and other parts of the system will refer to the EIB group address by this name.

No.	Address	Designation
1	00/0001	Light 1

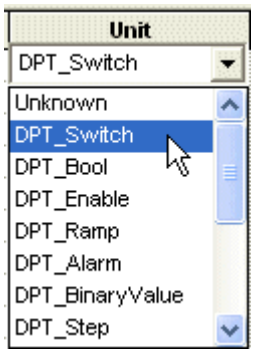


Data point type: Type of the EIB address

Important: *A datapoint type must be assigned to each group address. If no datapoint type is assigned, the EIB Editor cannot encode or decode the EIB telegrams.*

This is a mandatory field! The editor will interpret EIB telegrams based on the data type.

The different data points are described later. However, for one bit information (**On/Off**) the data point type Boolean is always applicable.



Unit:

The unit should be defined, but is not strictly mandatory. If the unit has been defined for an EIB group address, the EIB editor will be able to show a plain text message for the telegram in the messages list.

Rights:

This field decides on how the EIB address can be used.

None: This is the default: Neither read nor write access is allowed. It won't be possible to read the EIB group address nor to write values to the EIB group address. Still spontaneous messages from the EIB group address can be received and interpreted.

Read: It is not possible to send a value to the EIB group address but it is possible to query the value and spontaneous messages will be received and interpreted.

Write: It is possible to send a value to the EIB group address and spontaneous values can be received. However, write access does not include read access.

Read/Write: All rights, it is possible to send a value to the group address, to query the value and to receive spontaneous messages from the group address.

> ***Be careful:*** *It is a common error that rights have not been assigned properly.*

Value: When values are received from a group address, then they are displayed in this field. If write access is allowed, then you may enter a value in this field and send a value to the EIB group address. This will be described later and is a feature provided to verify the proper operation of the EIB installation.

Description: Optional comment.

> ***Note:*** *When you move the cursor to another row, either with the mouse or keyboard keys, the input of the current EIB group address will be committed. Leaving the edited row will commit the row's data!*
>
> *A new empty row will be displayed to enter the next EIB group address.*
>
> *The cursor can be moved either with mouse click on a cell or keyboard arrow keys. The field under the cursor can be edited. To move the cursor between cells of one row, you may use the <tab> and <shift>+<tab> keyboard keys.*

2.2.3 Save project

Before the new group address definitions can be used, i.e. by the editor when interpreting telegrams from the EIB bus, the data must be saved.

If you have entered a new EIB group address, first move the cursor to another line to commit the date in the changed row.

Use menu option **File – Save** or click on symbol  in the toolbar to save the project.

2.3 Step 3: Connect to the bus

2.3.1 Connect PC and EIB

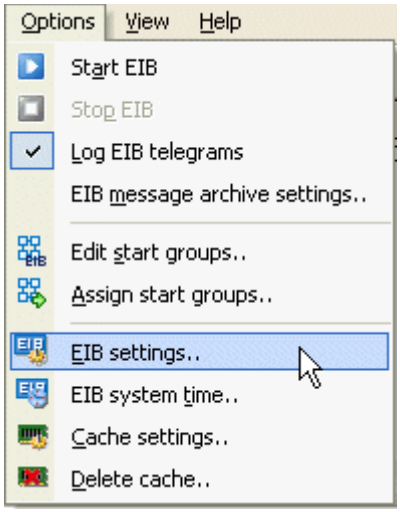
The PC can be connected to EIB with either a USB or a RS232 connection.

2.3.2 Setup EIB connection

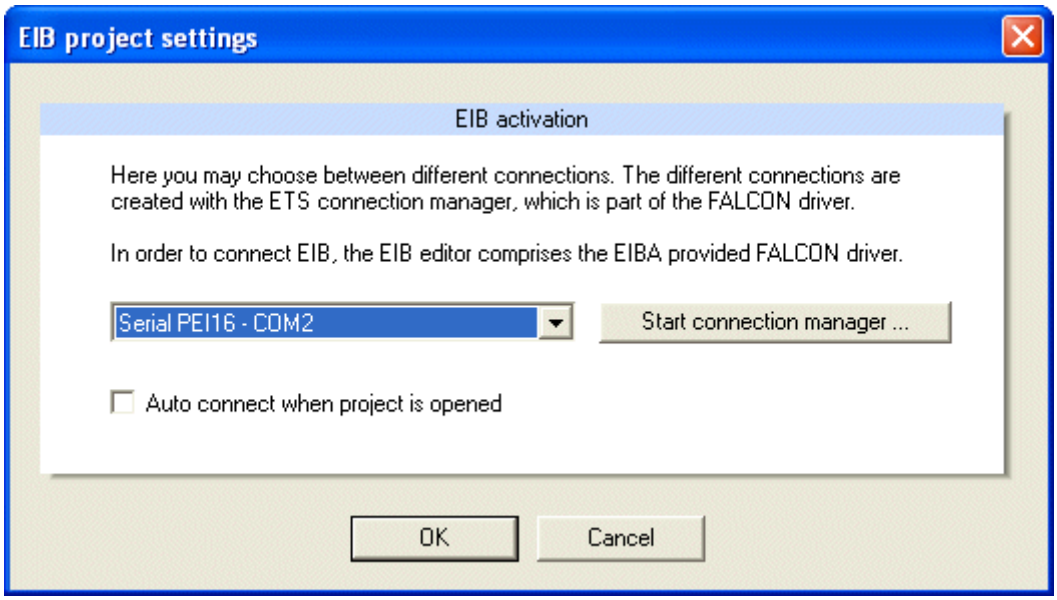
In order to connect EIB, the EIB editor comprises of the EIBA provided FALCON driver.

Currently, the FALCON driver provides the following options:

1. Connection with communication ports COM1 up to COM8 and handshake protocol (PEI16).
2. Connection with USB and handshake protocol (PEI16) or FT1.2 protocol (PEI10).

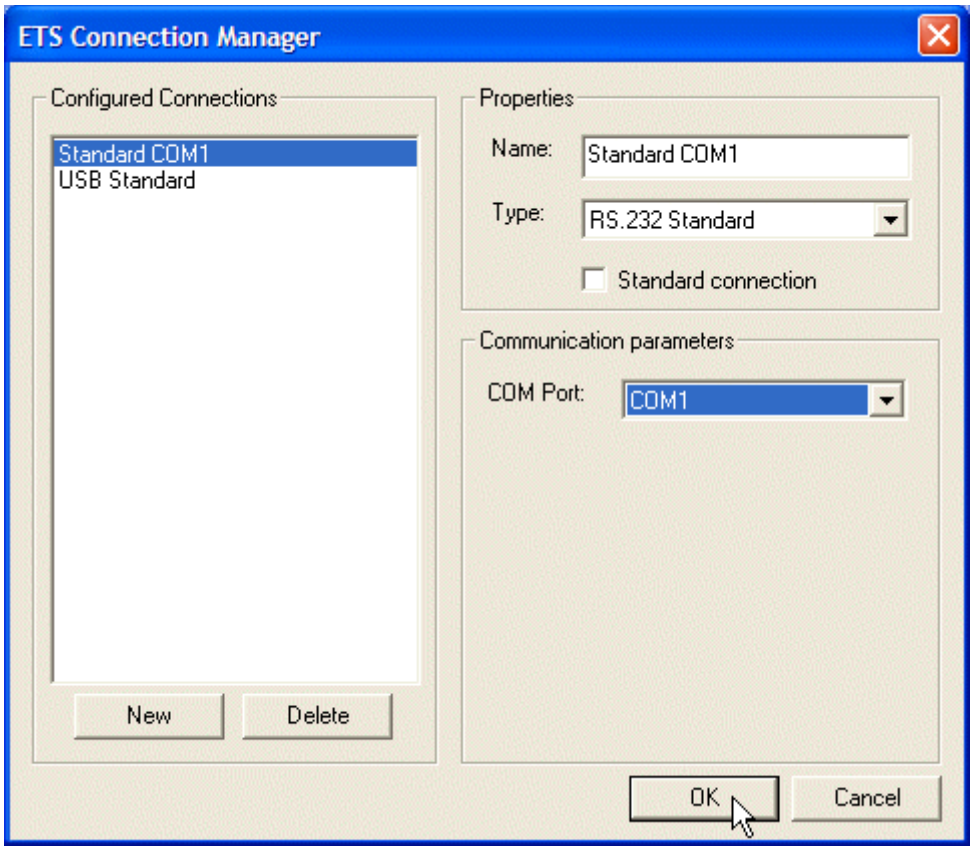


Use menu option **Options – EIB settings** to open the dialog for EIB connection settings.



In this dialog you may choose between different connections.

Initially no connection is available. The different connections are created with the ETS connection manager, which is part of the FALCON driver. Press button **Start connection manager** to start the ETS connection manager dialog.



First enter a name of the connection and choose type and communication parameters. Then press button **New** to create the connection based upon your specification.

The sample screenshot shows how a connection with name ***Standard COM1*** has been created. Press **OK** to close the dialog.

2.3.3 Start EIB connection

Once the EIB connection has been set up, you may connect the EIB editor to the EIB bus. Use the menu option **Options – Start EIB** to start the connection. Alternatively click on the symbol in the toolbar.

Click on the symbol in the toolbar or use the menu option **Options – Stop EIB** to close the connection.

You can see results of these operations and possibly already received telegrams in the messages window.

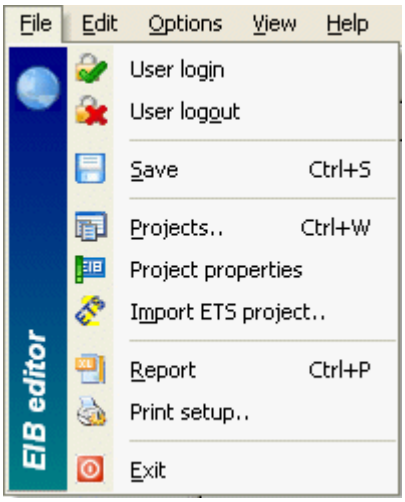
2.3.4 Open messages window

Use the menu option **View – Messages** to toggle the visibility of the messages window. Alternatively click on the symbol in the toolbar.

With the menu option **View – View last message** you may toggle, whether the messages list will always scroll automatically to the last message.

3 User interface

3.1 Menu



User login: Opens a dialog to login a user to the system.

User logout: Logout current user from the system.

Save: Saves the project.

Projects..: Opens dialog to create and maintain EIB projects.

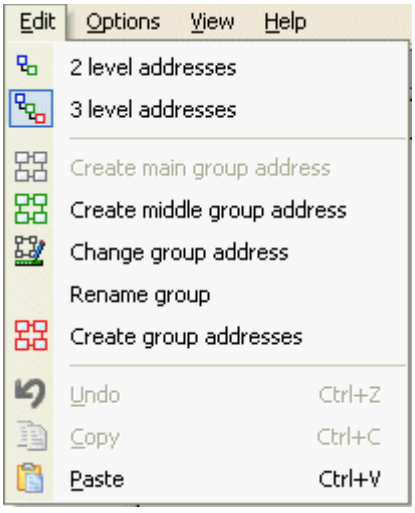
Project properties: Edit general project properties.

Import ETS project: Opens dialog to import an ETS project.

Report: Generates report for the project.

Printer settings: Select printer and printer properties.

Exit: Closes the editor. Shortcut ALT + F4.



2- level- addresses: Select 2- level EIB address scheme for group addresses.

3- level- addresses: Select 3- level EIB address scheme for group addresses.

New main group: Opens the dialog New main group.

New middle group: Opens the dialog New middle group.

Change group address: Opens the dialog change group address.

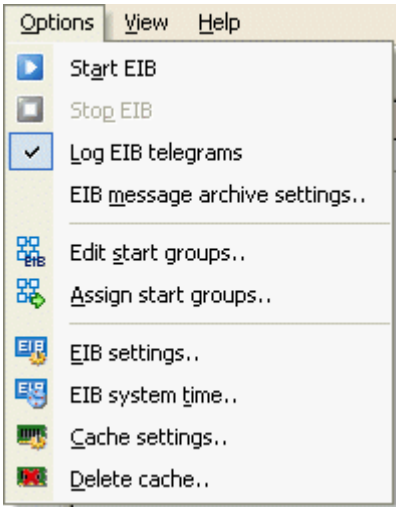
Rename group: Opens the dialog rename group.

New group address: Opens the dialog New group address.

Undo: Undo last action

Copy: Copy selected items to clipboard.

Paste: Paste items from clipboard.



Start EIB: Connects to the EIB bus.

Stop EIB: Disconnects from the EIB bus.

Save telegrams: Saves EIB telegrams in a file.

EIB archive settings ...: Opens dialog to edit archive settings.

Edit start groups...: Opens dialog to edit start groups.

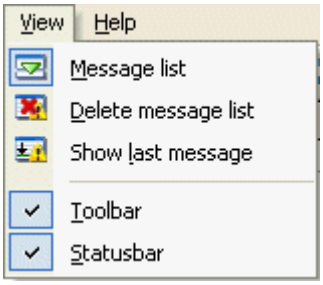
Assign start groups...: Opens dialog to assign start groups.

EIB settings: Opens dialog to configure the connection to EIB.

EIB system time: Opens dialog to update the EIB clock from EIB.

Cache settings: Opens dialog to configure the data cache.

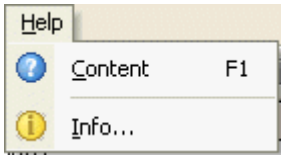
Clear cache: Clears the cache.



Message list: Toggles the visibility of the messages list at the bottom of the editor.

Delete Message list: The messages in the message window are deleted. This operation does not affect saving telegrams in an archive file.

Show last message: Toggles auto scrolling of the messages window. If turned on and a new message arrives, the messages window automatically scrolls to the newly inserted message.



Help: Opens help file.

Info: Shows version and copyright information.

3.2 Toolbar

Projects management: Opens dialog to create and maintain EIB projects.

Project properties: Opens dialog to edit general project properties.

Save: Saves the project.

Copy: Copy selected items to clipboard.

Paste: Paste items from clipboard.

Undo: Undo last action.

Redo: Redo last action, essentially this is the undo of the undo.

Info: Show version and copyright information.

Help: Open help file.

Messages: Toggles visibility of messages window at the bottom of the editor.

Start EIB: Connect to EIB bus.

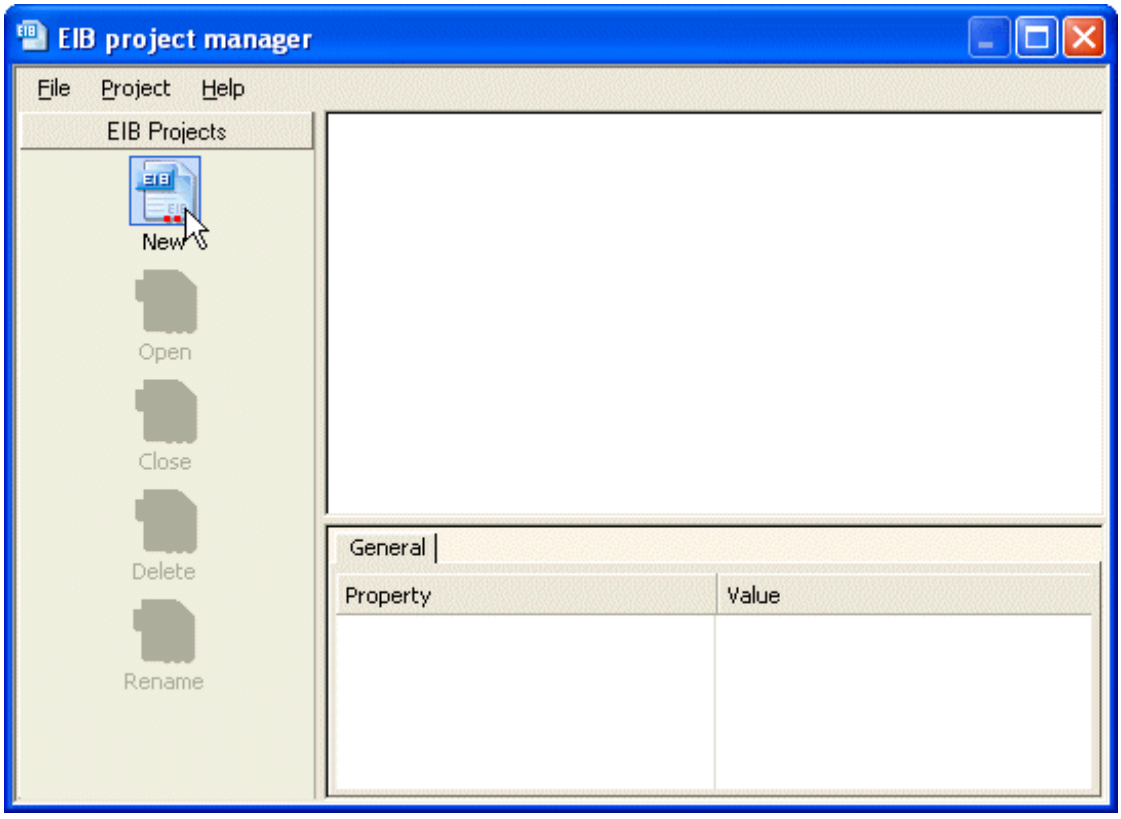
Stop EIB: Disconnect from EIB bus.

4 Functions

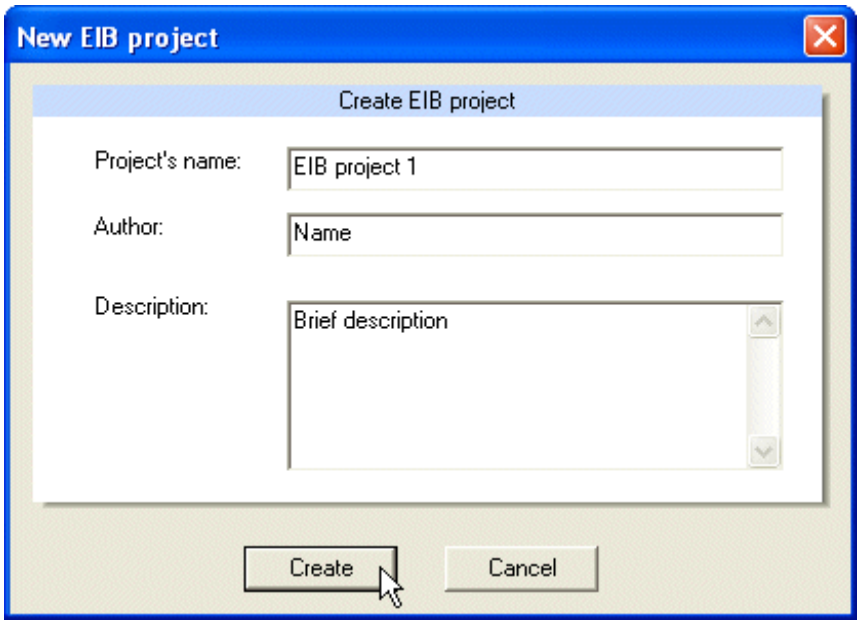
4.1 Create and maintain projects

Use the menu option **File – Projects** to open the projects management dialog. Alternatively click on the symbol in the toolbar.

The projects management dialog can be used to create, open, close, delete or rename projects.



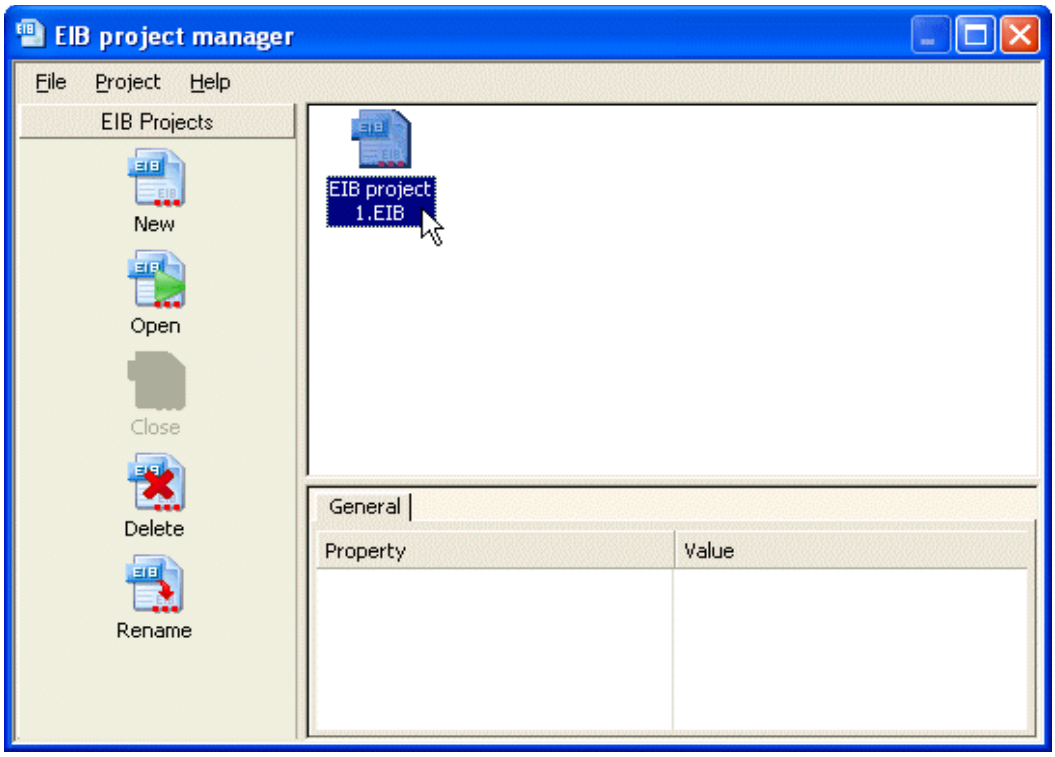
New: Opens a dialog to create a new EIB project.



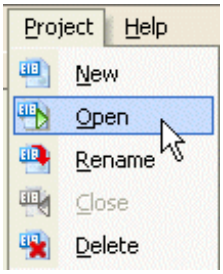
Project's name: Unique name of the EIB project.

Author and description: It is useful but not mandatory to enter the author's name or the project description. These entries can be changed later.

Create: Press button **Create** to create the project. It will appear in the projects list of the projects management dialog.



Open: Click on button **Open** to open the selected project. Alternatively double click on the project's icon. You may also open a project with a click on the project's symbol in the projects list.



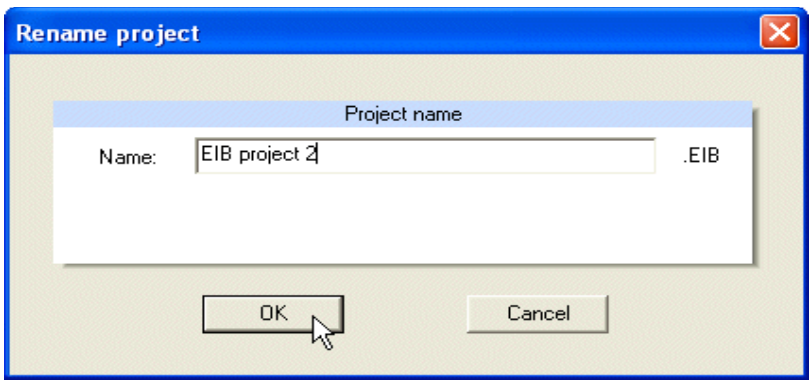
Close: Close selected project.

Delete: Delete selected project

Rename: Opens dialog to rename the project. Note that a project must be closed before it can be renamed.

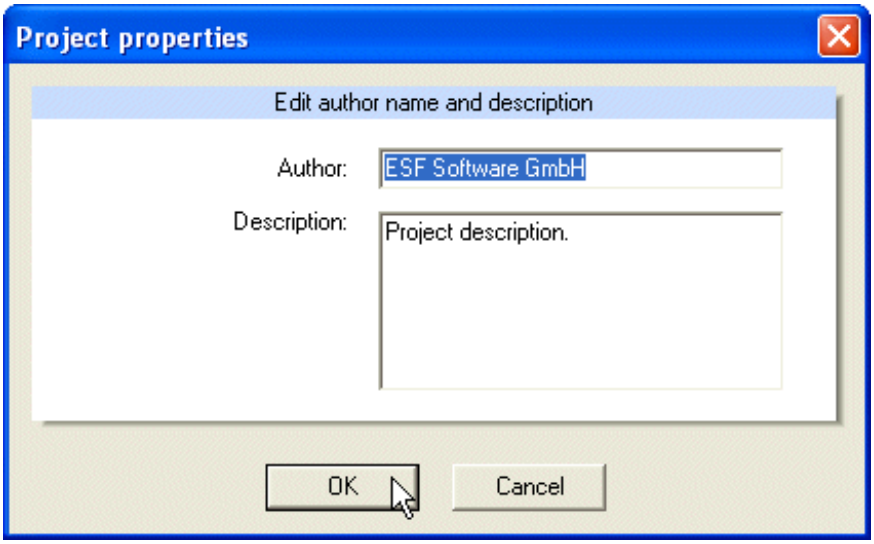
The extension **.EIB** is automatically added to the project's name.

Press button **OK** to commit the change and close the dialog.



4.2 Edit project properties

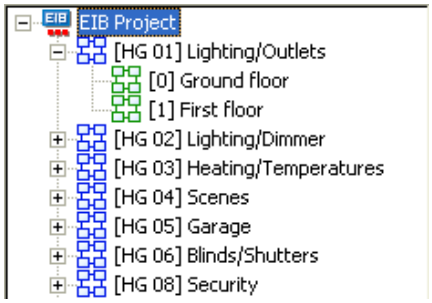
The Menu option **File – Project properties** opens a dialog to change general project's properties. Alternatively click on the symbol in the toolbar.



Press button **OK** to commit the changes and to close the dialog.

4.3 Create or edit EIB group addresses

EIB group addresses can be imported from an ETS project. This method will be described later. Alternatively, they also can be configured manually.

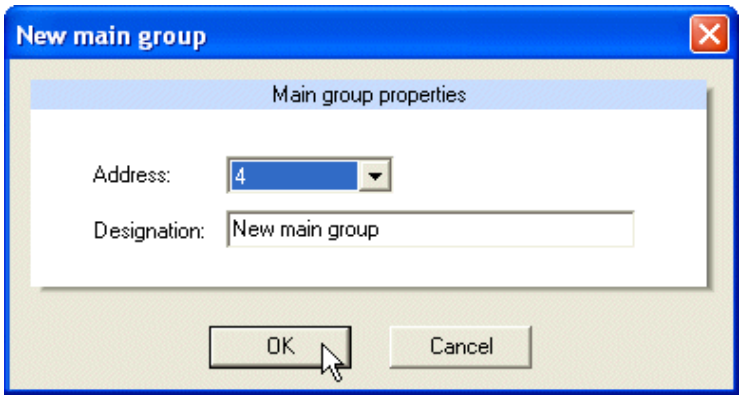


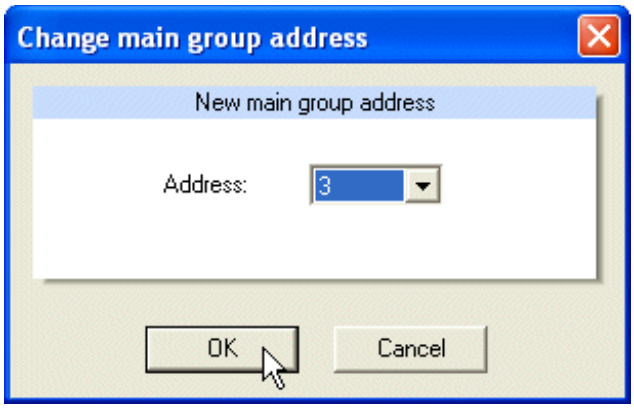
The screenshot on the left shows an EIB project with group addresses. The group addresses are displayed as a structure tree.

The example on the left refers to the ETS 3- level address scheme. You may freely choose to display group address either with two levels (main group / sub group) or with three levels (main group / middle group / sub group).

Create EIB main group:
Click right on the project symbol in the tree view to open the context menu and select **New main group**.

A dialog to enter the group address is opened (see screenshot, left hand).
Enter the address and a name for the main group and press button **OK**.



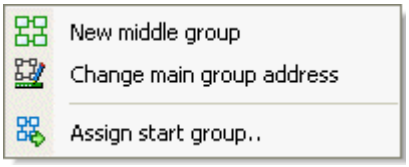


Edit EIB main group:

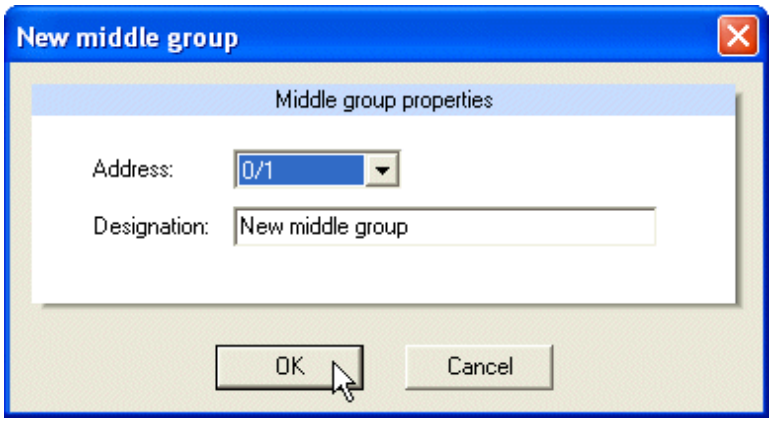
Right click on an EIB main group to open it's context menu and select **Change main group address** to change the main group's EIB address.

Create EIB middle group:

Open the context of a main group with right click on the EIB main group. The context menu provides the option to create an EIB middle group (or an EIB subgroup, if the 2-level address scheme is used).

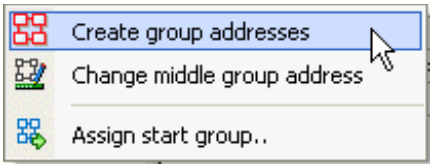


A dialog is opened to specify the EIB middle group.
Enter a name and choose an address, then press button **OK** to create the middle group and to close the dialog.



Edit EIB middle group:

Right click on the middle group to open the middle group's context menu.
Click on the option **Change middle group address** opens a dialog to change the address value of the middle group. Then press the button **OK** to commit the change and to close the dialog.

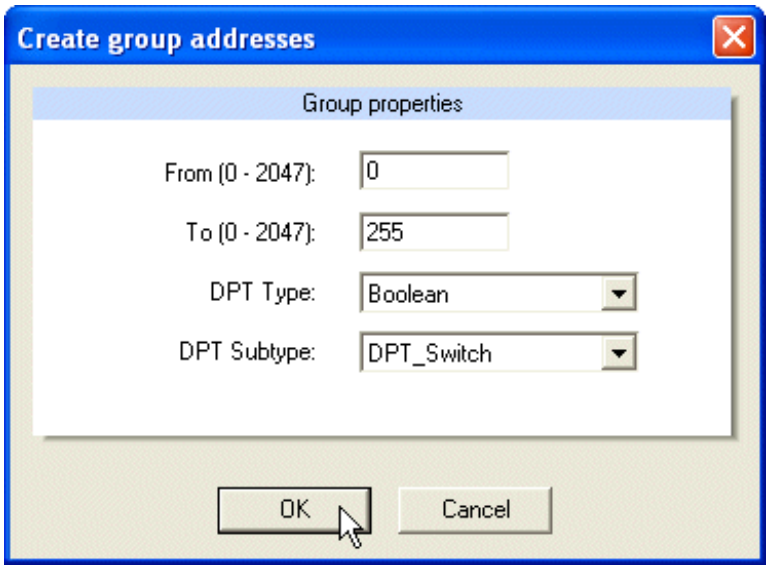


Create EIB group address:

There are two methods to define group addresses:

Method A: Left click on a main group or a middle group fills a grid with EIB group addresses defined in the range of the main group respectively the middle group. EIB group addresses can be created and modified in the grid. This is the method described in ***First steps***.

Method B: The other method is to create a complete range of EIB group addresses with a dialog. Right click on a main group address or a middle group address to open it's context menu and select the option **Create group address**.
A dialog will open to define a range of group addresses.



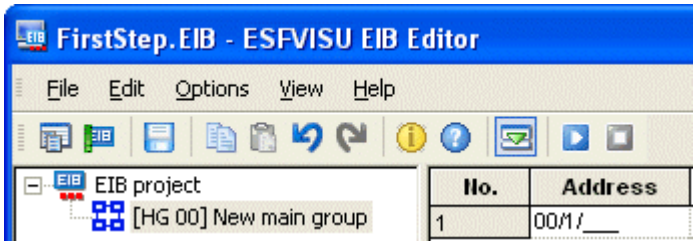
Fields **From** and **To** specify a range of EIB group addresses with the specified data point type and sub type. Press button **OK** to create the range of EIB group addresses and to close the dialog.

After the range of EIB group addresses has been defined, their properties can be refined in the grid.

If you use either method A or method B to create the group address, the project must be saved before the EIB editor will be able to interpret EIB telegrams according to this information.

4.3.1 Create EIB subgroups

With a left click on a main group – in case of the EIB three- address scheme click on the middle group – the editor displays a list of subgroup addresses which is initially empty.



Now to define a complete group address, a subgroup must be defined. The subgroup along with other address parts forms the complete EIB group address.

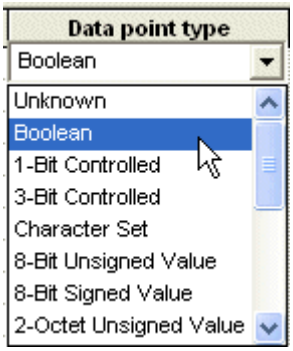
Click on column **Address** in the empty row to start defining the subgroup address. The cell will show a formatted edit field for an EIB group address with already filled- in parts for the main group (and possibly the middle group in case of the three- address scheme).

In addition to the group address value, some more information is required to properly interpret EIB telegrams.

Name:

Enter a name for the group address. This is a mandatory field! The EIB editor and other parts of the system will refer to the EIB group address by this name.

No.	Address	Designation
1	00/0001	Light 1

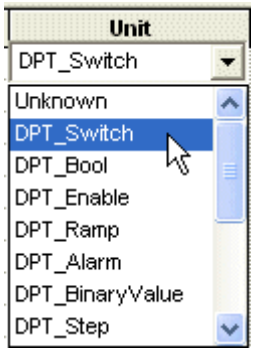


Data point type: Type of the EIB address

Important: *A datapoint type must be assigned to each group address. If no datapoint type is assigned, the EIB Editor cannot encode or decode the EIB telegrams.*

This is a mandatory field! The editor will interpret EIB telegrams based on the data type.

The different data points are described later. However, for one bit information (**On/Off**) the data point type Boolean is always applicable.



Unit:

The unit should be defined, but is not strictly mandatory. If the unit has been defined for an EIB group address, the EIB editor will be able to show a plain text message for the telegram in the messages list.

Rights:

This field decides on how the EIB address can be used.

None: This is the default: Neither read nor write access is allowed. It won't be possible to read the EIB group address nor to write values to the EIB group address. Still spontaneous messages from the EIB group address can be received and interpreted.

Read: It is not possible to send a value to the EIB group address but it is possible to query the value and spontaneous messages will be received and interpreted.

Write: It is possible to send a value to the EIB group address and spontaneous values can be received. However, write access does not include read access.

Read/Write: All rights, it is possible to send a value to the group address, to query the value and to receive spontaneous messages from the group address.

> ***Be careful:*** *It is a common error that rights have not been assigned properly.*

Value: When values are received from a group address, then they are displayed in this field. If write access is allowed, then you may enter a value in this field and send a value to the EIB group address. This will be described later and is a feature provided to verify the proper operation of the EIB installation.

Description: Optional comment.

> ***Note:*** *When you move the cursor to another row, either with the mouse or keyboard keys, the input of the current EIB group address will be committed. Leaving the edited row will commit the row's data!*
>
> *A new empty row will be displayed to enter the next EIB group address.*
>
> *The cursor can be moved either with mouse click on a cell or keyboard arrow keys. The field under the cursor can be edited. To move the cursor between cells of one row, you may use the <tab> and <shift>+<tab> keyboard keys.*

4.3.2 Save project

Before the new group address definitions can be used, i.e. by the editor when interpreting telegrams from the EIB bus, the data must be saved.

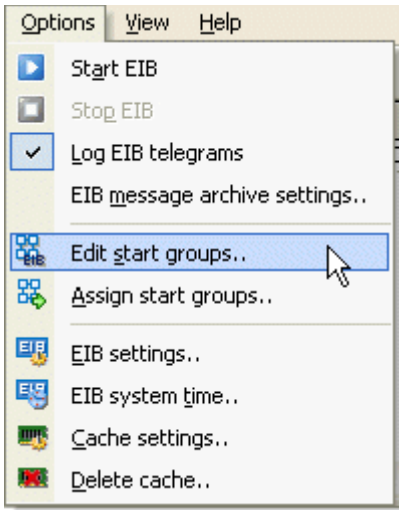
If you have entered a new EIB group address, first move the cursor to another line to commit the date in the changed row.

Use menu option **File – Save** or click on symbol  in the toolbar to save the project.

4.4 Create and maintain start groups

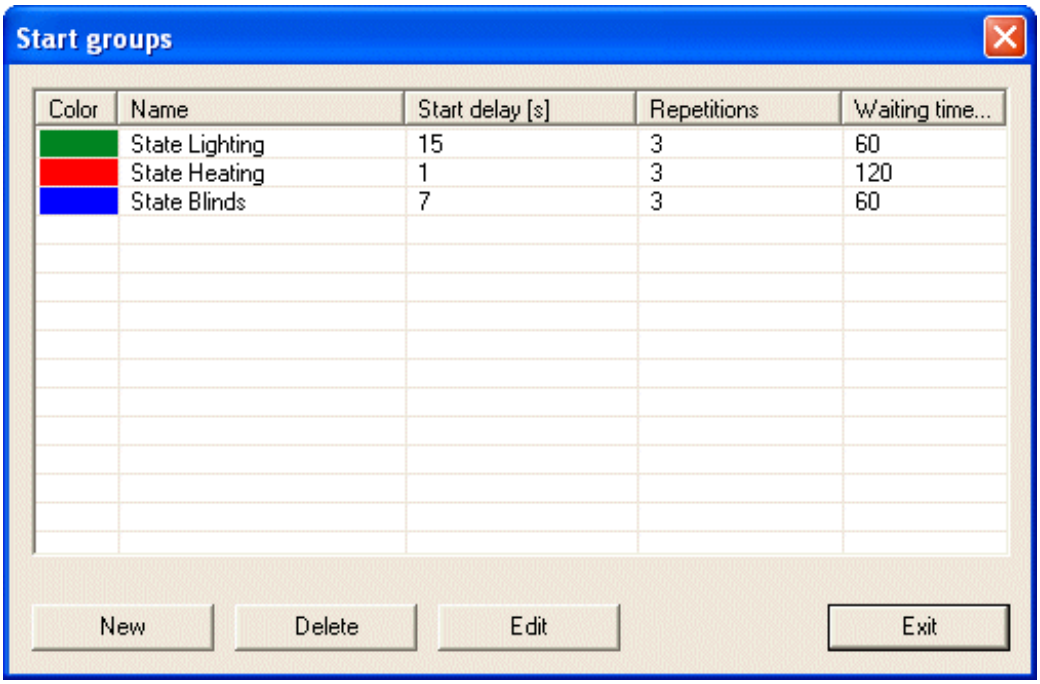
An important issue with EIB is the limited bandwidth. In particular when the EIB editor starts with large projects, it won't be possible to query all EIB group addresses at once.

The term **Start group** for a starting behavior, which can be assigned to EIB group addresses. Start groups are used to set up a time schedule, such that EIB group addresses will be queried without overloading the EIB bus.

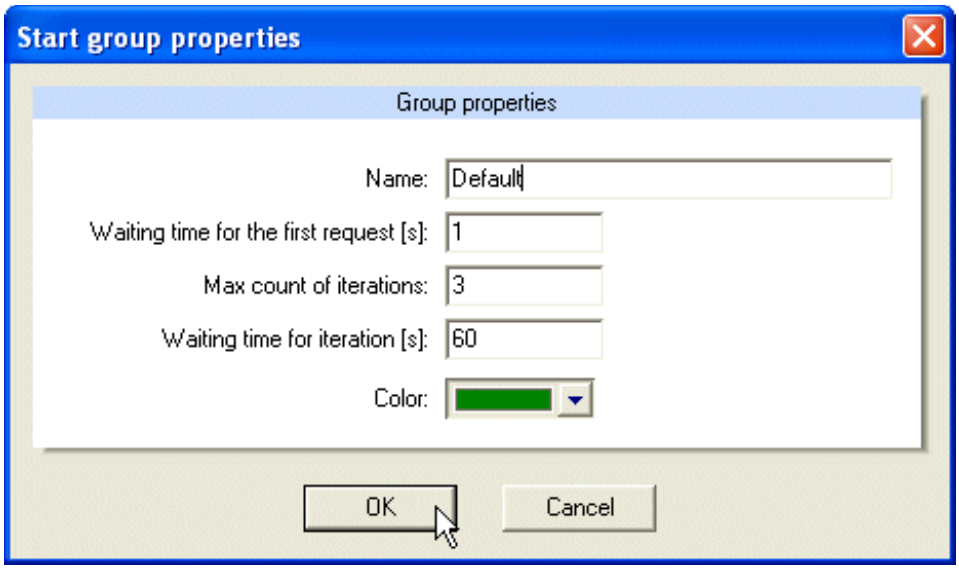


The Menu option **Options – Edit start groups** opens a dialog to define start groups, which later will be assigned to EIB group addresses.

Create start group:



The Button **New** opens a dialog to specify a new start group.



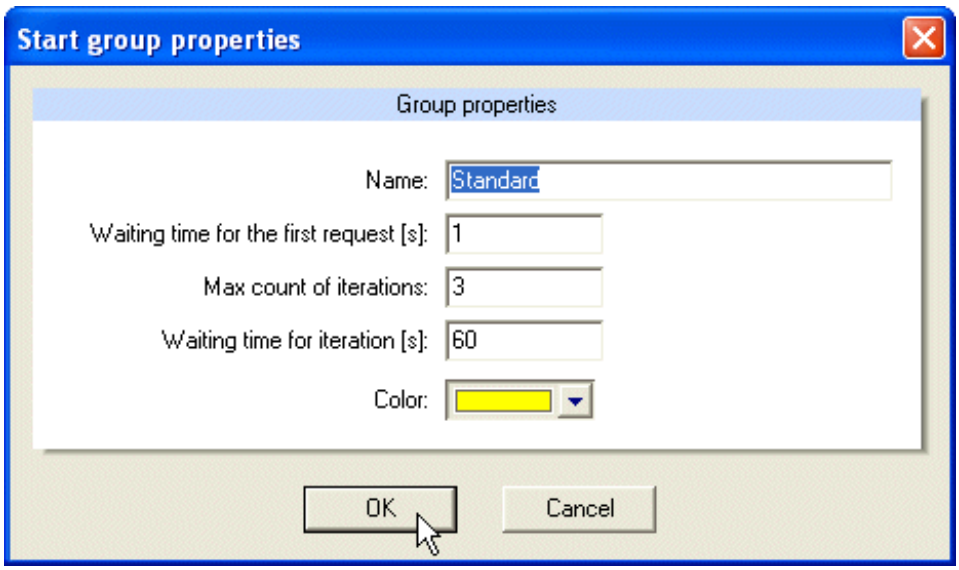
Enter a name for the start group, a color, and specify the behavior.

In general the behavior is to first delay the query for a number of seconds, then to try querying the EIB group address for a maximum number of attempts or until the query has been successful. Between each attempt add an additional delay.

Press the button **OK** to create the start group and to close the dialog.

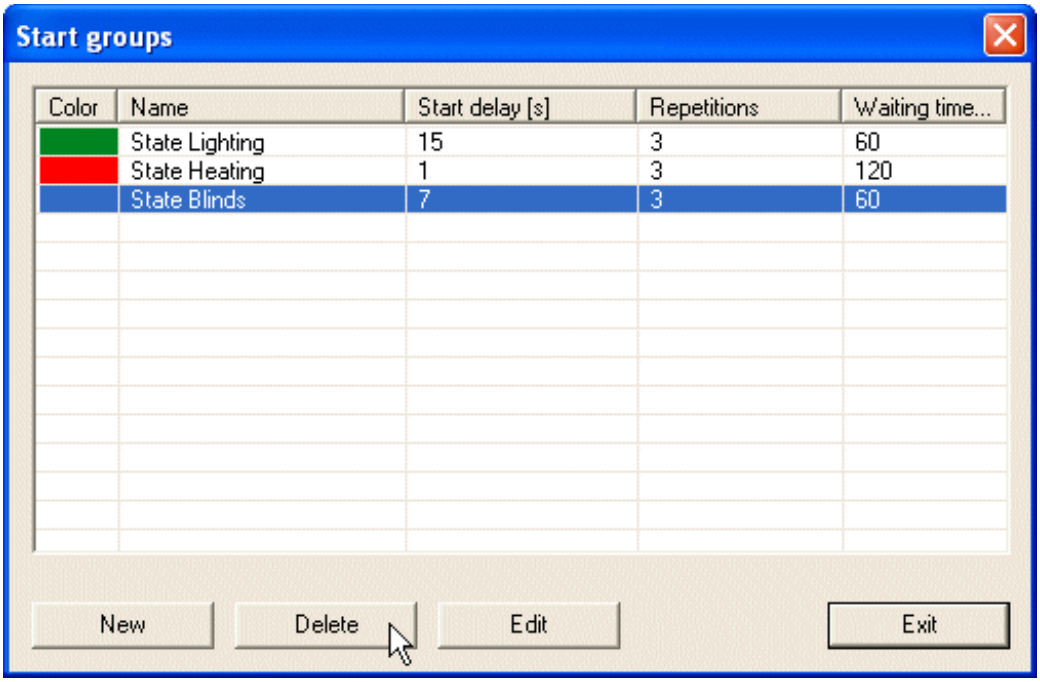
Edit start group:

Press the button **Edit** to modify the selected start group. A dialog is opened to modify the start group's properties.



Press the button **OK** to commit the changes and to close the dialog.

Delete start group:

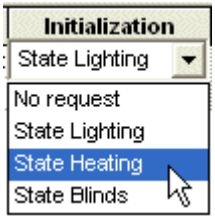


Press the button **Delete** to delete the selected start group.

Assign start group:

The start groups separate the starting behavior of EIB group addresses from the EIB group addresses themselves.

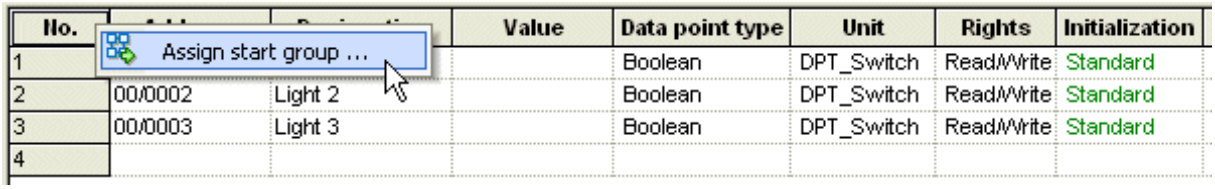
Le us assume that there are two start groups called ***Fast*** and ***Slow***, each assigned to a whole set of EIB group addresses. Then you may find out that ***Fast*** should not be quite so fast and delays should be prolongated. In this case modifying start group ***Fast*** will apply this to all assigned EIB group addresses at once. This is much more convenient than changing the starting behavior of each EIB group address individually.



To assign a start group to an EIB group address, in the group addresses grid click in the column **Initialization** of the respective row and select the start group in the combo box.

Assigning a start group to a selection of several EIB group addresses:

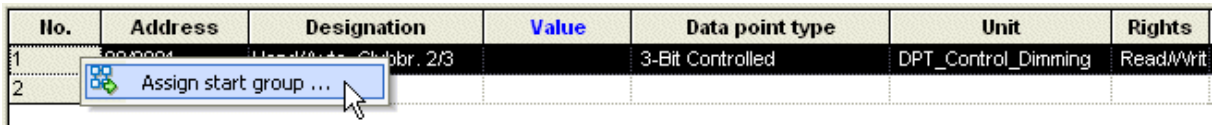
- Mark the selection with clicking on the first column of the respective rows while the keyboard key CTRL is pressed. Then release the mouse buttons.
- Click right opens a dialog to define the start group for the whole selection.



No.			Value	Data point type	Unit	Rights	Initialization
1				Boolean	DPT_Switch	Read/Write	Standard
2	00/0002	Light 2		Boolean	DPT_Switch	Read/Write	Standard
3	00/0003	Light 3		Boolean	DPT_Switch	Read/Write	Standard
4							

Assigning a start group for all EIB group addresses in the grid:

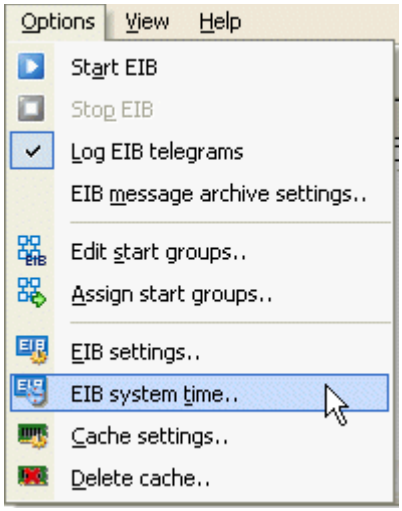
- Click on the top left cell of the grid to select the whole table.
- Click right opens a dialog to define the start group for the whole selection.



No.	Address	Designation	Value	Data point type	Unit	Rights
1		br. 2/3		3-Bit Controlled	DPT_Control_Dimming	Read/Writ
2						

Select the start group and press the button **OK** to commit the change to all selected rows.

4.5 EIB system time



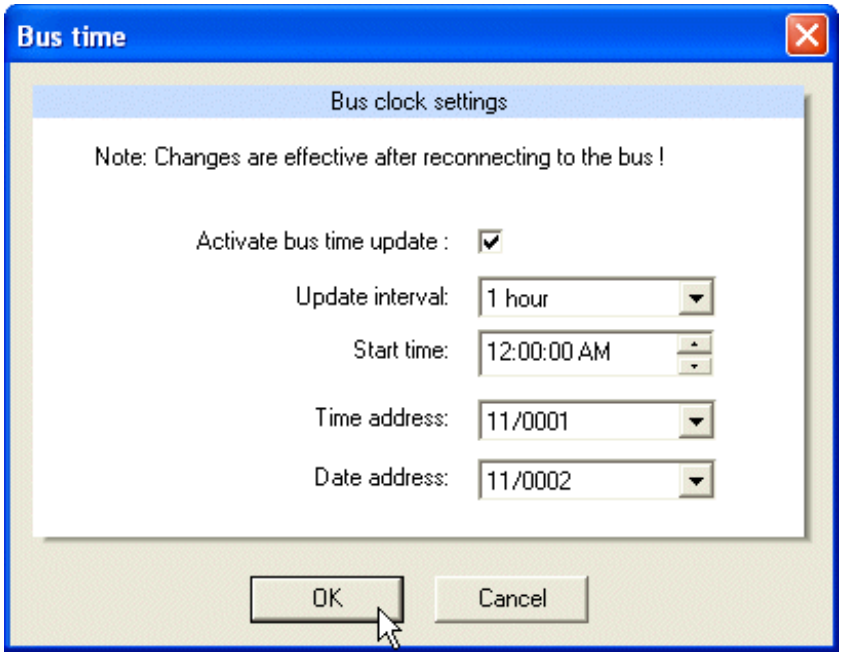
You may periodically send the PC time to the EIB bus in order to synchronize the EIB clock.

This is in particular reasonable, if the PC time is updated itself with reliable time information, i. e. automatically from the Internet or with a radio controlled clock.

The Menu option **Options – EIB system time..** opens a dialog to specify automatic updates to the EIB system time.

Specify whether automatic updates should be sent to the EIB bus, the EIB group addresses receiving the date and time information, the desired update interval and the starting time of the updates.

Then press **OK** to commit the changes and to close the dialog.



4.6 Application of EIB data types

The EIB data point types specify the meaning of transferred bus data. There are different interpretations of the raw data, depending on their data type.

The data packet cf c7, received from the EIB Editor, can have completely different meanings:

-291.84,	interpreted as 2 Byte Float Value
53191,	interpreted as 2 Byte Unsigned Value
–12345,	interpreted as 2 Byte Signed Value

Attention: The correct assignment of EIB data point types to group addresses is a very important precondition for all applications, which use the EIB Editor as process connection !

The following table gives a short introduction in the meaning of EIB data types:

Boolean

1 bit data length, formerly EIS1. This data type is used to transmit switch states (e.g. 0/1, on/off, open/closed, up/down, …).
This type is particularly used to switch on/off devices, respectively to receive device states (lamps, dimmers, shutters, relay, …).

1-Bit Controlled

2 bit data length, formerly EIS8. This data type is used for priority controlled switch operations.

3-Bit Controlled

3 bit data length, formerly EIS2, subtype control. This data type is used to increase or decrease the set value in steps or stop the movement (e.g. to control a dimmer).

Character Set

1 byte data length, formerly EIS13. This data type is used to transfer a character over the bus.

> ***Attention:***
> *The visualization does not support this data type.*

8 Bit Unsigned Value

1 byte data length, formerly EIS6 or EIS14. This data type is used to transfer 8 bit unsigned integer values (e.g. counter values).

> ***Attention:*** *Normally the range of the 8 bit value is from 0 to 255, but the interpretation can differ, depending on the subtype selection. If the subtype scaling is selected, the value is interpreted as percent value in the range from 0 to 100%. This subtype can be used to set the values of dimming actuators. If the subtype wind direction is selected, the value is interpreted as angle in the range from 0 to 360°.*

subtype DPT_scaling

The value is interpreted as percent value in the range from 0 … 100%.

subtype DPT_angle

The value is interpreted as angle in the range from 0 … 360°.

subtype DPT_Value_Ucount

The value is interpreted in the range from 0 … 255, e.g. as counter value.

8 Bit Signed Value

1 byte data length, formerly EIS14, used to transfer an 8 bit signed integer value in the range from –128 to +127.

2 Octet Unsigned Value

2 byte data length, formerly EIS10, used to transfer a 2 byte unsigned integer value (e.g. a counter value).

2 Octet Signed Value	2 byte data length, formerly EIS10 signed, used to transfer a 2 byte signed integer value in the range from –32768 to +32767.
2 Octet Float Value	2 byte data length, formerly EIS5, used to transfer a 2 byte analog value (e.g. values from a temperature sensor).
Time	3 byte data length, formerly EIS3, used to transfer a time information (e.g. from a EIB synchronization clock).
Date	3 byte data length, formerly EIS4, used to transfer a date value.
4 Octet Unsigned Value	4 byte data length, formerly EIS11, used to transfer a 4 byte unsigned long integer value (e.g. a counter value).
4 Octet Signed Value	4 byte data length, formerly EIS11 signed, used to transfer a 4 byte signed long integer value in the range from -2147483648 to +2147483647.
4 Octet Float Value	4 byte data length, formerly EIS9, used to transfer a 4 byte high precision analog value according to IEEE754 standard.
Access	4 byte data length, formerly EIS9, used for access control applications. ***Attention:*** *The visualization does not support this data type.*
String	14 byte data length, formerly EIS15, used to transfer strings.

4.7 ETS import of EIB group addresses

In most cases more convenient than creating EIB group addresses manually is to import EIB group addresses from ETS. The EIB editor is able to import EIB group addresses from ETS2 versions 1.1, 1.2 and 1.3.

There are two methods:

a) Import the data from a ETS print report, which has been redirected to a file. This method applies to ETS2, versions 1.1, 1.2 and 1.3.

b) Import the data from a file, which has been created with the function OPC export *of ETS version 1.3.*

Important: *The EIB editor does not require ETS to be installed at them same PC. It just requires the ETS output files, which can be copied to the PC.*

4.7.1 Create ETS group addresses print report

Create ETS export file in ETS:

1. Open the ETS project in *Project Design.*
2. Open the group address browser (Menu: *Design*, *Group Addresses*).
3. Open the Layout Dialog (menu *Project*, submenu *Page Setup*, button *Layout*) and reset the selection of Title page, Header, Footer.
4. Mark the root node in the group address browser.
5. Open the Print Dialog (menu *Project*, submenu *Print*). Select the option Print to File, and click the **OK** button to start the export.
6. A print dialog opens. Choose the target directory, target file name, and select "**.txt**" as the extension.
7. In the ESFVISU EIB editor use the menu option **File – Import ETS project** to import the ETS output file.
8. Refine the imported EIB group address data. In particular refine the read and the write rights, since they cannot be imported from ETS. They have to be specified manually.

> ***Important:*** *With ETS the installed printer driver must support printing in a file. As a remedy install the WINDOWS standard printer driver.*

The following hints should be kept in mind when importing ETS group addresses:

a) Use unique and descriptive names for group addresses. Otherwise it might be difficult to guess what an EIB group address is about and messages won't be easy to understand.

b) The EIB editor requires type information for EIB group addresses. This information can be imported from the ETS output file, if properly specified in ETS. Hence the ETS is the best place to specify this information, not the ESFVISU EIB editor.

4.7.2 Create OPC export file

The ESFVISU EIB can import EIB group addresses from a file, which has been created from ETS2 version 1.3 via ETS function **OPC Export**.

Create OPC Export file in ETS2, version 1.3:

a) Start *OPC Export* in ETS.

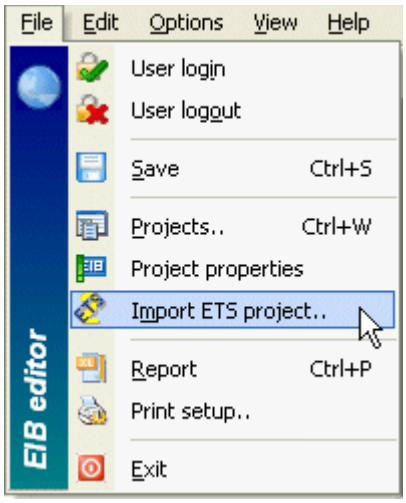
b) The EIBA OPC Export dialog opens and you will be asked to select the ETS project and to specify a target directory and a file name for the OPC project file.

c) Select the project to export, specify directory and file name, then click Export. The default extensions of the OPC project file is "**.esf**".

d) In the ESFVISU EIB editor use the menu option **File – Import ETS project** to import the ETS output file.

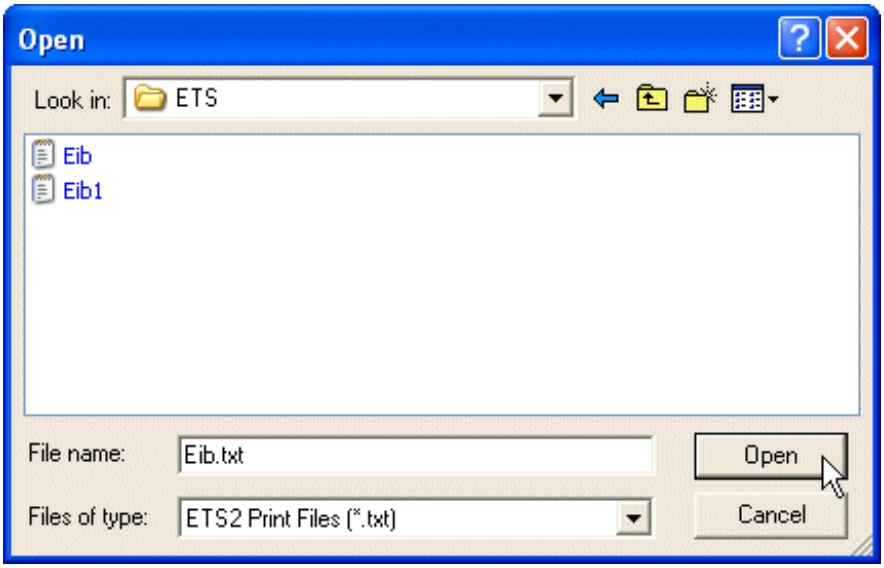
e) Refine the imported EIB group address data. In particular refine the read and the write rights, since they cannot be imported from ETS. They have to be specified manually.

4.7.3 Import of ETS export files into the EIB editor



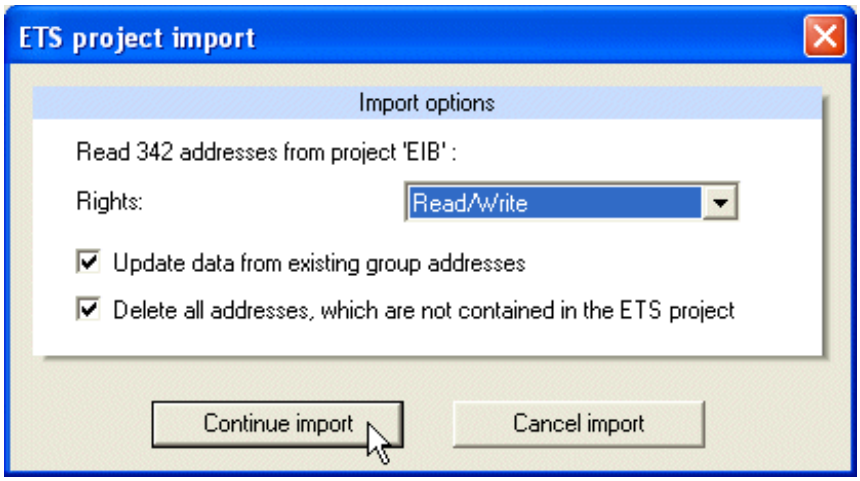
Import ETS Project:

The Menu option **File – Import ETS project** opens a dialog to import an export file generated by ETS. This may be either be a redirected print report or file created with ETS *OPC Export*.



The redirect print reports usually have the extension "**.txt**." the *OPC Export* – generated files have the extension "**.esf**". After the file has been specified press the button **OK** to continue importing the EIB group addresses. The EIB group addresses will not be imported immediately.

A dialog shows the result of reading the imported file. At this step you can choose several options for the import.



The dialog shows the number of group addresses in the import file and lets you specify several options.

Since the rights for read and write access cannot be imported, you will have to refine the rights after the import has been completed, but at this step you may decide default rights, which are most convenient for the project.

Option: Update existing group addresses

If checked, EIB group addresses in the ESFVISU EIB project with same group address values will be updated from the imported file. Make sure to verify the access rights and the data point type after the import has been completed.

Option: Delete non existing group addresses

If checked, EIB group addresses in the ESFVISU EIB project will be deleted, if there is no group address with the same group address value in the import file. This option may delete EIB group addresses you have defined manually.

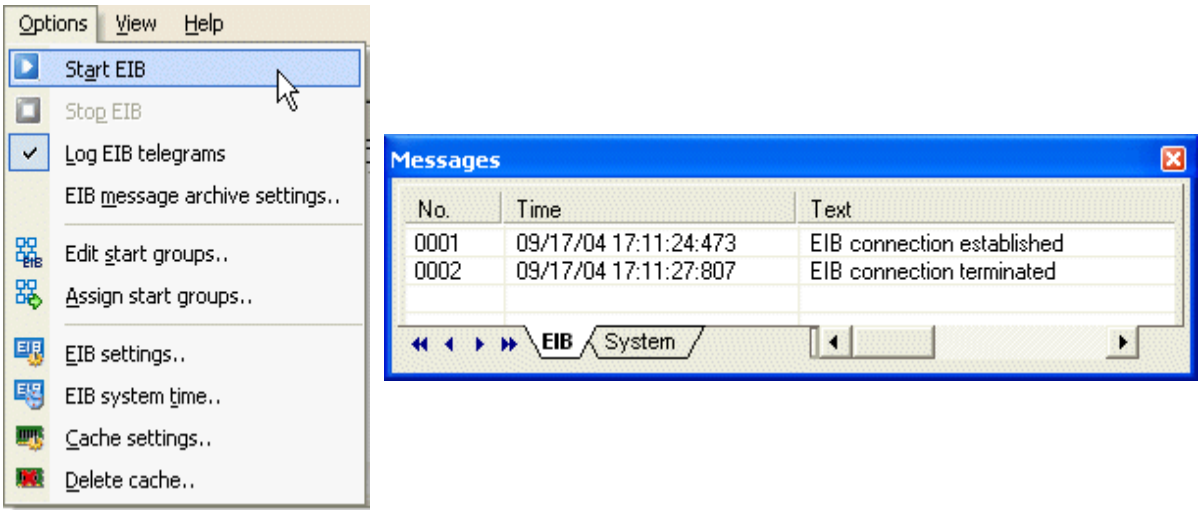
Press button **Continue Import** to complete importing the EIB group addresses.

4.8 Connect to EIB bus

Use the menu option **Options – Start EIB** to start the connection. Alternatively click on the symbol in the toolbar.

Click on the symbol in the toolbar or use the menu option **Options – Stop EIB** to close the connection.

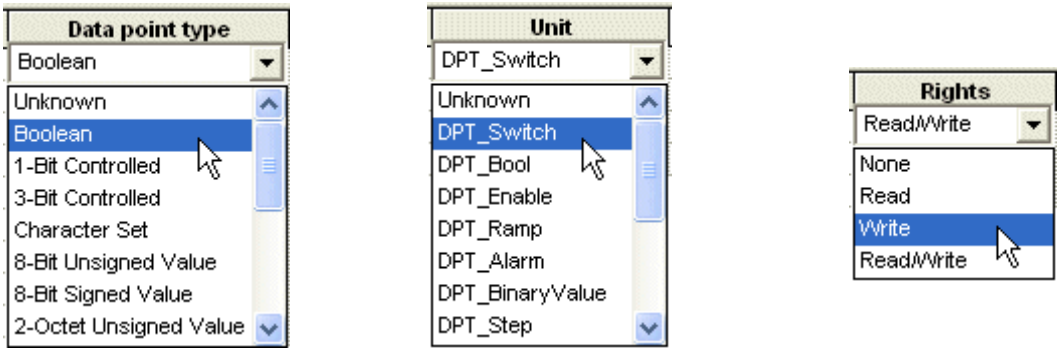
You can see the results of these operations and possibly already received telegrams in the messages window.



4.9 Manually send telegrams

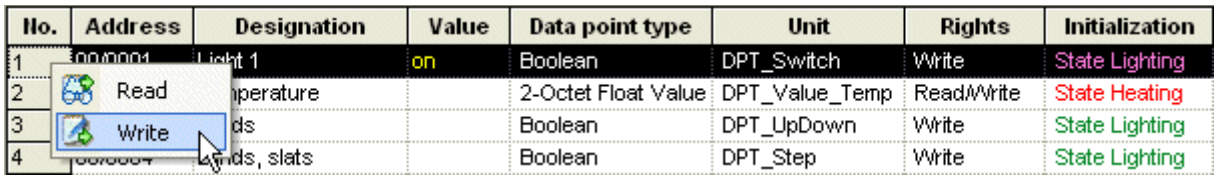
The EIB editor can be used to manually send telegrams to EIB group addresses, to either query or set the value. A prerequisite is that the editor is connected to the EIB bus.

In the EIB group addresses grid make sure that the columns **Data point type**, **Unit**, and **Rights** contain the proper value for each EIB group address.



If you want to send a value, the EIB group address is properly defined and write access is allowed, then fill in a value into the column "value". For binary values (type Boolean) use 0 for off and 1 for on, for other types just enter the value. The EIB editor will perform the required data conversions.

Mark the row of the EIB group address with left click on the first column in the row and then click right to invoke the row's context menu. If EIB communication is enabled, the context menu will comprise options for sending or querying the value.

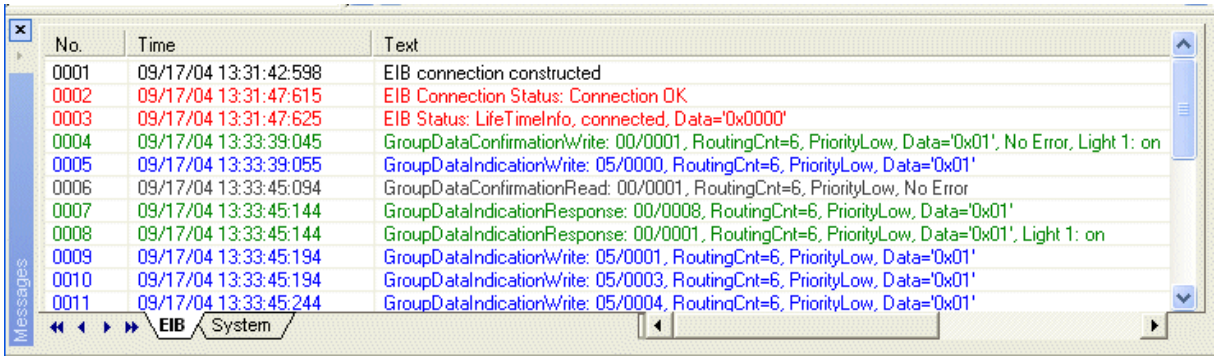


4.10 Messages window

The messages window shows all sent and received EIB telegrams. When sufficient information regarding EIB data point type and unit has been supplied, the telegrams will be in plain text.

Use the menu option **View – Messages** to toggle the visibility of the messages window. Alternatively click on the symbol in the toolbar.

With the menu option **View – View last message** you may toggle, whether the messages list will always scroll automatically to the last message.



Green: Sent and acknowledged telegrams

Blue: Received telegrams.

Red: Status or error messages.

Grey: Read requests.

4.11 Logging EIB messages into archives

Messages displayed in the messages window can be automatically saved in a text file. Use the menu option **Options – Save EIB telegrams** to toggle automatic logging on or off.

When the telegram log file reaches a size of about 1 Megabyte, it will be closed and saved into the zip archive EibMessages.zip, path

"…\data\stations\local\projects\<projectname>.EIB\EibMessages.zip"

and a new log file will be created. The log file will also be closed and saved in the zip archive when the EIB bus has been disconnected.

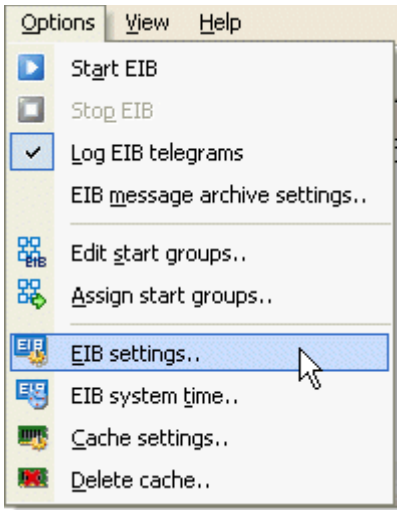
4.12 EIB settings

In order to connect EIB, the EIB editor comprises of the EIBA provided FALCON driver.

Currently, the FALCON driver provides the following options:

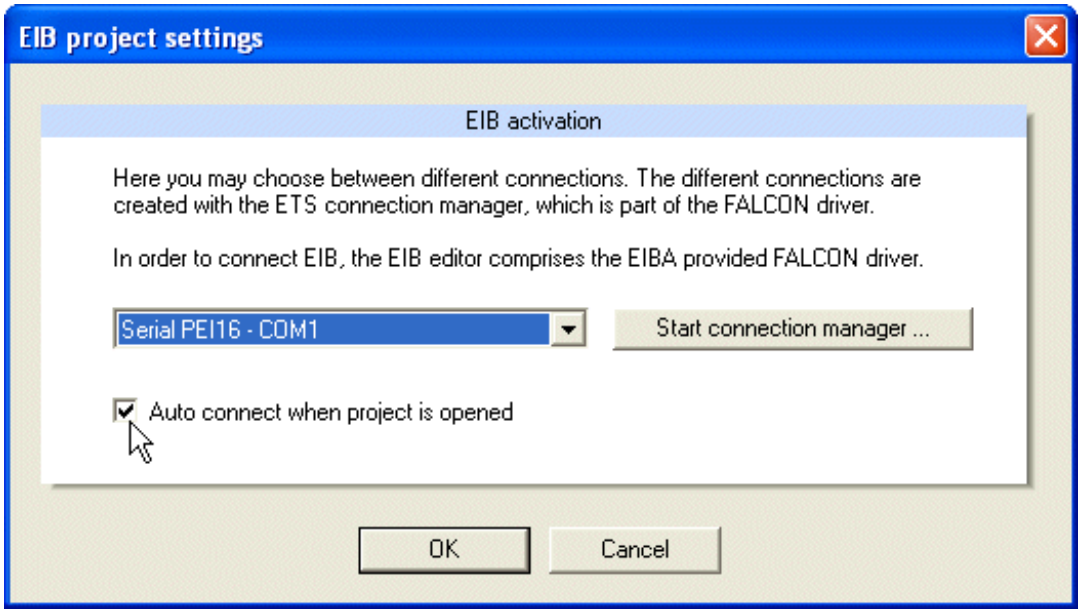
a) Connection with communication ports COM1 up to COM8 and handshake protocol (PEI16).

b) Connection with USB and handshake protocol (PEI16) or FT1.2 protocol (PEI10).

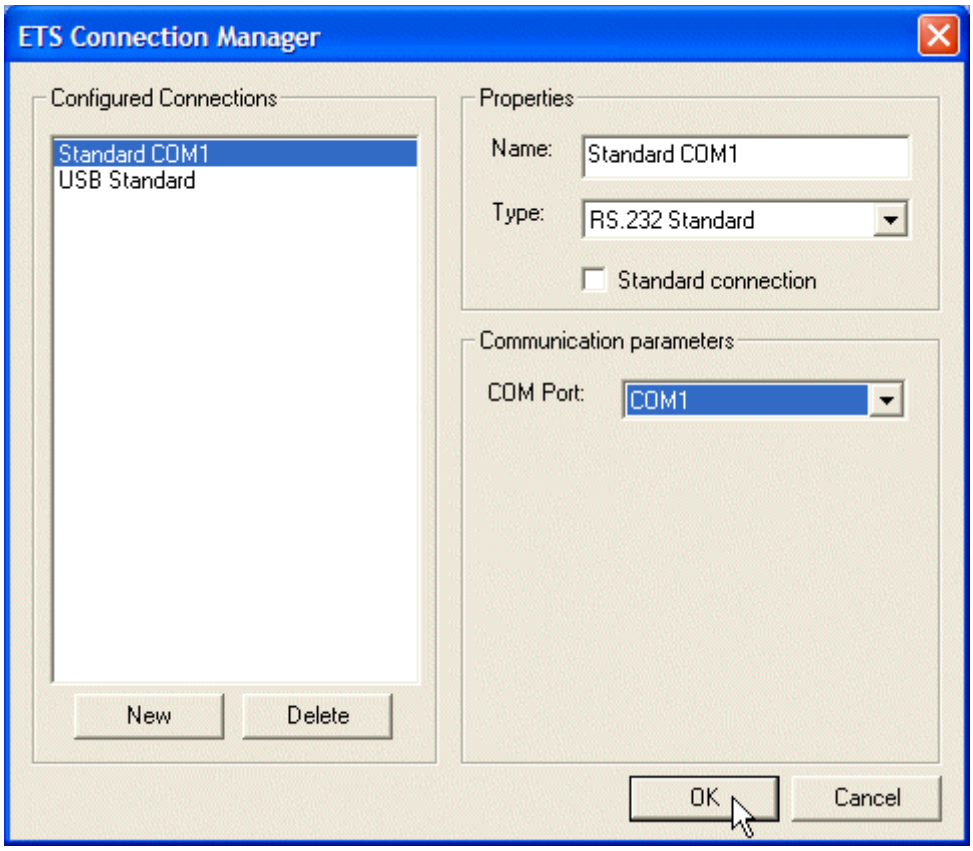


Use the menu option **Options – EIB settings** to open the dialog for the EIB connection settings.

A dialog is opened to specify how the EIB bus will be connected.



Initially no connection is available. The different connections are created with the ETS connection manager, which is part of the FALCON driver. Press button **Start connection manager** to start the ETS connection manager dialog.



First enter a name of the connection and choose type and communication parameters. Then press button **New** to create the connection based upon your specification.

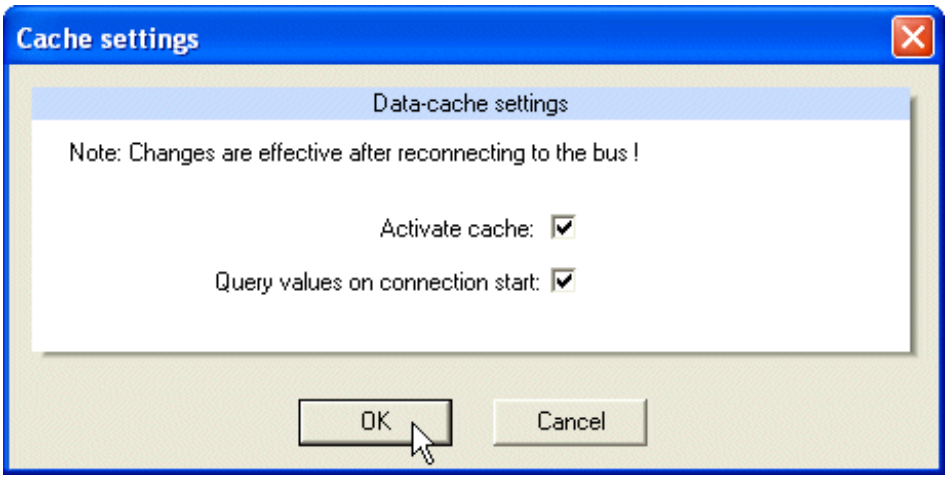
The sample screenshot shows how a connection with name ***Standard COM1*** has been created. Press **OK** to close the dialog.

4.13 Data cache settings

The EIB editor comprises a data cache to optimize access to current values of EIB group addresses. Optionally the cache can be initialized once by querying the bus, but when the values of EIB group addresses are available in the cache, it will update the cache from listening to the EIB without additional queries.

> ***Note:*** *The cache will always be cleared, when the bus is disconnected.*

The Menu option **Options –** **Cache settings** opens the dialog to configure the cache.



Activate cache: When checked, the cache will be activated.

Query on initialization: When checked, the cache will query values for EIB group addresses whenever the EIB bus will be connected.

> ***Attention:*** *Querying values may produce unexpected results when the read/access rights for EIB group addresses have not been properly configured.*

Use the menu option **Options –** **Clear cache** to clear the cache manually.

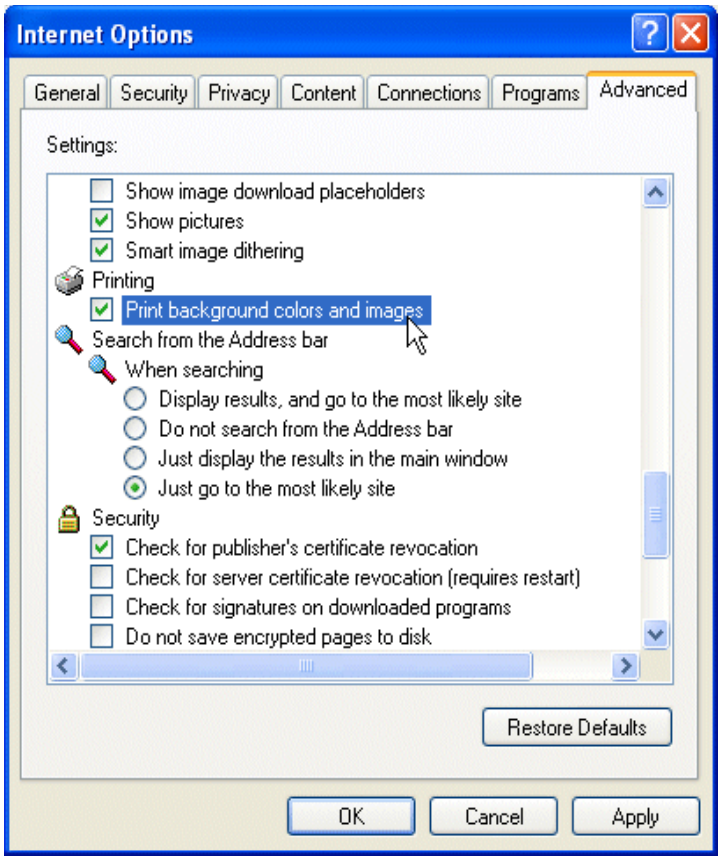
5 Reports

- Reports provide overviews of the project.
- Reports may be printed (with print preview).

5.1 Create report

The Microsoft Internet Explorer is used to create and print reports.

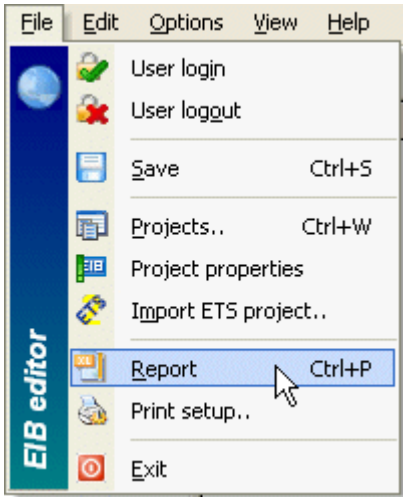
Internet options:



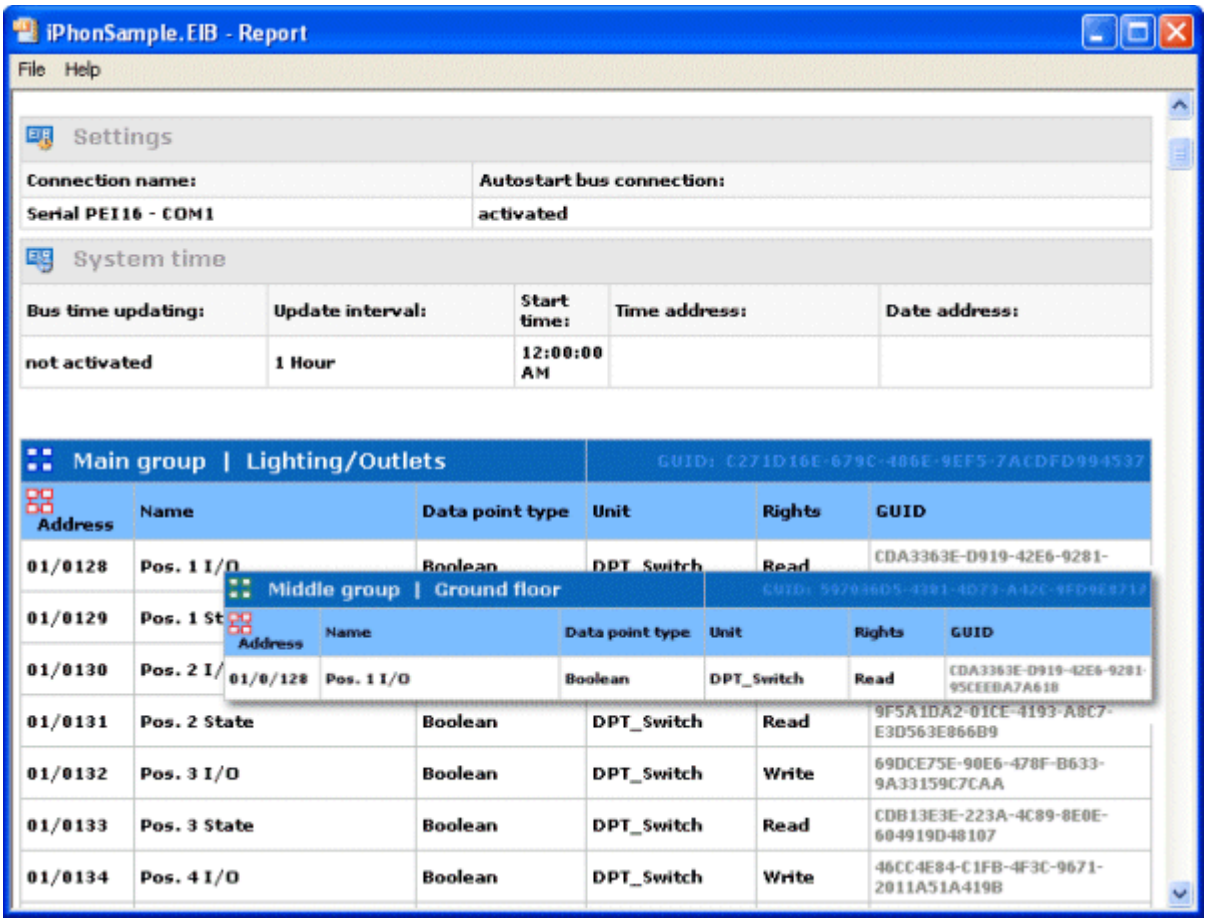
The reports background will be printed if the Internet Explorer has been configured accordingly:

- Select the menu option **Tools – Internet Options**.
- Select the tab **Advanced**.
- Under the **Settings – Printing** check option ***Print background colors and images***.

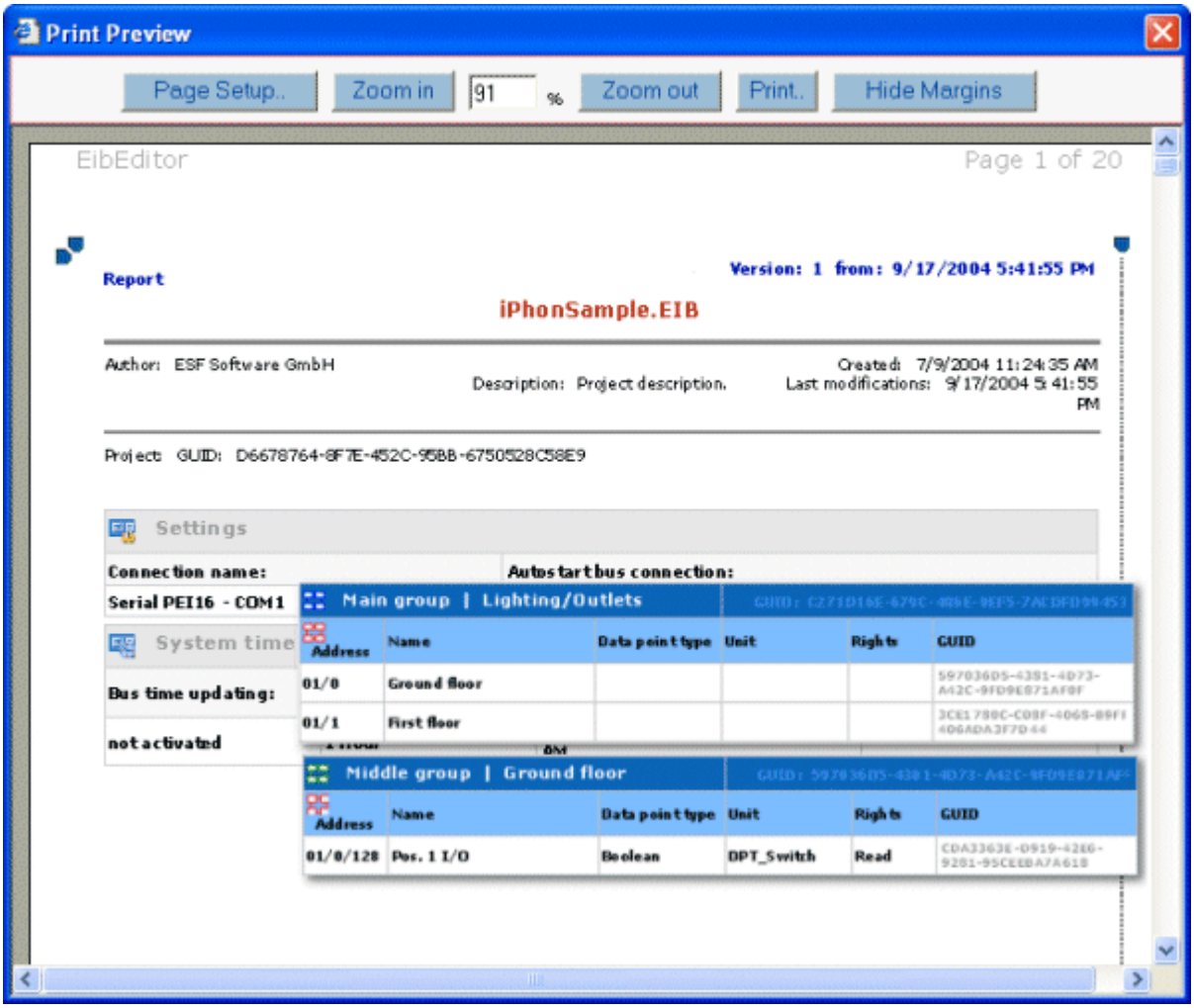
Use the menu option **File – Report** to create a report.



The data points in the project may be sorted by either names or group addresses.


iPhonSample.EIB - Report
File Help
Settings
Connection name:
Autostart bus connection:
Serial PEI16 - COM1
activated
System time
Bus time updating:
Update interval:
Start time:
Time address:
Date address:
not activated
1 Hour
12:00:00 AM
Main group | Lighting/Outlets
GUID: C271D16E-679C-486E-9EF5-7ACDFD994537
Address
Name
Data point type
Unit
Rights
GUID
01/0128
Pos. 1 I/O
Boolean
DPT_Switch
Read
CDA3363E-D919-42E6-9281-
Middle group | Ground floor
01/0/128
Pos. 1 I/O
Boolean
DPT_Switch
Read
CDA3363E-D919-42E6-9281-95CEEBA7A618
01/0129
01/0130
01/0131
Pos. 2 State
Boolean
DPT_Switch
Read
9F5A1DA2-01CE-4193-A8C7-E3D563E866B9
01/0132
Pos. 3 I/O
Boolean
DPT_Switch
Write
69DCE75E-90E6-478F-B633-9A33159C7CAA
01/0133
Pos. 3 State
Boolean
DPT_Switch
Read
CDB13E3E-223A-4C89-8E0E-604919D48107
01/0134
Pos. 4 I/O
Boolean
DPT_Switch
Write
46CC4E84-C1FB-4F3C-9671-2011A51A419B

5.2 Print preview



The print preview may be scaled.

Page Setup..	Opens the dialog **Page setup** to set the printer properties, page properties and the alignment.
Zoom in	Enlarges the print preview.
Zoom out	Reduces the print preview.
Hide Margins	Button to hide the margin markers.
Show Margins	Button to display the margin markers.

With these ◗,◒ markers the user has visual control over the margin settings.