ABB i-bus® KNX
Parameterisation software PZM2
Product Manual

Power and productivity
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Contents

ABB i-bus® EIB / KNX **General**

1 General

Complex timer operations and time controllers are becoming increasingly important in modern buildings with ABB i-bus® EIB / KNX. Time-controlled day or week routines e.g. of lighting installations should be implemented in buildings, factories or hotels. In schools, the lighting should e.g. be switched off at the weekend for energy reasons or the heating system should be lowered to a minimum using time control. In hotels, it should be possible to set different lighting or ventilation sequences for different events. In underground car parks for example, different time sequences should apply on different days of the week. Even year time switch programs and group formation should be implemented in continually recurring processes.

Using the parameterisation software PZM 2.0, the operator of an installation is able to adapt the time switch program of the Application Unit Time ABZ/S 2.1 in a simple way and thus guarantee flexibility when operating the installation.

This manual provides you with detailed technical information about the parameterisation software PZM 2.0 including its programming and explains the application of the software using examples.

The manual is divided into the following sections:

- Chapter 1   General
- Chapter 2   Device technology
- Chapter 3   Commissioning
- Chapter 4   Planning and application
-                  Appendix

ABB i-bus® EIB / KNX **General**

1.1 Product and functional overview

The parameterisation software Times Groups 2.0 (PZM 2.0) is purely a software program.

The PZM 2.0 software offers the following options:

– adapting the application program Times Groups/2 created by the installer of the system to your own requirements,

– reading in the data handed over by the installer of the system,

– modifying the program Times Groups/2 accordingly and loading it into the Application Unit Time via the ABB i-bus®,

– saving the modified application program as a file,

– printing the application program either in full or in part,

– reading out and setting the date and time from the Application Unit Time and reading specific information from the device.

ABB i-bus® EIB / KNX   **Device technology**

2   Device technology

The parameterisation software Times Groups 2.0 (PZM 2.0) is purely a software program. It is used to adapt the application program Times Groups/2 created by the installer of the system to your own requirements. It can thus be guaranteed that the system operator can modify the application program in a very simple way without requiring the help of ETS 3.

2.1   System requirements

The parameterisation software PZM 2.0 runs under Microsoft Windows from version 95/ 98/ 2000/ ME/ NT/ XP.

The following hardware configuration is the minimum requirement for using the parameterisation software:

CPU Pentium 133 MHz

Main memory 64 MB RAM

A free interface

Printer

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3   Commissioning

3.1   Creating a .zm2 file

Before handing over the ABB i-bus® installation, export the time switch program as a **.zm2 file** and hand it to the system operator together with an ABB product data CD-ROM, which contains the parameterisation software **PZM2**.

You should archive a backup copy of the **.zm2 file** on your PC. After importing a time switch program which has been modified by the customer, you can restore the previous state if required by importing the backup copy of the original time switch program.

If later changes to the time switch program are required which the system operator cannot carry out e.g. inserting a new device, proceed as follows:

- Open the original EIB project and carry out the required change.

- Then open the application program.

- Import the current **.zm2** file which you receive from the system operator.

Note: Older **.zm1 files** can be imported and edited in the Application Unit Time ABZ/S 2.1.

The original time switch program created by you is overwritten by the new time switch program which has possibly been modified by the system operator.

If you do not require this or the time switch program of the system operator is no longer available or usable, you can access the archived **.zm2 file**.

Note: In this case, any changes carried out by the system operator are lost when loading the Application Unit Time ABZ/S 2.1 when commissioning the extension of the installation.

- Parameterise the new function in the time switch program.

- Export the time switch program as a **.zm2 file** and transfer it to the system operator again.

Note: Newly created group addresses which e.g. the system operator has inserted, are lost during the import. They must be updated after importing into ETS3.

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3.2   Installation of the parameterisation software PZM 2.0

Open the file *ABB-PZM20.msi* via a double click.

The dialog *ABB Parameterisation software PZM 2.0 Setup – Welcome to the PZM 2.0…* becomes visible.
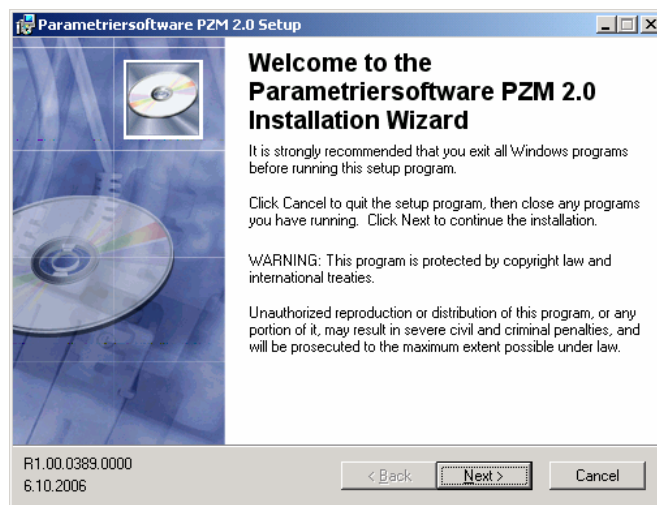
Fig. 1:   Installation of the parameterisation software PZM 2.0 part 1

You access the next dialog by pressing the *Next >* button. The terms are thereby accepted.

< Back

This button is not active as there is no previous installation page.

Next >

If you click on the *Next >* button, you access the next installation page. The terms are thereby confirmed.

Cancel

The installation is aborted by clicking on the *Cancel* button.

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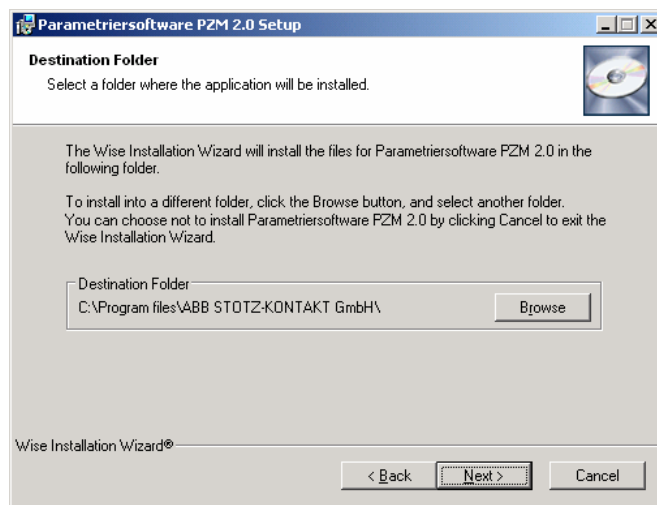
Fig. 2:   Installation of the parameterisation software PZM 2.0 part 2

The *Destination Folder* dialog defines the folder in which the PZM 2.0 should be installed.

Browse

The predefined path and folder can be modified here.

< Back

Click on the *<Back* button to access the previous installation page.

Next >

Click on the *Next >* button to access the next installation page. The terms are thereby confirmed.

Cancel

The installation is aborted by clicking on the *Cancel* button.

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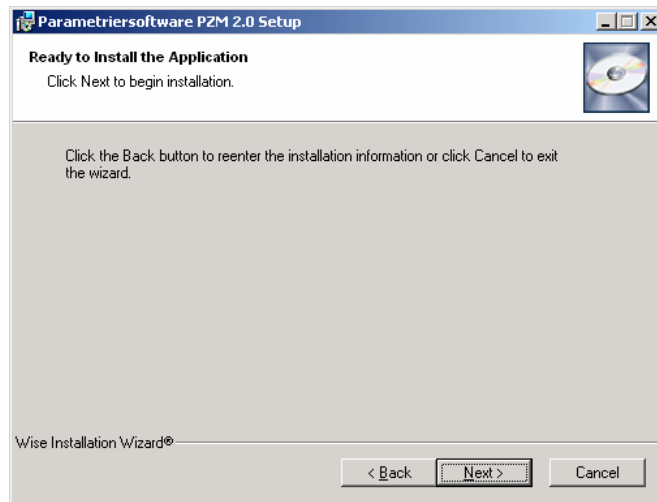
Fig. 3:   Installation of the parameterisation software PZM 2.0 part 3

The installation is started in the *Ready to Install the Application* dialog after pressing the *Next >* button.

< Back

Click on the *<Back* button to access the previous installation page.

Next >

Click on the *Next >* button to access the next installation page. The terms are thereby confirmed.

Cancel

The installation is aborted by clicking on the *Cancel* button.

ABB i-bus® EIB / KNX   **Commissioning**
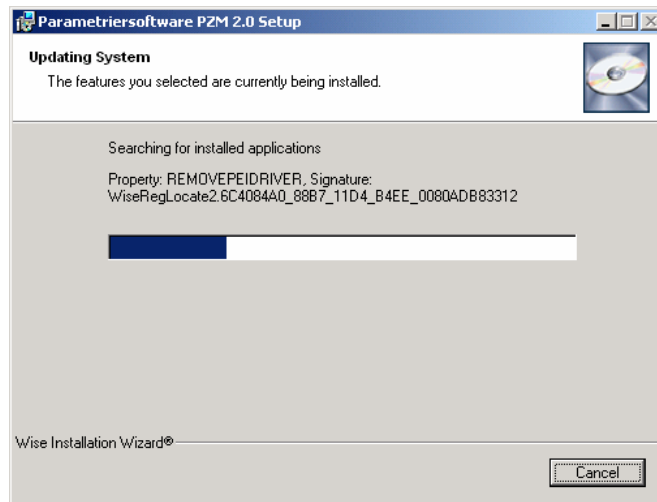
Fig. 4:   Installation of the parameterisation software PZM 2.0 part 4

The PZM 2.0 is installed in the *Updating System* dialog.

Cancel

The installation is cancelled by clicking on the *Cancel* button.

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Fig. 5:   Installation of the parameterisation software PZM 2.0 part 5

The final dialog *ABB Parameterisation software PZM 2.0…* confirms that the installation was successful.

< Back

This button is not active as it is no longer possible to go back a page.

Finish

The installation of the application program is ended by pressing the *Finish* button and you automatically return to ETS3.

Cancel

This button is not active as it is no longer possible to cancel the installation.

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3.3   Screen

3.3.1   ABB – Parameterisation software PZM 2.0
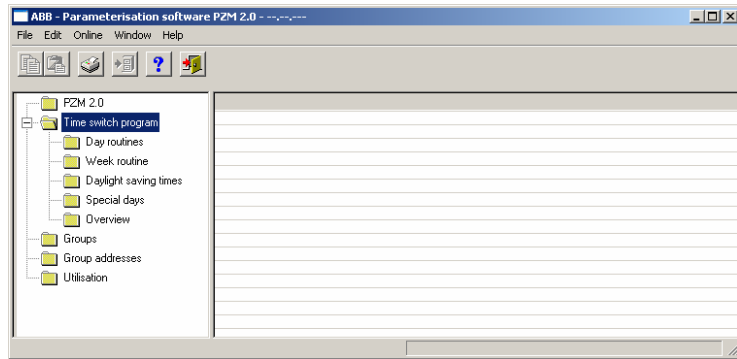
Fig. 6:   "ABB – Parameterisation software PZM 2.0" screen

3.3.2   Title bar

Fig. 7:   "Title bar" screen

The title bar contains information about the manufacturer, the name parameterisation software PZM 2.0 and the physical address.

3.3.3   Menu bar
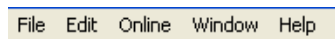
Fig. 8:   "Menu bar" screen

The File, Edit, Online, Window and Help menus are visible in the menu bar.

3.3.4   Status bar

Fig. 9:   "Status bar" screen

The status bar can be activated or deactivated in the *Window* menu, under the *Status bar* menu item.

If it is activated, it always forms the lower border of the parameter window. It indicates for the current selection in the table area the number of available elements for further entries.

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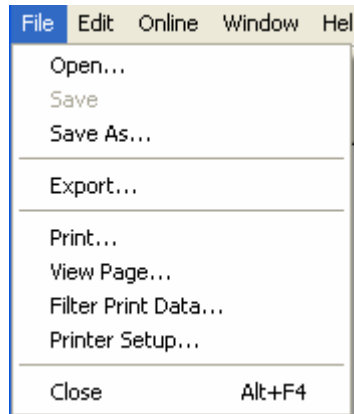
3.3.5   File menu

Fig. 10:   "File" menu

Some menu items are context-sensitive and are only activated for specific configurations. Inactive menu items are greyed out.

3.3.5.1   Open

By selecting the *Open* menu item, the time switch program exported by the installer via the application program Times Groups/2 or exported by you with the parameterisation software PZM2, can be read in as a zm2 file.

3.3.5.2   Save

By selecting the *Save* menu item, the time switch program is stored under the current filename with the filename extension .zm2.

3.3.5.3   Save as

By selecting the menu item *Save as*, the time switch program is saved under a name defined by you with the filename extension .zm2.

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3.3.5.4   Export
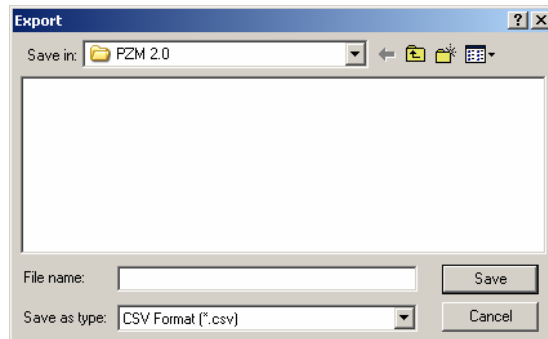
Fig. 11:   "Export" screen

By selecting the *Export* menu item, the time switch program is saved as a file in CSV format (*.csv).

Note: Files with the ending .csv can be imported in other programs e.g. data processing programs or spreadsheets and edited further.

3.3.5.5   Print

By selecting the *Print* menu item, parameter settings are printed out in tabular form.

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3.3.5.6 View page
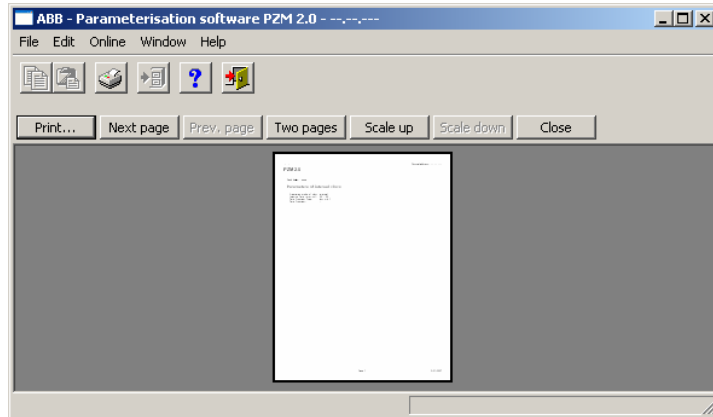
Fig. 12:   "View page" screen

By selecting the *View page* menu item, the parameter assignment that is to be printed out is shown on the screen.

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3.3.5.7   Filter print data
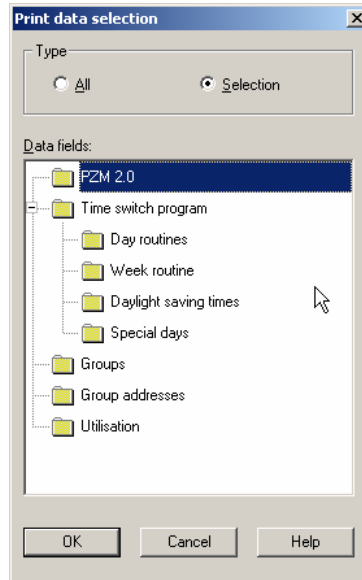
Fig. 13:   "Filter print data" screen

By selecting the menu item *Filter print data*, those parts of the parameter assignment which should be printed out are selected.

Type

Options: <u>All</u>/
                      Selection

Option *All* = The entire configuration is printed out.

Option *Selection* = Only certain parts of the configuration are printed out. Select the entries which should be printed out with the left mouse button, while holding down the Control button [Ctrl].

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.3.5.8   Printer setup

You can select and set up a printer by selecting the menu item *Printer setup*.

3.3.5.9   Close

The application program is closed by selecting the *Close* menu item. You are asked to save the data if necessary.

Hotkey: Alt+F4

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3.3.6   Edit menu

Fig. 14:   "Edit" menu

Some menu items are context-sensitive and are only activated for specific configurations. Inactive menu items are greyed out.

3.3.6.1   New

Creates a day routine, switching time, daylight saving time, special day, group, group trigger or group member, depending on the context.

3.3.6.2   Copy

Copies the marked line to the clipboard.

3.3.6.3   Insert

Inserts the contents of the clipboard as a new entry.

3.3.6.4   Delete

Deletes the marked line.

3.3.6.5   Usage

Indicates the usage of a marked parameter.

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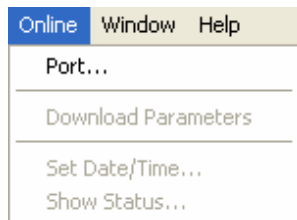
3.3.7   Online menu

Fig. 15:   "Online" menu

Some menu items are context-sensitive and are only activated for specific configurations. Inactive menu items are greyed out.

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3.3.7.1 Port
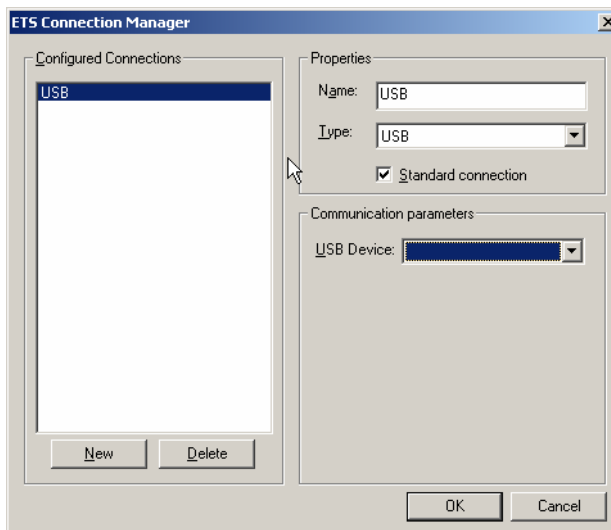
Fig. 16:   "ETS Connection Manager" interface

By selecting the menu item *Interface*, the dialog window *ETS Connection Manager* opens. The interface which creates the connection to the ABB i-bus® installation is selected in this window. The parameterisation data is thus transferred to the Application Unit Time ABZ/S 2.1 via the interface.

3.3.7.2 Transfer parameter

The current parameterisation data is transferred to the Application Unit Time by selecting the menu item *Transfer parameter*. After transferring the parameter, a dialog window is opened in which the date and time can be read from the Application Unit Time and set.

Note: The prerequisite for the transfer of the parameterisation data is that the selected interface of your PC is linked with the EIB installation via a 1:1 connecting cable.

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3.3.7.3   Set date/time

When selecting the menu item *Set date/time…*, the date and time of the internal clock are read from the Application Unit Time or set.

The prerequisite is that the physical address and the application program of the Application Unit Time ABZ/S 2.1 must have been loaded beforehand.

After selecting the menu item *Set date/time…*, the associated dialog window opens.
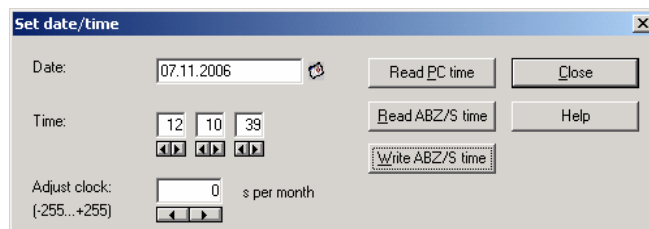
Fig. 17:   Parameter window: "Online menu, Set date/time"

Date

Options: Enter date

The *date* can be set in a range between 1.1.2000 and 31.12. 2035. It is displayed as numbers which are separated by full stops in the sequence day.month.year. On the right-hand side of the input field for the date, there is a button which is used to display the relevant calendar for the current date.

Note: When opening the dialog field, the current date of the PC is automatically read and displayed.

Time

Options: Enter time

The *time* is shown in hours, minutes and seconds. The displays for hours, minutes and seconds can be edited separately via the *Left arrow* and *Right arrow* buttons.

Note: When opening the dialog field, the current time of the PC is automatically read and displayed.

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"Read PC time" button, "Read ABZ/S time" button

The *Date* and *Time* fields can be updated with the corresponding time via the buttons *Read PC time* and *Read ABZ/S time*.

"Write ABZ/S time" button

The date and time can also be set via the *Write ABZ/S time* button.

Note: The time switch program is updated by adjusting the clock. Switching operations can be triggered as a result.

Adjust clock

Options: -255…0…+255

The accuracy of the internal clock is dependent in particular on the ambient temperature and can be up to +/– 1 min per month. By entering a correction value in the text field *Adjust clock*, the accuracy of the internal clock is improved. If the clock gains e.g. 20 seconds a month, this inaccuracy can be compensated by entering a correction value of "20" which corresponds to 20 seconds.

"Close" button

When the "Close" button is pressed, the function is closed and the parameter window *Set time/date* closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.3.7.4   Show status

After selecting *Online* and *Show status,* the device status is read from the Application Unit Time and the following parameter window opens.
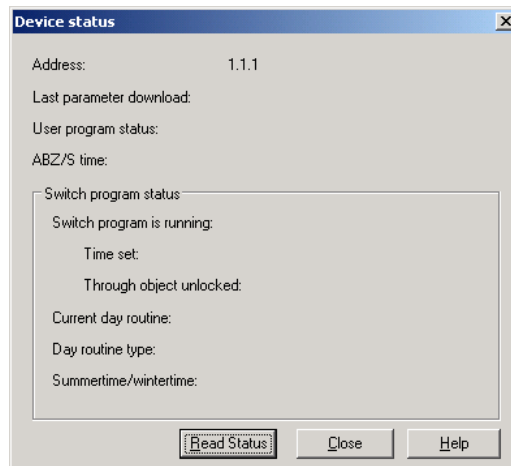
Fig. 18:   Parameter window: "Online menu, Show status"

The *Device status* parameter window indicates:

- the address of the Application Unit Time in the ABB i-bus® installation

- the date and time when the parameterisation data was loaded into the Application Unit Time

- the status of the application program which is running in the Application Unit Time

- the date and current time of the internal clock in the Application Unit Time

- the status of the time switch program

- the current day routine

- the type of the current day routine

- the status of the daylight saving time

"Read status" button

The parameter window is updated via the *Read status* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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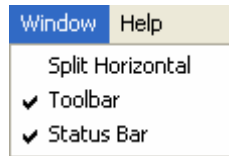
3.3.8   Window menu

Fig. 19:   "Window" menu

3.3.8.1   Split Horizontal

Options: activated = tick
                  not activated = no tick

The window of the table area can be divided. The same parameterisation data is displayed in both partial views. The copying of elements is thereby simplified e.g. in partial view 2, entries are copied from day routine 5 and inserted via drag & drop or copy & paste in day routine 7 of partial view 1.

3.3.8.2   Toolbar

Options: activated = tick
                  not activated = no tick

The toolbar can be activated or deactivated.

3.3.8.3   Status Bar

Options: activated = tick
                  not activated = no tick

The status bar can be activated or deactivated.

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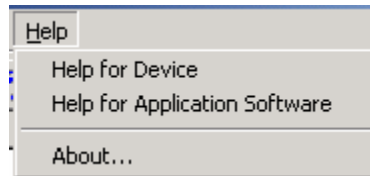
3.3.9   Help menu

Fig. 20:   "Help" menu

3.3.9.1   Help for device

By selecting the menu item *Help for device*, brief information about the hardware of the Application Unit Time is displayed.

3.3.9.2   Help for Application Software

An extensive "Help" file appears after selecting the menu item *Help for application software*.

Hotkey: F1

3.3.9.3   About...

Fig. 21:   "About…"

Information about the application program and the manufacturer of the device is displayed by selecting the *About...* menu item.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.3.10 Toolbar

Fig. 22:   "Toolbar" screen

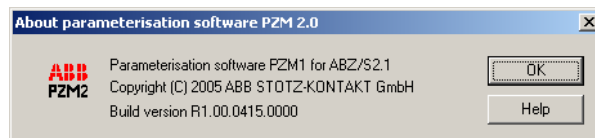The toolbar contains buttons with the most important commands.
The buttons are context-sensitive and are only activated for specific configurations.

The toolbar can be activated or deactivated in the *Window* menu under the *Toolbar* menu item.

3.3.10.1 Copy

Fig. 23:   "Copy" symbol

Copies the marked line to the clipboard.

3.3.10.2 Paste

Fig. 24:   "Paste" symbol

Inserts the contents of the clipboard as a new line.

3.3.10.3 Print

Fig. 25:   "Print" symbol

Prints the parameter data in tabular form.

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3.3.10.4 Save

Fig. 26:   "Save" symbol

Saves the parameter data in ETS3.

3.3.10.5 Help

Fig. 27:   "Help" symbol

Opens the "Help" file of the application program.

Hotkey: F1

3.3.10.6 Close

Fig. 28:   "Close" symbol

Closes the application program. Asks if you wish to save the data, if necessary.

3.3.10.7 Hotkey selection

- Alt + F4   Close
- F1   Help

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3.4   Parameters

3.4.1   General

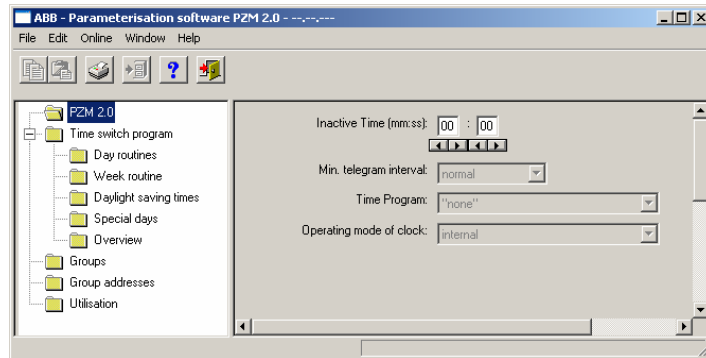Fig. 29:   Parameter window: "General"

The general parameters are shown in the right-hand window.

Inactive time (mm:ss)

Options: (mm)   <u>00</u>…59
                     (ss)   <u>00</u>…59

This parameter sets the *Inactive time* on bus voltage recovery and during a download. During this period, no telegrams are sent and any received telegrams are not evaluated. The displays for minutes and seconds can be edited separately via the *Left arrow* and *Right arrow* buttons.

Min. telegram interval

Options: <u>normal</u> / 0.1 s / 0.2 s / 0.3 s / 0.4 s / 0.5 s

The parameter *Min. telegram interval* sets at which minimum intervals the Application Unit Time should send telegrams in sequence.

The option *normal* means that no delay is inserted.

An example:

If a *Min. telegram interval* of 0.5 s is set and 5 telegrams should be sent, the last telegram is sent 2.5 s after the first telegram.

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Time program

Options: <u>none</u> / new group address

It can be set with this parameter whether the time program is locked or unlocked via a group address.

Option *none* = Time program cannot be locked or unlocked.

Option *new group address* = Time program can be locked or unlocked via a newly created group address.

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3.4.1.1   Operating mode of clock
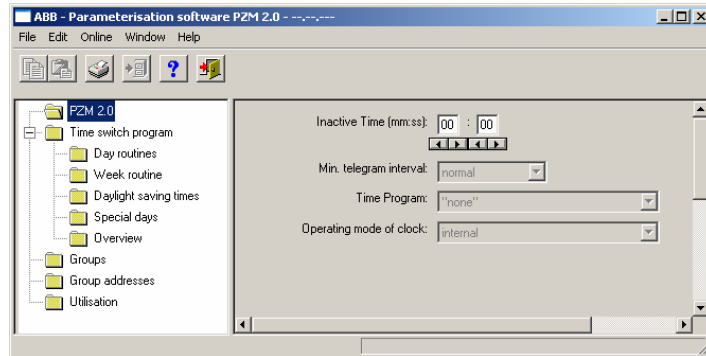

Fig. 30:   Parameter window: "Operating mode of clock"

Operating mode of clock

Options: internal/
                  Slave (always receive)/
                  Slave disable time (00:05 ... 23:55 receive)/
                  Master (send every minute)/
                  Master (send hourly)/
                  Master (send daily)

How does the internal clock work?

In the Application Unit Time, an internal clock controls the time switch program. The clock is supplied with bus voltage. In the event of a bus voltage failure, the internal clock has a power reserve of at least 1 h. In the event of a bus voltage recovery within the reserve period, the time switch program starts again automatically. Once the power reserve has elapsed, the current date and time are lost and the time switch program is stopped until the date and time are reset.

The clock can be set automatically through a telegram from a master clock or the clock must be set via the application program or using the parameterisation software PZM2.

The time switch program is updated by adjusting the clock. Switching operations can be triggered as a result.

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If the time switch program should start automatically after a bus failure, the clock must be operated as a slave and a group address should be assigned to the parameter *Group address for request* which then requests the sending of the current time by a master clock.

Once the power reserve has elapsed, a cold start is carried out in which the assigned group address is sent and the current time is requested. The internal clock is then synchronised with the master clock and the time switch program is updated and restarts.

The time switch program is updated by adjusting the clock. Switching operations can be triggered as a result.

Option: Internal

With the *Internal* option, it is not possible to set the date and time on the bus or to send telegrams from the bus.

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If the option *Slave (always receive), Slave disable time (00:05 ... 23:55 receive), Master (send every minute), Master (send hourly)* or *Master (send daily)* is selected, the following parameters are visible.
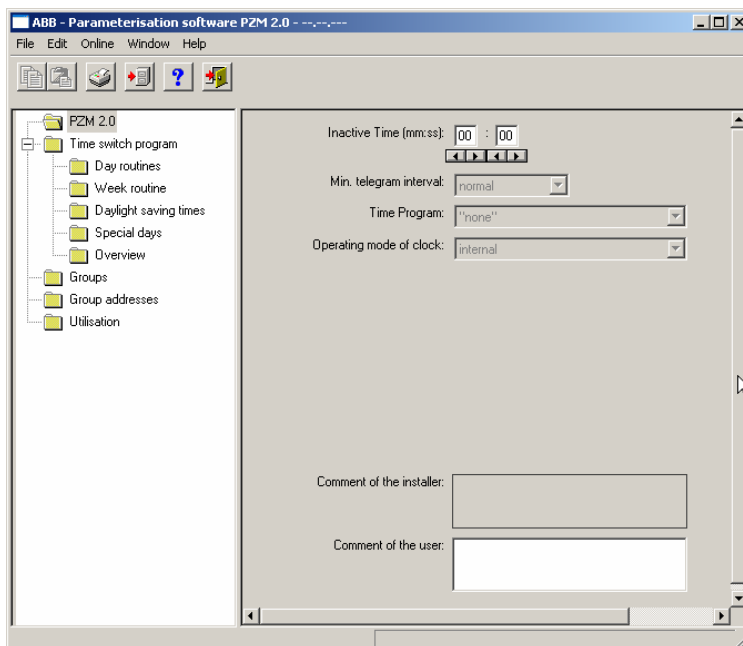

Fig. 31:   Parameter window: "Operating mode of clock, Slave (always receive)"

Group address for time / date / request

Options: none /
                new group address

If slave or master is selected as the operating mode, the group addresses for the time and date and for requesting the time and date appear – if group addresses have already been assigned in ETS3.
If no group addresses have yet been assigned in ETS3 or no new group addresses have yet been created, the options are preset with *none*.

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Option: Slave (always receive)

The internal clock can be set or synchronised via a telegram e.g. from a master clock.

Option: Slave disable time (00:05 ... 23:55 receive)

The internal clock can be set and synchronised via a telegram e.g. from a master clock between 00:05 and 23:55. Date and time telegrams are ignored in the period between 23:55 and 00:05. It is thus possible to avoid synchronisation problems when the day changes.

Option: Master (send every minute)

The internal clock sends telegrams with the time and date once per minute e.g. to synchronise other EIB devices. The time and date can be queried via communication object no. 250 "Request object".

If a group address has been assigned to the parameter *Group address for request*, the current time and date can be requested from a master clock at any time.

If the internal clock is programmed as a master, it sends telegrams with the new time and date on the bus, once the time has been set with the help of the application program.

The time switch program is updated by adjusting the clock. Switching operations can be triggered as a result.

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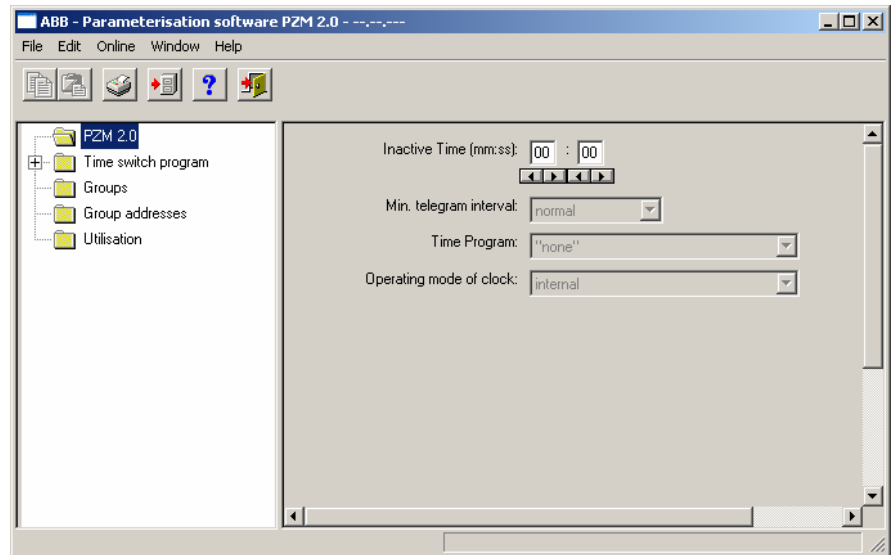**Option: Master (send hourly)**

Fig. 32:   Parameter window: "Operating mode of clock, Master (send hourly)"

The internal clock sends telegrams with the time and date once per hour e.g. to synchronise other EIB devices. You are requested to enter a time (minute) for sending. The time and date can be queried via communication object no. 250 "Request object".

If a group address has been assigned to the parameter *Group address for request*, the current time and date can be requested from a master clock at any time.

If the internal clock is programmed as a master, it sends telegrams with the new time and date on the bus, once the time has been set with the help of the application program.

> The time switch program is updated by adjusting the clock. Switching operations can be triggered as a result.

A further parameter appears in the selection *Master (send hourly)*.

Send at

Options:	Minute	00…59
	Hour	not active

The minute for each full hour is entered with this parameter. The displays for minutes can be edited via the buttons *Left arrow* and *Right arrow*.

ABB i-bus® EIB / KNX   **Commissioning**
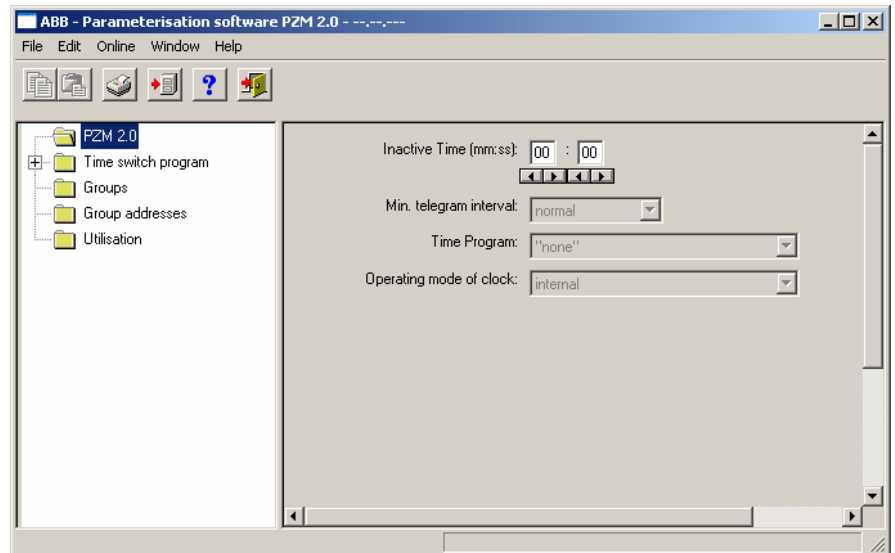
Option: Master (send daily)

Fig. 33:   Parameter window: "Operating mode of clock, Master (send daily)"

The internal clock sends telegrams with the time and date once per day e.g. to synchronise other EIB devices. You are requested to enter a time (hour, minute) for sending. The time and date can be queried via communication object no. 250 "Request object".

If a group address has been assigned to the parameter *Group address for request*, the current time and date can be requested from a master clock at any time.

If the internal clock is programmed as a master, it sends telegrams with the new time and date on the bus, once the time has been set with the help of the application program.

> ⚠ The time switch program is updated by adjusting the clock. Switching operations can be triggered as a result.

Further parameters appear in the selection *Master (send daily)*.

Send at

| Options: | Minute | 00…59 |
| | Hour | 00…23 |

The minute and the hour can be entered with this parameter. The displays for hours and minutes can be edited separately via the buttons *Left arrow* and *Right arrow*.

ABB i-bus® EIB / KNX   **Commissioning**
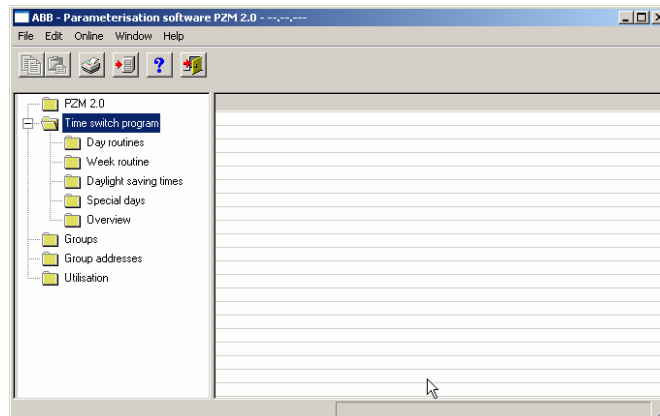
3.4.2   Time switch program

Fig. 34:   "Time switch program" screen

The time switch program sends telegrams with specific group addresses and values at the parameterised times. Specific functions are thus triggered in the ABB i-bus® installation such as switching the lighting in a room on or off.

To do so, day routines i.e. switching programs for specific days can be defined. A week routine with the assignment of day routines to weekdays can also be set.

In the time switch program, you can

- define 15 day routines i.e. 15 different time switch programs for the period between 00:00 and 23:59,

- assign a total of 800 switching times,

- define the week routine i.e. assign a day routine to each day of the week,

- define daylight saving times for 10 years in advance,

- assign 100 individual periods – so-called special days – which deviate from the normal week routine and

- display an overview of the time switch program.

ABB i-bus® EIB / KNX   **Commissioning**
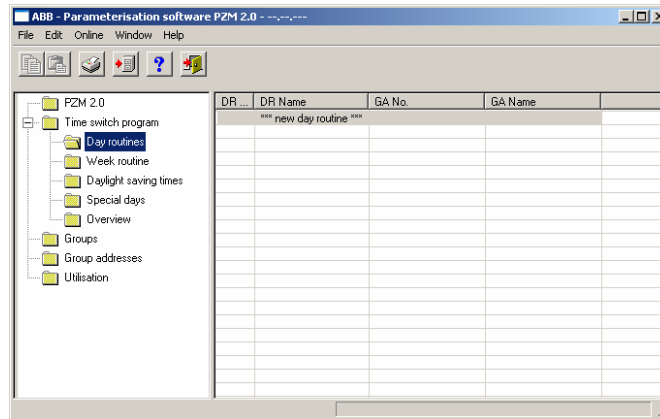
3.4.3   Day routines - General

Fig. 35:   Dialog window: "Day routines - General"

How does a day routine function?

A day routine contains the switching operations of a specific day that are to be carried out e.g. the time switch program of a day between 00:00 and 23:59.

Within a day routine, the first telegram can be sent at 00:00 and the last telegram at 23:59.

Day routines can be activated and/or deactivated by the time switch program and/or by a telegram e.g. by pressing a bus push button.

If a new day routine is activated via a telegram, the current day routine is ended i.e. the Application Unit Time sends a telegram with the group address of the current day routine with the value "0" on the bus. A telegram with the group addresses of the new day routine is then sent with the value "1" on the bus. It is therefore possible to indicate on a display for example which day routine is currently active.

The Application Unit Time then sends telegrams if necessary and establishes precisely the state in the ABB i-bus® installation which would have existed if the old day routine had run normally until midnight and the new day routine had started normally at midnight and had been executed until the current time.

If a day routine is activated and the time is put forward, the state that would have existed if the day routine had run normally until the reset time is established in the ABB i-bus® installation.

If the time is reset, no telegrams are sent.

If the time is adjusted so that a new day routine is activated, the process as described for changing the day routine is carried out.

ABB i-bus® EIB / KNX   **Commissioning**

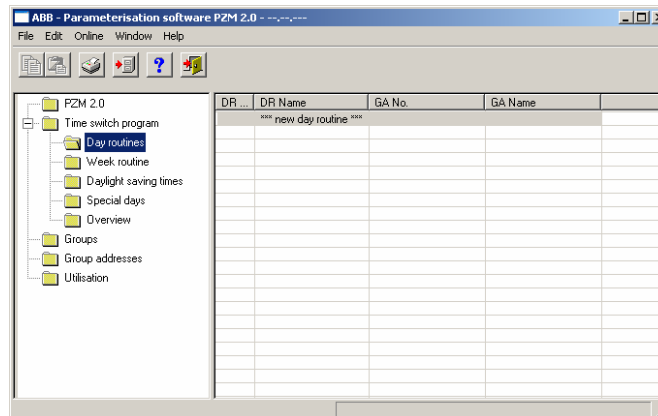### 3.4.3.1   Insert new day routines

Fig. 36:   Dialog window: "Insert day routines"

To insert a day routine, first select *Time switch program* in the selection area followed by *Day routines*.
The relevant table is activated in the right-hand window.

The table is divided into **DR No.**, **DR Name**, **GA No.** and **GA Name**.

The meaning of the individual columns is as follows:

DR No., DR Name

This column displays the consecutive number of the day routine (*DR No.*) and the name of the day routine (*DR Name*).

GA No., GA Name

If a telegram is able to activate a day routine, then the associated number (*DR No.*) and the name *(DR Name)* of the group address is displayed which can activate or deactivate this day routine.

Note: Day routines can be activated and/or deactivated by the time switch program and/or by a telegram.

ABB i-bus® EIB / KNX   **Commissioning**

The *Day routine* parameter window is activated in the following way:

- by double-clicking on ****new day routine****, or
- by pressing the right mouse button and selecting *New day routine* in the pop-up menu, or
- by selecting *Edit* in the menu bar and then activating *New day routine* in the pop-up menu.
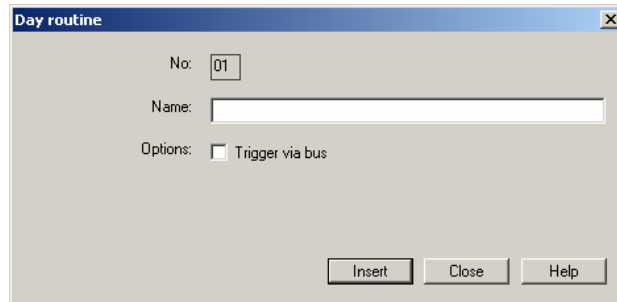

Fig. 37:   Parameter window: "Insert new day routine"

No.

The day routine number (*DR No.*) is automatically assigned by the application program and is a consecutive number for the unique identification of the day routine.

Name

The name of the day routine (*DR Name*) can be freely selected. The name can e.g. describe which functions are activated by this day routine. A maximum of 50 characters are available.

Options

If the day routine should not be activated via the time switch program but via a telegram, then activate the tick box *Trigger via bus*.

Note: In this case, a list field appears in which a group address can be inserted.

"Insert" button

A new day routine is inserted via the *Insert* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**
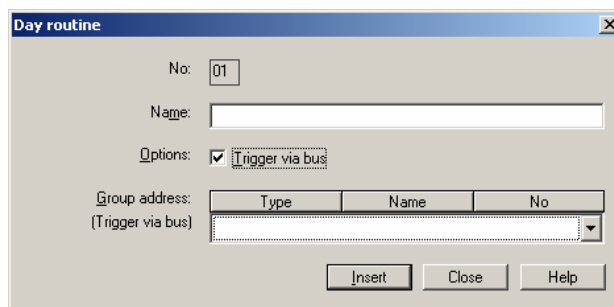
Fig. 38:   Parameter window: "Day routine, Group address"

Note: No new group addresses can be created in the PZM 2. The associated selection window is therefore empty. The day routine can be inserted empty.

Group address (Trigger via bus)

Option: new group address

The parameter is divided into **Type**, **Name** and **No**. The table can be repositioned and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined during the parameterisation of the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

ABB i-bus® EIB / KNX   **Commissioning**

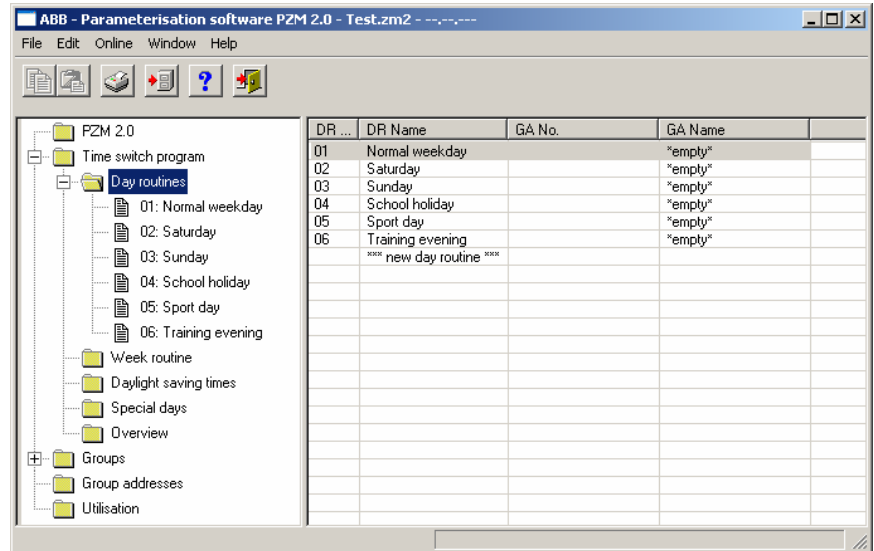### 3.4.3.2 Edit day routines

Fig. 39:   Dialog window: "Edit day routines"

To edit a day routine, first select *Time switch program* in the selection area followed by *Day routines*.
The associated table is activated in the right-hand window and the day routines that have already been inserted are visible.

The table is divided into **DR No.**, **DR Name**, **GA No.** and **GA Name**.

The meaning of the individual columns is as follows:

DR No., DR Name

This column displays the consecutive number of the day routine (*DR No.*) and the name of the day routine (*DR Name*).

GA No., GA Name

If a telegram is able to activate a day routine, then the associated number (*DR No.*) and the name *(DR Name)* of the group address is displayed which can activate or deactivate this day routine.

Note: Day routines can be activated and/or deactivated by the time switch program and/or a telegram.

ABB i-bus® EIB / KNX   **Commissioning**

The parameter window for the selected day routine is activated in the following way:

- by double-clicking on the selected day routine or
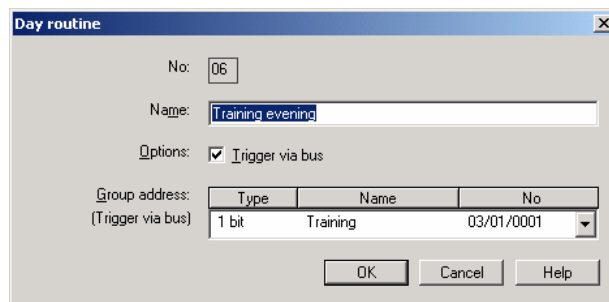- by pressing the right mouse button and selecting *Edit* in the pop-up menu.

Day routine				×
No:	06			
Name:	Training evening			
Options:	☑ Trigger via bus			
Group address:	Type	Name	No	
(Trigger via bus)	1 bit	Training	03/01/0001	▼

| OK | Cancel | Help |

Fig. 40:   Parameter window: "Select day routine"

The selected *Day routine* dialog window is now available for editing.

No.

The day routine number (*DR No.*) cannot be modified. It is automatically assigned by the application program and is a consecutive number for the unique identification of the day routine.

Name

The day routine name (*DR Name*) can be modified. There are a maximum of 50 characters available.

Options

The option can be deactivated. The assignment to the created group address is thereby deleted.

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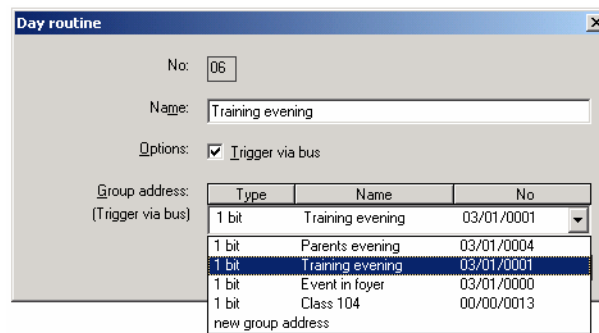
Fig. 41:   Parameter window: "Day routine, Select new group address"

Group address (Trigger via bus)

Options: existing group address /
                  new group address

An *existing group address* can be assigned in the selection list.

The parameter is divided into **Type**, **Name** and **No.** The table can be repositioned and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined during the parameterisation of the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

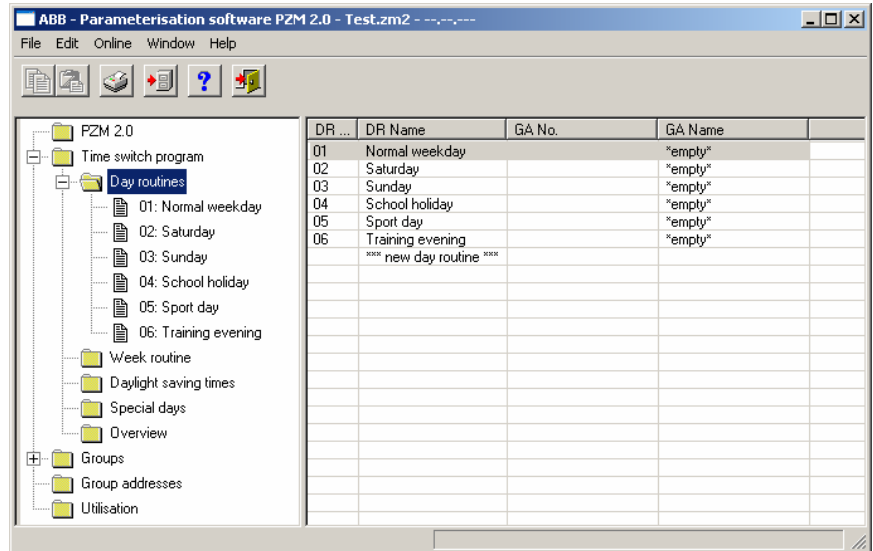### 3.4.3.3   Delete day routines

Fig. 42:   Dialog window: "Delete day routines"

To delete a day routine, first select *Time switch program* in the selection area followed by *Day routines*.
The associated table is activated in the right-hand window and the day routines that have already been inserted are visible.

The table is divided into **DR No.**, **DR Name**, **GA No.** and **GA Name**.

The meaning of the individual columns is as follows:

DR No., DR Name

This column displays the consecutive number of the day routine (*DR No.*) and the name of the day routine (*DR Name*).

GA No., GA Name

If a telegram is able to activate a day routine, then the associated number (*DR No.*) and the name *(DR Name)* of the group address is displayed which can activate or deactivate this day routine.

Note: Day routines can be activated and/or deactivated by the time switch program and/or a telegram.

ABB i-bus® EIB / KNX   **Commissioning**

Select the day routine which should be deleted e.g. Training evening.
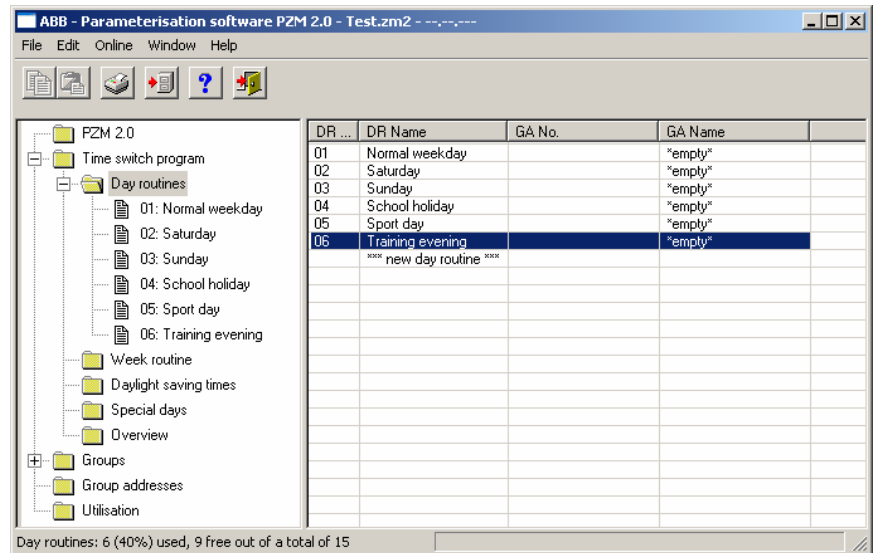

Fig. 43:   Dialog window: "Select day routine"

The selected day routine is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu.

"Yes" button

Before the day routine can be deleted, a prompt must be confirmed with *Yes*.

Fig. 44:   Parameter window: "Day routine, Prompt"

"No" button

If the *No* button is selected, the day routine is not deleted.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.4   Switching time - General

Fig. 45:   Dialog window: "Switching time - General"

The interval at which the time switch program of the Application Unit Time sends a telegram with a defined group address and a defined value on the bus, is designated as a switching time.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.4.1   Insert new switching time

Note: Before a switching time is inserted, a day routine must have
               been created under *Day routines*.
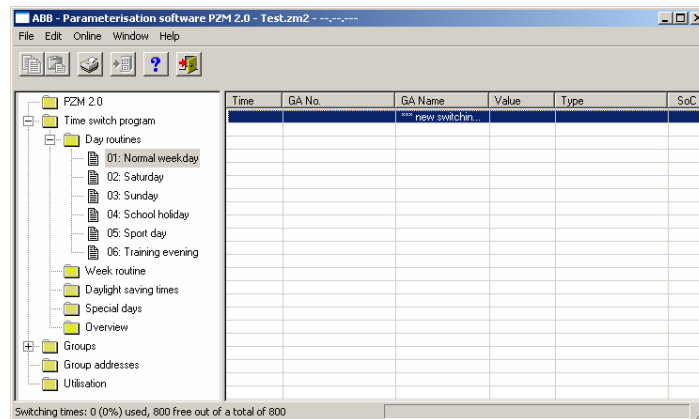
Fig. 46:   Dialog window: "Insert switching time"

To insert a switching time, first select *Time switch program*, *Day routines* in
the selection area followed by a day routine, e.g. 01: Normal weekday.

The associated table is activated in the right-hand window.

The table is divided into **Time**, **GA No.**, **GA Name**, **Value**, **Type** and **SoC**.

The meaning of the individual columns is as follows:

Time

This column displays the set switching time at which a telegram is sent.

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The *name* of the group address is displayed here.

Value

This column displays which value is sent with the group address.

ABB i-bus® EIB / KNX   **Commissioning**

Type

The *type* indicates which type of values a telegram with this group address can send.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

Note: Day routines can be activated and/or deactivated by the time switch program and/or by a telegram.

ABB i-bus® EIB / KNX   **Commissioning**

The parameter window *Switching time for day routine, Normal weekday* is activated in the following way:

- by double-clicking on *** *new switching time* *** or
- by pressing the right mouse button and selecting *New switching time* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *New switching time* in the pop-up menu.
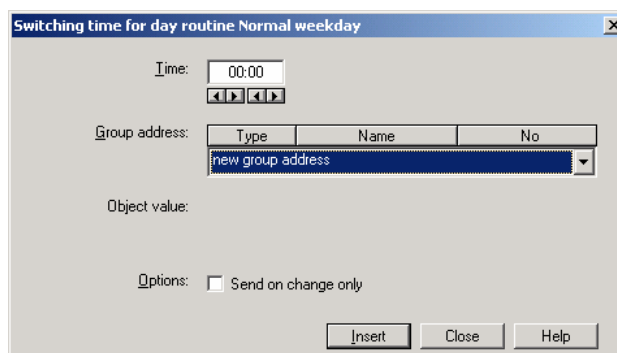
Fig. 47:   Parameter window: "Insert new switching time"

Time

This parameter defines the time at which a telegram is sent, thereby activating a function.

The displays for hours and minutes can be edited separately via the *Left arrow* and *Right arrow* buttons.

ABB i-bus® EIB / KNX   **Commissioning**
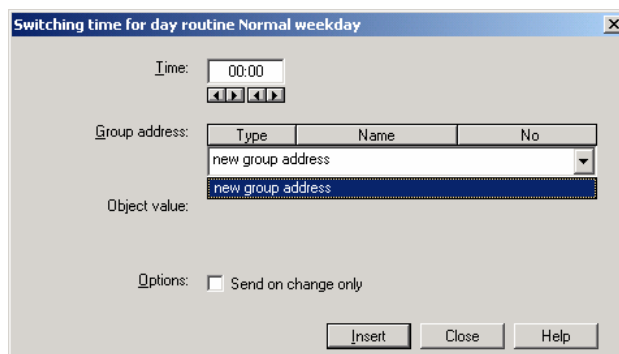
Fig. 48:   Parameter window: "Switching time, Select new group address"

Group address

Option: new group address

The parameter is divided into **Type**, **Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined when configuring the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

ABB i-bus® EIB / KNX   **Commissioning**

Note: Different options appear in the *Object value* parameter depending on the type which has been selected for the group address.

Type 1 bit

Fig. 49:   Parameter window: "Switching time, Data type 1 bit"

Object value (0…1)

Options: 0/1

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Type 2 bit priority

Fig. 50:   Parameter window: "Switching time, Data type 2 bit priority"

Object value

Options: <u>Free</u>/
                  Forced ON/
                  Forced OFF

This parameter is used to select which object value is sent. The priority control function is explained in the following table:

Bit 1	Bit 0	Access	Description
0	0	Free	The priority object has enabled e.g. the switch actuator. The output switches depending on the value of the switch object.
0	1	Free	
1	0	OFF	The priority object has switched e.g. the switch actuator OFF with priority control. The switch object has no function.
1	1	ON	The priority object has switched e.g. the switch actuator ON with priority control. The switch object has no function.

Table 1:   Priority object

Note: 4 different values can be sent with the telegram. So-called priority objects can thus be addressed in the EIB devices. If a channel e.g. in a switch actuator should switch on or off, the value 1 or 0 is sent to the assigned switch object. If a priority object is also assigned to this channel, the value that was sent to the priority object defines the behaviour of the channel.

ABB i-bus® EIB / KNX **Commissioning**

Type 1 byte unsigned (0…255)
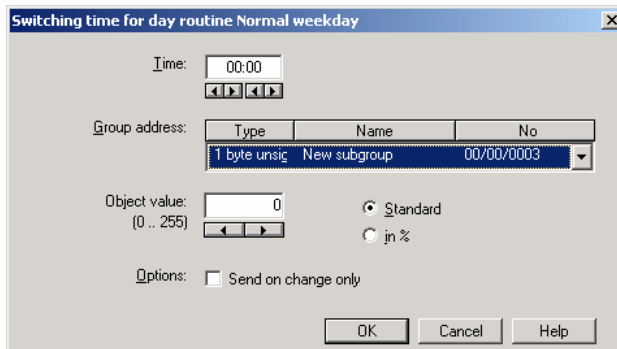
Fig. 51:   Parameter window: "Switching time, Data type 1 byte unsigned (0…255)"

Object value (0…255) and Standard

Options: 0…255

This parameter is used to select which object value is sent.

If *Standard* is also selected, the object value is issued without a unit of measurement.
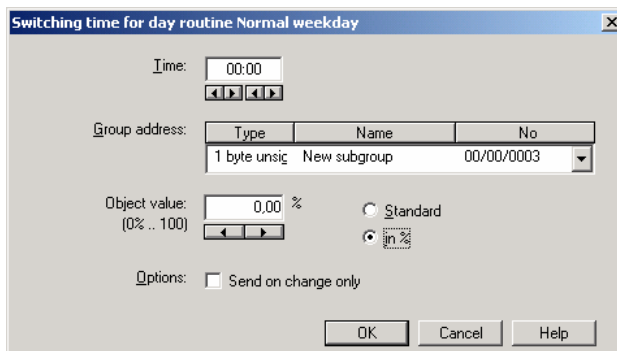
Type 1 byte unsigned (0…100%)

Fig. 52:   Parameter window: "Switching time, Data type 1 byte unsigned (0…100%)"

Object value (0…100%) and in %

Options: 0.00…100%

This parameter is used to select which object value is sent.

If the option *in %* is also selected, 0 = 0% and 255 = 100% are assigned to the object values.

ABB i-bus® EIB / KNX   **Commissioning**

Type 1 byte signed (-128…127)
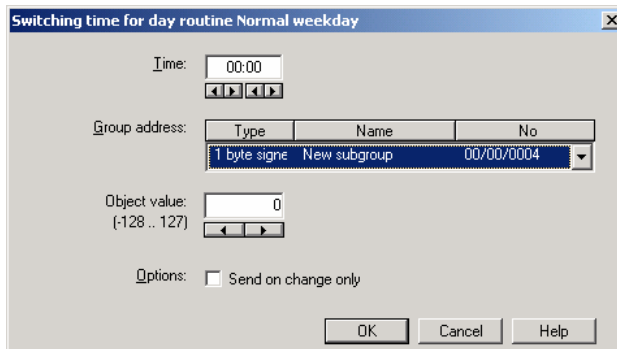
Fig. 53:   Parameter window: "Switching time, Data type 1 byte signed (-128…127)"

Object value (-128…127)

Options: -128…0…127

This parameter is used to select which object value is sent.

Type 2 byte unsigned (0…65,535)
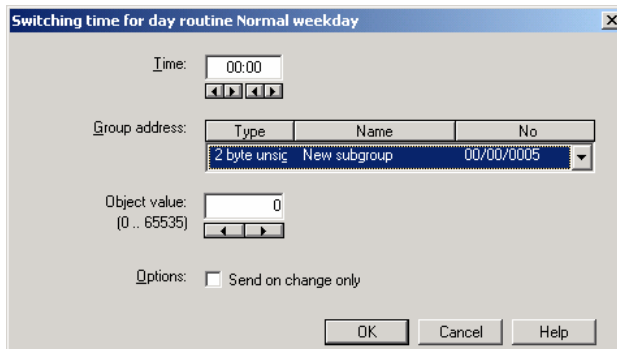
Fig. 54:   Parameter window: "Switching time, Data type 2 byte signed (0…65,535)"

Object value (0…65,535)

Options: 0…65,535

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Type 2 byte signed (-32,768…32,767)
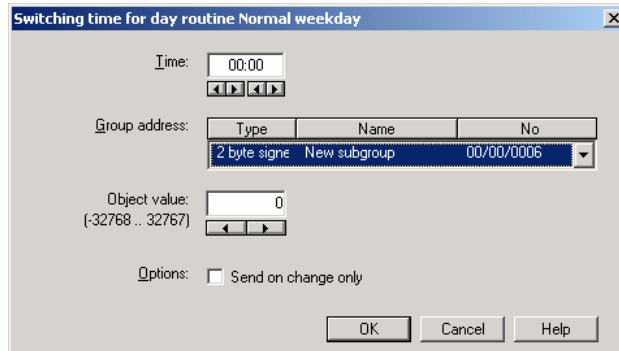
Fig. 55:   Parameter window: "Switching time, Data type 2 byte signed (-32,768…32,767)"

Object value (-32,768…32,767)

Options: -32,768…0…32,767

This parameter is used to select which object value is sent.

Type 2 byte floating point

Fig. 56:   Parameter window: "Switching time, Data type 2 byte floating point"

Object value (-163.84…163.76) and Exponent 3 (Temp.)

Options: -163.84…0…163.76

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Exponent

Options: Auto /
                  0…<u>3 (Temp.)</u>…15

This parameter is used to select which exponent is assigned to the object value.

Note: Different object values can be set, depending on the exponent which is selected. The table below shows all the options.

Exponent	Object value
Auto	-671,088.64…<u>0.00</u>…670,760.96
0	-20.48…<u>0.00</u>…20.47
1	-40.96…<u>0.00</u>…40.94
2	-81.92…<u>0.00</u>…81.88
3 (Temp.)	-163.84…<u>0.00</u>…163.76
4	-327.68…<u>0.00</u>…327.52
5	-655.36…<u>0.00</u>…655.04
6	-1,310.72…<u>0.00</u>…1,310.08
7	-2,621.44…<u>0.00</u>…2,620.16
8	-5,242.88…<u>0.00</u>…5,240.32
9	-10,485.76…<u>0.00</u>…10,480.64
10	-20,971.52…<u>0.00</u>…20,961.28
11	-41,943.04…<u>0.00</u>…41,922.56
12	-88,386.08…<u>0.00</u>…83,845.12
13	-167,772.16…<u>0.00</u>…167,690.24
14	-335,544.32…<u>0.00</u>…335,380.48
15	-671,088.64…<u>0.00</u>…670,760.96

Table 2:   Exponent

ABB i-bus® EIB / KNX   **Commissioning**

Options

With the option *Send on change only*, it is defined that a telegram is only sent if the value differs from the value that was last sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

If the option *Send on change only* is not selected, the group address and the object value are sent at the set time.

"OK" button

A new switching time is inserted via the *OK* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.4.2   Edit switching time
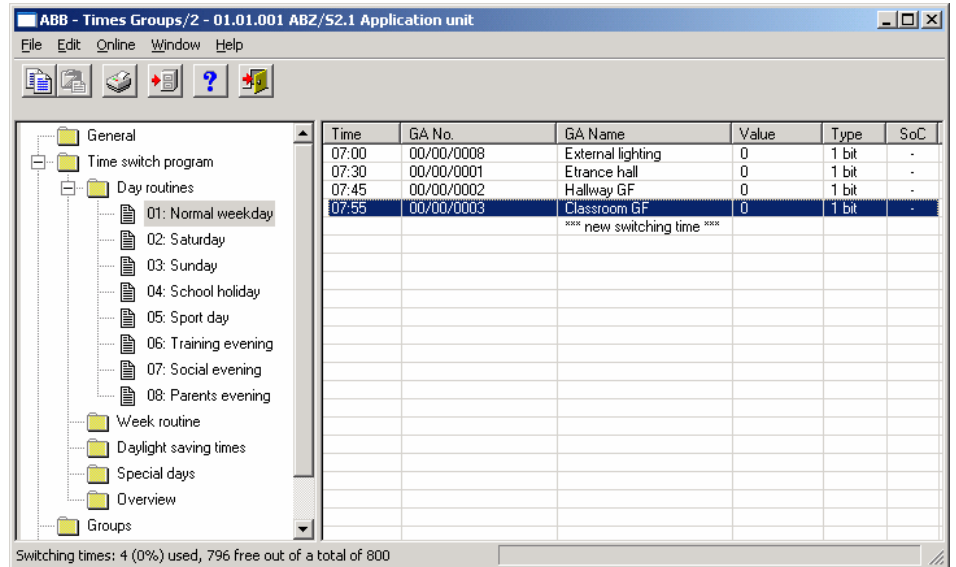
Fig. 57:   Dialog window: "Edit switching time"

To edit a switching time, first select *Time switch program*, *Day routines* in the selection area followed by a specific day routine e.g. 7:55.
The associated table is activated in the right-hand window and the already inserted switching times are visible.

The table is divided into **Time, GA No.**, **GA Name, Value, Type** and **SoC**.

The meaning of the individual columns is as follows:

Time

This column displays the set switching time at which a telegram is sent.

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The *name* of the group address is displayed here.

Value

This column displays which value is sent with the group address.

ABB i-bus® EIB / KNX   **Commissioning**

Type

The *type* indicates which type of values a telegram with this group address can send.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

ABB i-bus® EIB / KNX   **Commissioning**

The parameter window *Switching time for day routine – Normal weekday* is activated in the following way:

- by double-clicking on the selected switching time or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.

Fig. 58:   Parameter window: "Select switching time"

Time

The time can be edited e.g. via the *Left arrow* and *Right arrow* buttons.

ABB i-bus® EIB / KNX   **Commissioning**
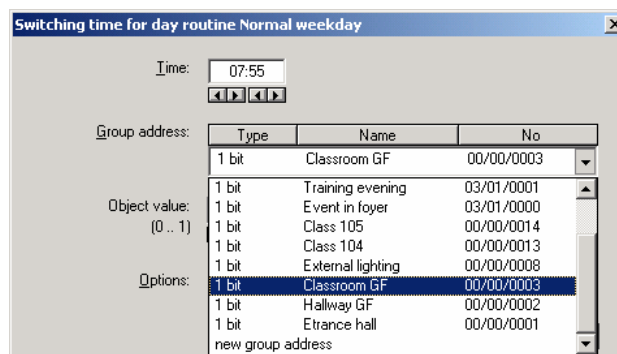
Fig. 59:   Parameter window: "Switching time for day routine - Normal weekday, Select group address"

Group address

Options: existing group addresses /
                         new group address

An *existing group address* can be assigned in the selection list.

The parameter is divided into **Type, Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined when configuring the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

ABB i-bus® EIB / KNX   **Commissioning**

Note: Different options appear in the *Object value* parameter
              depending on the type which has been selected for the group
              address.

Type 1 bit

Fig. 60:   Parameter window: "Switching time, Data type 1 bit"

Object value (0…1)

Options: 0/1

This parameter is used to select which object value is sent.

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Type 2 bit priority

Fig. 61:   Parameter window: "Switching time, Data type 2 bit priority"

Object value

Options: Free/
                  Forced ON/
                  Forced OFF

This parameter is used to select which object value is sent. The priority control function is explained in the following table:

Bit 1	Bit 0	Access	Description
0	0	Free	The priority object has enabled e.g. the switch actuator. The output switches depending on the value of the switch object.
0	1	Free	
1	0	OFF	The priority object has switched e.g. the switch actuator OFF with priority control. The switch object has no function.
1	1	ON	The priority object has switched e.g. the switch actuator ON with priority control. The switch object has no function.

Table 3:   Priority object

Note: 4 different values can be sent with the telegram. So-called priority objects can thus be addressed in the EIB devices. If a channel e.g. in a switch actuator should switch on or off, the value 1 or 0 is sent to the assigned switch object. If a priority object is also assigned to this channel, the value that was sent to the priority object defines the behaviour of the channel.

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Type 1 byte unsigned (0…255)
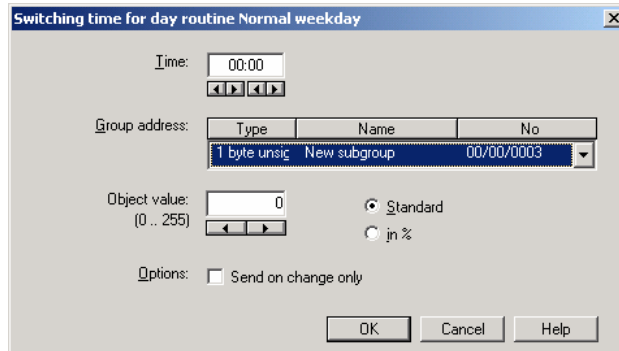
Fig. 62:   Parameter window: "Switching time, Data type 1 byte unsigned (0…255)"

Object value (0…255) and Standard

Options: 0…255

This parameter is used to select which object value is sent.

If *Standard* is also selected, the object value is issued without a unit of measurement.

Type 1 byte unsigned (0…100%)

Fig. 63:   Parameter window: "Switching time, Data type 1 byte unsigned (0…100%)"

Object value (0…100%) and in %

Options: 0.00…100%

This parameter is used to select which object value is sent.

If the option *in %* is also selected, 0 = 0% and 255 = 100% are assigned to the object values.

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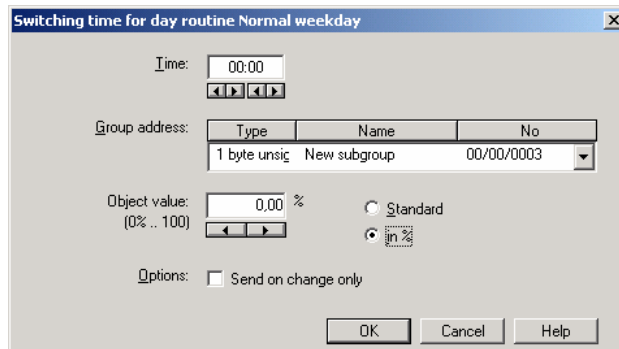
Type 1 byte signed (-128…127)
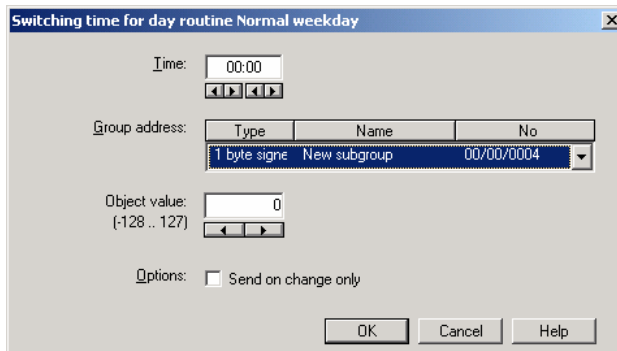
Fig. 64:   Parameter window: "Switching time, Data type 1 byte signed (-128…127)"

Object value (-128…127)

Options: -128…0…127

This parameter is used to select which object value is sent.

Type 2 byte unsigned (0…65,535)

Fig. 65:   Parameter window: "Switching time, Data type 2 byte unsigned (0…65,535)"

Object value (0…65,535)

Options: 0…65,535

This parameter is used to select which object value is sent.

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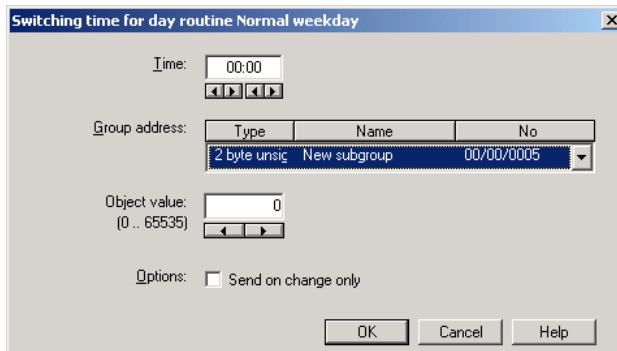
Type 2 byte signed (-32,768…32,767)
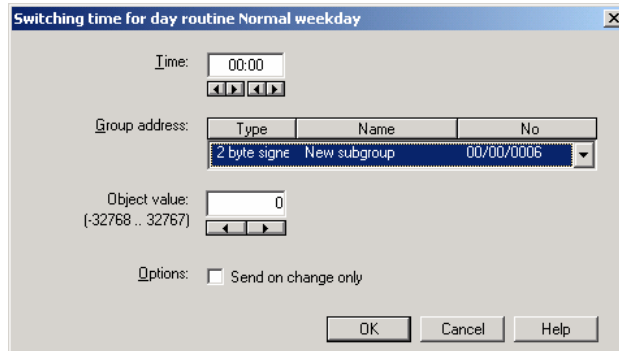
Fig. 66:   Parameter window: "Switching time, Data type 2 byte signed (-32,768…32,767)"

Object value (-32,768…32,767)

Options: -32,768…0…32,767

This parameter is used to select which object value is sent.

Type 2 byte floating point

Fig. 67:   Parameter window: "Switching time, Data type 2 byte floating point"

Object value (-163.84…163.76) and Exponent 3 (Temp.)

Options: -163.84…0…163.76

This parameter is used to select which object value is sent.

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Exponent

Options: Auto /
                  0…<u>3 (Temp.)</u>…15

This parameter is used to select which exponent is assigned to the object value.

Note: Different object values can be set, depending on the exponent which is selected. The table below shows all the options.

Exponent	Object value
Auto	-671,088.64…<u>0.00</u>…670,760.96
0	-20.48…<u>0.00</u>…20.47
1	-40.96…<u>0.00</u>…40.94
2	-81.92…<u>0.00</u>…81.88
3 (Temp.)	-163.84…<u>0.00</u>…163.76
4	-327.68…<u>0.00</u>…327.52
5	-655.36…<u>0.00</u>…655.04
6	-1,310.72…<u>0.00</u>…1,310.08
7	-2,621.44…<u>0.00</u>…2,620.16
8	-5,242.88…<u>0.00</u>…5,240.32
9	-10,485.76…<u>0.00</u>…10,480.64
10	-20,971.52…<u>0.00</u>…20,961.28
11	-41,943.04…<u>0.00</u>…41,922.56
12	-88,386.08…<u>0.00</u>…83,845.12
13	-167,772.16…<u>0.00</u>…167,690.24
14	-335,544.32…<u>0.00</u>…335,380.48
15	-671,088.64…<u>0.00</u>…670,760.96

Table 4:   Exponent

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Options

With the option *Send on change only*, it is defined that a telegram is only sent if the value differs from the value that was last sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

If the option *Send on change only* is not selected, the group address and the object value are sent at the set time.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.4.3   Delete switching time
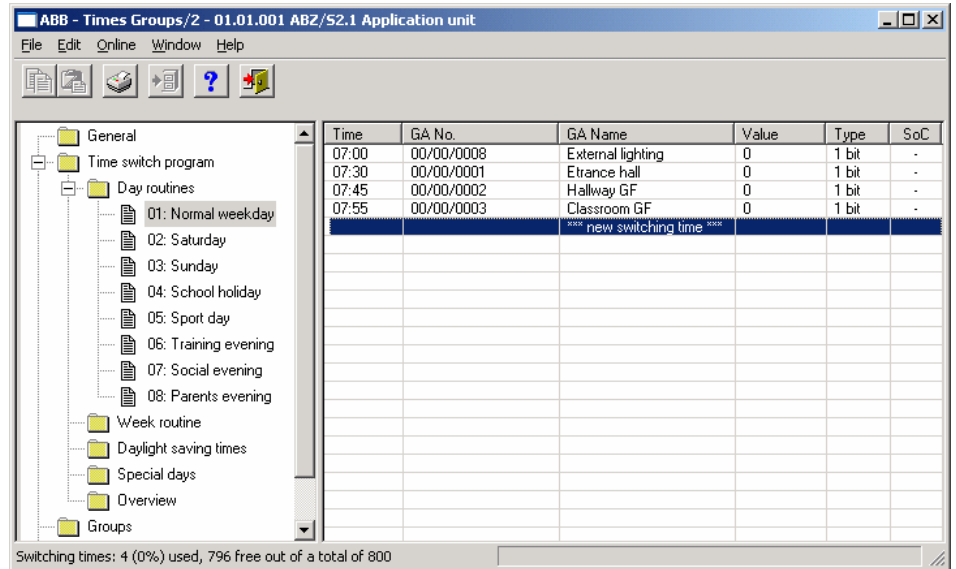
Fig. 68:   Dialog window: "Delete switching time"

To delete a switching time, first select *Time switch program*, *Day routines* in the selection area followed by a specific day routine.
The associated window is activated in the right-hand window and the switching times that have already been inserted are visible.

The table is divided into **Time, GA No.**, **GA Name, Value, Type** and **SoC**.

The meaning of the individual columns is as follows:

Time

This column displays the set switching time at which a telegram is sent.

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The *name* of the group address is displayed here.

Value

This column displays which value is sent with the group address.

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Type

The *type* indicates which type of values a telegram with this group address can send.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

Note: Day routines can be activated and/or deactivated by the time switch program and/or by a telegram.

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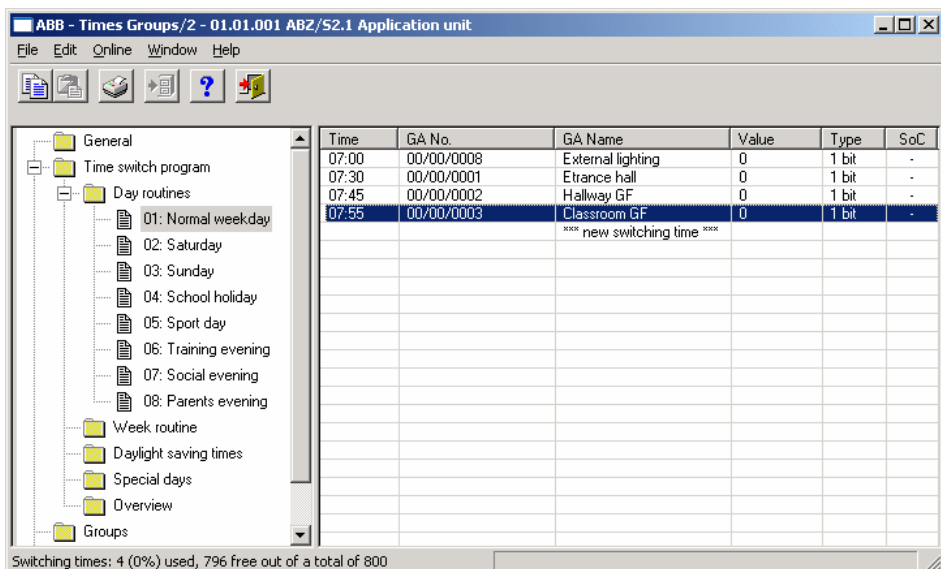Select the switching time which should be deleted e.g. Classroom GF.
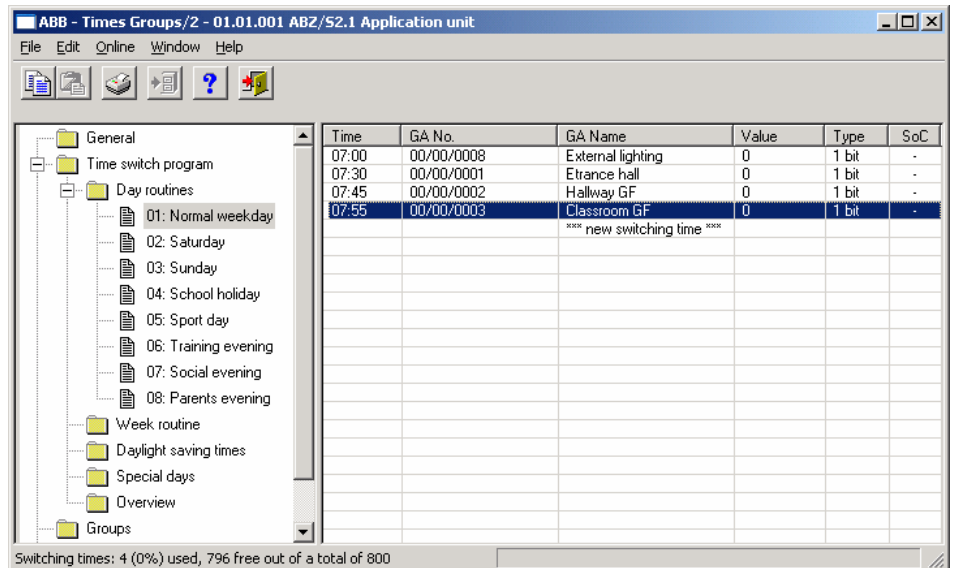
Fig. 69:   Dialog window: "Select switching time"

The selected switching time is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu.

"Yes" button

Before the switching time can be deleted, a prompt must be confirmed with *Yes*.
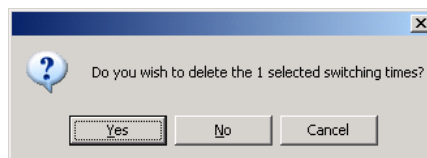
Fig. 70:   Parameter window: "Switching time, Prompt"

"No" button

If the *No* button is selected, the switching time is not deleted.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

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3.4.4.4   Insert/copy switching time
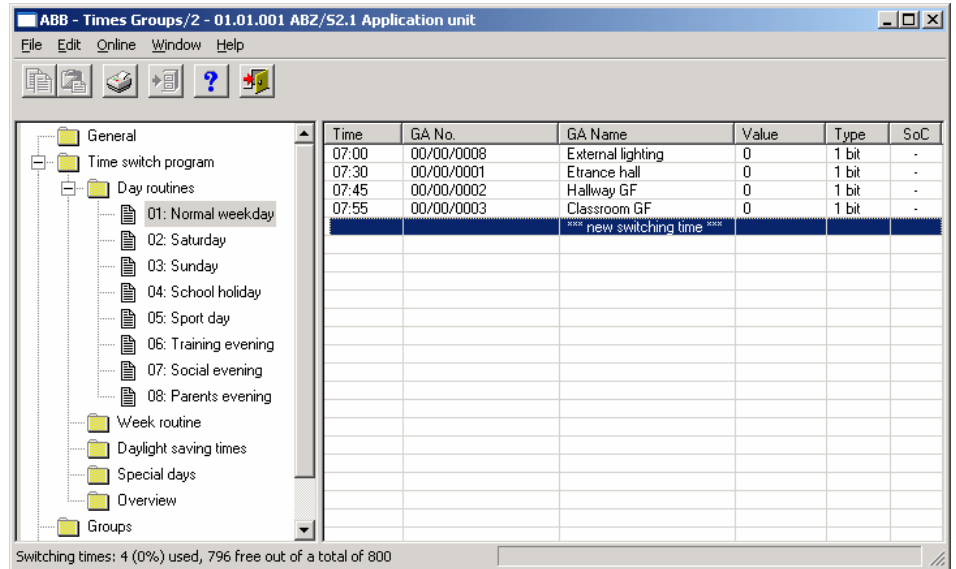
Fig. 71:   Parameter window: "Insert/copy switching time"

To copy or insert a switching time, first select *Time switch program*, *Day
routines* in the selection area followed by a specific day routine.
The associated window is activated in the right-hand window and the
switching times that have already been inserted are visible.

The table is divided into **Time, GA No.**, **GA Name, Value, Type** and **SoC**.

The meaning of the individual columns is as follows:

Time

This column displays the set switching time at which a telegram is sent.

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The *name* of the group address is displayed here.

Value

This column displays which value is sent with the group address.

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Type

The *type* indicates which type of values a telegram with this group address can send.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

Note: Day routines can be activated and/or deactivated by the time switch program and/or by a telegram.

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Select the switching time which should be copied e.g. Classroom GF.

Fig. 72:   Dialog window: "Select switching time"

The selected switching time is copied in the following way:

- by pressing the [icon] button or
- by pressing the right mouse button and selecting *Copy* in the pop-up menu.

The switching time which should be copied is inserted in the following way:

- by pressing the [icon] button or
- by pressing the right mouse button and selecting *Insert* in the pop-up menu.

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Before the switching time can be inserted, a new switching time must be entered.
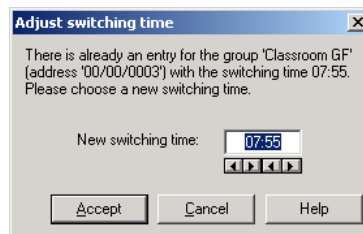
Fig. 73:   Parameter window: "Set switching time"

"Accept" button

When this button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.5   Week routine - General
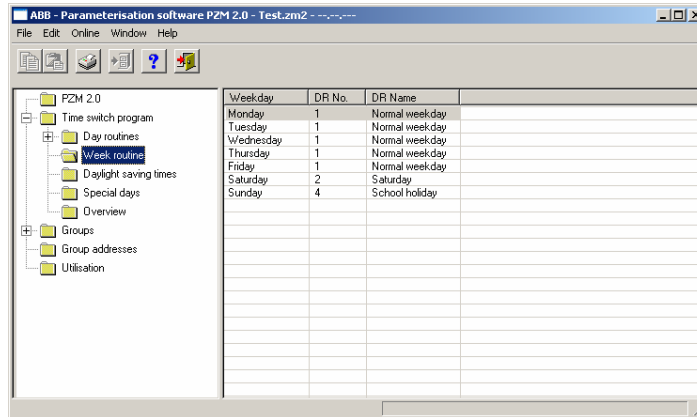
Fig. 74:   Dialog window: "Week routine - General"

The week routine is compiled from the day routines. A day routine can be assigned to each day of the week (Monday to Sunday).

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3.4.5.1   Insert new week routine

Note: Before a week routine is inserted, a day routine and a switching time must have been created under *Day routines*.
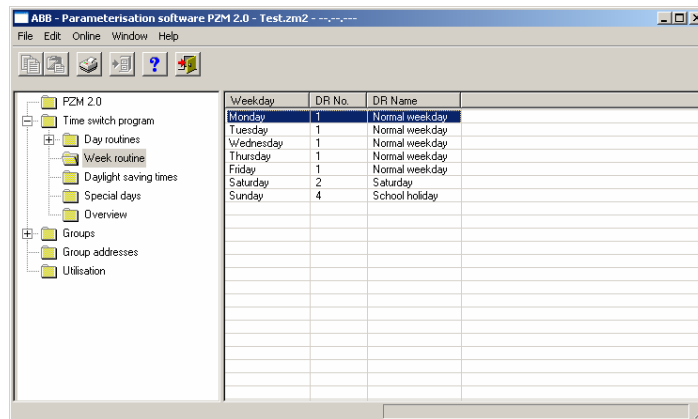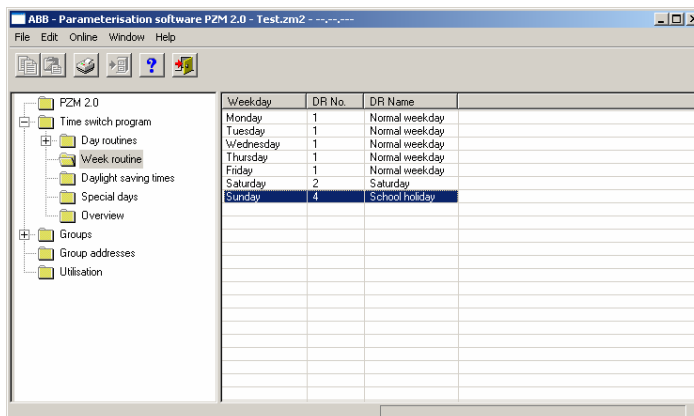

Fig. 75:   Dialog window: "Insert week routine"

To insert a week routine, first select *Time switch program* in the selection area followed by *Week routine*.
The associated table is activated in the right-hand window.

The table is divided into **Weekday**, **DR No.** and **DR Name**.

The meaning of the individual columns is as follows:

Weekday

All the days of the week are automatically displayed in this column.

DR No., DR Name

This column displays the consecutive numbers of the day routines (*DR No.*) and the names of the day routines (*DR Name*).

Note: If no day routines have yet been assigned to a weekday, there is no day routine number *(DR No.)* and *"none"* is entered as the name of the day routine *(DR Name)*.

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The parameter window *Standard day routine for Monday* is activated in the following way:

- by double-clicking on the selected weekday or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.
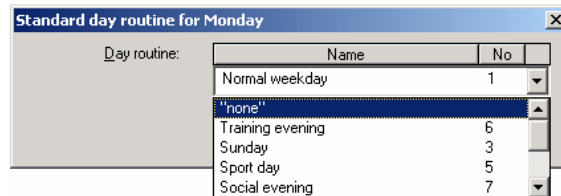
Fig. 76:   Parameter window: "Standard day routine for Monday, Insert day routine"

Day routine

Options: none /
                   existing day routines

An *existing day routine* can be assigned in the selection list.

The parameter is divided into **Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

Name

This column displays the name of the day routine (*DR Name*).

No.

This column displays the consecutive number of the day routine (*DR No.*).

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**
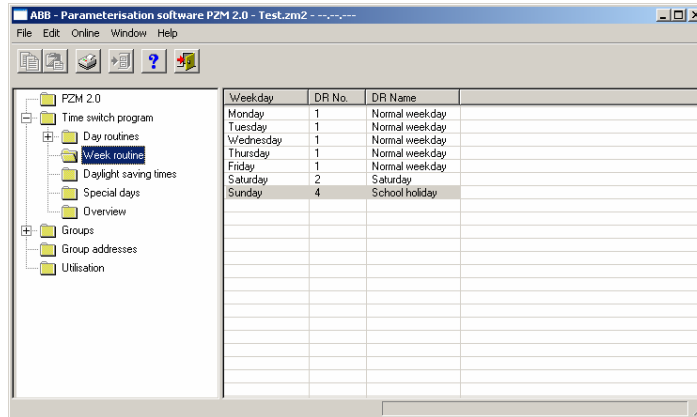
3.4.5.2   Edit week routine

Fig. 77:   Dialog window: "Edit week routine"

To edit a week routine, first select *Time switch program* in the selection area followed by *Week routine* e.g. Sunday.
The associated table is activated in the right-hand window.

The table is divided into **Weekday**, **DR No.** and **DR Name**.

The meaning of the individual columns is as follows:

Weekday

The weekdays that have been created are displayed in this column.

DR No., DR Name

This column displays the consecutive numbers of the day routines (*DR No.*) and the names of the day routines (*DR Name*).

Note: If no day routines have yet been assigned to a day of the week, no day routine number *(DR No.)* is displayed and *"none"* is entered as the name of the day routine *(DR Name)*.

ABB i-bus® EIB / KNX   **Commissioning**

The parameter window *Standard day routine for Sunday* is activated in the following way:

- by double-clicking on the selected weekday or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.
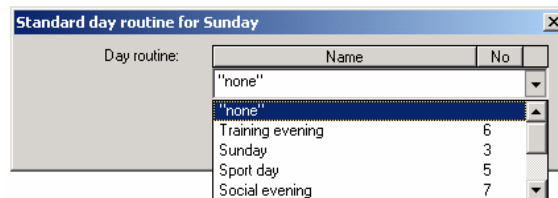
Fig. 78:   Parameter window: "Standard day routine for Sunday, Insert day routine"

Day routine

Select the day routine from the list field which you wish to assign to the day of the week.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.5.3   Delete week routine

Fig. 79:   Dialog window: "Delete week routine"

To delete a week routine, first select *Time switch program* in the selection area followed by *Week routine*.
The associated table is activated in the right-hand window.

The table is divided into **Weekday**, **DR No.** and **DR Name**.

The meaning of the individual columns is as follows:

Weekday

This column displays the weekdays that have been created.

DR No., DR Name

This column displays the consecutive numbers of the day routines (*DR No.*) and the names of the day routines (*DR Name*).

Note: If no day routines have yet been assigned to a day of the week, no day routine number *(DR No.)* is displayed and *"none"* is entered as the name of the day routine *(DR Name)*.

Select the weekday for the day routine that is to be deleted e.g. Monday.
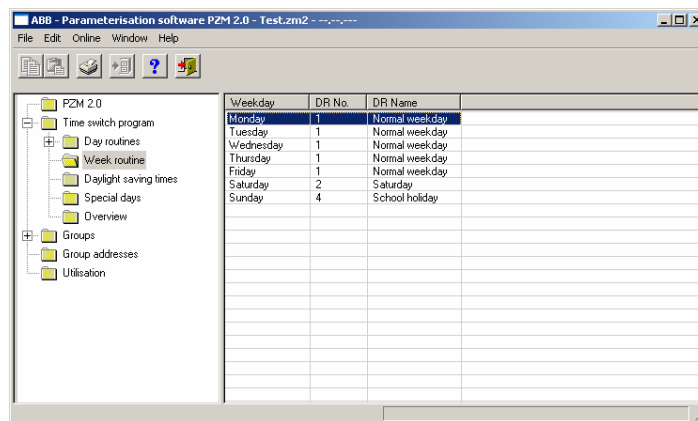
Fig. 80:   Dialog window: "Select week routine"

The selected day routine *(DR Name)* is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *Delete* in the pop-up menu.

After carrying out the process described above, *"none"* is automatically entered under the column *DR Name* i.e. the day routine is deleted.

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3.4.6 Daylight saving times - General
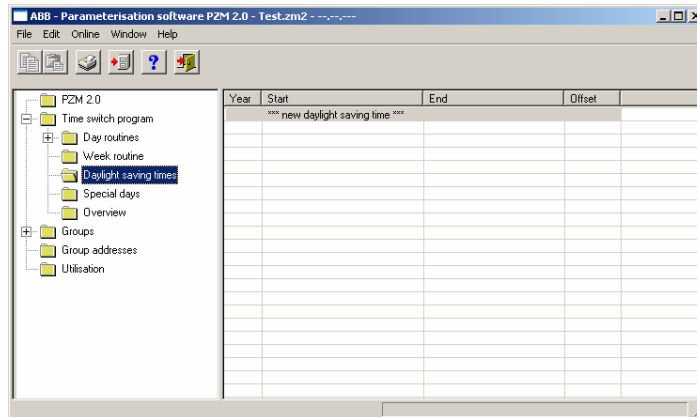
Fig. 81:   Dialog window: "Daylight saving times - General"

With this function, the changeover days, the changeover times and the offset for daylight saving can be calculated or defined.

Note: The basis for calculating the daylight saving times is the provision of your PC equipment.

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3.4.6.1   Insert new daylight saving time
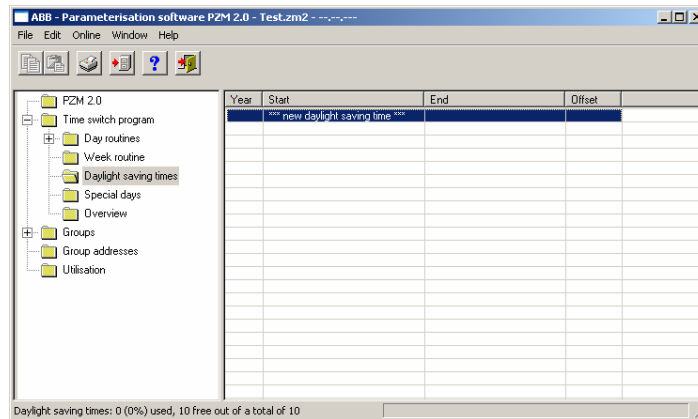
Fig. 82:   Dialog window: "Insert new daylight saving time"

To insert a daylight saving time, first select *Time switch program* in the selection area followed by *Daylight saving times*.
The associated table is activated in the right-hand window.

The table is divided into **Year**, **Start**, **End** and **Offset**.

The meaning of the individual columns is as follows:

Year

The year is displayed in this column.

Start

The start of the daylight saving time is displayed in this column.

End

The end of the daylight saving time is displayed in this column.

Offset

The time adjustment (offset) is displayed in this column.

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The parameter window *Daylight saving time* is activated in the following way:

- by double-clicking on *** *new daylight saving time* *** or
- by pressing the right mouse button and selecting *New daylight saving time* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *New daylight saving time* in the pop-up menu.

Fig. 83:   Parameter window: "Insert daylight saving time"

Calculate

If the *Calculate* button is pressed, the daylight saving times can be calculated automatically and in sequence. The calculated daylight saving times appear under *Start* and *End*. The calculated daylight saving times can be adopted with the help of the *Insert* button.

The prerequisite for the automatic calculation is the activation of the *Automatically calculate* parameter.

Note: The start and end of the daylight saving time are calculated according to the conversion rules stored in your operating system for converting standard time to daylight saving time.

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Automatically calculate

Options   activated = tick/
                 not activated = no tick

If the parameter is activated, the daylight saving time is calculated automatically according to the conversion rules stored in the operating system. If it is not activated, the existing date is retained and only the year is incremented.
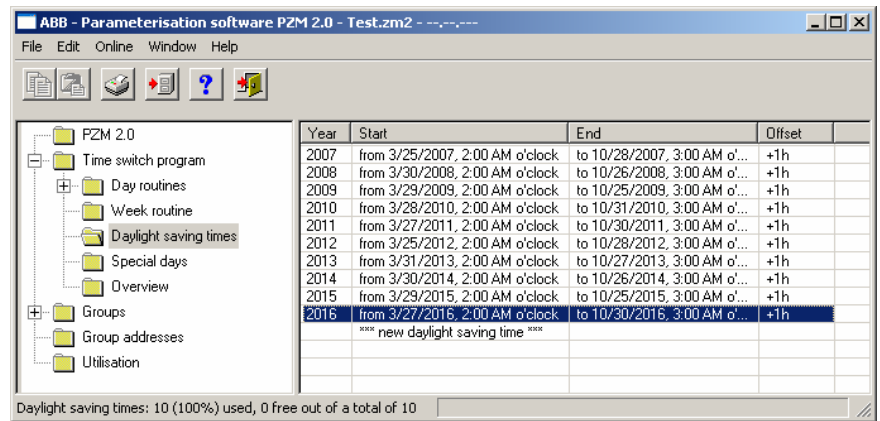
Fig. 84:   Dialog window: "Option to automatically calculate daylight saving time activated"
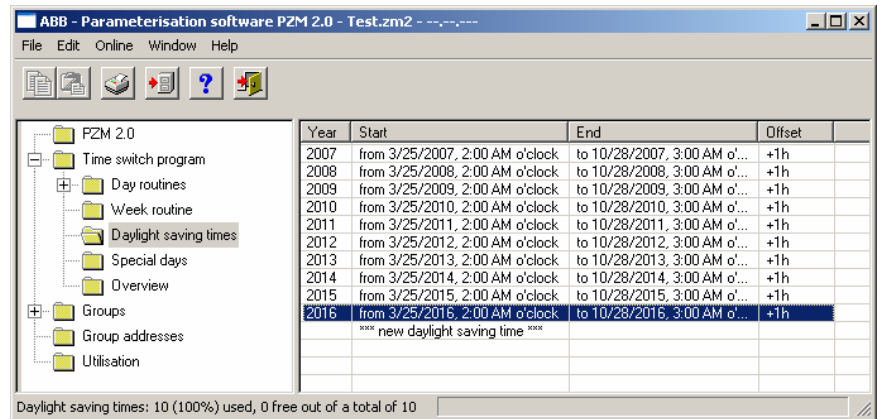
Fig. 85:   Dialog window: "Option to automatically calculate daylight saving time not activated"

Note: A maximum of 10 daylight saving times can be calculated.

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Start, End

The daylight saving time is defined by entering the date (*on*) and time (*at*) of the *start* and *end*.

The date for the start and end can be set in a range between 1.1.2000 and 31.12.2035. The representation is in numbers which are separated by full stops in the sequence *Day. Month. Year.* Entries for the year in the range 36...99 are rejected. To the right of the input field for the date, there is a button with which the calendar for the current date can be displayed. The input of the date for the start and end can be carried out via the selection of a date in the calendar or through the direct input of the date.

The displays for the hour can be edited via the buttons *Left arrow* and *Right arrow*.

Offset

An *offset*, i.e. the time adjustment can be set.

Note: With the start of the daylight saving time, the current time of the internal clock is adjusted by this value and reset with the end of the daylight saving time.

"Insert" button

The settings are adopted via the "Insert" button.

"Close" button

When the "Close" button is pressed, the function is ended and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX **Commissioning**
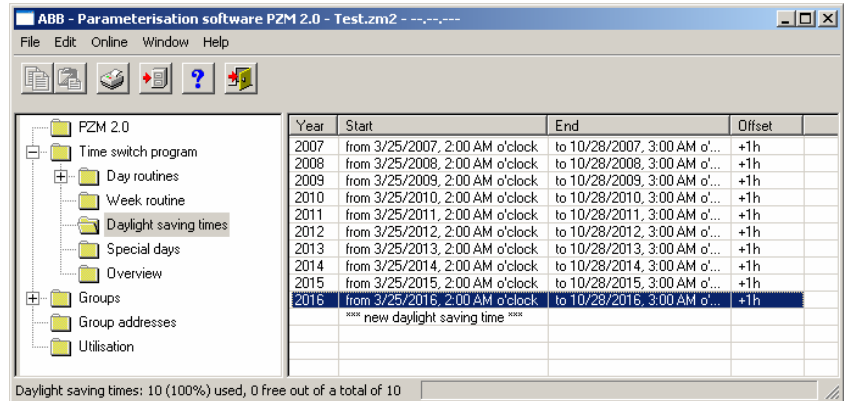
3.4.6.2   Edit daylight saving time
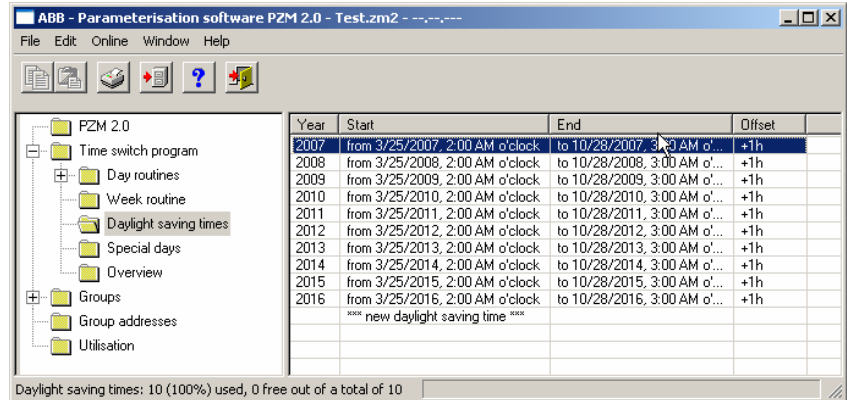
Fig. 86:   Dialog window: "Edit daylight saving time"

To edit the daylight saving time, first select *Time switch program* in the selection area followed by *Daylight saving times*, e.g. the year 2006. The associated table is activated in the right-hand window.

The table is divided into **Year**, **Start**, **End** and **Offset**.

The meaning of the individual columns is as follows:

Year

The year is displayed in this column.

Start

The start of the daylight saving time is displayed in this column.

End

The end of the daylight saving time is displayed in this column.

Offset

The time adjustment (offset) is displayed in this column.

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The parameter window *Daylight saving time* is activated in the following way:

- by double-clicking on *** *new daylight saving time* *** or
- by pressing the right mouse button and selecting *New daylight saving time* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *New daylight saving time* in the pop-up menu.

Fig. 87:   Parameter window: "Select daylight saving time"

The selected daylight saving time is now available for editing.

Start, End, at

It is possible to edit the *start*, the *end* and *at* which time via the buttons *Left arrow* and *Right arrow*.

Offset

The *offset* can be edited via the buttons *Left arrow* and *Right arrow*.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX

Commissioning

3.4.6.3 Delete daylight saving time

Fig. 88:   Dialog window: "Delete daylight saving time"

To delete a daylight saving time, first select *Time switch program* in the selection area followed by *Daylight saving times*.
The associated table is activated in the right-hand window.

The table is divided into **Year**, **Start**, **End** and **Offset**.

The meaning of the individual columns is as follows:

Year

The year is displayed in this column.

Start

The start of the daylight saving time is displayed in this column.

End

The end of the daylight saving time is displayed in this column.

Offset

The time adjustment (offset) is displayed in this column.

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Select the daylight saving time which should be deleted e.g. the year 2006.
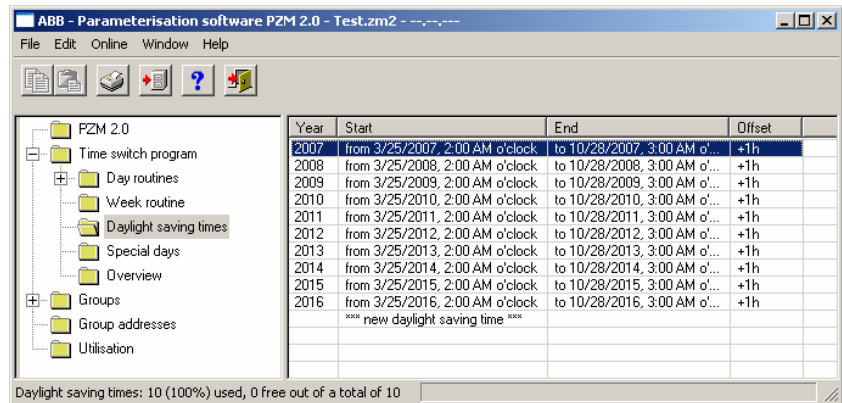
Fig. 89:   Dialog window: "Select daylight saving time"

The selected daylight saving time is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *Delete* in the pop-up menu.

"Yes" button

Before the daylight saving time can be deleted, a prompt must be confirmed with *Yes*.
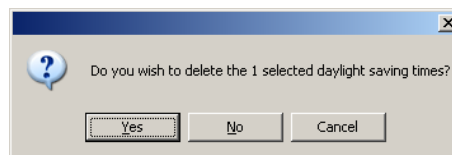
Fig. 90:   Parameter window: "Daylight saving time, Prompt"

"No" button

The daylight saving time is not deleted when the *No* button is pressed.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

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3.4.7   Special days - General
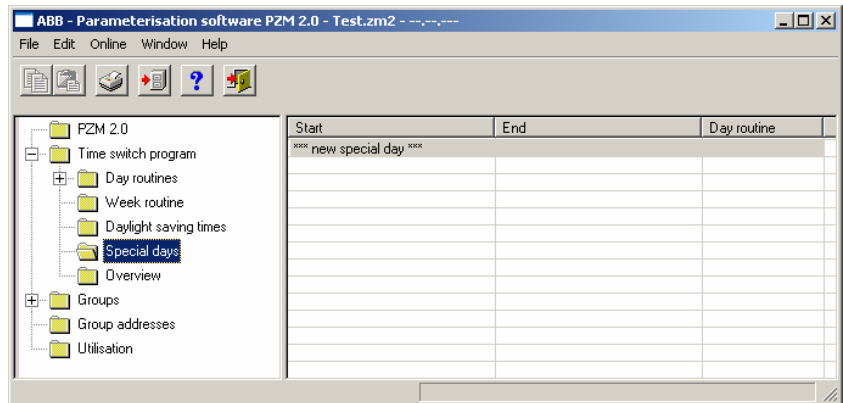
Fig. 91:   Dialog window: "Special days - General"

Special days are days on which the standard week routine and the
associated day routine should not be carried out. Special days on which a
specific day routine is executed can be defined for both one day (e.g. Bank
Holiday) and several days (e.g. holidays).

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3.4.7.1 Insert new special day

Note: Before a new special day is inserted, a day routine must have been created under *Day routines*.
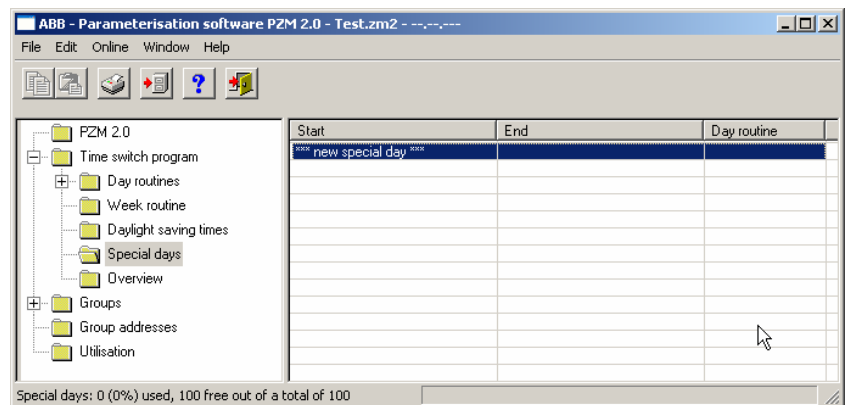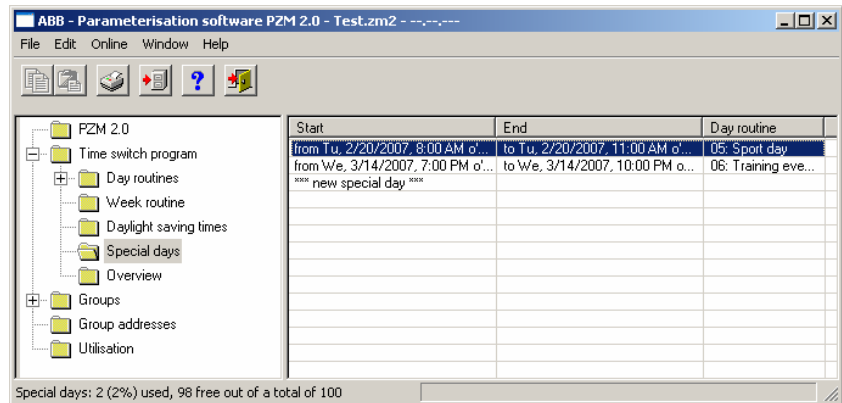

Fig. 92:   Dialog window: "Insert new special day"

To insert a special day, first select *Time switch program* in the selection area followed by *Special days*.
The associated table is activated in the right-hand window.

The table is divided into **Start**, **End** and **Day routine**.

The meaning of the individual columns is as follows:

Start

The start of the special day is displayed in this column.

End

The end of the special day is displayed in this column.

Day routine

This column displays the day routine.

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The parameter window *Special day range* is activated in the following way:

- by double-clicking on *** *new special day* *** or
- by pressing the right mouse button and selecting *New special day* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *New special day* in the pop-up menu.
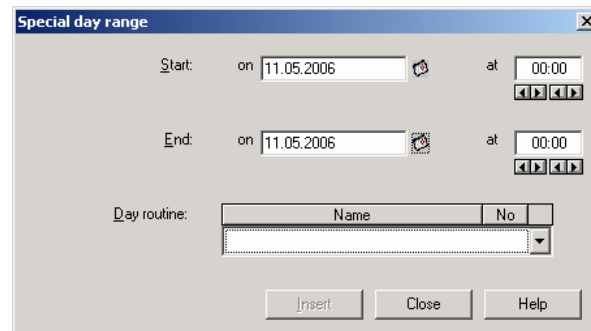
Fig. 93:   Parameter window: "Set special day range"

Start, End

By entering the date (*on*), time (*at*), *start* and *end* of the period, it is defined which day routine should apply which deviates from the standard week routine.

The date for the start and end can be set in the range between 1.1.2000 and 31.12. 2035. The representation is in numbers which are separated by full stops in the sequence *Day. Month. Year.* Entries for the year in the range 36...99 are rejected. To the right of the input field for the date, there is a button with which the calendar for the current date can be displayed. The input of the date for the start and end can be carried out via the selection of a date in the calendar or through the direct input of the date.

The displays for the hours and minutes can be edited separately via the buttons *Left arrow* and *Right arrow*.

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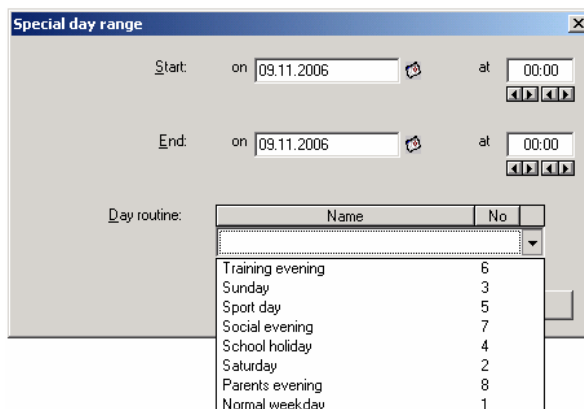
Fig. 94:   Parameter window: "Special day range, Select day routine"

Day routine

Select a day routine from the list of day routines.

Name

This column displays the names of the day routines (*DR Name*).

No.

This column displays the consecutive number of the day routine (*DR No.*).

"Insert" button

The settings are adopted via the "Insert" button.

"Close" button

When the "Close" button is pressed, the function is ended and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.7.2   Edit special day

Fig. 95:   Dialog window: "Edit special day"

To edit a special day, first select *Time switch program* in the selection area followed by *Special days*, e.g. from Th. 11.05.2006, 08:00 o'clock.
The associated table is activated in the right-hand window.

The table is divided into **Start**, **End** and **Day routine**.

The meaning of the individual columns is as follows:

Start

The start of the special day is displayed in this column.

End

The end of the special day is displayed in this column.

Day routine

This column displays the day routine.

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The parameter window *Special day range* is activated in the following way:

- by double-clicking on the selected special day or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.
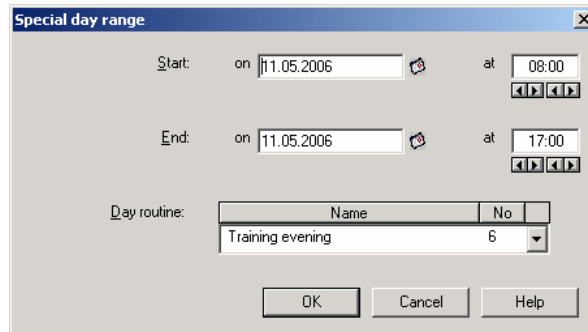
Fig. 96:   Parameter window: "Modify special day range"

The selected *Special day range* dialog is now available for editing.

Start, End, Day routine

The start, end and day routine can be edited.

Time at

The displays for hours and minutes can be edited separately via the buttons *Left arrow* and *Right arrow*.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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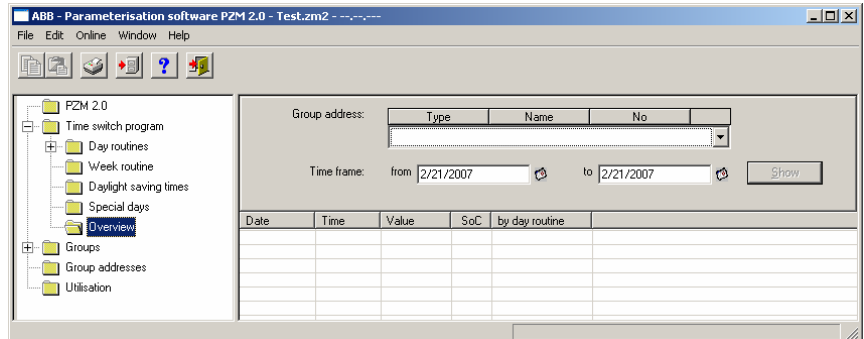
3.4.7.3   Delete special days

To delete a special day, first select *Time switch program* in the selection area followed by *Special days*.
The associated window is activated in the right-hand window.

The table is divided into **Start**, **End** and **Day routine**.

The meaning of the individual columns is as follows:

Start

The start of the special day is displayed in this column.

End

The end of the special day is displayed in this column.

Day routine

This column displays the day routine.

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Select the special day which should be deleted e.g. from Th. 11.05.2006, 08:00 o'clock.
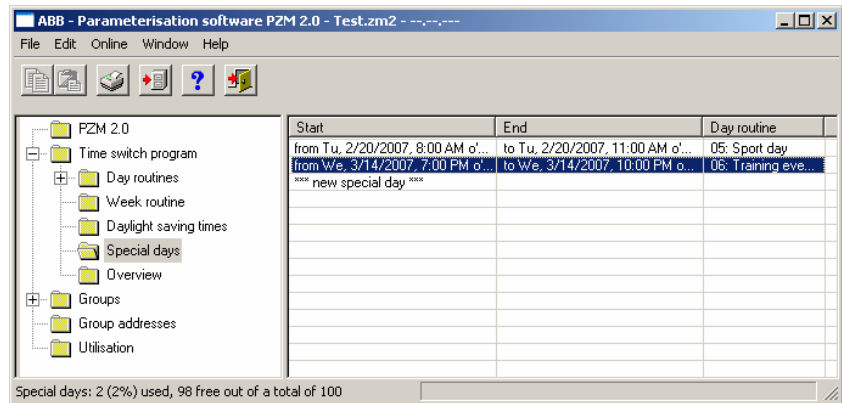
Fig. 98:   Dialog window: "Select special day"

The selected special day is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu.
- by selecting *Edit* in the menu bar and then activating *Delete* in the pop-up menu.

"Yes" button

Before the special day can be deleted, a prompt must be confirmed with *Yes*.
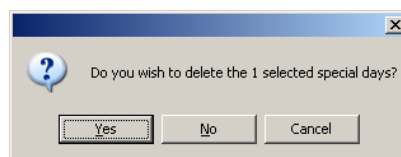
Fig. 99:   Parameter window: "Special day, Prompt"

"No" button

The special day is not deleted when the *No* button is pressed.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

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3.4.7.4 Overlapping of periods

Note: If a new special day is entered and the period of the new
             special day overlaps periods for special days that have already
             been created, the following message appears.
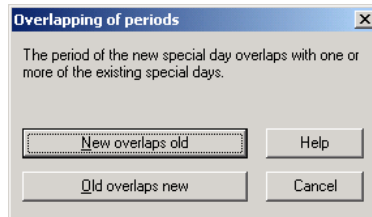
Fig. 100:   Parameter window: "Special days, Overlapping of periods"

New overlaps old

With the selection *New overlaps old*, the new entry overlaps existing entries
in the same period (see examples).

Old overlaps new

With the selection *Old overlaps new*, the new entry does not overlap existing
entries in the same period (see examples).

	Example 1	Example 2
Old entry	DR 1	DR 1
New entry	DR 2	DR 2
New overlaps old	DR 1　DR 2　DR 1	DR 2
Old overlaps new	DR 1	DR 2　DR 1　DR 2

Table 5:   Example of overlapping of periods

Note: If there is an overlapping of periods, a list with the corrections is
             displayed.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the
parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further
parameter window *Help for application program…* is opened.

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3.4.8   Overview - General

Fig. 101:   Dialog window: "Overview - General"

The *Overview* folder displays the created day routines for the set group address and for the set period.

Note: So that all the elements of the table area are visible, it is advisable to widen the window until the horizontal bar disappears.

The number of entries in the *Overview* table is limited to 800.

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3.4.8.1   Display overview

Note: Before an overview is edited, group addresses must be linked with day routines.
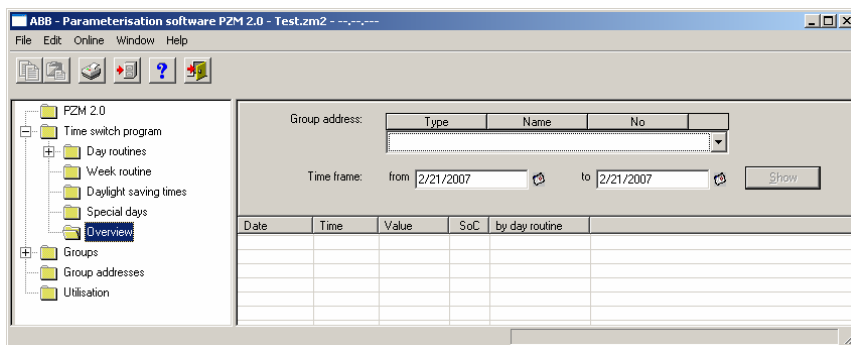
Fig. 102:   Dialog window: "Display overview"

To display an overview, first select *Time switch program* in the selection area followed by *Overview*.
The associated table is activated in the right-hand window.

The table is divided into **Date**, **Time**, **Value**, **SoC** and **by day routine**. The parameter window contains the parameters *Group address*, *Time frame* and the *Show* button.

The meaning of the individual columns and parameters is as follows:

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Group address, "Show" button

After selecting a group address from the list field, selecting a period and pressing the *Show* button, the intervals at which telegrams are sent with this group address and the values which are sent with these telegrams are displayed.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined during the parameterisation of the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

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Time frame, from, to

The date for the *Time frame from …* can be set in the range between 1.1.2000 and 31.12. 2035. The representation is in numbers which are separated by full stops in the sequence *Day. Month. Year.* Entries for the year in the range 36...99 are rejected. To the right of the input field for the date, there is a button with which the calendar for the current date can be displayed. The input of the date for the start and end can be carried out via the selection of a date in the calendar or through the direct input of the date.

The meaning of the individual columns is as follows:

Date

This column displays the date when a telegram is sent for the selected group address.

Time

This column displays the time at which a telegram is sent for the selected group address.

Value

This column displays the value which is sent with this telegram for the selected group address e.g. switching the light on or off.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

by day routine

This column displays which switching time is assigned to this day routine for the selected group address.

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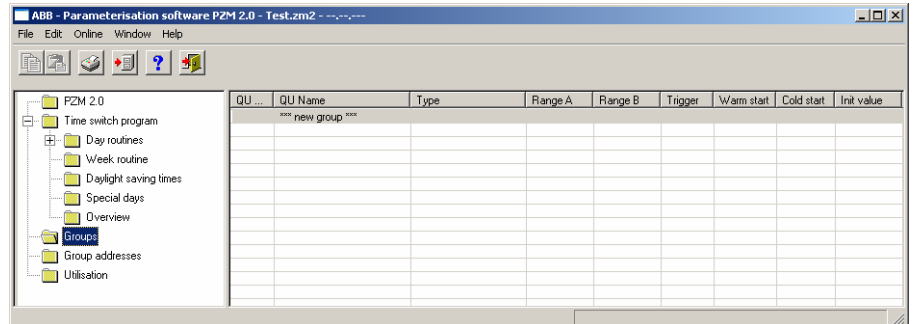
3.4.9   Groups - General

Fig. 103:   Dialog window: "Groups - General"

How does a group function?

A group means the combination of group addresses whose assigned communication objects should be influenced in the same way when an event occurs.

It is defined in the time switch program when telegrams are sent on the bus with specific group addresses and specific values.

If several telegrams with specific group addresses and specific values should be sent repeatedly at specific times, they can be combined into a so-called group e.g. the lighting in room 1, room 2 and room 3 should be switched on repeatedly at 15:00, 16:00, 17:00 and 18:30 and the blinds in room 1, room 2 and room 3 should be lowered.

The group addresses and values assigned to these functions can now be combined into a group e.g. with the name "Room 1, 2, 3". You can therefore designate a group as a functional group and the combined group addresses as group members.

It is then only necessary to enter the group address of a trigger of this group in the time switch program e.g. with the name "Room 1, 2, 3" in order to send telegrams on the bus with the group addresses combined in the group (group members) and values.

The group address which triggers a group is called a group trigger.

This saves time during the parameterisation and the time switch program becomes clearer.

If a group is activated, it sends telegrams with the group addresses which are contained in the list of group members and with the values which are assigned to these group addresses.

Several group addresses with different types can be combined together into a group.

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3.4.9.1   Insert new group
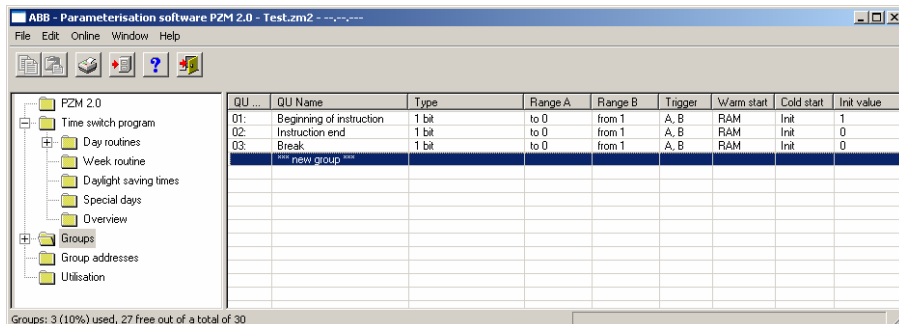
Fig. 104:   Dialog window: "Insert new group"

To insert a group, select *Group* in the selection area.
The associated table is activated in the right-hand window.

The table is divided into **QU No.**, **QU Name, Type, Range A, Range B, Trigger, Warm start, Cold start** and **Init value**.

The meaning of the individual columns is as follows:

QU No., QU Name, Type, Range A, Range B, Trigger

This table lists the consecutive numbers of the group (*QU No.*), the name of the group (*QU Name*), the type of the group trigger (*Type*), and the criteria for the *Trigger* in *Range A* and *Range B*.

Warm start, **Cold start**, **Init value**

This table lists the behaviour in the event of a *Warm start* and a *Cold start* as well as the associated *Init value*.

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The *Group* parameter window is activated in the following way:

- by double-clicking on *** *new group* *** or
- by pressing the right mouse button and selecting *New group* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *New group* in the pop-up menu.
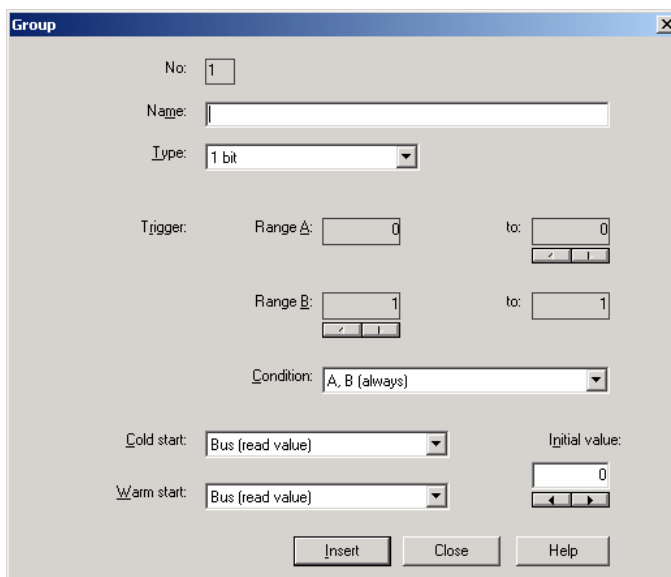
Fig. 105:   Parameter window: "Group"

No.

The group number (*QU No.*) is automatically allocated by the application program Times Groups/2 and is a consecutive number for the unique identification of the group.

Name

The group name (*QU Name*) can be freely selected and can e.g. describe which functions are activated by this functional group or which part of the building is affected by the triggering of the group. A maximum of 50 characters are available.

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Type

Options: 1 bit /
              1 byte unsigned /
              1 byte signed /
              2 byte unsigned /
              2 byte signed /
              2 byte floating point

The *type* denotes which type of value is assigned to the trigger of a group (functional group) i.e. whether the group is triggered e.g. by a telegram with the binary value 1 or a telegram with the 1-byte value 128.

A group can be activated by a telegram with the group address of a group trigger of this group. Different types of values can be sent with a telegram e.g. 1-bit value i.e. binary values such as 0 and 1 or e.g. 1-byte values such as 0, 128 or 255, which can then be interpreted as 0%, 50% and 100%.

Trigger

The limits within which the values must lie to trigger the group are defined under *Trigger* for *Range A* and *Range B*. In the case of the 1-bit type, there are only the states 0 and 1. These values cannot be edited.

If a group is triggered by a *group trigger*, specific functions are activated e.g. switching the light on or off. The light can thereby be switched on in specific rooms e.g. by triggering a group with the value "0" and switched on in these rooms by triggering a group with the value "1". A group can therefore behave in a different way when triggered by the value "0" than by the value "1".

You could therefore also designate the triggering of a group by the value "1" as the activation of the group (functional group) and the triggering of the group by the value "0" as the deactivation of the group (functional group).

Binary values which trigger a group (functional group) can only adopt the values "0" and "1". If the group is triggered e.g. by a 1-byte value, the triggered values can lie in a range between 0…255 or between 0%...100%.

Value ranges can therefore be entered for the activation of a group and for the deactivation of a group.

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Range A, Range B

Range A contains those values which activate or group or those values which trigger in *Range A* while *Range B* contains those values which deactivate a group or those values which trigger in *Range B*.

If a group is triggered e.g. by a 2-byte value with which the room temperature of a room is transmitted, the blinds could be opened e.g. by a temperature value under 22 °C and the air conditioning and lighting could be switched off. In the event of a temperature value above 24 °C, the blinds could be closed and the lighting and air conditioning could be switched on.

So that the group is not triggered each time e.g. after the multiple transmission of the same values i.e. to activate specific functions, further criteria for triggering the group can be defined.

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Note: Different options appear in the *Trigger* parameter, depending on which type has been selected.

Type 1 bit

Fig. 106:   Parameter window: "Group, Data type 1 bit"

Object value (0…1)

Options: 0/1

This parameter is used to select which object value is sent.

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Type 1 byte unsigned (0…255)

Fig. 107:   Parameter window: "Group, Data type 1 byte unsigned (0…255)"

Object value (0…255) and Standard

Options: <u>0</u>…255

This parameter is used to select which object value is sent.

If *Standard* is also selected, the object value is issued without a unit of measurement.

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Type 1 byte unsigned (0…100%)

Fig. 108:   Parameter window: "Group, Data type 1 byte unsigned (0…100%)"

Object value (0…100%) und in %

Options: 0.00…100%

This parameter is used to select which object value is sent.

If the option *in %* is also selected, 0 = 0% and 255 = 100% are assigned to the object values.

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Type 1 byte signed (-128…127)

Fig. 109:   Parameter window: "Group, Data type 1 byte signed (-128…127)"

Object value (-128…127)

Options: -128…0…127

This parameter is used to select which object value is sent.

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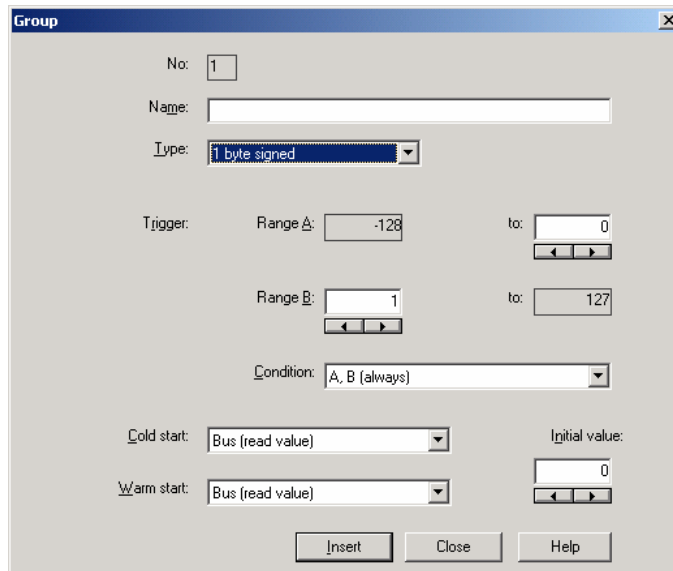
Type 2 byte unsigned (0…65,535)

Fig. 110:   Parameter window: "Group, Data type 2 byte unsigned (0…65,535)"

Object value (0…65,535)

Options: 0…65,535

This parameter is used to select which object value is sent.

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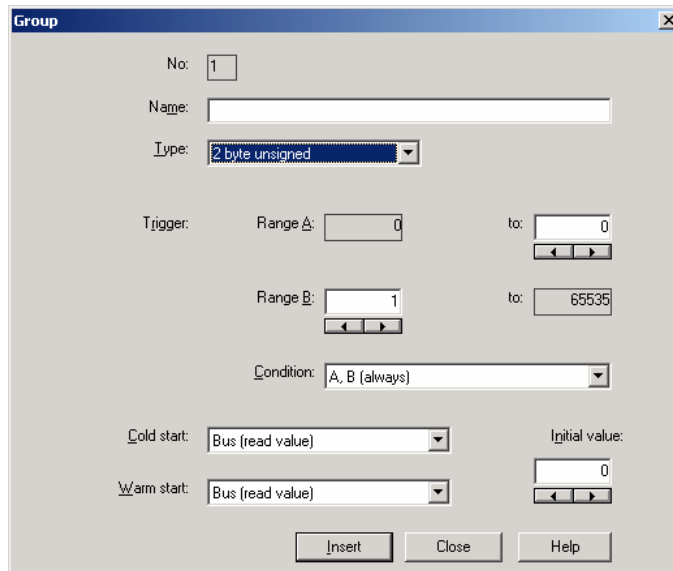
Type 2 byte signed (-32,768…32,767)

Fig. 111:   Parameter window: "Group, Data type 2 byte signed (-32,768…32,767)"

Object value (-32,768…32,767)

Options: -32,768…0…32,767

This parameter is used to select which object value is sent.

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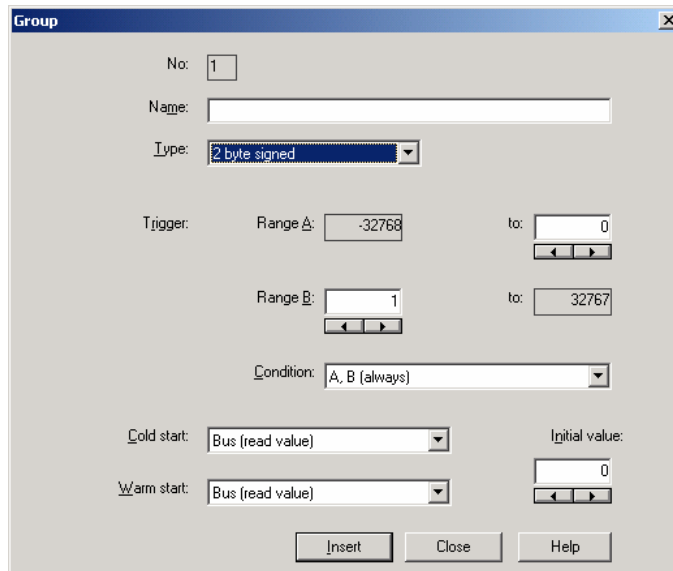
Type 2 byte floating point

Fig. 112:   Parameter window: "Group, Data type 2 byte floating point"

Object value (-163.84…163.76) and Exponent 3 (Temp.)

Options: -163.84…0…163.76

This parameter is used to select which object value is sent.

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Exponent

Options: Auto /
                 0…3 (Temp.)…15

This parameter is used to select which exponent is assigned to the object value.

Note: Different object values can be set, depending on the exponent which is selected. The table below shows all the options.

Exponent	Object value
Auto	-671,088.64…0.00…670,760.96
0	-20.48…0.00…20.47
1	-40.96…0.00…40.94
2	-81.92…0.00…81.88
3 (Temp.)	-163.84…0.00…163.76
4	-327.68…0.00…327.52
5	-655.36…0.00…655.04
6	-1,310.72…0.00…1,310.08
7	-2,621.44…0.00…2,620.16
8	-5,242.88…0.00…5,240.32
9	-10,485.76…0.00…10,480.64
10	-20,971.52…0.00…20,961.28
11	-41,943.04…0.00…41,922.56
12	-88,386.08…0.00…83,845.12
13	-167,772.16…0.00…167,690.24
14	-335,544.32…0.00…335,380.48
15	-671,088.64…0.00…670,760.96

Table 6:   Exponent

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Condition

Options: A, B (always) /
                  >A, >B (new entry) /
                  A<>B (hysteresis)

The conditions for triggering a group are defined under *Condition*.

Option: A, B (always)

The entry *A, B (always)* means that the group is always triggered if the trigger value lies in *Range A* or *Range B*. If e.g. a telegram would be received several times with the same value or with values in the same range, the group would be triggered after each transmission.

If the temperature value of 21 °C is transmitted several times in succession, the group is activated each time and telegrams are thus sent each time to open the blinds and to switch off the air conditioning and lighting.

Option: >A, >B (new entry)

The entry *>A, >B (new entry)* means that the group is only triggered if the trigger value is located firstly in *Range A* or *Range B*. If the same value is sent several times to the Application Unit Time ABZ/S 2.1, the group is only triggered on the first transmission.

If the group was finally triggered by the transmission of a temperature value in *Range A*, e.g. 21 °C, then values were sent outside *Range A* e.g. 23 °C and then again a value in *Range A* such as 21 °C, the initial transmission of the value 21 °C activates the group and telegrams are sent to open the blinds and to switch off the air conditioning and lighting.

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Option: A< >B (hysteresis)

The entry *A< >B (hysteresis)* means that the group is only triggered if the trigger value is first located in *Range A* and the last triggering is carried out by a value in *Range B* or if the trigger value is first located in *Range B* and the last triggering is carried out by a value in *Range A*.

If the group was last triggered by the transmission of a value in *Range A*, e.g. 21 °C (the group is thereby activated e.g. to switch on the heating) and then values outside *Range A* have been transferred e.g. 23 °C followed by another value in *Range A* such as 21 °C, the group is no longer triggered by this value. The group can only be retriggered if a value is transmitted which lies in *Range B* i.e. above 24 °C (the group is thereby deactivated e.g. to switch off the heating).

Fig. 113:   Example: Hysteresis, Group activated/deactivated

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Cold start

Options: Bus (read value) /
                  Init (use initial value) /
                  none (no reaction)

The behaviour of the Application Unit Time on bus voltage recovery is defined under *Cold start*.

Information that is currently stored in the Application Unit Time e.g. Group 1 triggered, is stored for at least 1 h on bus voltage failure. If the bus voltage failure lasts for longer than 1 h, the Application Unit Time automatically detects whether the information is still stored or whether there has been a data loss. The application program and the parameters are permanently stored in the Application Unit Time.

In the event of a data loss, the Application Unit Time carries out a so-called cold start on bus voltage recovery i.e. it can no longer access the stored data and must either work with preset data or read relevant data from other bus devices.

It should further be noted that the time switch program does not start automatically after a cold start as the current time or date are no longer available. See also *Internal clock*.

It can be defined how the Application Unit Time should react in the event of a cold start.

Option: Bus (read value)

After bus voltage recovery, the Application Unit Time reads out the relevant data from other bus devices. Depending on the value received and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

Option: Init (use initial value)

The Application Unit Time uses preset values after bus voltage recovery. Depending on the preset values and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

What is the initial value?

If the Application Unit Time should use a preset value after a bus voltage recovery with data loss i.e. after a cold start, this value is listed under *Initial value*.

Option: none (no reaction)

The Application Unit Time only triggers a group if a telegram with a value in *Range A* or *Range B* has been received.

The group is always triggered in principle after a cold start on receipt of the first value which lies in *Range A* or *Range B*.

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Warm start

Options: Bus (read value) /
                  RAM (old value) /
                  none (no reaction)

The behaviour of the Application Unit Time on bus voltage recovery is defined under *Warm start*.

Information that is currently stored in the Application Unit Time e.g. Group 1 triggered, is stored for at least 1 h on bus voltage failure. If the bus voltage failure lasts for longer than 1 h, the Application Unit Time automatically detects whether the information is still stored or whether there has been a data loss. The application program and the parameters are permanently stored in the Application Unit Time.

If the stored data is still available, the Application Unit Time carries out a so-called warm start on bus voltage recovery i.e. it can work with the stored data but it can also use preset data or read relevant data from other bus devices.

It can be defined how the Application Unit Time should react in the event of a warm start.

Option: Bus (read value)

After a bus voltage recovery, the Application Unit Time reads out the relevant data from other bus devices. Depending on the value received and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

In the event of a warm start, a group e.g. is no longer triggered if this group was already activated in *Range A* and should be activated again in *Range A* after reading the other bus devices and the *Trigger* parameter is no longer set to *A, B (always)*.

Option: RAM (old value)

After a bus voltage recovery, the Application Unit Time uses the stored values. Depending on the stored values i.e. the state prior to the bus voltage failure and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

Option: none (no reaction)

The Application Unit Time only triggers a group if a telegram with a value in *Range A* or *Range B* has been received.

The group is always triggered in principle after a cold start on receipt of the first value which lies in *Range A* or *Range B*.

In the event of a warm start, the group is only triggered if all other criteria have been met e.g. the last value received prior to the bus failure was in *Range B* and the first value received after bus voltage recovery is in *Range A*.

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Initial value

Under *Initial value*, you define the value which the Application Unit Time should use as a preset value after a cold start. The field is dependent on the preset type e.g. if a 1-bit type has been selected, only the values 0 and 1 can be set.

"Insert" button

A new group is inserted via the *Insert* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.9.2   Edit group

Fig. 114:   Dialog window: "Edit group"

To edit a group, select *Groups* in the selection area e.g. QU No. 01.
The associated table is activated in the right-hand window.

The table is divided into **QU No.**, **QU Name, Type, Range A, Range B, Trigger, Warm start, Cold start** and **Init value**.

The meaning of the individual columns is as follows:

QU No., QU Name, Type, Range A, Range B, Trigger

This table lists the consecutive numbers of the group (*QU No.*), the name of the group (*QU Name*), the type of the group trigger (*Type*), and the criteria for the *Trigger* in *Range A* and *Range B*.

Warm start, **Cold start**, **Init value**

This table lists the behaviour in the event of a *Warm start* and a *Cold start* as well as the associated *Init value*.

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The *Group* parameter window is activated in the following way:

- by double-clicking on the selected group or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.

Fig. 115:   Parameter window: "Select group"

The selected group is now available for editing.

No.

The group number (*QU No.*) cannot be modified. It is automatically allocated by the application program Times Groups/2 and is a consecutive number for the unique identification of the group.

Name

The group name (*QU Name*) can be modified. A maximum of 50 characters are available.

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Type

Options: 1 bit /
                  1 byte unsigned /
                  1 byte signed /
                  2 byte unsigned /
                  2 byte signed /
                  2 byte floating point

The *type* denotes which type of value is assigned to the trigger of a group (functional group) i.e. whether the group is triggered e.g. by a telegram with the binary value 1 or a telegram with the 1-byte value 128.

A group can be activated by a telegram with the group address of a group trigger of this group. Different types of values can be sent with a telegram e.g. 1-bit value i.e. binary values such as 0 and 1 or e.g. 1-byte values such as 0, 128 or 255, which can then be interpreted as 0%, 50% and 100%.

Trigger

The limits within which the values must lie to trigger the group are defined under *Trigger* for *Range A* and *Range B*. In the case of the 1-bit type, there are only the states 0 and 1. These values cannot be edited.

If a group is triggered by a *group trigger*, specific functions are activated e.g. switching the light on or off. The light can thereby be switched on in specific rooms e.g. by triggering a group with the value "0" and switched on in these rooms by triggering a group with the value "1". A group can therefore behave in a different way when triggered by the value "0" than by the value "1".

You could therefore also designate the triggering of a group by the value "1" as the activation of the group (functional group) and the triggering of the group by the value "0" as the deactivation of the group (functional group).

Binary values which trigger a group (functional group) can only adopt the values "0" and "1". If the group is triggered e.g. by a 1-byte value, the triggered values can lie in a range between 0…255 or between 0%...100%.

Value ranges can therefore be entered for the activation of a group and for the deactivation of a group.

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Range A, Range B

Range A contains those values which activate or group or those values which trigger in *Range A* while *Range B* contains those values which deactivate a group or those values which trigger in *Range B*.

If a group is triggered e.g. by a 2-byte value with which the room temperature of a room is transmitted, the blinds could be opened e.g. by a temperature value under 22 °C and the air conditioning and lighting could be switched off. In the event of a temperature value above 24 °C, the blinds could be closed and the lighting and air conditioning could be switched on.

So that the group is not triggered each time e.g. after the multiple transmission of the same values i.e. to activate specific functions, further criteria for triggering the group can be defined.

ABB i-bus® EIB / KNX   **Commissioning**

Note: Different options appear in the *Trigger* parameter, depending on which type has been selected.

Type 1 bit

Fig. 116:   Parameter window: "Group, Data type 1 bit"

Object value (0…1)

Options: 0/1

This parameter is used to select which object value is sent.

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Type 1 byte unsigned (0…255)

Fig. 117:   Parameter window: "Group, Data type 1 byte unsigned (0…255)"

Object value (0…255) and Standard

Options: 0…255

This parameter is used to select which object value is sent.

If *Standard* is also selected, the object value is issued without a unit of measurement.

ABB i-bus® EIB / KNX   **Commissioning**

Type 1 byte unsigned (0…100%)

Fig. 118:   Parameter window: "Group, Data type 1 byte unsigned (0…100%)"

Object value (0…100%) and in %

Options: 0.00…100%

This parameter is used to select which object value is sent.

If the option *in %* is also selected, 0 = 0% and 255 = 100% are assigned to the object values.

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Type 1 byte signed (-128…127)

Fig. 119:   Parameter window: "Group, Data type 1 byte signed (-128…127)"

Object value (-128…127)

Options: -128…<u>0</u>…127

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**
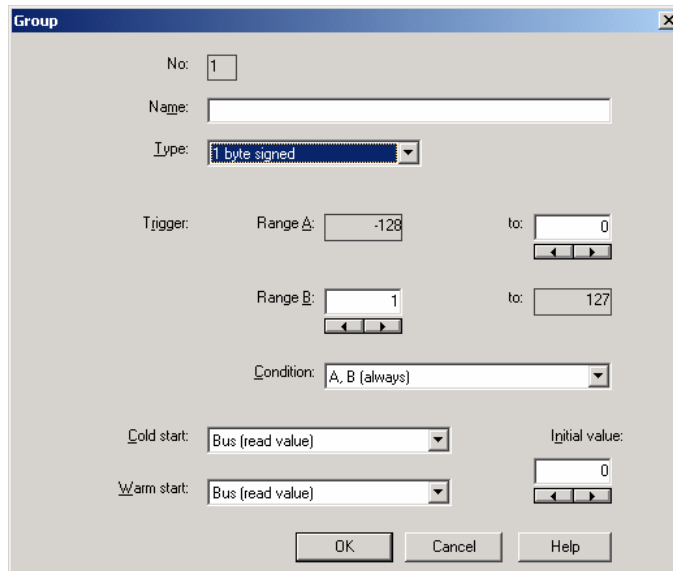
Type 2 byte unsigned (0…65,535)
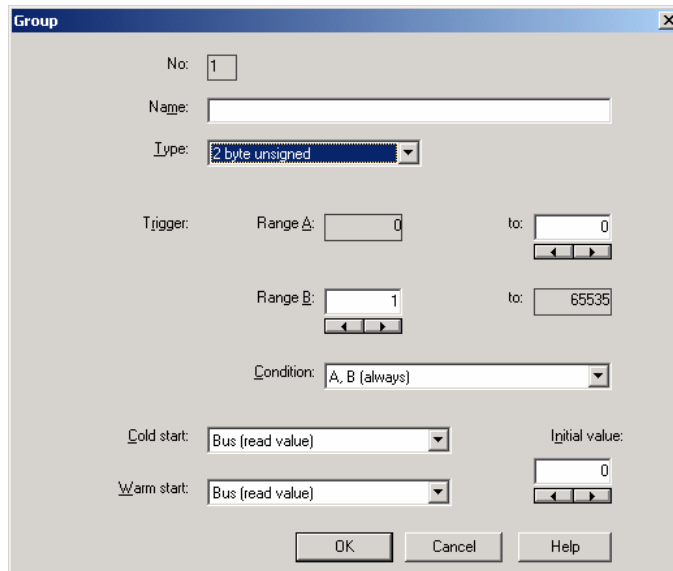
Fig. 120:   Parameter window: "Group, Data type 2 byte unsigned (0…65,535)"

Object value (0…65,535)

Options: 0…65,535

This parameter is used to select which object value is sent.

Type 2 byte signed (-32,768…32,767)
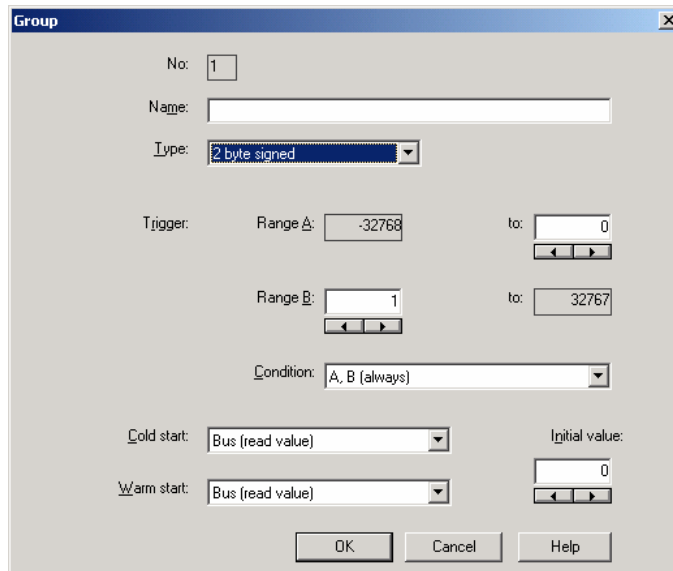
Fig. 121:   Parameter window: "Group, Data type 2 byte signed (-32,768…32,767)"

Object value (-32,768…32,767)

Options: -32,768…0…32,767

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Type 2 byte floating point

Fig. 122:   Parameter window: "Group, Data type 2 byte floating point"

Object value (-163.84…163.76) and Exponent 3 (Temp.)

Options: -163.84…0…163.76

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Exponent

Options: Auto /
             0…3 (Temp.)…15

This parameter is used to select which exponent is assigned to the object value.

Note: Different object values can be set, depending on the exponent which is selected. The table below shows all the options.

Exponent	Object value
Auto	-671,088.64…0.00…670,760.96
0	-20.48…0.00…20.47
1	-40.96…0.00…40.94
2	-81.92…0.00…81.88
3 (Temp.)	-163.84…0.00…163.76
4	-327.68…0.00…327.52
5	-655.36…0.00…655.04
6	-1,310.72…0.00…1,310.08
7	-2,621.44…0.00…2,620.16
8	-5,242.88…0.00…5,240.32
9	-10,485.76…0.00…10,480.64
10	-20,971.52…0.00…20,961.28
11	-41,943.04…0.00…41,922.56
12	-88,386.08…0.00…83,845.12
13	-167,772.16…0.00…167,690.24
14	-335,544.32…0.00…335,380.48
15	-671,088.64…0.00…670,760.96

Table 7:   Exponent

ABB i-bus® EIB / KNX   **Commissioning**

Condition

Options: A, B (always) /
                  >A, >B (new entry) /
                  A<>B (hysteresis)

The conditions for triggering a group are defined under *Condition*.

Option: A, B (always)

The entry *A, B (always)* means that the group is always triggered if the trigger value lies in the range A or B. If e.g. a telegram would be received several times with the same value or with values in the same range, the group would be triggered after each transmission.

If the temperature value of 21 °C is transmitted several times in succession, the group is activated each time and telegrams are thus sent each time to open the blinds and to switch off the air conditioning and lighting.

Option: >A, >B (new entry)

The entry *>A, >B (new entry)* means that the group is only triggered if the trigger value is located firstly in *Range A* or *Range B*. If the same value is sent several times to the Application Unit Time ABZ/S 2.1, the group is only triggered on the first transmission.

If the group was finally triggered by the transmission of a temperature value in *Range A*, e.g. 21 °C, then values were sent outside *Range A* e.g. 23 °C and then again a value in *Range A* such as 21 °C, the initial transmission of the value 21 °C activates the group and telegrams are sent to open the blinds and to switch off the air conditioning and lighting.

ABB i-bus® EIB / KNX   **Commissioning**

Option: A< >B (hysteresis)

The entry *A< >B (hysteresis)* means that the group is only triggered if the trigger value is first located in *Range A* and the last triggering is carried out by a value in *Range B* or if the trigger value is first located in *Range B* and the last triggering is carried out by a value in *Range A*.

If the group was last triggered by the transmission of a value in *Range A*, e.g. 21 °C (the group is thereby activated e.g. to switch on the heating) and then values outside *Range A* have been transferred e.g. 23 °C followed by another value in *Range A* such as 21 °C, the group is no longer triggered by this value. The group can only be retriggered if a value is transmitted which lies in *Range B* i.e. above 24 °C (the group is thereby deactivated e.g. to switch off the heating).

Fig. 123:   Example: Hysteresis, Group activated/deactivated

ABB i-bus® EIB / KNX   **Commissioning**

Cold start

Options: Bus (read value) /
                  Init (use initial value) /
                  none (no reaction)

The behaviour of the Application Unit Time on bus voltage recovery is defined under *Cold start*.

Information that is currently stored in the Application Unit Time e.g. Group 1 triggered, is stored for at least 1 h on bus voltage failure. If the bus voltage failure lasts for longer than 1 h, the Application Unit Time automatically detects whether the information is still stored or whether there has been a data loss. The application program and the parameters are permanently stored in the Application Unit Time.

In the event of a data loss, the Application Unit Time carries out a so-called cold start on bus voltage recovery i.e. it can no longer access the stored data and must either work with preset data or read relevant data from other bus devices.

It should further be noted that the time switch program does not start automatically after a cold start as the current time or date are no longer available. See also *Internal clock*.

It can be defined how the Application Unit Time should react in the event of a cold start.

Option: Bus (read value)

After bus voltage recovery, the Application Unit Time reads out the relevant data from other bus devices. Depending on the value received and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

Option: Init (use initial value)

The Application Unit Time uses preset values after bus voltage recovery. Depending on the preset values and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

What is the initial value?

If the Application Unit Time should use a preset value after a bus voltage recovery with data loss i.e. after a cold start, this value is listed under *Initial value*.

Option: none (no reaction)

The Application Unit Time only triggers a group if a telegram with a value in *Range A* or *Range B* has been received.

The group is always triggered in principle after a cold start on receipt of the first value which lies in *Range A* or *Range B*.

ABB i-bus® EIB / KNX   **Commissioning**

Warm start

Options: Bus (read value) /
                      RAM (old value) /
                      none (no reaction)

The behaviour of the Application Unit Time on bus voltage recovery is
defined under *Warm start*.

Information that is currently stored in the Application Unit Time e.g. Group 1
triggered, is stored for at least 1 h on bus voltage failure. If the bus voltage
failure lasts for longer than 1 h, the Application Unit Time automatically
detects whether the information is still stored or whether there has been a
data loss. The application program and the parameters are permanently
stored in the Application Unit Time.

If the stored data is still available, the Application Unit Time carries out a so-
called warm start on bus voltage recovery i.e. it can work with the stored
data but it can also use preset data or read relevant data from other bus
devices.

It can be defined how the Application Unit Time should react in the event of
a warm start.

Option: Bus (read value)

After a bus voltage recovery, the Application Unit Time reads out the
relevant data from other bus devices. Depending on the value received and
the criteria for triggering the group, it either triggers the group in *Range A* or
Range B or it does not trigger the group.

In the event of a warm start, a group e.g. is no longer triggered if this group
was already activated in *Range A* and should be activated again in *Range A*
after reading the other bus devices and the *Trigger* parameter is no longer
set to *A, B (always)*.

Option: RAM (old value)

After a bus voltage recovery, the Application Unit Time uses the stored
values. Depending on the stored values i.e. the state prior to the bus voltage
failure and the criteria for triggering the group, it either triggers the group in
Range A or *Range B* or it does not trigger the group.

Option: none (no reaction)

The Application Unit Time only triggers a group if a telegram with a value in
Range A or *Range B* has been received.

The group is always triggered in principle after a cold start on receipt of the
first value which lies in *Range A* or *Range B*.

In the event of a warm start, the group is only triggered if all other criteria
have been met e.g. the last value received prior to the bus failure was in
Range B and the first value received after bus voltage recovery is in *Range
A*.

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Initial value

Under *Initial value*, you define the value which the Application Unit Time should use as a preset value after a cold start. The field is dependent on the preset type e.g. if a 1-bit type has been selected, only the values 0 and 1 can be set.

"Insert" button

A new group is inserted via the *Insert* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.9.3   Modify group

Fig. 124:   Dialog window: "Modify group"

To modify a group, select *Groups* in the selection area followed by e.g. 01:
Beginning of instruction.
The associated parameter window is activated in the right-hand button as
well as the *Change* button.

"Change" button

The *Group* parameter window becomes visible by pressing the *Modify*
button. The settings can be modified there.

ABB i-bus® EIB / KNX   **Commissioning**

The *Group* parameter window is activated in the following way:

- by clicking on the *Change* button.

Fig. 125:   Parameter window: "Select group"

The selected group is now available for editing.

No.

The group number (*QU No.*) cannot be modified. It is automatically allocated by the application program Times Groups/2 and is a consecutive number for the unique identification of the group.

Name

The group name (*QU Name*) can be modified. A maximum of 50 characters are available.

ABB i-bus® EIB / KNX   **Commissioning**

Type

Options: 1 bit /
                  1 byte unsigned /
                  1 byte signed /
                  2 byte unsigned /
                  2 byte signed /
                  2 byte floating point

The *type* denotes which type of value is assigned to the trigger of a group (functional group) i.e. whether the group is triggered e.g. by a telegram with the binary value 1 or a telegram with the 1-byte value 128.

A group can be activated by a telegram with the group address of a group trigger of this group. Different types of values can be sent with a telegram e.g. 1-bit value i.e. binary values such as 0 and 1 or e.g. 1-byte values such as 0, 128 or 255, which can then be interpreted as 0%, 50% and 100%.

Trigger

The limits within which the values must lie to trigger the group are defined under *Trigger* for *Range A* and *Range B*. In the case of the 1-bit type, there are only the states 0 and 1. These values cannot be edited.

If a group is triggered by a *group trigger*, specific functions are activated e.g. switching the light on or off. The light can thereby be switched on in specific rooms e.g. by triggering a group with the value "0" and switched on in these rooms by triggering a group with the value "1" in these rooms. A group can therefore behave in a different way when triggered by the value "0" than by the value "1".

You could therefore also designate the triggering of a group by the value "1" as the activation of the group (functional group) and the triggering of the group by the value "0" as the deactivation of the group (functional group).

Binary values which trigger a group (functional group) can only adopt the values "0" and "1". If the group is triggered e.g. by a 1-byte value, the triggered values can lie in a range between 0…255 or between 0%...100%.

Value ranges can therefore be entered for the activation of a group and for the deactivation of a group.

ABB i-bus® EIB / KNX   **Commissioning**

Range A, Range B

Range A contains those values which activate or group or those values which trigger in *Range A* while *Range B* contains those values which deactivate a group or those values which trigger in *Range B*.

If a group is triggered e.g. by a 2-byte value with which the room temperature of a room is transmitted, the blinds could be opened e.g. by a temperature value under 22 °C and the air conditioning and lighting could be switched off. In the event of a temperature value above 24 °C, the blinds could be closed and the lighting and air conditioning could be switched on.

So that the group is not triggered each time e.g. after the multiple transmission of the same values i.e. to activate specific functions, further criteria for triggering the group can be defined.

ABB i-bus® EIB / KNX **Commissioning**

Note: Different options appear in the *Trigger* parameter, depending on which type has been selected.

Type 1 bit

Fig. 126:   Parameter window: "Group, Data type 1 bit"

Object value (0…1)

Options: 0/1

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Type 1 byte unsigned (0…255)

Fig. 127:   Parameter window: "Group, Data type 1 byte unsigned (0…255)"

Object value (0…255) and Standard

Options: 0…255

This parameter is used to select which object value is sent.

If *Standard* is also selected, the object value is issued without a unit of measurement.

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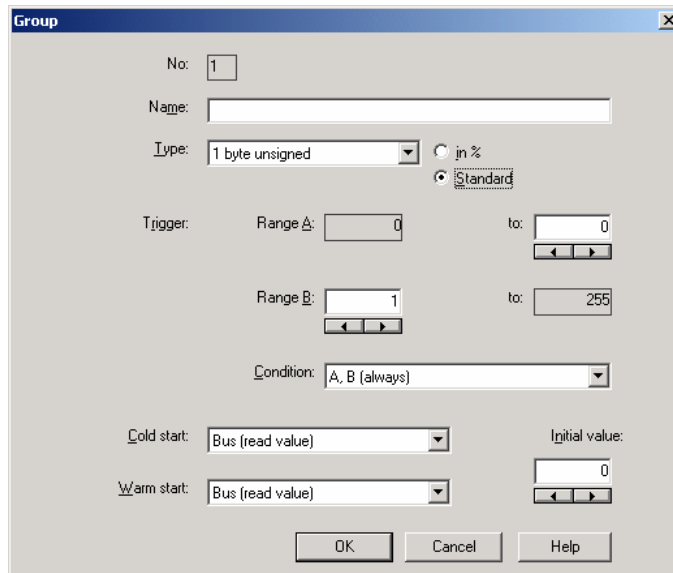
Type 1 byte unsigned (0…100%)
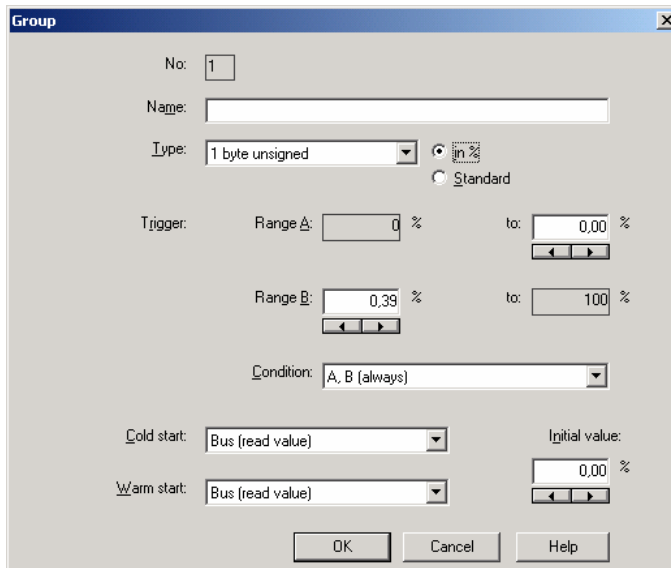
Fig. 128:   Parameter window: "Group, Data type 1 byte unsigned (0…100%)"

Object value (0…100%) and in %

Options: 0.00…100%

This parameter is used to select which object value is sent.

If the option *in %* is also selected, 0 = 0% and 255 = 100% are assigned to the object values.

Type 1 byte signed (-128…127)
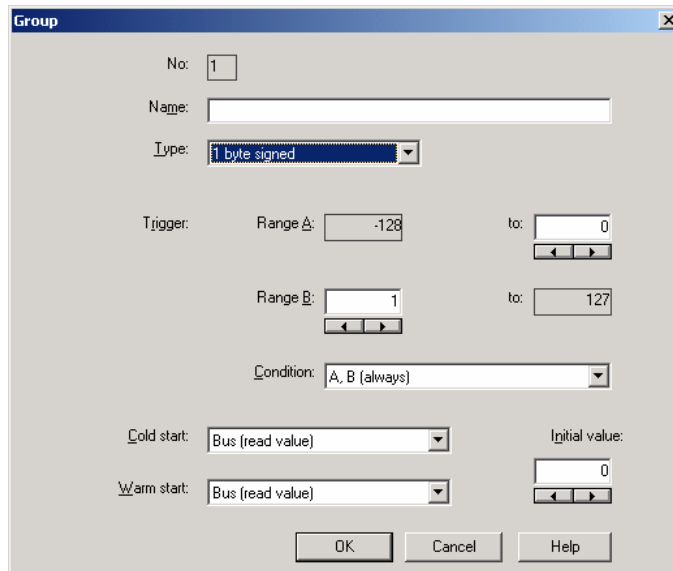
Fig. 129:   Parameter window: "Group, Data type 1 byte signed (-128…127)"

Object value (-128…127)

Options: -128…<u>0</u>…127

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Type 2 byte unsigned (0…65,535)

Fig. 130:   Parameter window: "Group, Data type 2 byte unsigned (0…65,535)"

Object value (0…65,535)

Options: 0…65,535

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**
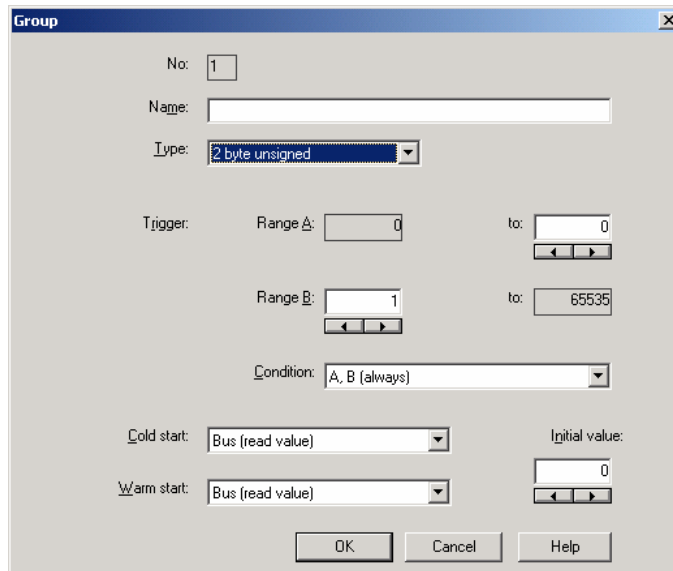
Type 2 byte signed (-32,768…32,767)

Fig. 131:   Parameter window: "Group, Data type 2 byte signed (-32,768…32,767)"

Object value (-32,768…32,767)

Options: -32,768…0…32,767

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**
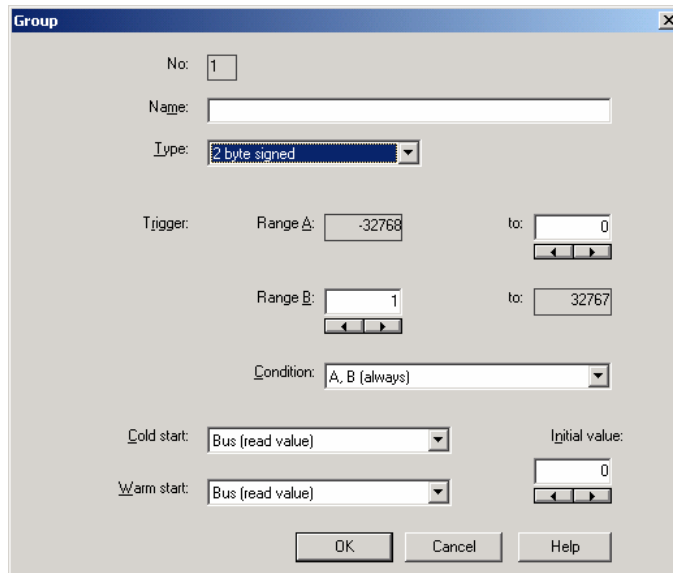
Type 2 byte floating point

Fig. 132:   Parameter window: "Group, Data type 2 byte floating point"

Object value (-163.84…163.76) and Exponent 3 (Temp.)

Options: -163.84…0…163.76

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Exponent

Options: Auto /
                0…3 (Temp.)…15

This parameter is used to select which exponent is assigned to the object value.

Note: Different object values can be set, depending on the exponent which is selected. The table below shows all the options.

Exponent	Object value
Auto	-671,088.64…0.00…670,760.96
0	-20.48…0.00…20.47
1	-40.96…0.00…40.94
2	-81.92…0.00…81.88
3 (Temp.)	-163.84…0.00…163.76
4	-327.68…0.00…327.52
5	-655.36…0.00…655.04
6	-1,310.72…0.00…1,310.08
7	-2,621.44…0.00…2,620.16
8	-5,242.88…0.00…5,240.32
9	-10,485.76…0.00…10,480.64
10	-20,971.52…0.00…20,961.28
11	-41,943.04…0.00…41,922.56
12	-88,386.08…0.00…83,845.12
13	-167,772.16…0.00…167,690.24
14	-335,544.32…0.00…335,380.48
15	-671,088.64…0.00…670,760.96

Table 8:   Exponent

ABB i-bus® EIB / KNX   **Commissioning**

Condition

Options: A, B (always) /
                  >A, >B (new entry) /
                  A<>B (hysteresis)

The conditions for triggering a group are defined under *Condition*.

Option: A, B (always)

The entry *A, B (always)* means that the group is always triggered if the trigger value lies in the range A or B. If e.g. a telegram would be received several times with the same value or with values in the same range, the group would be triggered after each transmission.

If the temperature value of 21 °C is transmitted several times in succession, the group is activated each time and telegrams are thus sent each time to open the blinds and to switch off the air conditioning and lighting.

Option: >A, >B (new entry)

The entry *>A, >B (new entry)* means that the group is only triggered if the trigger value is located firstly in *Range A* or *Range B*. If the same value is sent several times to the Application Unit Time ABZ/S 2.1, the group is only triggered on the first transmission.

If the group was finally triggered by the transmission of a temperature value in *Range A*, e.g. 21 °C, then values were sent outside *Range A* e.g. 23 °C and then again a value in *Range A* such as 21 °C, the initial transmission of the value 21 °C activates the group and telegrams are sent to open the blinds and to switch off the air conditioning and lighting.

ABB i-bus® EIB / KNX   **Commissioning**

Option: A< >B (hysteresis)

The entry *A< >B (hysteresis)* means that the group is only triggered if the trigger value is first located in *Range A* and the last triggering is carried out by a value in *Range B* or if the trigger value is first located in *Range B* and the last triggering is carried out by a value in *Range A*.

If the group was last triggered by the transmission of a value in *Range A*, e.g. 21 °C (the group is thereby activated e.g. to switch on the heating) and then values outside *Range A* have been transferred e.g. 23 °C followed by another value in *Range A* such as 21 °C, the group is no longer triggered by this value. The group can only be retriggered if a value is transmitted which lies in *Range B* i.e. above 24 °C (the group is thereby deactivated e.g. to switch off the heating).

Fig. 133:   Example: Hysteresis, Group activated/deactivated

ABB i-bus® EIB / KNX   **Commissioning**

Cold start

Options: Bus (read value) /
                  Init (use initial value) /
                  none (no reaction)

The behaviour of the Application Unit Time on bus voltage recovery is defined under *Cold start*.

Information that is currently stored in the Application Unit Time e.g. Group 1 triggered, is stored for at least 1 h on bus voltage failure. If the bus voltage failure lasts for longer than 1 h, the Application Unit Time automatically detects whether the information is still stored or whether there has been a data loss. The application program and the parameters are permanently stored in the Application Unit Time.

In the event of a data loss, the Application Unit Time carries out a so-called cold start on bus voltage recovery i.e. it can no longer access the stored data and must either work with preset data or read relevant data from other bus devices.

It should further be noted that the time switch program does not start automatically after a cold start as the current time or date are no longer available. See also *Internal clock*.

It can be defined how the Application Unit Time should react in the event of a cold start.

Option: Bus (read value)

After bus voltage recovery, the Application Unit Time reads out the relevant data from other bus devices. Depending on the value received and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

Option: Init (use initial value)

The Application Unit Time uses preset values after bus voltage recovery. Depending on the preset values and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

What is the initial value?

If the Application Unit Time should use a preset value after a bus voltage recovery with data loss i.e. after a cold start, this value is listed under *Initial value*.

Option: none (no reaction)

The Application Unit Time only triggers a group if a telegram with a value in *Range A* or *Range B* has been received.

The group is always triggered in principle after a cold start on receipt of the first value which lies in *Range A* or *Range B*.

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Warm start

Options: Bus (read value) /
                  RAM (old value) /
                  none (no reaction)

The behaviour of the Application Unit Time on bus voltage recovery is defined under *Warm start*.

Information that is currently stored in the Application Unit Time e.g. Group 1 triggered, is stored for at least 1 h on bus voltage failure. If the bus voltage failure lasts for longer than 1 h, the Application Unit Time automatically detects whether the information is still stored or whether there has been a data loss. The application program and the parameters are permanently stored in the Application Unit Time.

If the stored data is still available, the Application Unit Time carries out a so-called warm start on bus voltage recovery i.e. it can work with the stored data but it can also use preset data or read relevant data from other bus devices.

It can be defined how the Application Unit Time should react in the event of a warm start.

Option: Bus (read value)

After a bus voltage recovery, the Application Unit Time reads out the relevant data from other bus devices. Depending on the value received and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

In the event of a warm start, a group e.g. is no longer triggered if this group was already activated in *Range A* and should be activated again in *Range A* after reading the other bus devices and the *Trigger* parameter is no longer set to *A, B (always)*.

Option: RAM (old value)

After a bus voltage recovery, the Application Unit Time uses the stored values. Depending on the stored values i.e. the state prior to the bus voltage failure and the criteria for triggering the group, it either triggers the group in *Range A* or *Range B* or it does not trigger the group.

Option: none (no reaction)

The Application Unit Time only triggers a group if a telegram with a value in *Range A* or *Range B* has been received.

The group is always triggered in principle after a cold start on receipt of the first value which lies in *Range A* or *Range B*.

In the event of a warm start, the group is only triggered if all other criteria have been met e.g. the last value received prior to the bus failure was in *Range B* and the first value received after bus voltage recovery is in *Range A*.

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Initial value

Under *Initial value*, you define the value which the Application Unit Time should use as a preset value after a cold start. The field is dependent on the preset type e.g. if a 1-bit type has been selected, only the values 0 and 1 can be set.

"Insert" button

A new group is inserted via the *Insert* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.10 Group trigger - General

Fig. 134:   Dialog window: "Group trigger - General"

The created triggers are shown in the folder *Groups, 01: Beginning of instruction* and *Trigger*.

Group triggers trigger a group if

- the Application Unit Time receives a telegram whose group address has been entered in the list of group triggers

- its value lies in the ranges which have been defined for triggering a group and

- its value meets the criteria for triggering a group.

When triggering a group through the time switch program of the Application Unit Time, the time switch program sends a telegram with a group address which is simultaneously received by the Application Unit Time and thus triggers the group.

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3.4.10.1 Insert new group trigger

Fig. 135:   Dialog window: "Insert new group trigger"

To insert a group trigger, select *Groups, 01: Beginning of instruction* and *Trigger* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type** and **sending**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The n*ame* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

sending

A + indicates that this group address is sent.
A – indicates that this group address is not sent.

Note: Only one group address can be set as sending for a group.

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The dialog window *Trigger for group 01: Beginning of instruction* is activated in the following way:

- by double-clicking on *** *new group trigger* *** or
- by pressing the right mouse button and selecting *New group trigger* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *New group trigger* in the pop-up menu.
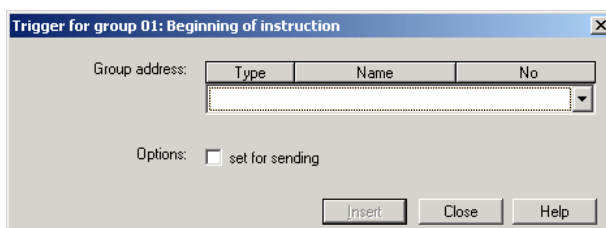
Fig. 136:   Parameter window: "Trigger for group 01: Beginning of instruction, Insert group address"

Group address

Options: new group address

The parameter is divided into **Type**, **Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined during the parameterisation of the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

ABB i-bus® EIB / KNX   **Commissioning**

Options

Via the option *set for sending*, it is defined that a telegram with this group address is sent when triggering a group via the time switch program of the Application Unit Time. It can thus be displayed e.g. in a visualisation program that this group has been triggered.

Note: Only one group address can be set as sending for a group.

"Insert" button

A new group trigger is inserted via the *Insert* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.10.2 Edit group trigger
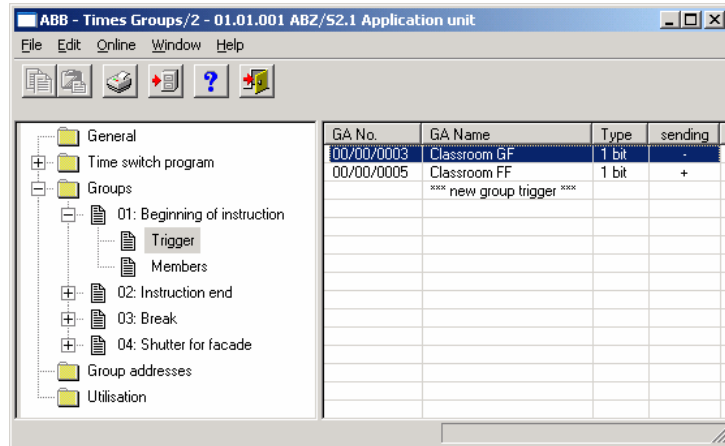
Fig. 137:   Dialog window "Edit group trigger"

Dialog window: "Edit group trigger"

To edit a group trigger, select *Groups, 01: Beginning of instruction* and *Trigger* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type** and **sending**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The n*ame* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

sending

A + indicates that this group address is sent.
A – indicates that this group address is not sent.

Note: Only one group address can be set as sending for a group.

ABB i-bus® EIB / KNX   **Commissioning**

Select an existing trigger e.g. the group address 00/00/002. The dialog window for the selected *Trigger for group 01: Beginning of instruction* is activated in the following way:

- by double-clicking on the selected trigger or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.
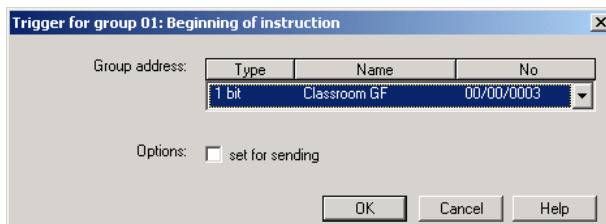
Fig. 138:   Parameter window: "Edit group trigger"

The selected trigger dialog is now available for editing.

Group address

Options: existing group addresses /
                  new group address

An *existing group address* can be assigned in the selection list.

The parameter is divided into **Type**, **Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined when configuring the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

ABB i-bus® EIB / KNX   **Commissioning**

Options

Via the option *set for sending*, it is defined that a telegram with this group address is sent when triggering a group via the time switch program of the Application Unit Time. It can thus be displayed e.g. in a visualisation program that this group has been triggered.

Note: Only one group address can be set as sending for a group.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.10.3 Delete group trigger
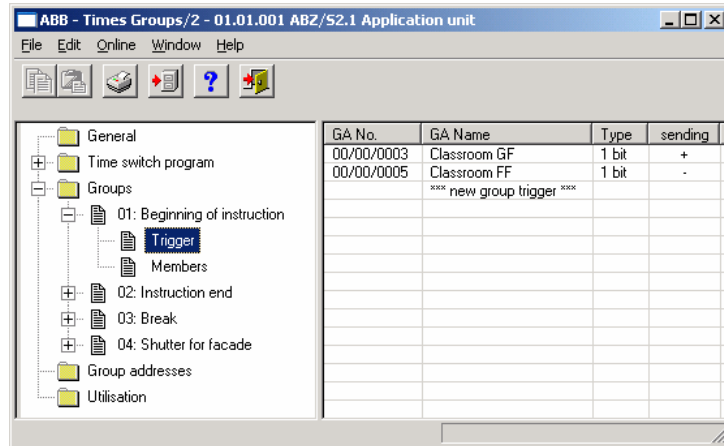
Fig. 139:   Dialog window: "Delete group trigger"

To delete a group trigger, select *Groups, 01: Beginning of instruction* and *Trigger* in the selection area.

The table is divided into **GA No.**, **GA Name**, **Type** and **sending**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The n*ame* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

sending

A + indicates that this group address is sent.
A – indicates that this group address is not sent.

Note: Only one group address can be set as sending for a group.

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Select the group address which should be deleted e.g. GA No. 00/00/002.
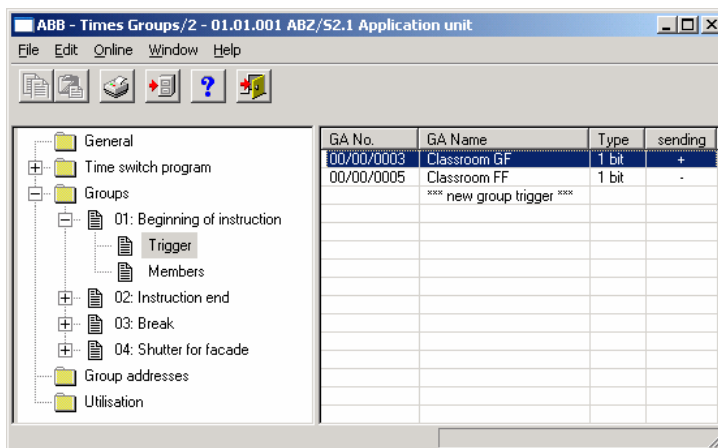
Fig. 140:   Dialog window: "Select group trigger"

The selected group address is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *Delete* in the pop-up menu.

"Yes" button

Before the group trigger can be deleted, a prompt must be confirmed with *Yes*.
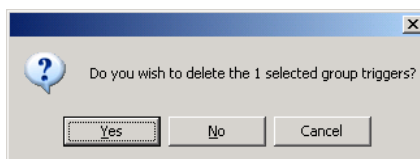
Fig. 141:   Parameter window: "Group trigger, Prompt"

"No" button

The group trigger is not deleted when the *No* button is pressed.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.11 Group members - General
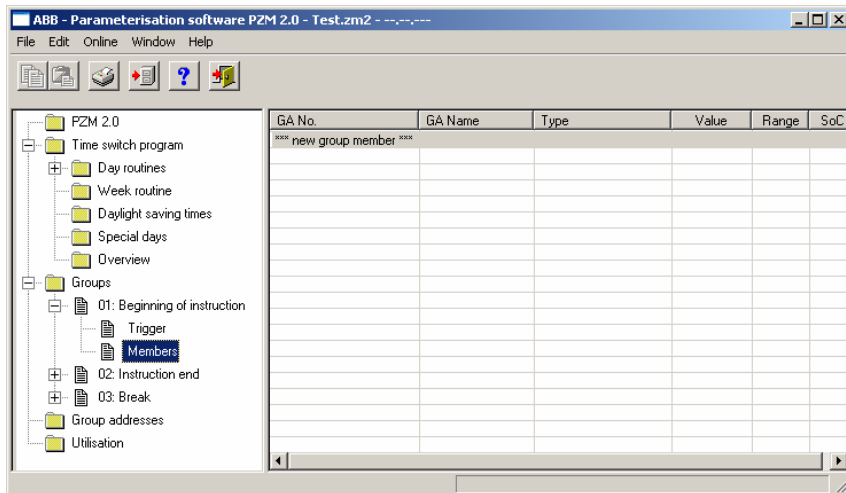
Fig. 142:   Dialog window: "Group members - General"

The created members are shown in the folder *Groups, 01: Beginning of instruction* and *Members*.

This table lists all the group addresses which are members of this group.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.11.1 Insert new group member
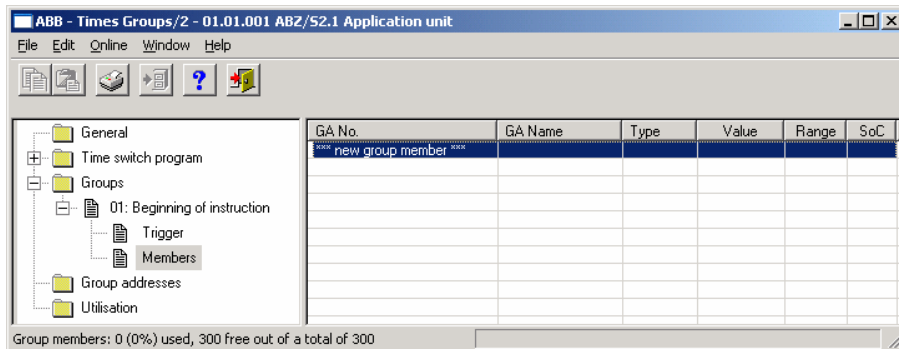
Fig. 143:   Dialog window: "Insert new group member"

To insert a group member, select *Groups, 01: Beginning of instruction* and *Members* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type**, **Value**, **Range** and **SoC**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The n*ame* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

Value

The value which is transmitted when triggering the group with this group address is displayed under *Value*.

ABB i-bus® EIB / KNX   **Commissioning**

Range

The entry under *Range* defines whether this value is transmitted when triggering the group in range A or range B.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

ABB i-bus® EIB / KNX   **Commissioning**

The dialog window *Member of group 01* is activated in the following way:

- by double-clicking on *** *new group member* *** or
- by pressing the right mouse button and selecting *New group member*
  in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *New group member*
  in the pop-up menu.
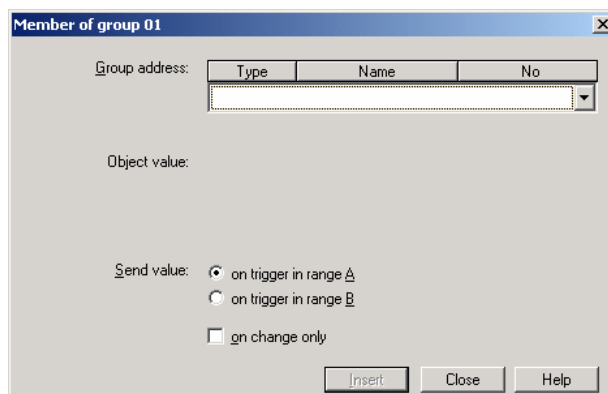
Fig. 144:   Parameter window: "Insert member of group 01"

Group address

Options: new group address

The parameter is divided into **Type**, **Name** and **No.** The table can be
arranged and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address
can send.

Name

The *name* of the group address is defined when configuring the ABB i-bus®
installation and cannot be modified with the parameterisation software
PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

ABB i-bus® EIB / KNX   **Commissioning**

Note: Different options appear in the *Object value* parameter
            depending on the type which has been selected for the group
            address.

Type 1 bit

Fig. 145:   Parameter window: "Group member, Data type 1 bit"

Object value (0…1)

Options: 0/1

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Type 2 bit priority

Fig. 146:   Parameter window: "Group member, Data type 2 bit priority"

Object value

Options: Free/
                Forced ON/
                Forced OFF

This parameter is used to select which object value is sent. The priority control function is explained in the following table:

Bit 1	Bit 0	Access	Description
0	0	Free	The priority object has enabled e.g. the switch actuator. The output switches depending on the value of the switch object.
0	1	Free	
1	0	OFF	The priority object has switched e.g. the switch actuator OFF with priority control. The switch object has no function.
1	1	ON	The priority object has switched e.g. the switch actuator ON with priority control. The switch object has no function.

Table 9:   Priority object

Note: 4 different values can be sent with the telegram. So-called priority objects can thus be addressed in the EIB devices. If a channel e.g. in a switch actuator should switch on or off, the value 1 or 0 is sent to the assigned switch object. If a priority object is also assigned to this channel, the value that was sent to the priority object defines the behaviour of the channel.

ABB i-bus® EIB / KNX   **Commissioning**

Type 1 byte unsigned (0…255)
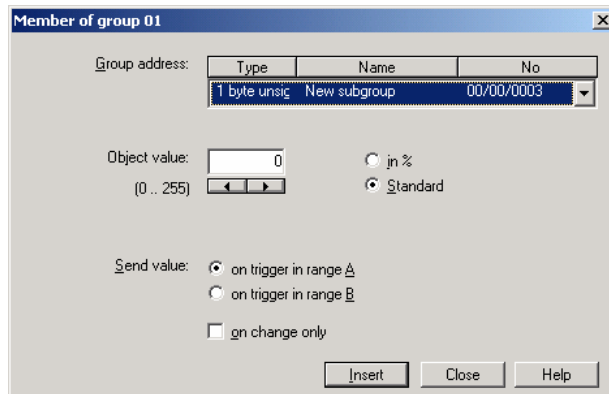
Fig. 147:   Parameter window: "Group member, Data type 1 byte unsigned (0…255)"

Object value (0…255) and Standard

Options: 0…255

This parameter is used to select which object value is sent.

If *Standard* is also selected, the object value is issued without a unit of measurement.

Type 1 byte unsigned (0…100%)

Fig. 148:   Parameter window: "Group member, Data type 1 byte unsigned (0…100%)"

Object value (0…100%) and in %

Options: 0.00…100%

This parameter is used to select which object value is sent.

If the option *in %* is also selected, 0 = 0% and 255 = 100% are assigned to the object values.

ABB i-bus® EIB / KNX   **Commissioning**
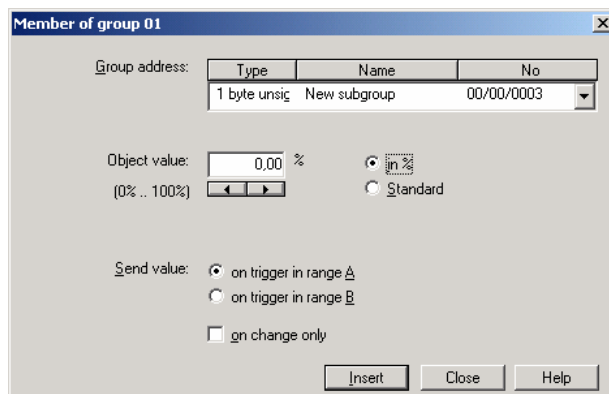
Type 1 byte signed (-128…127)
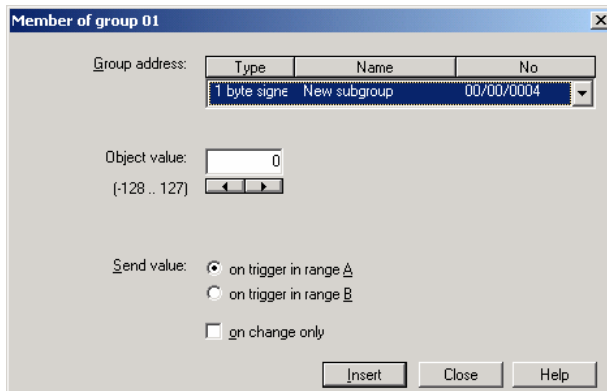
Fig. 149:   Parameter window: "Group member, Data type 1 byte signed (-128…127)"

Object value (-128…127)

Options: -128…0…127

This parameter is used to select which object value is sent.

Type 2 byte unsigned (0…65,535)

Fig. 150:   Parameter window: "Group member, Data type 2 byte unsigned (0…65,535)"

Object value (0…65,535)

Options: 0…65,535

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX

Commissioning
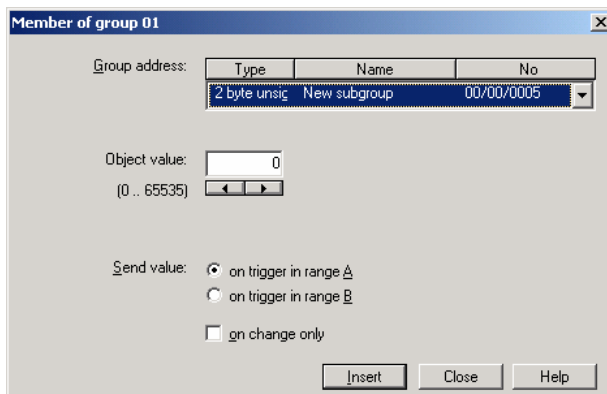
Type 2 byte signed (-32,768…32,767)
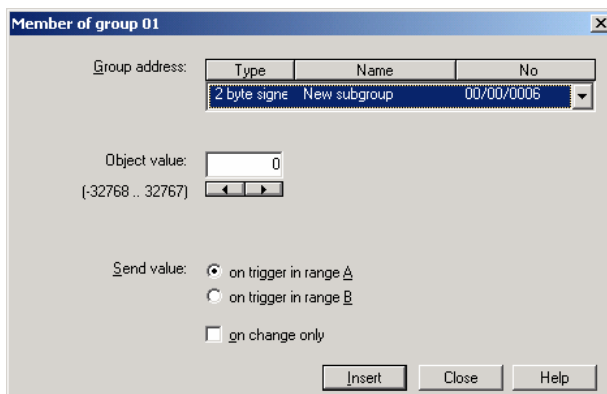
Fig. 151: Parameter window: "Group member, Data type 2 byte signed (-32,768…32,767)"

Object value (-32,768…32,767)

Options: -32,768…0…32,767

This parameter is used to select which object value is sent.

Type 2 byte floating point

Fig. 152: Parameter window: "Group member, Data type 2 byte floating point"

Object value (-163.84…163.76) and Exponent 3 (Temp.)

Options: -163.84…0…163.76

This parameter is used to select which object value is sent.

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Exponent

Options: Auto /
                  0…<u>3 (Temp.)</u>…15

This parameter is used to select which exponent is assigned to the object value.

Note: Different object values can be set, depending on the exponent which is selected. The table below shows all the options.

Exponent	Object value
Auto	-671,088.64…<u>0.00</u>…670,760.96
0	-20.48…<u>0.00</u>…20.47
1	-40.96…<u>0.00</u>…40.94
2	-81.92…<u>0.00</u>…81.88
3 (Temp.)	-163.84…<u>0.00</u>…163.76
4	-327.68…<u>0.00</u>…327.52
5	-655.36…<u>0.00</u>…655.04
6	-1,310.72…<u>0.00</u>…1,310.08
7	-2,621.44…<u>0.00</u>…2,620.16
8	-5,242.88…<u>0.00</u>…5,240.32
9	-10,485.76…<u>0.00</u>…10,480.64
10	-20,971.52…<u>0.00</u>…20,961.28
11	-41,943.04…<u>0.00</u>…41,922.56
12	-88,386.08…<u>0.00</u>…83,845.12
13	-167,772.16…<u>0.00</u>…167,690.24
14	-335,544.32…<u>0.00</u>…335,380.48
15	-671,088.64…<u>0.00</u>…670,760.96

Table 10:   Exponent

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Send value

Options: on trigger in range A /
                  on trigger in range B

The value which should be sent can be defined for each range via the option *on trigger in range A* or *on trigger in range B*.

only on change

A tick in the entry *only on change* means that a telegram is only sent if the value has changed e.g. if the light was already switched on and should still be switched on, this telegram is not sent.

"Insert" button

A new group member is inserted via the *Insert* button.

"Close" button

The parameter window is closed via the *Close* button.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

ABB i-bus® EIB / KNX   **Commissioning**

3.4.11.2 Edit group members
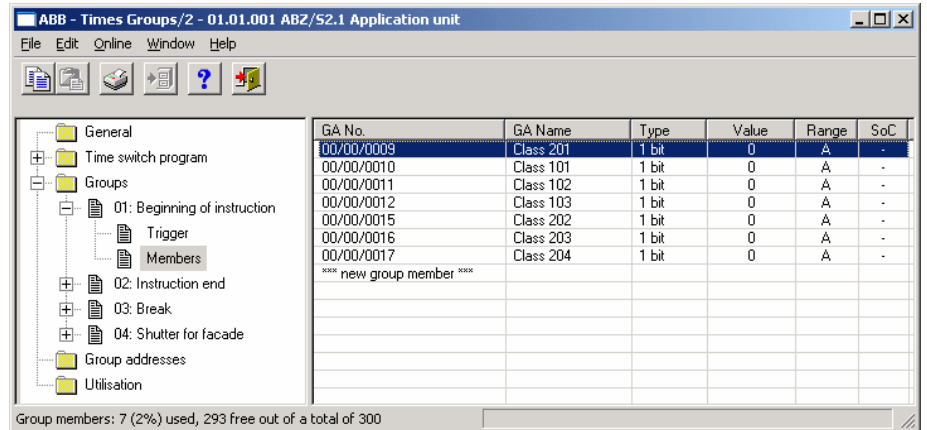
Fig. 153:   Dialog window: "Edit group members"

To edit group members, select *Groups, 01: Beginning of instruction* and *Members* in the selection area

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type**, **Value**, **Range** and **SoC**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The n*ame* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

Value

The value which is transmitted when triggering the group with this group address is displayed under *Value*.

ABB i-bus® EIB / KNX   **Commissioning**

Range

The entry under *Range* defines whether this value is transmitted when triggering the group in range A or range B.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

ABB i-bus® EIB / KNX   **Commissioning**

Select an existing member e.g. the group address 00/00/009. The dialog window for the selected *Member of group 01* is activated in the following way:

- by double-clicking on the selected member or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.
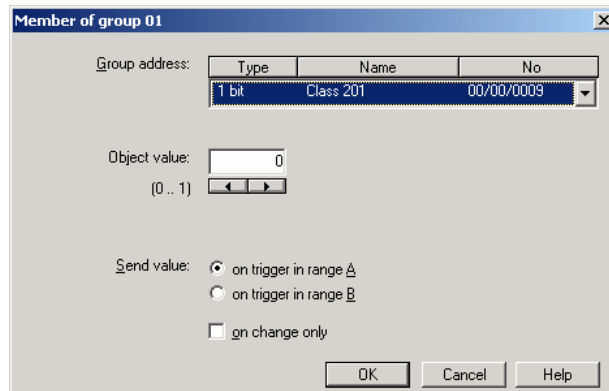
Fig. 154:   Parameter window: "Select member for group 01"

The selected member dialog is available for editing.

Group address (trigger via bus)

Options: existing group address /
new group address

An *existing group address* can be assigned in the selection list.

The parameter is divided into **Type**, **Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined when configuring the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

ABB i-bus® EIB / KNX   **Commissioning**

Note: Different options appear in the *Object value* parameter
               depending on the type which has been selected for the group
               address.

Type 1 bit

Fig. 155:   Parameter window: "Group member, Data type 1 bit"

Object value (0…1)

Options: 0/1

This parameter is used to select which object value is sent.

ABB i-bus® EIB / KNX   **Commissioning**

Type 2 bit priority

Fig. 156:   Parameter window: "Group member, Data type 2 bit priority"

Object value

Options: Free/
                Forced ON/
                Forced OFF

This parameter is used to select which object value is sent. The priority control function is explained in the following table:

Bit 1	Bit 0	Access	Description
0	0	Free	The priority object has enabled e.g. the switch actuator. The output switches depending on the value of the switch object.
0	1	Free	
1	0	OFF	The priority object has switched e.g. the switch actuator OFF with priority control. The switch object has no function.
1	1	ON	The priority object has switched e.g. the switch actuator ON with priority control. The switch object has no function.

Table 11:   Priority object

Note: 4 different values can be sent with the telegram. So-called priority objects can thus be addressed in the EIB devices. If a channel e.g. in a switch actuator should switch on or off, the value 1 or 0 is sent to the assigned switch object. If a priority object is also assigned to this channel, the value that was sent to the priority object defines the behaviour of the channel.

ABB i-bus® EIB / KNX   **Commissioning**

Type 1 byte unsigned (0…255)
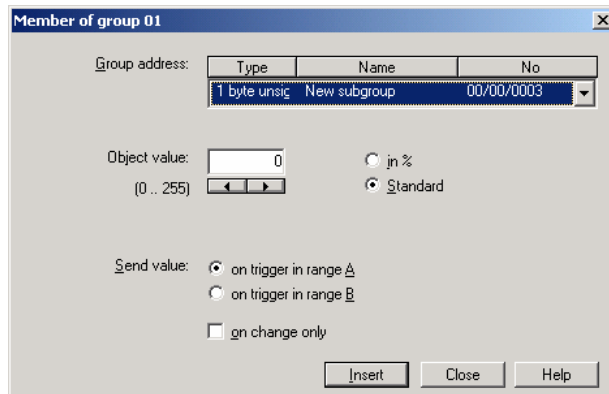
Fig. 157:   Parameter window: "Group member, Data type 1 byte unsigned (0…255)"

Object value (0…255) and Standard

Options: 0…255

This parameter is used to select which object value is sent.

If *Standard* is also selected, the object value is issued without a unit of measurement.

Type 1 byte unsigned (0…100%)

Fig. 158:   Parameter window: "Group member, Data type 1 byte unsigned (0…100%)"

Object value (0…100%) and in %

Options: 0.00…100%

This parameter is used to select which object value is sent.

If the option *in %* is also selected, 0 = 0% and 255 = 100% are assigned to the object values.

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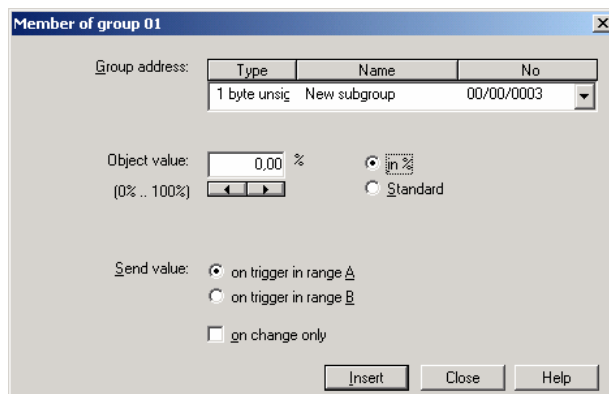
Type 1 byte signed (-128…127)
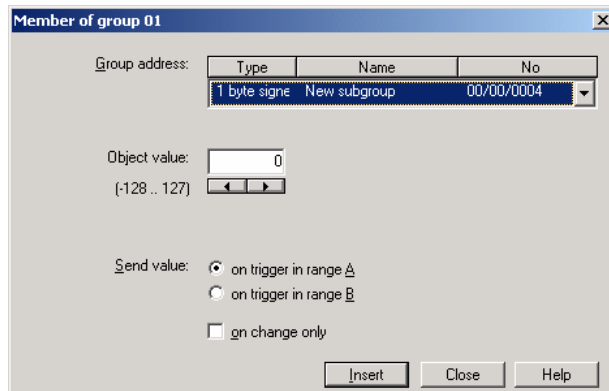
Fig. 159:   Parameter window: "Group member, Data type 1 byte signed (-128…127)"

Object value (-128…127)

Options: -128…0…127

This parameter is used to select which object value is sent.

Type 2 byte unsigned (0…65,535)

Fig. 160:   Parameter window: "Group member, Data type 2 byte unsigned (0…65,535)"

Object value (0…65,535)

Options: 0…65,535

This parameter is used to select which object value is sent.

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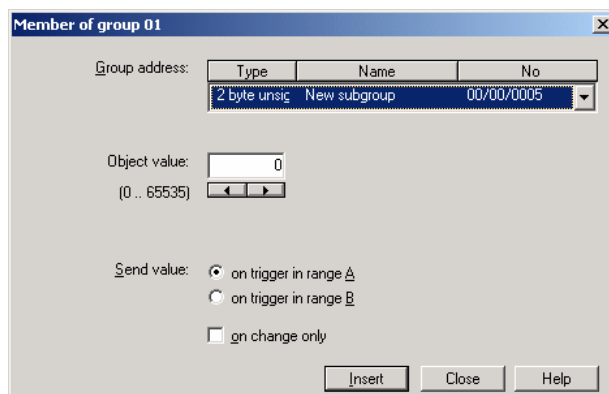
Type 2 byte signed (-32,768…32,767)
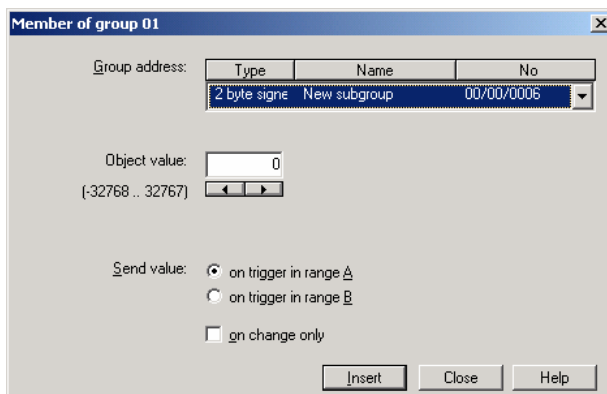
Fig. 161:   Parameter window: "Group member, Data type 2 byte signed (-32,768…32,767)"

Object value (-32,768…32,767)

Options: -32,768…0…32,767

This parameter is used to select which object value is sent.

Type 2 byte floating point

Fig. 162:   Parameter window: "Group member, Data type 2 byte floating point"

Object value (-163.84…163.76) and Exponent 3 (Temp.)

Options: -163.84…0…163.76

This parameter is used to select which object value is sent.

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Exponent

Options: Auto /
                  0…3 (Temp.)…15

This parameter is used to select which exponent is assigned to the object value.

Note: Different object values can be set, depending on the exponent which is selected. The table below shows all the options.

Exponent	Object value
Auto	-671,088.64…0.00…670,760.96
0	-20.48…0.00…20.47
1	-40.96…0.00…40.94
2	-81.92…0.00…81.88
3 (Temp.)	-163.84…0.00…163.76
4	-327.68…0.00…327.52
5	-655.36…0.00…655.04
6	-1,310.72…0.00…1,310.08
7	-2,621.44…0.00…2,620.16
8	-5,242.88…0.00…5,240.32
9	-10,485.76…0.00…10,480.64
10	-20,971.52…0.00…20,961.28
11	-41,943.04…0.00…41,922.56
12	-88,386.08…0.00…83,845.12
13	-167,772.16…0.00…167,690.24
14	-335,544.32…0.00…335,380.48
15	-671,088.64…0.00…670,760.96

Table 12:   Exponent

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Send value

Options: on trigger in range A /
                  on trigger in range B

The value which should be sent can be defined for each range via the option *on trigger in range A* or *on trigger in range B*.

only on change

A tick in the entry *only on change* means that a telegram is only sent if the value has changed e.g. if the light was already switched on and should still be switched on, this telegram is not sent.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.11.3 Delete group member
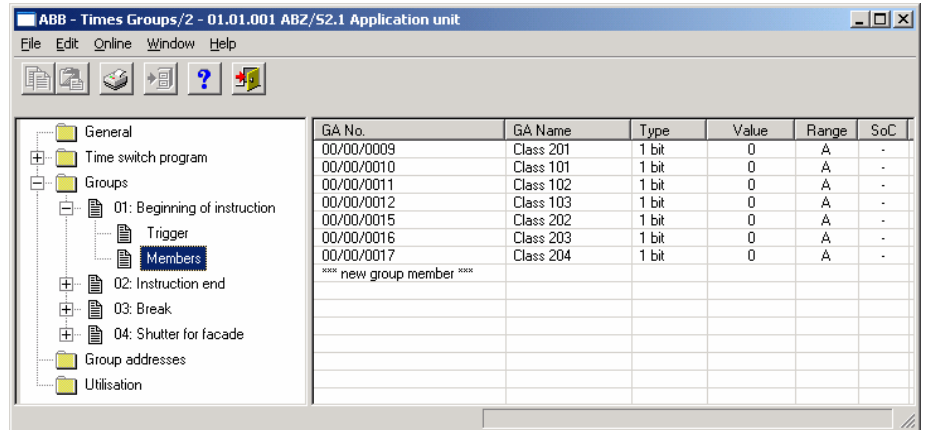
Fig. 163:   Dialog window: "Delete group member"

To delete group members, select *Groups, 01: Beginning of instruction* and *Members* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type**, **Value**, **Range** and **SoC**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The n*ame* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

Value

The value which is transmitted when triggering the group with this group address is displayed under *Value*.

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Range

The entry under *Range* defines whether this value is transmitted when triggering the group in range A or range B.

SoC (**S**end **o**n **C**hange)

A tick in the *SoC* column indicates that a telegram is only sent if the value differs from the last value that was sent e.g. if the light should be switched on and is already switched on, this telegram is not sent.

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Select the group address which should be deleted e.g. GA No. 00/00/009.

Fig. 164:   Dialog window: "Select group member"

The selected group address is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu.
- by selecting *Edit* in the menu bar and then activating *Delete* in the pop-up menu.

"Yes" button

Before the group member can be deleted, a prompt must be confirmed with *Yes*.
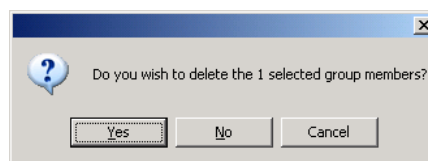
Fig. 165:   Parameter window: "Group member, Prompt"

"No" button

The group member is not deleted when the *No* button is pressed.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

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3.4.12 Group addresses - General
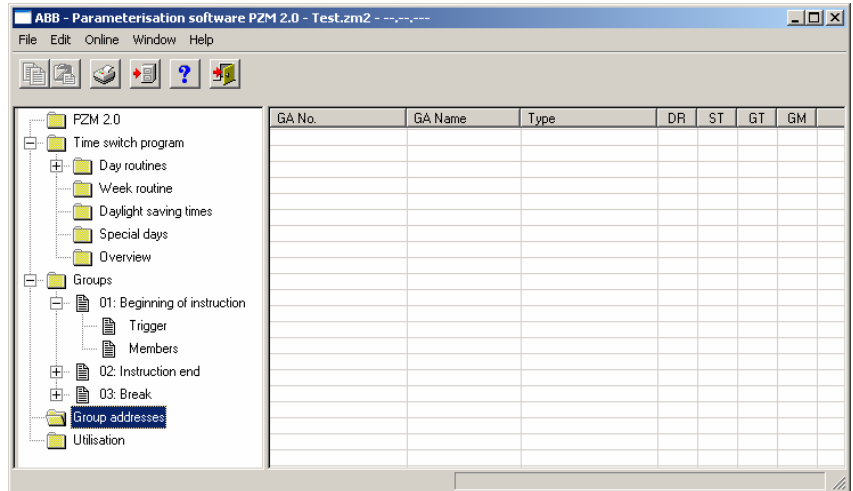
Fig. 166:   Dialog window: "Group addresses - General"

The table indicates the group addresses which are available for parameterisation and their current usage in the Application Unit Time.

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3.4.12.1 Edit group address

Fig. 167:   Dialog window: "Edit group addresses"

To edit a group address, select *Group addresses* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type, DR**, **ST**, **GT** and **GM**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The *name* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

DR

A + in the *Day routine* column (*DR*) indicates whether a telegram with this group address can activate or deactivate a day routine.

ST

A + in the *Switching time* column (*ST*) indicates whether a telegram with this group address is assigned to a day routine and is thus sent on the bus at a specific time.

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GT

A + in the *Group trigger* column (*GT*) indicates whether this group address can trigger a group.

GM

A + in the *Group member* column (*GM*) indicates whether this group address belongs to a group.

Note: The editing of group addresses is only possible in ETS3.

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Select an existing group address e.g. group address 00/00/001. The dialog window *Link group address* is activated in the following way:

- by double-clicking on the selected group address or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.
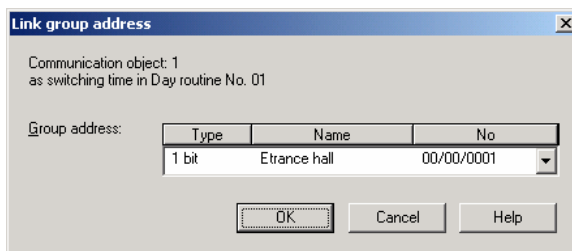
Fig. 168:   Parameter window: "Select group address""

Note: This dialog window can only be opened if the group address has already been assigned a specific use e.g. activating a day routine. The group address is thus assigned to a communication object via priority control.

Communication object: X

The communication object number is automatically assigned as a consecutive number by the application program Times Groups/2.

as switching time in Day routine no. 01

The text displayed here describes the assignment of the selected group address e.g. to the switching time and day routine.

Group address

Options: existing group address /
                  new group address

An *existing group address* can be assigned in the selection list.

The parameter is divided into **Type**, **Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

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Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined when configuring the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.12.2 Delete group address

Fig. 169:   Dialog window: "Delete group address"

Note: The deletion of group addresses is only possible in ETS3. The deletion process described here refers to the used and unused group addresses in the application program. If the group addresses in the dialog are deleted, they remain available.

To delete a group address, select *Group addresses* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type**, **DR**, **ST**, **GT** and **GM**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The *name* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

DR

A + in the *Day routine* column (*DR*) indicates whether a telegram with this group address can activate or deactivate a day routine.

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ST

A + in the *Switching time* column (*ST*) indicates whether a telegram with this group address is assigned to a day routine and is thus sent on the bus at a specific time.

GT

A + in the *Group trigger* column (*GT*) indicates whether this group address can trigger a group.

GM

A + in the *Group member* column (*GM*) indicates whether this group address belongs to a group.

Note: The deletion of group addresses is only possible in ETS3.

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Select the group address which should be deleted e.g. GA No. 00/00/001.
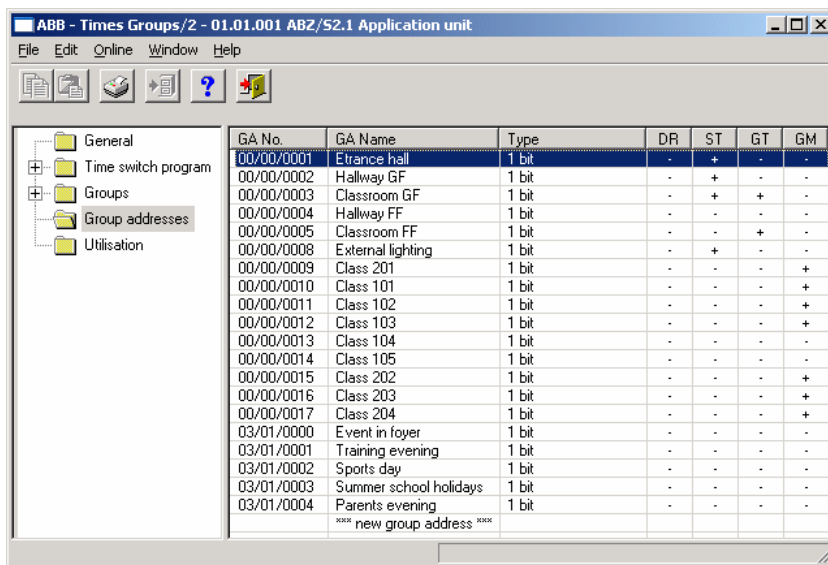
Fig. 170: Dialog window: "Select group address"

The selected group address is deleted in the following way:

- by pressing the Del button or
- by pressing the right mouse button and selecting *Delete* in the pop-up menu or
- by selecting *Edit* in the menu bar and then activating *Delete* in the pop-up menu.

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Before the group address can be deleted, a further dialog window *Usage* is opened. This window displays the use of the selected group address.

"Delete" button

The group address is deleted via this button and the parameter window closes.

as trigger/display for:				
as member of:				
Day routine	No 01	Normal weekday	(1)	

Group address 00/00/0001   Etrance hall

Delete   Cancel   Help

Fig. 171:   Dialog window "Usage"

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.12.3 Assign group address

Fig. 172:   Dialog window: "Assign group address"

To assign a group address, select *Group addresses* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **GA No.**, **GA Name**, **Type**, **DR**, **ST**, **GT** and **GM**.

The meaning of the individual columns is as follows:

GA No.

The *number* of the group address is the unique identifier of a group address.

GA Name

The *name* of the group address is displayed here.

Type

The *type* indicates which type of values a telegram with this group address can send.

DR

A + in the *Day routine* column (*DR*) indicates whether a telegram with this group address can activate or deactivate a day routine.

ST

A + in the *Switching time* column (*ST*) indicates whether a telegram with this group address is assigned to a day routine and is thus sent on the bus at a specific time.

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GT

A + in the *Group trigger* column (*GT*) indicates whether this group address can trigger a group.

GM

A + in the *Group member* column (*GM*) indicates whether this group address belongs to a group.

Note: The assignment of group addresses is only possible in ETS3.

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Select an existing group address e.g. the group address 00/00/001. The dialog window *Link group address* is activated in the following way:

- by double-clicking on the selected group address or
- by pressing the right mouse button and selecting *Edit* in the pop-up menu.
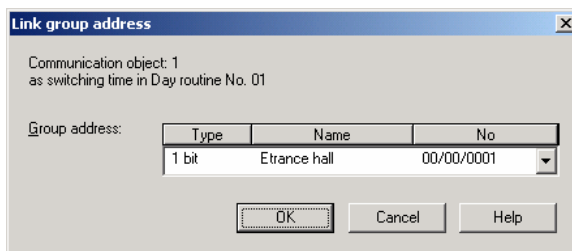
Fig. 173:   Parameter window: "Assign group address"

Note: This dialog window can only be opened if the group address has already been assigned a specific use e.g. activating a day routine. The group address is thus assigned to a communication object via priority control.

Communication object: X

The communication object number is automatically assigned as a consecutive number by the application program Times Groups/2.

as switching time in Day routine no. 01

The text displayed here describes the assignment of the selected group address e.g. to the switching time and day routine.

Note: A group address can be reassigned for the communication object number and the description.
If a new assignment is selected, this is represented in the table in the column DR, ST, GT or GM with a +.

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Group address

Options: existing group address /
                  new group address

An *existing group address* can be assigned in the selection list.

The parameter is divided into **Type**, **Name** and **No.** The table can be arranged and sorted as required.

The meaning of the individual columns is as follows:

Type

The *type* indicates which type of values a telegram with this group address can send.

Name

The *name* of the group address is defined when configuring the ABB i-bus® installation and cannot be modified with the parameterisation software PZM2.

No.

The *number* of the group address is the unique identifier of a group address.

"OK" button

When the "OK" button is pressed, the settings are adopted and the parameter window closes.

"Cancel" button

When the "Cancel" button is pressed, the function is aborted and the parameter window closes.

"Help" button

The "Help" file can be opened directly via the "Help" button and a further parameter window *Help for application program…* is opened.

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3.4.13 Utilisation

Fig. 174:   Dialog window: "Utilisation"

Select *Utilisation* in the selection area.

The associated table is activated in the right-hand window.

The table is divided into **Field name**, **Size**, **used**, **(%)** and **free**.

The meaning of the individual columns is as follows:

Field name

Under *Field name*, you find a selection of addresses and objects with subdivision into group addresses, objects and associations.
Under time switch program, there is a further division into day routines, switching times, special days and daylight saving times.
The groups are subdivided into groups and group members.

Size

The maximum possible number is displayed here.

used

The current number is displayed here.

(%)

The number used is shown here as a percentage.

free

The number still available is shown here.

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ABB i-bus® EIB / KNX   **Planning and application**

4   Planning and application

This section contains some practical tips for using the Application Unit Time.

4.1   Context-sensitive "Help" file

The context-sensitive "Help" file gives you the necessary information for each step when parameterising the application program Times Groups/2.

The context-sensitive "Help" file is retrieved in the following way:

- press the **Help** button in the dialog window,

- press the right mouse button in the table area to select **Help**,

- press **F1** on the keyboard or

- press the **Help** button on the toolbar.

The best way of working with the application program and the "Help" file is to proceed as follows:

First start ETS3 and open the project which you wish to edit. Minimise the main ETS3 window and move it to the top right-hand corner.

After starting the application program, minimise the window and move it to the right edge of the screen so that about a third of the screen width remains free. Now retrieve the "Help" file and minimise and position the window in the free area on the left-hand edge of the screen.

You can now see the relevant "Help" page for each step on the left-hand side if you retrieve the context-sensitive "Help" file to obtain information. You can receive further explanations about the green, underlined terms by clicking on them. You return to the previous "Help" page via the "Back" button.

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4.2 Behaviour on bus voltage failure

In the event of a bus voltage failure, the Application Unit Time stores the communication object values of the inputs and outputs for at least 1 h. If the bus voltage failure lasts considerably longer, the stored communication object values are lost.

Secure states after a bus voltage failure can be achieved by selecting the parameter setting "Behaviour after bus voltage recovery".

4.3 Behaviour after bus voltage recovery

To prevent an unwanted operational response after a bus voltage failure, particular in larger installations, the installation of an uninterruptible power supply is provided for the bus voltage and the scanning voltage of the contacts.

ABB i-bus® EIB / KNX   **Appendix**

Appendix

A.1   List of diagrams

ABB i-bus® EIB / KNX   **Appendix**

ABB i-bus® EIB / KNX   **Appendix**

ABB i-bus® EIB / KNX   **Appendix**

A.2   List of tables

ABB i-bus® EIB / KNX   **Appendix**

A.3   List of key words

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A.4   Notes

ABB i-bus® EIB / KNX   **Appendix**

Contact

ABB STOTZ-KONTAKT GmbH

Eppelheimer Straße 82

69123 Heidelberg, Germany

Phone: +49 (0)6221 701 607

Fax: +49 (0)6221 701 724

E-mail: knx.marketing@de.abb.com

Further information and contacts:
www.abb.com/knx

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