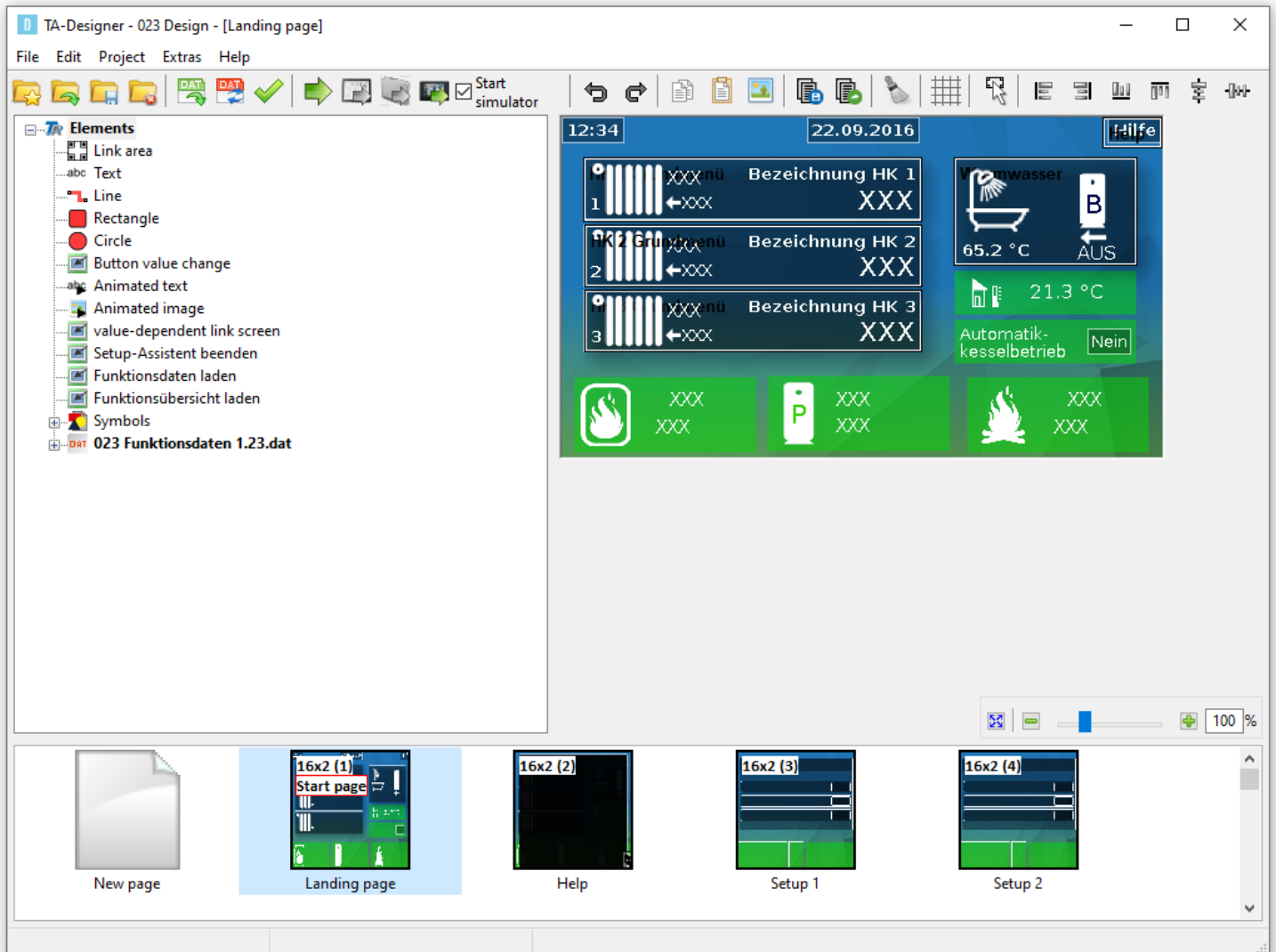


TA-Designer

Version 1.22

User manual



Software Installation

The programming software can be downloaded from our website www.ta.co.at. Start the installation program TA-Designer_1_22.exe and follow the program installation instructions.

Function overview UVR16x2 and CAN-MTx2

The function overview for the UVR16x2 and the CAN-MTx2 CAN monitor is generated with the TA-Designer.

In the function overview, values for other devices with x2 technology, which are incorporated in the controller CAN network (UVR16x2, RSM610, CAN-I/O45, CAN-BC2 and CAN-EZ2), can also be displayed.

Illustration of the function overview on the UVR16x2 requires an operating system version of at least V1.24.

The programming software is contained on the supplied SD card or can be downloaded from our website www.ta.co.at. Start the installation program TA-Designer_1_22.exe and follow the program installation instructions.

CAN-TOUCH

A CAN-Touch operating system version of at least 2.09 is required for the *TA-Designer 1.20*, if no values are to be displayed from devices with x2 technology (UVR16x2, RSM610, CAN-I/O45, CAN-EZ2, CAN-BC2).

If values from devices with x2 technology are also to be displayed, a CAN-Touch with an operating system version of at least 2.12 and hardware revision 2 (Hw. Rev 2) is required.

When starting the CAN-TOUCH, the hardware revision is visible at the bottom left of the screen.

The programming software is contained on the supplied SD-card or can be downloaded from our website www.ta.co.at. Start the installation program TA-Designer_1_22.exe and follow the program installation instructions.

Online diagram C.M.I.

The CMI provides the possibility of an online visualisation in which a graphical image of the current system states is displayed with the web browser via LAN or Internet. The online schematic **for C.M.I.** is interactive, i.e. values and setting can also be changed depending on programming. It can consist of several pages.

The online schematic consists of one graphics file per page (e.g. hydraulics circuit diagram) and the associated html and cgi files in which the display parameters are defined and a file config.tas.

The files (graphics file, config.tas, *.html and *.cgi) can be saved in the C.M.I. with "Drag & Drop". The files saved on the SD card are shown in the C.M.I. in "Status/SD card/schematic_files".

System requirements

C.M.I. : at least operating system version **1.35**

UVR16x2: at least operating system version **V1.35**

RSM610: at least operating system version **V1.20**

CAN-I/O 45: at least operating system version **V1.17**

CAN-EZ2: at least operating system version **V1.17**

CAN-BC2: at least operating system version **V1.16**

UVR610: at least operating system version **V1.00**

UVR1611: at least operating system version **A3.25**

CAN-I/O 35/44: at least operating system version **A2.02**

CAN-BC: at least operating system version **A1.10**

CAN-EZ: at least operating system version **A2.04**

Online diagram BL-NET

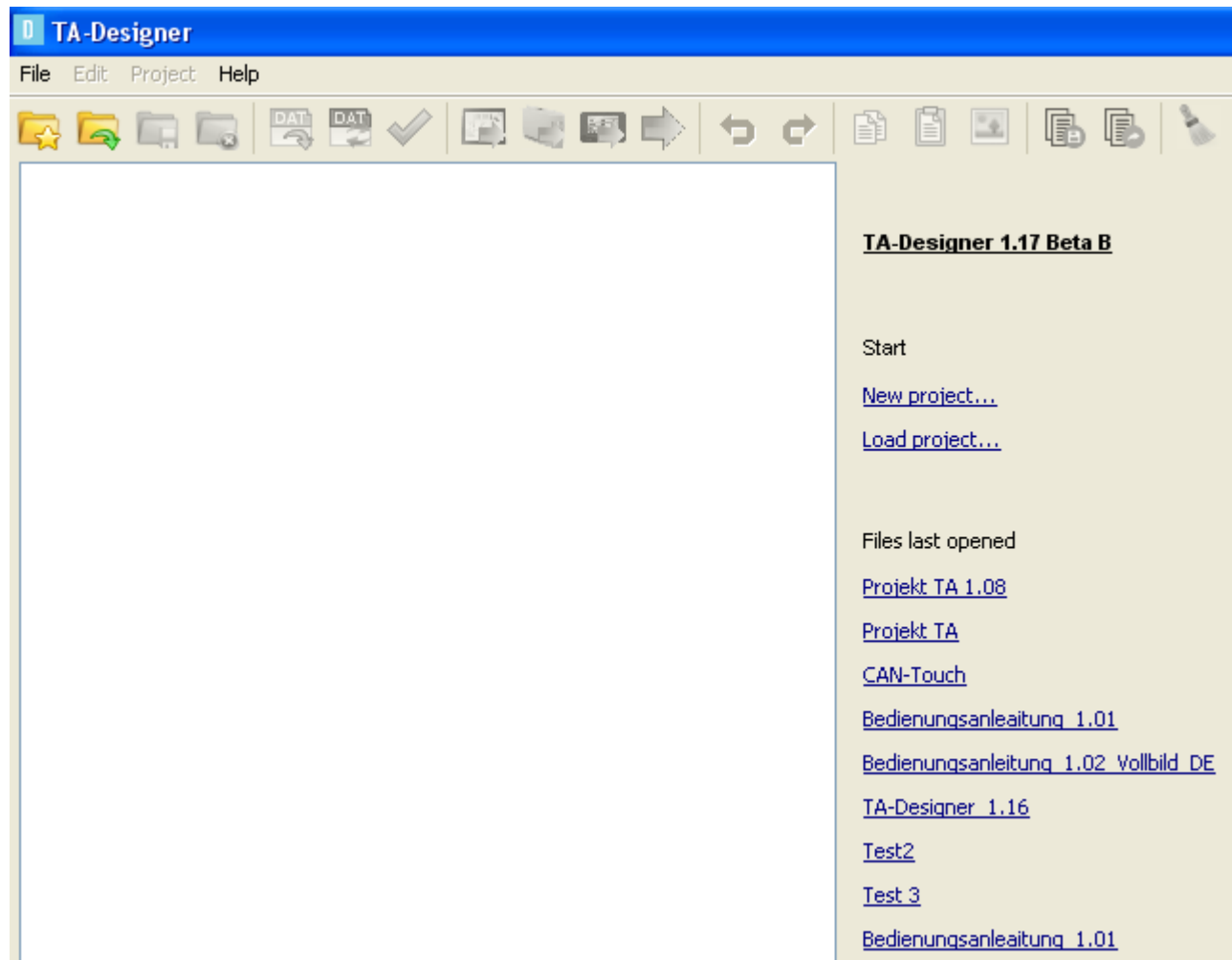
The Bootloader offers online visualisation that provides a graphical representation of the current state of the system when viewed with a browser over the LAN or the Internet.

This online diagram consists of a graphic file (e.g. hydraulic schematic) and the associated HTML file defining the parameters to be displayed.


The files (*.gif and *.html) can be stored in the Bootloader using the **Memory Manager** program.

Start screen

When TA-Designer starts, the screen shows a view in which you can start new projects or load existing projects. It also displays the last files opened.



Keyboard shortcuts

Drawing area	
Ctrl + a	Select all
Ctrl + c	Copy selected object
Ctrl + v	Paste
Strg + z	Undo last action
Strg + y	Restore the action which was undone
Arrow keys ← → ↑ ↓	Move selected object
Ctrl + arrow keys ← → ↑ ↓	Change the size of a selected flat object
Del	Delete selected object
f	Selected object to the front
b	Selected object to the back
Esc	Deselect; exit line drawing
Enter	Properties of the selected object
Ctrl + Enter	Dimensions of the selected object
Ctrl + mouse scroll wheel	Zoom in and out of page view in TA-Designer
Ctrl	Undistorted resizing of selected images or icons by dragging a corner point with the left mouse button
Shift key 	Display of the element descriptions
Alt	Display the grid (only CAN-TOUCH, C.M.I. online diagram and BL-NET) and the position coordinates of the inserted objects
Page overview	
F2	Rename selected page
Page ↑ ↓	Move page up/down (change order)
Ctrl + n	New page
Ctrl + c	Copy selected page
Ctrl + v	Insert selected page
Projects	
Ctrl + p	New project
Ctrl + o	Open project
Ctrl + F4	Close project
Ctrl + s	Save project (as per the general settings)
Ctrl + d	Load function data (*.dat file)
General	
F1	Open manual (help file)

Creating graphics

CAN-TOUCH, Online diagram C.M.I., Function overview UVR16x2

Diagrams can be created with any graphic or drawing program, for instance with the free graphic program "Inkscape" (download at <http://inkscape.org/download/>).

There is also the possibility to draw simple hydraulic diagrams with the TA-Designer. The user has hydraulics icons at hand to do that. But individually developed hydraulics icons can also be used.

The graphics files for CAN-TOUCH must be *.jpg, *.bmp or *.png files. A full background image must have the ratio 4 : 3 (1024 : 768 pixels).

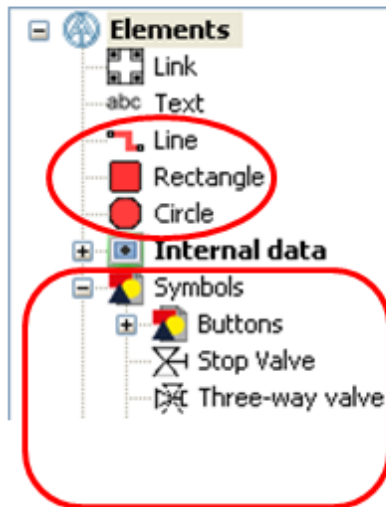
The graphic files for the **C.M.I. Online diagram** and **function overview UVR16x2** must be provided with the file format *.bmp, *.gif, *.jpg or *.png.

UVR16x2 function overview: The size of the full screen display is 480:272 (pixels); the size of the standard display is 430:242 (pixels).

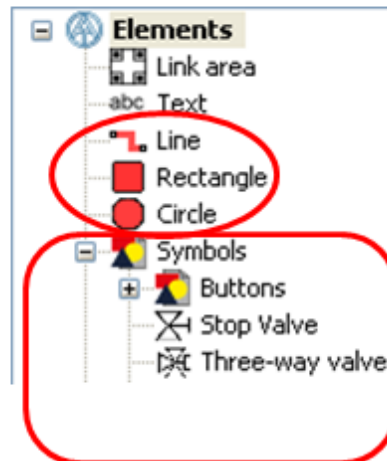
TA-Designer drawing function

(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

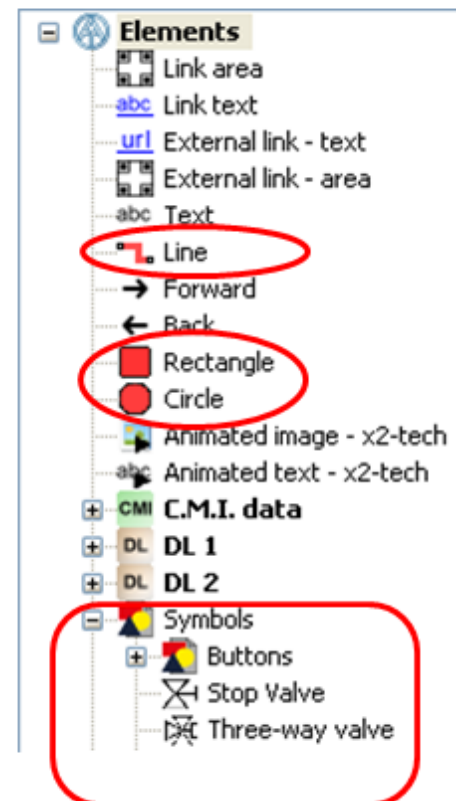
CAN-Touch



UVR16x2

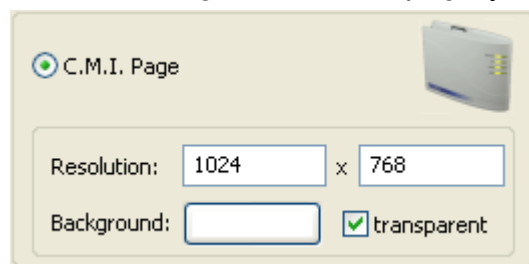


C.M.I.



Simple hydraulics drawings can be drawn with the help of a line function and icons from the TA-Designer selection tree. This drawing can be amended with additional diagrams or images.

When creating a new C.M.I. page, you can select the background and the resolution.

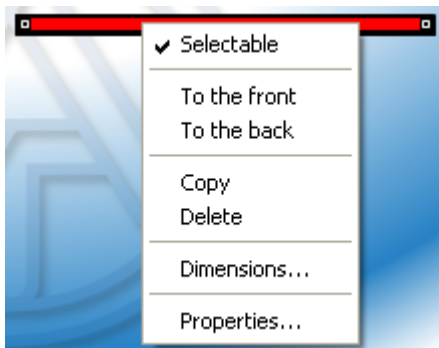


Inserting and editing lines



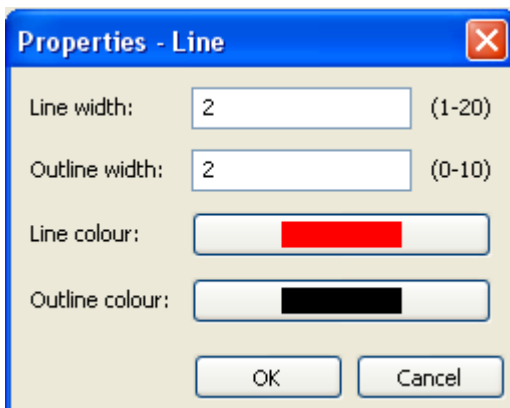
A line is pulled into the page via drag & drop. Each **marked** line has two selection points. These selection points are almost invisible with thin lines.

A right click on a marked line calls up a drop-down menu:



The selectability (see chapter "**Selectability**"), the layout in the front or in the back (see chapter "**Front/back**") and the properties of the line can be defined here.

Properties



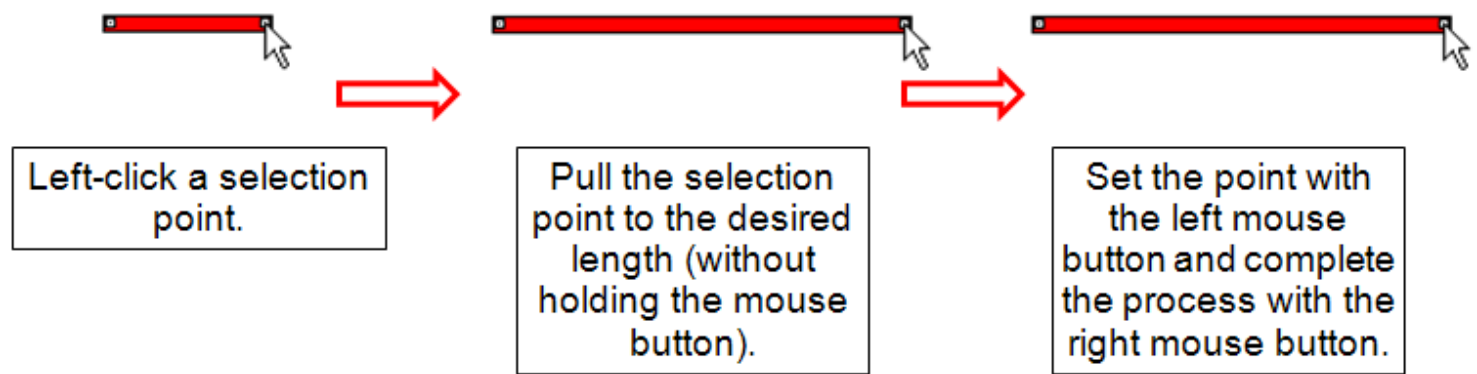
Line and outline width and line and outline colour can be defined here. The outline width can also be set to 0.

Editing a line

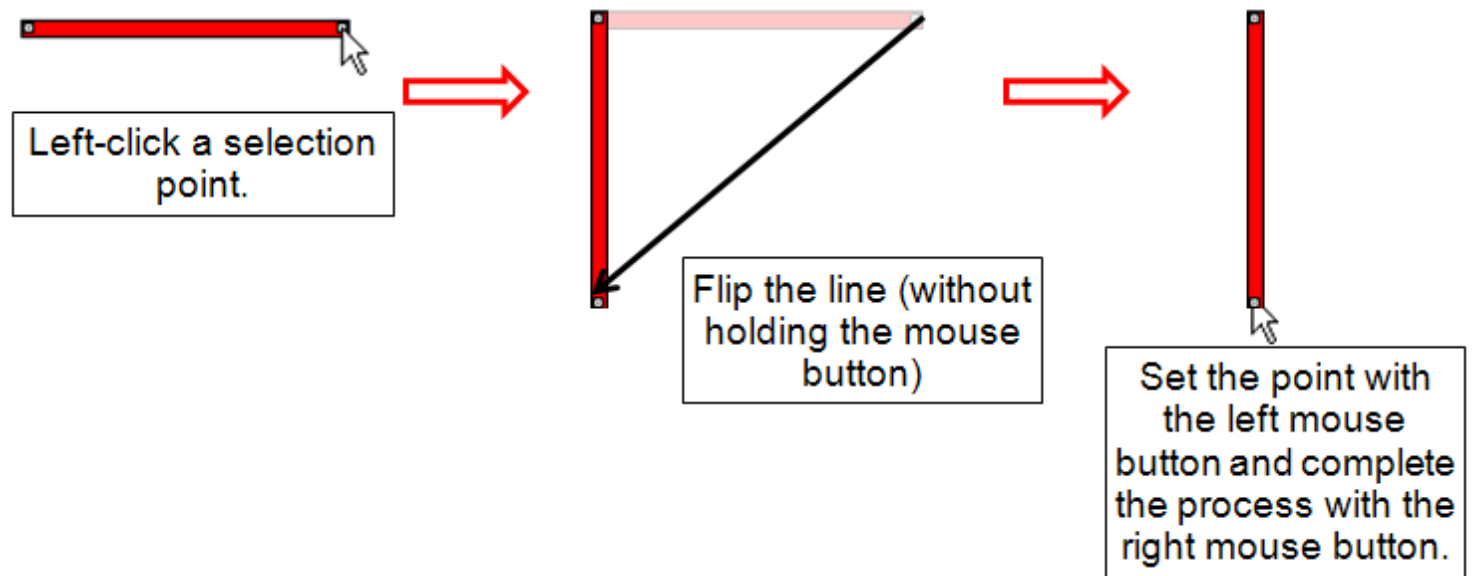
If the line has not been selected yet, it must be clicked with the left mouse button to make the selection points visible.

Dragging a **selection point** can extend or reduce the line or change it to a vertical or angled line. Diagonal lines cannot be drawn.

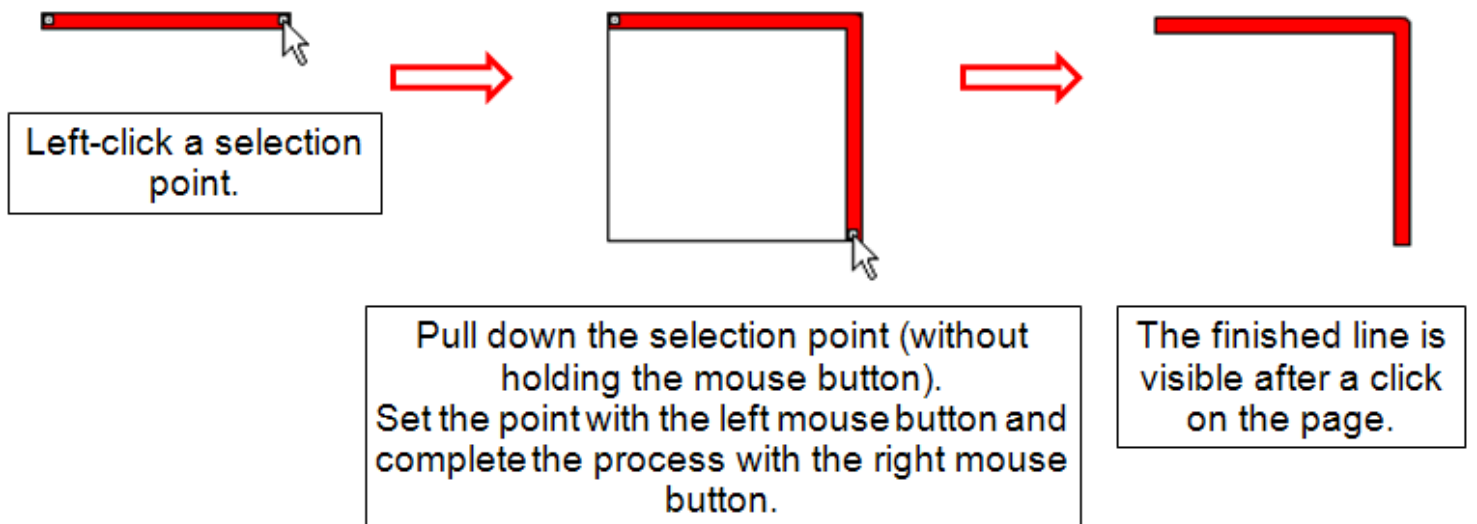
Extending or reducing a line



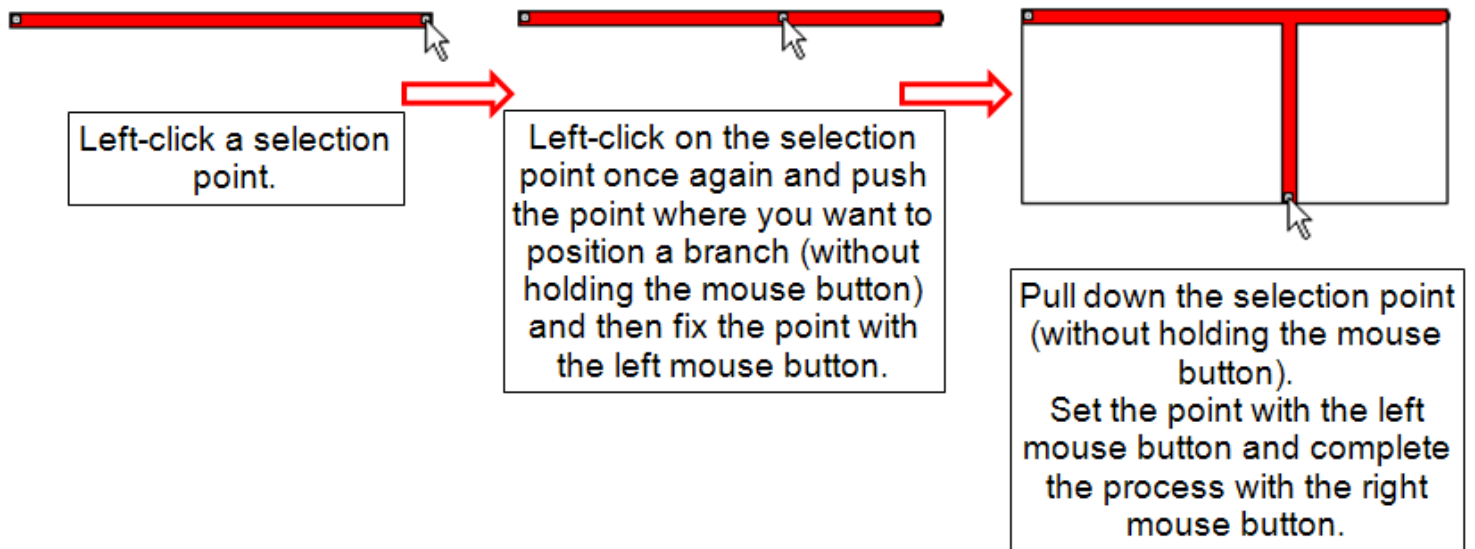
Vertical line



Angled line



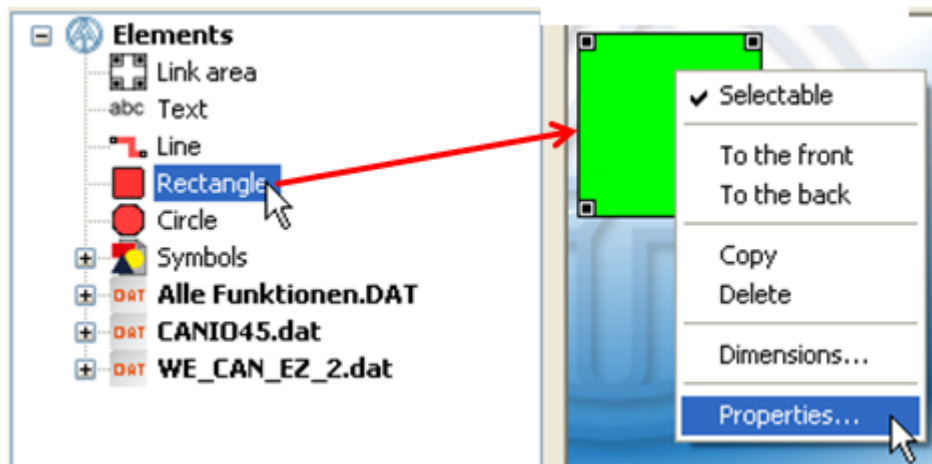
Branches



Inserting a circle or a rectangle

Circles and rectangles can be pulled into the drawing from the search tree.

Example: Rectangle

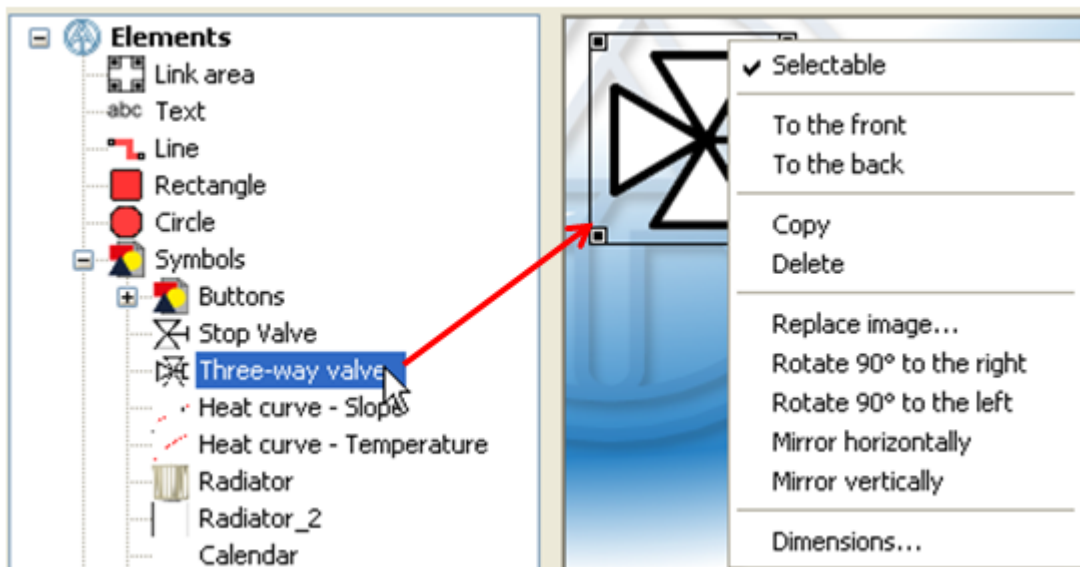


The colour and other properties of the area can be changed in **"Properties"**:



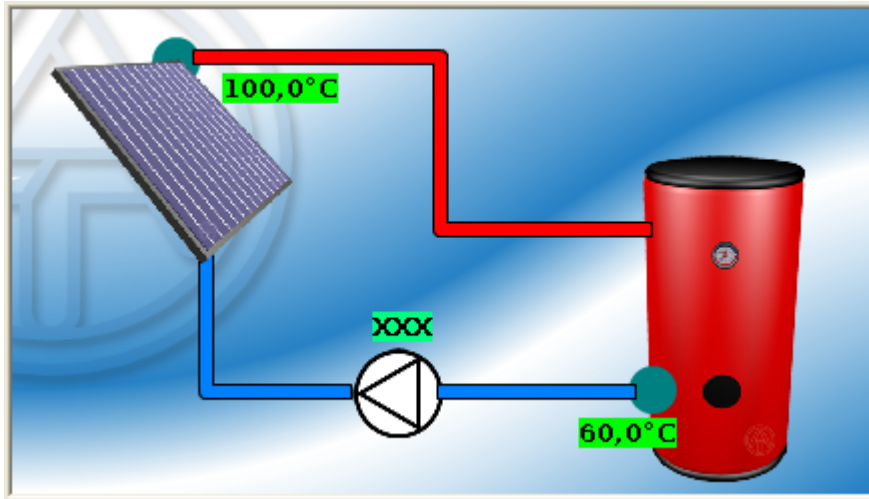
Inserting icons

Hydraulics icons are predefined in the search tree in the area "Icons". These icons can also be used for the drawing function.

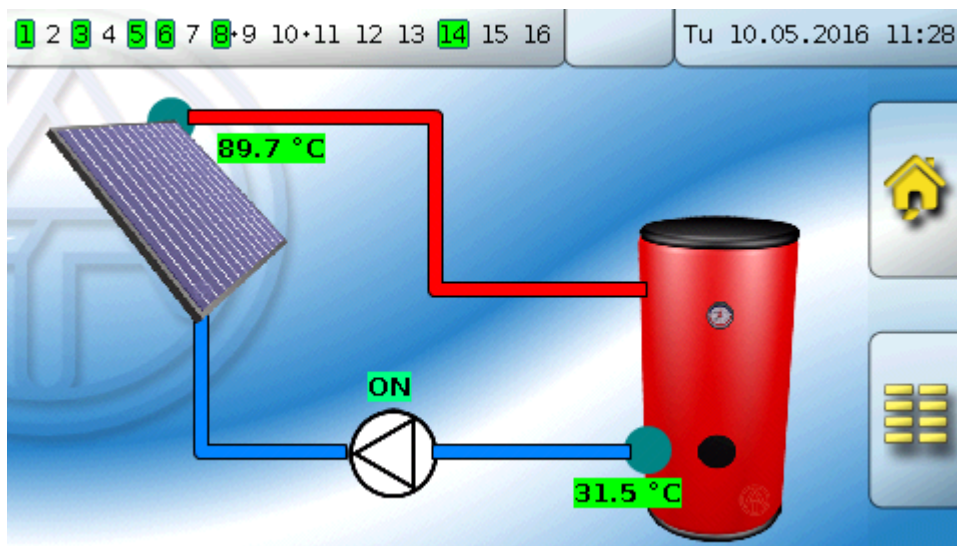


The size and position of the icons can be adjusted after they have been dragged onto the page with drag & drop (see chapter "**Loading and editing images**"). Like all other objects, the icons can be rotated, flipped and replaced, moved to the front or the back and the selectability can be defined.

Example of a simple solar function for UVR16x2:

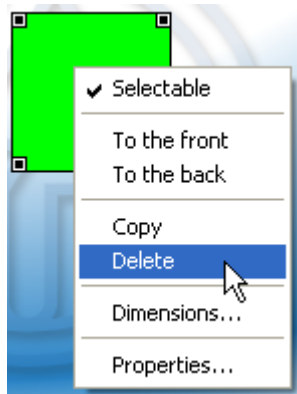


View of this programming in the UVR16x2:



Deleting lines or icons

Right-clicking the object opens the following menu, in which the object can be deleted with "**Delete**".



An object can also be deleted by **selecting** it and then pressing the "**Delete**" key on the PC keyboard.

Online diagram BL-NET

The graphic can be created using any desired graphics or drawing program, or with **TAPPS 1xx**, whereby the following points should be observed:

1. The graphic must be provided to the BL-NET in ***.gif** format. If no graphics program is available, simple graphics can also be created using **TAPPS 1xx**. Conversion of the file into the various formats can be simply carried out using the Windows accessories program "Paint". More demanding graphics can for example be created using the free graphics program "Inkscape" (download at <http://inkscape.org/download/>).

The drawing function in TA-Designer is not available for the BL-NET online schematic.

2. The file must not exceed the maximum size of 196 kilobytes! To reduce the loading time when displaying the online diagram, the graphic file should be kept as small as possible.

Programming

Menu overview

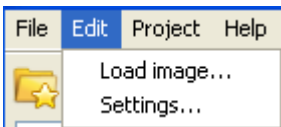
Menu "File"



- Starting a new project
- Loading, closing or saving existing projects
- Opening the project directory
- Project settings
- Creating or editing [messages](#) for CAN-TOUCH
- Update outdated data
- Loading or replacing function data
- Export
- Conversion
- Changing the language
- General settings
- Ending the program
- Loading a project from a list of recently edited projects (history).

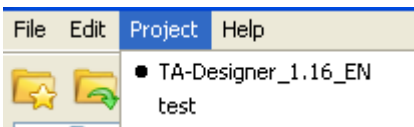
Shortcuts can be seen next to some of the menu items

Menu "Edit"



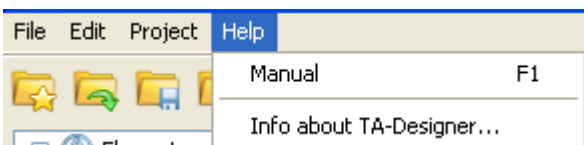
- Loading an image (graphics)
- Set a password for a page (CAN-TOUCH) or
- Settings for Online diagram C.M.I.

Menu "Project"



- Display of the open projects and switching between them

Menu "Help"



- Manual (Help file)
- Information about the **TA-Designer version**

Note: The "Create/edit messages" menu item in the "File" menu can only be used for programming the CAN-TOUCH.

File Edit Project Help

New project...

Load project...

Close project

Save project

Save project as...

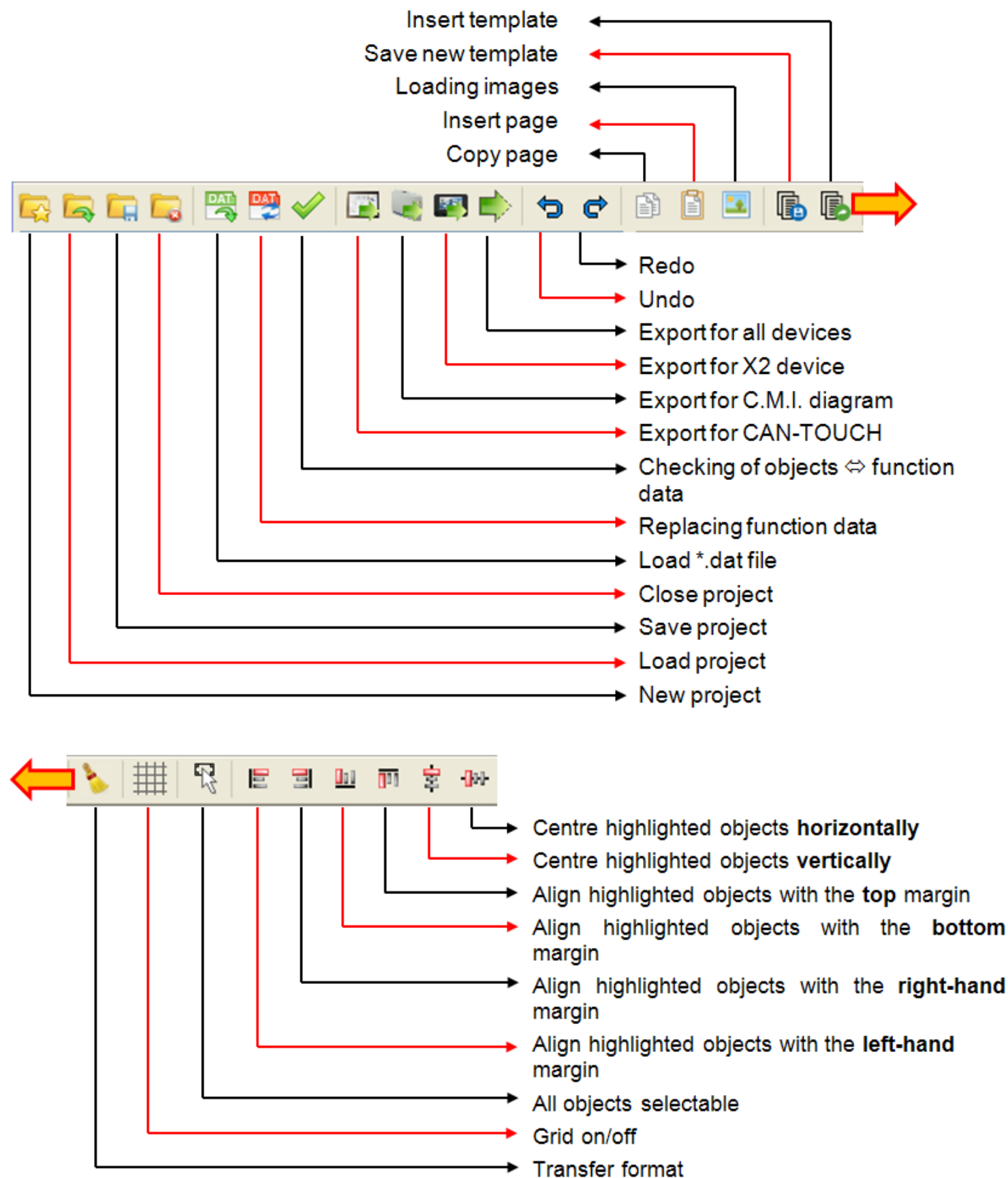
Opening the project directory

Project settings

Create/edit messages

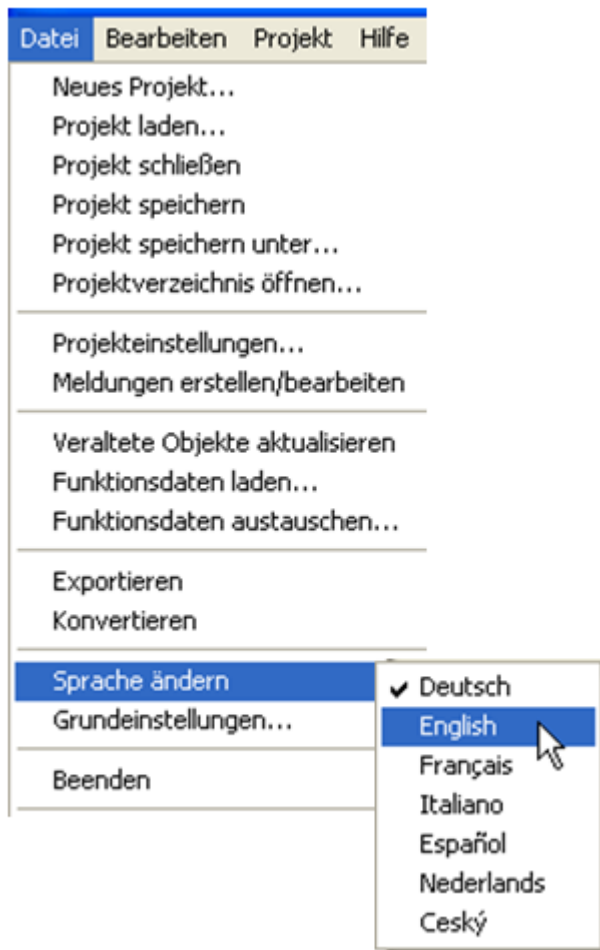
Toolbar

Frequently used actions can be started with a single mouse click on one of these icons.

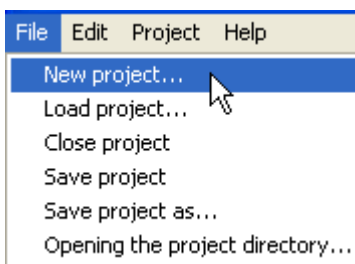


“Step-by-step” instructions

1. Create the graphics (if an individual graphics program is used) and provide the function data (*.dat file) for CAN bus devices.
2. Start the program **TA-Designer**
3. If necessary: Change language and restart program



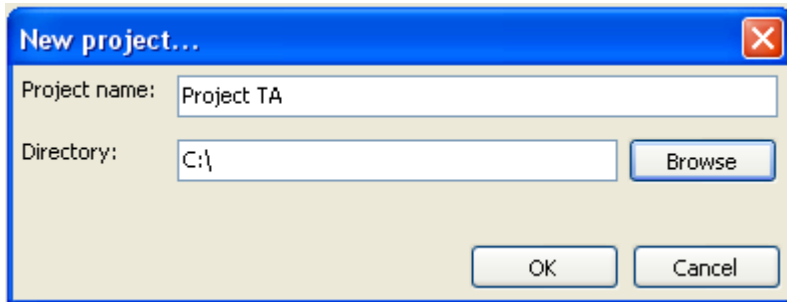
4. Select the menu "File/New project..."



Alternatively: Click the icon 📁⭐ in the toolbar.

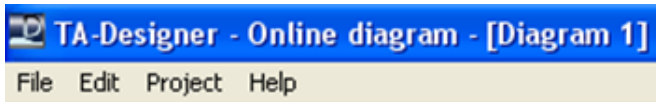
5. Select the project directory and enter the project name.

Example:



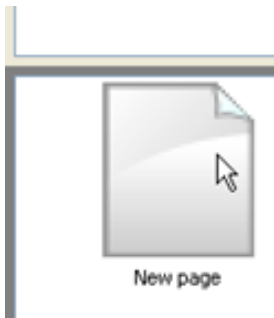
The title bar of the program displays the project names and the currently opened page:

Example:

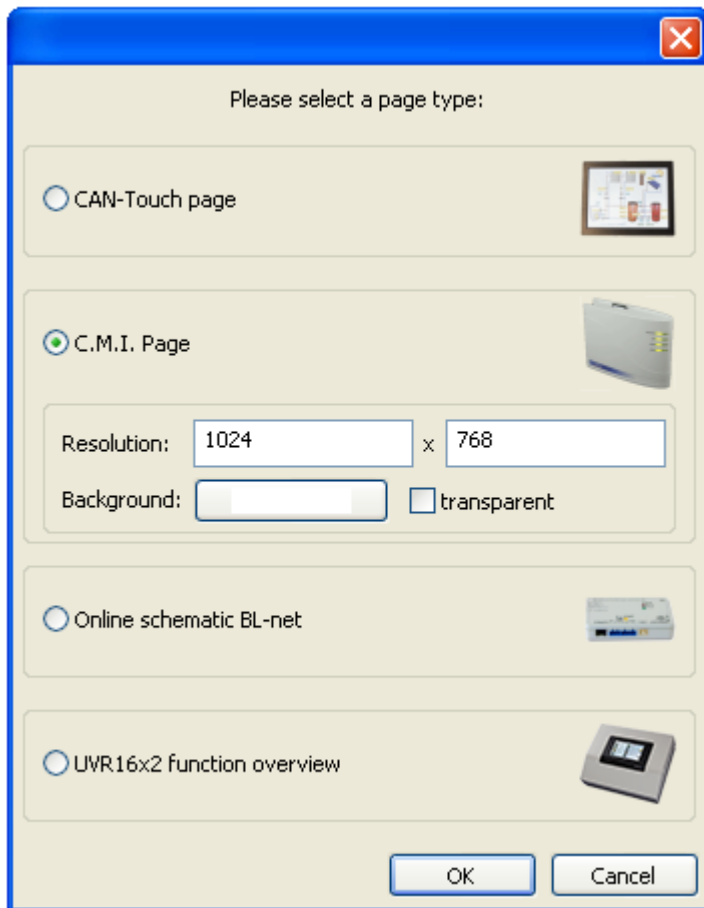


6. The **project settings** for CAN-TOUCH or UVR16x2 online diagram can be specified in the "**File/project settings...**" menu and the **page settings** for the C.M.I. online diagram can be specified in the "**Edit/Settings...**" menu. For more detailed information, see chapter "**Programming/Settings**".

7. Set up a **new page** by double clicking on "**New page**"



The following selection window appears:



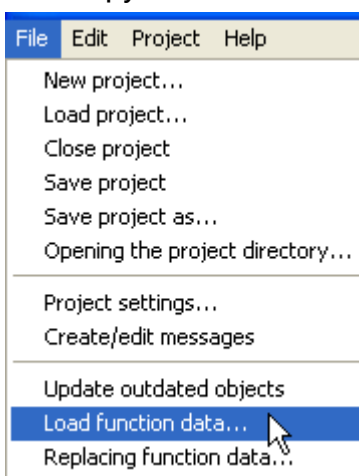
Selection with a double-click on an icon or the font or highlighting the desired device and confirming with **"OK"**.

Resolution and background colour (for the page and the browser background) can be selected for a C.M.I. page.

8. **Optional** (recommended for CAN bus devices): **Selection of the function data** (*.dat - files).

To create the UVR16x2 function overview, only the *.dat files of x2 devices can be loaded. *.dat files of other CAN bus devices cannot be used.

One copy of the selected *.dat file is copied from the **TA-Designer** to the project folder.



Alternatively: Click the icon  in the toolbar.

Warning: If functions are subsequently added to the controller or deleted resulting in a change to the function sequence, the *.dat files must be replaced and the incorrect allocations must be corrected.

9. Loading graphics and images

Online diagram BL-NET:

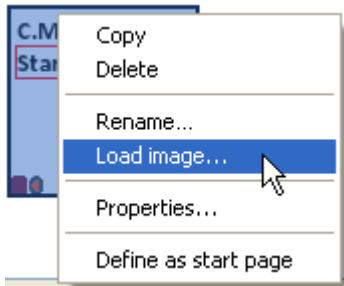
*.gif graphic selection

CAN-Touch, Online diagram C.M.I., Function overview UVR16x2

Simple hydraulics diagrams can be created directly with TA-Designer (see chapter "[Drawing function](#)"). After saving, this diagram is stored in the folder "TA-Designer" of the project folder during the creation of a CAN-Touch page and can also be used for the C.M.I. online schematic. If the diagram is created during the creation of a C.M.I. page, it is then stored as a *.png file in the folder "CMI" of the project folder after the saving.

Graphics or images drawn with other programs can be embedded with "**Load figure**":

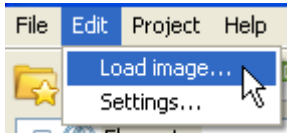
Right-clicking with the mouse on the empty screen symbol of the new page causes a selection field to appear in the bottom bar.




"**Rename...**": The name of the page can be changed and appears as TAB name in the online schematic.

With "**Load image...**" a figure or diagram can be selected to be embedded in the page.

The graphic file must be a *.jpg, *.bmp or *.png file.



The graphic for the selected page can also be selected in the menu "**Edit / Load image...**".

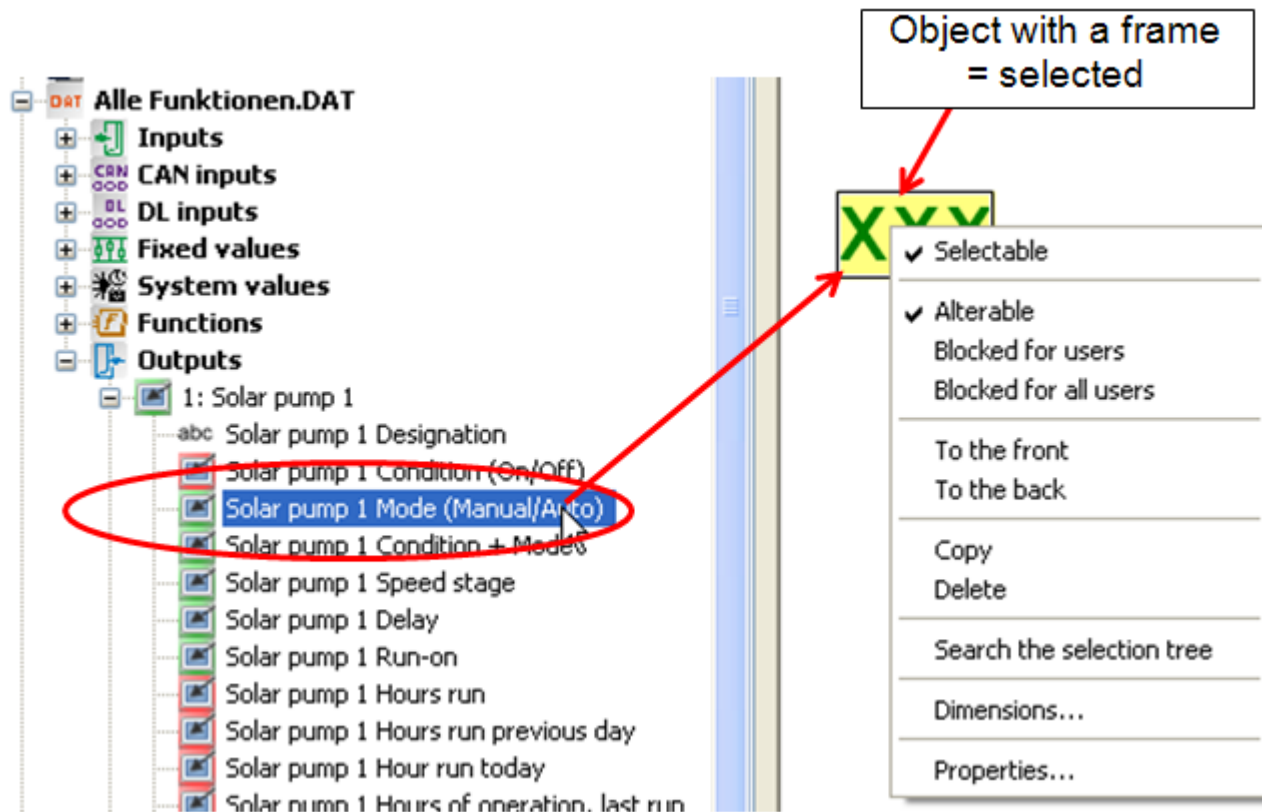
Alternative: Click the icon  in the toolbar.

Through "**Define as start page**", pages programmed later can be defined as start page.

10. Additional images and diagrams can be embedded and their selectability defined as needed (see chapter "**Selectability**")

11. Insert the values, links and texts by drag&drop from the left selection search tree into the page and specify the properties. (See chapter „**Inserting values**“, „[Insertion of links](#)“, "**Insertion of text items**" and "**Selectability**").

Example: Online diagram C.M.I.



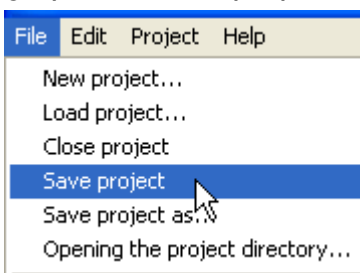
12. CAN-TOUCH: If necessary, create messages (see chapter "[Messages](#)").


13. Testing function

To complete project creation, the compliance of the inserted objects with the loaded function data (*.dat files) can be checked.

Clicking on the  icon in the tool bar starts testing. (see chapter „**Testing function**“).

14. Save the programming under "**File/Save project...**"; if all values and links are inserted in the graphic and the properties have been specified.

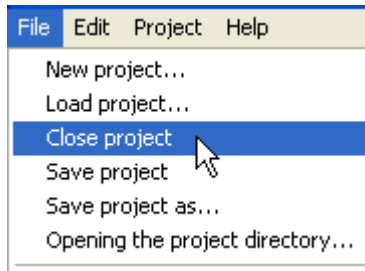


Alternatively: Click the icon  in the toolbar.

The presets in the "**File/General settings...**" menu are applied when saving (see chapter "[Save / Export](#)").

Separate buttons are available on the toolbar to simply export one or more files for the devices without saving the *.xml file (see chapter "[Save / Export](#)"). This has the advantage that the programming can be tested without modifying the *.xml file as well.

15. Close the project



Warning: Before closing the project it must be saved as otherwise all settings will be lost.

Alternatively: Icon in the toolbar :

16. Copy the files

CAN-Touch

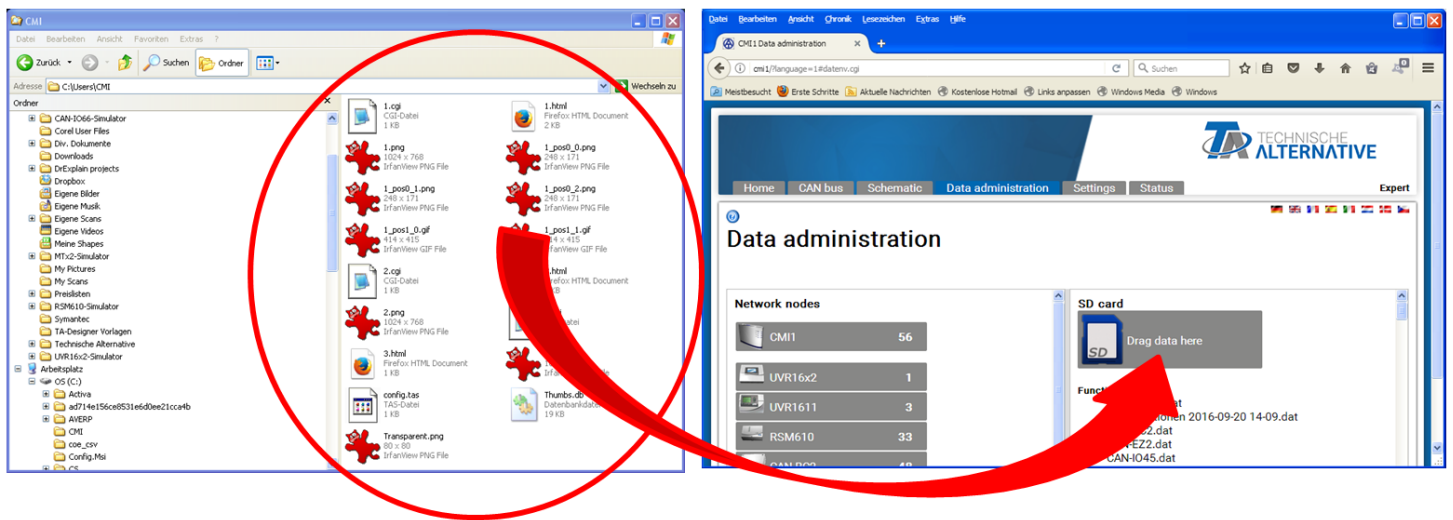
Copy all files in subfolder CAN_TOUCH of the project folder (several *.raw files, one each settings.ct and messages.ct) to the root directory of the SD card for the CAN-TOUCH (no subfolders). The folders **dat**, **font**, **menu**, **prg** and **system** on the SD-card must not be deleted.

Online diagram C.M.I.

Copying the files to folder **CMI** (config.tas and for each page, one *.cgi, *.html and graphic file each) to the SD card of the C.M.I.

There are two ways to do this:

1. Direct copying to the SD card on the PC into folder "**schematic_files**" which may have to be created first.
2. Drag & drop from the Explorer to the SD card symbol in the CMI data administration



The files are pulled to the SD card symbol with drag & drop and thus copied to the SD card.

Function overview UVR16x2

After exporting, the **UVR16x2** folder will contain an *.x2d file. This file is copied to the controller's SD card and then loaded via data administration.

The x2d file cannot be loaded onto the controller via the C.M.I.

Online diagram BL-NET

Transfer of the *.html and *.gif tile from the folder **Onlineschema_BINet** into the BL-NET boot loader using the **Memory Manager** program.

Undo/Redo



Selecting "**Undo**" reverses the previous steps applied to the drawing area.



This action can also be performed by right-clicking **in the drawing area** (context menu) or pressing "**Ctrl + z**".



"**Redo**" restores the steps which were previously undone in the drawing area.



This action can also be performed by right-clicking **in the drawing area** (context menu) or pressing "**Ctrl + y**".

Zooming the view

The page view can be zoomed with 10% increments from 10% to 400% with the help of the **Ctrl key and the scroll wheel** of the mouse.

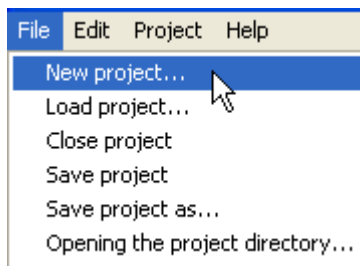
The page view can additionally be zoomed by pulling the wheel or clicking on **+** and **–** on the bottom right:




Clicking this icon switches the view to the maximum size that can be displayed.

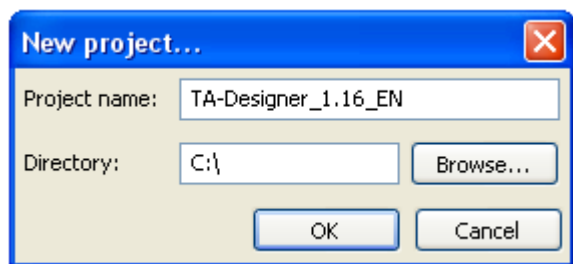
Projects

Before actual programming can begin, a new project must be set up.
Select the menu **"File/New project..."**

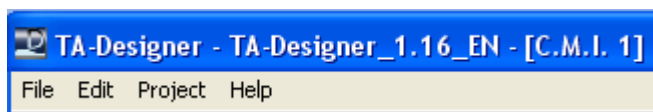


Alternatively: Click the icon  in the toolbar.
Select the project directory and enter the project name.

Example:

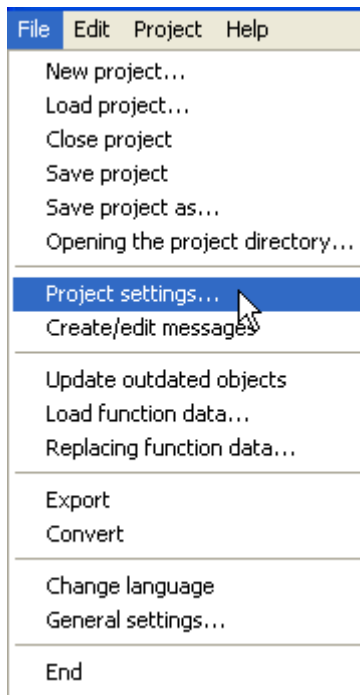


The title bar of the program displays the project names and the currently opened page:
Example:

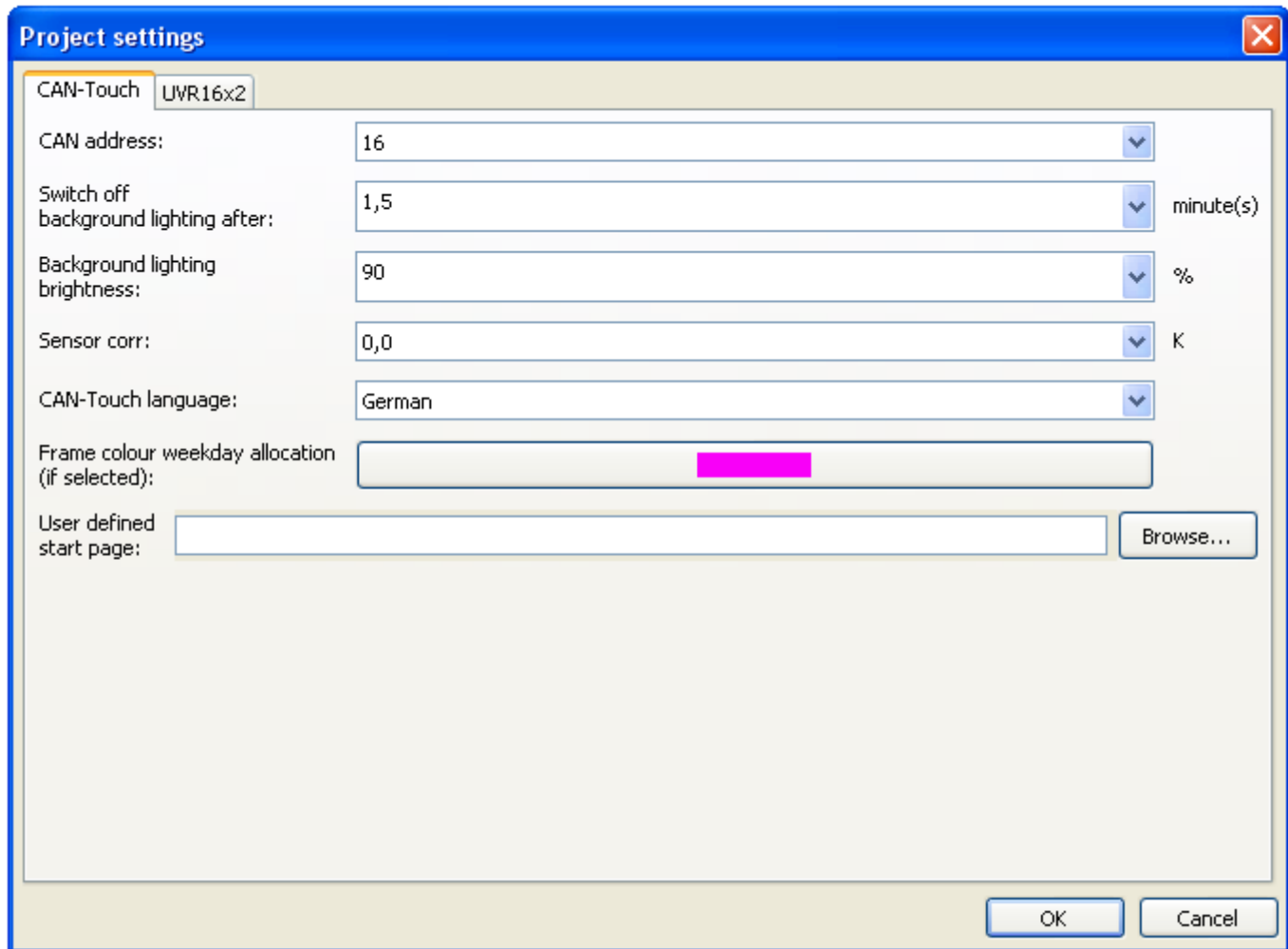


Project settings

The project settings in the **"File/Project settings"** menu apply to the entire open project.



CAN-TOUCH



The screenshot shows a 'Project settings' dialog box with a blue title bar and a close button (X) in the top right corner. The dialog has a tabbed interface with 'CAN-Touch' selected and 'UVR16x2' as the sub-tab. The settings are as follows:

- CAN address:** A dropdown menu showing '16'.
- Switch off background lighting after:** A dropdown menu showing '1,5' with the unit 'minute(s)' to its right.
- Background lighting brightness:** A dropdown menu showing '90' with the unit '%' to its right.
- Sensor corr:** A dropdown menu showing '0,0' with the unit 'K' to its right.
- CAN-Touch language:** A dropdown menu showing 'German'.
- Frame colour weekday allocation (if selected):** A color selection bar currently showing a magenta color.
- User defined start page:** An empty text input field with a 'Browse...' button to its right.

At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

CAN Address:

In this menu option, the CAN node number of the CAN TOUCH can be changed (factory setting: 16).

Warning! The same node number cannot be used twice in the CAN network.

Switch off background lighting after:

Selection of the switch-on period of the background lighting following the last touch of the CAN-TOUCH. Switching back on of the lighting occurs with the next touch of the CAN-TOUCH screen.

Adjustment range: 0.5 to 5 minutes

Factory setting: 1.5 minutes

Background lighting brightness:

Selection of the brightness of the background lighting of the CAN-TOUCH

Adjustment range: 10 -100%

Factory setting: 90%

Sensor correction (for the temperature sensor):

Adjustment range: -85K to +85K

Factory setting: 0.0K

CAN-Touch language:

Selection of the language for the "Settings" link on the CAN-TOUCH. Moreover language-related units are displayed.

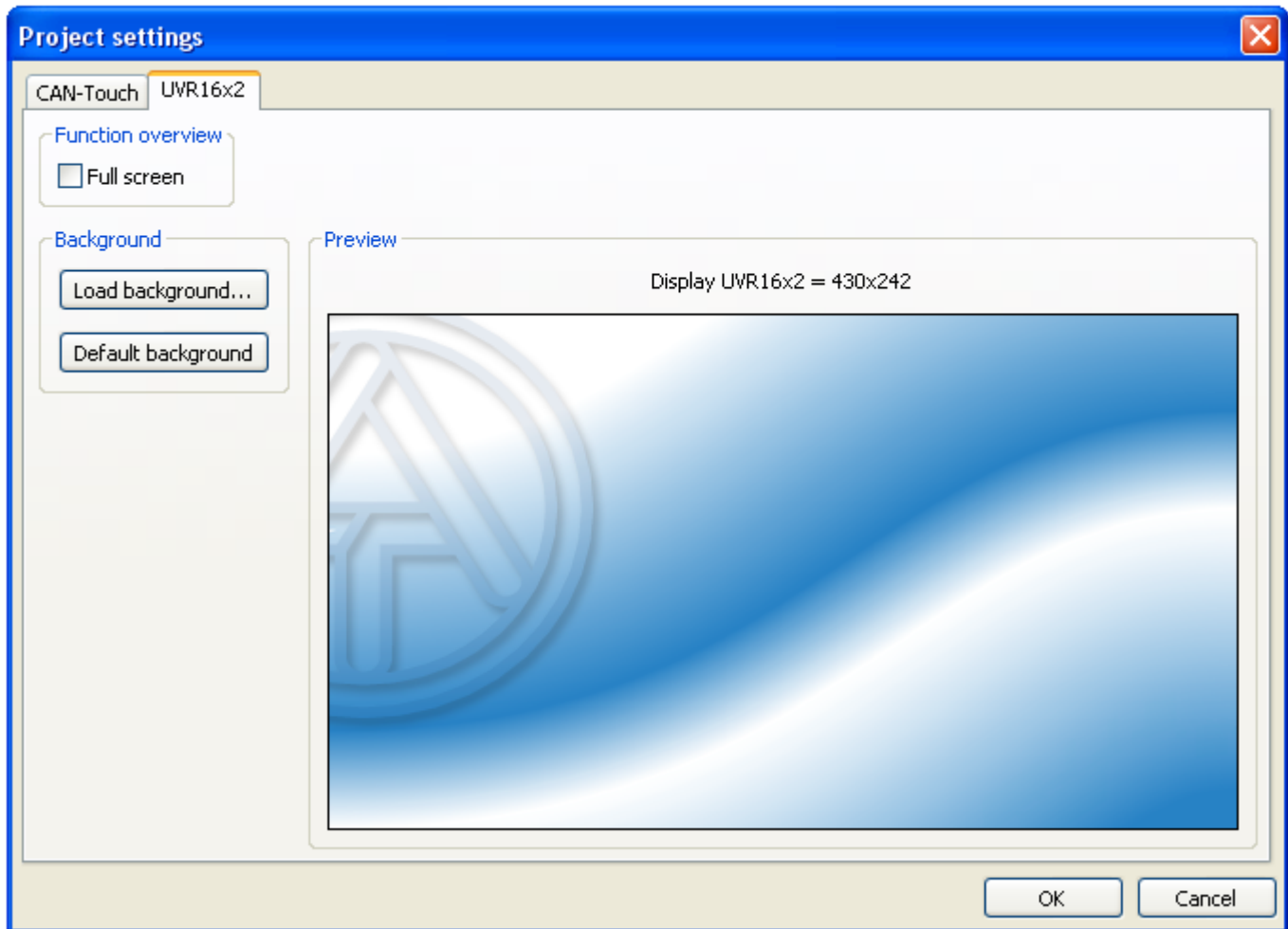
Frame colour weekday assignment

When selecting a weekday, the Days field on the CAN-TOUCH screen is shown in a highlighting frame. The colour of this frame can be selected here.

User defined start page:

Selecting a graphic (*.jpg, *.bmp or *.png – file with the ratio 4: 3) causes this user-defined start page to be displayed for 27 seconds when the CAN-TOUCH boots up, after an initial 3 seconds display of the TA start page. If no graphic is selected, then only the TA start page is seen upon booting.

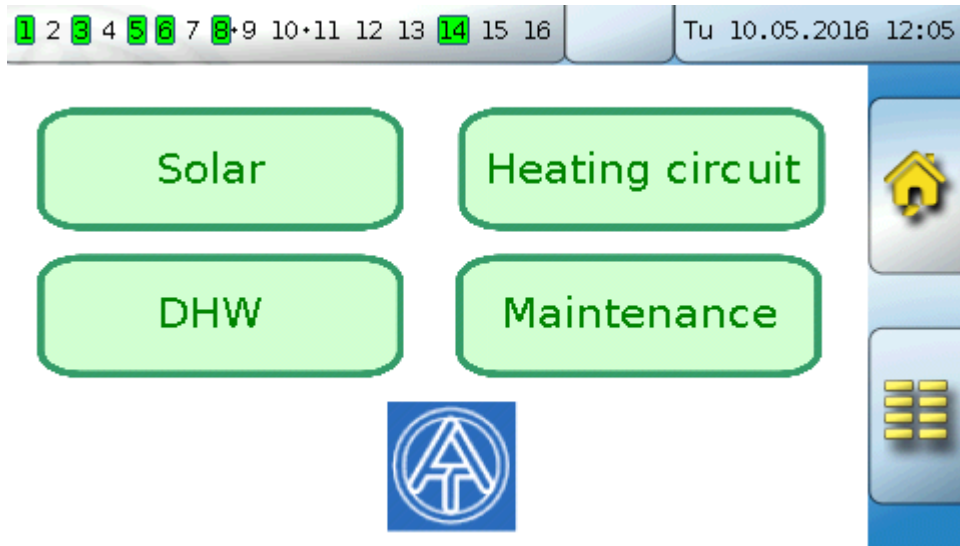
Function overview UVR16x2 and CAN-MTx2



Full screen: If "Full screen" is selected, the upper status bar and the buttons on the side will be hidden on the controller screen.

Examples of start pages:

Standard view – upper status bar and buttons on the side are visible



Full screen view



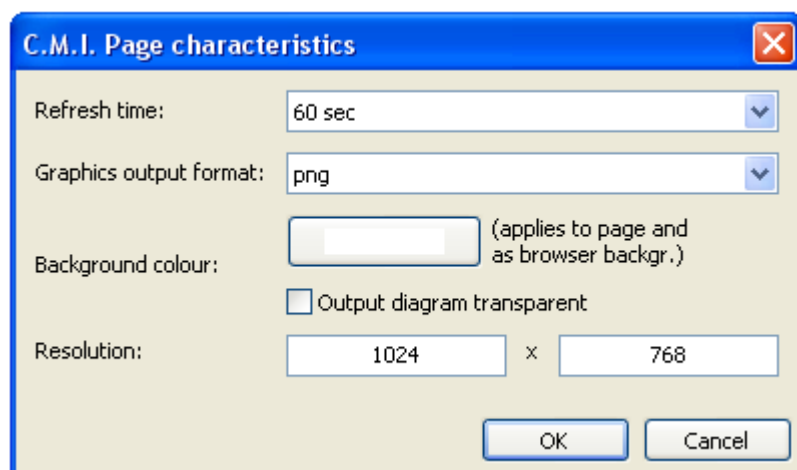
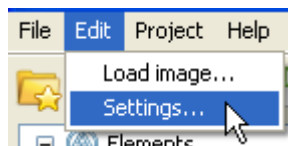
If you press the background image for 3 seconds, 3 buttons appear which serve to access the version information of the controller, the general settings, **and the main menu of the controller.**

Background: The default background image is the blue TA logo. "Load background..." can be used to load a different image (in file format ***.bmp**, ***.gif**, ***.jpg** or ***.png**). For full screen the size is **480x272** (pixels); for the standard display it is **430x242** (pixels). If page dimensions vary, the image will be matched to the size of the display screen, which may cause distortion.

Online diagram settings

The settings selected here apply **only to the page currently displayed at the time**.

Online diagram C.M.I.



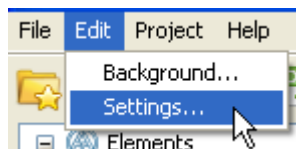
Refresh time: Time interval settings for the updating of the current values (never or adjustable from 30 seconds to 60 minutes). An immediate update is possible in the online schematic by pressing the F5 key on the PC.

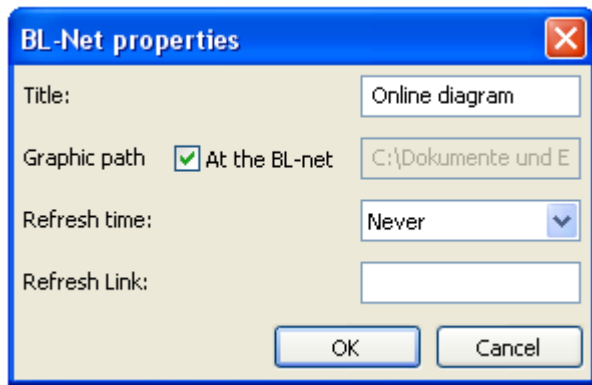
Graphics output format: Setting option for the format of the diagram with which it is to be output or saved to the CMI. *.png graphics require more memory but offer loss-free illustration of the graphics.

Background colour: The colour of the browser and page background can be selected for the page currently being displayed and for the browser.

Resolution: specification of the screen resolution

Online diagram BL-NET





Title: HTML title of the file (visible in the browser title bar)

Graphic path: "At the BL-net" is pre-set, however it is also possible to specify a storage location on a web server

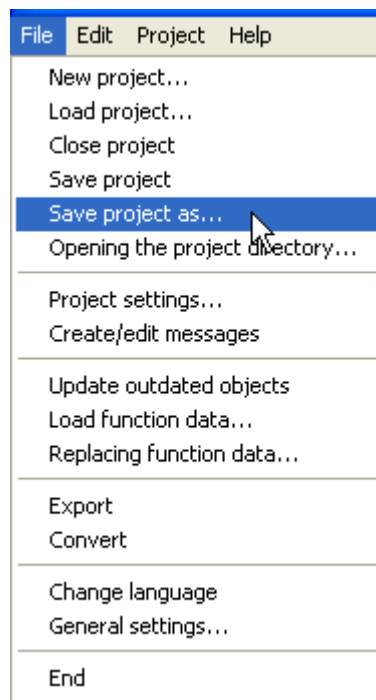
Refresh time: Time interval settings for the updating of the current values (never or adjustable from 30 seconds to 60 minutes)

Refresh Link: Input option for a text for a link in the lower area of the online schematic with which an immediate updating of the values is made possible.

Saving a project with another name

(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

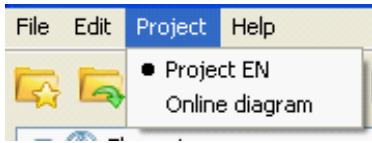
An open project can be saved to any folder with a new name with menu item **"File / Save project as..."**.



Switching between projects

It is possible to simultaneously load several projects with different names. The project to be displayed and edited is selected via the "Project" menu option.

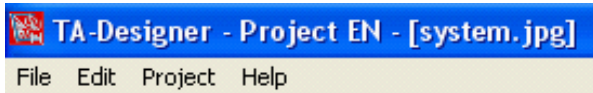
Example:



The project indicated by the bullet point is currently displayed.

The title bar of the program displays the project names and the currently opened page:

Example:

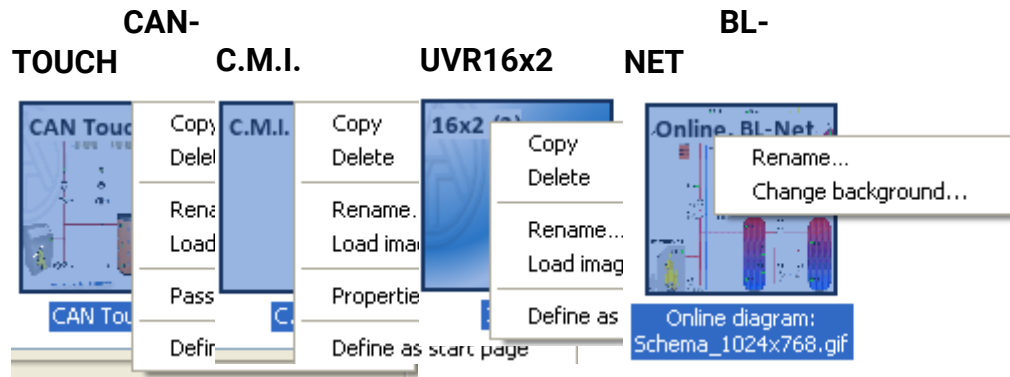


Editing pages

(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

Changing in the programming from one page to another takes place by **double clicking** on one of the pages displayed below.

Right-clicking the page icon opens a selection box.

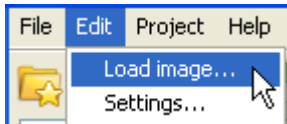


Copy: The page is copied and the copy can be inserted as a new page using "**Paste**" in the page overview.


Delete: The page is deleted if it is not currently being displayed.

"Rename...": The name of the page can be changed and appears as TAB name in the online schematic.

An image can be loaded onto the page with "**Load image...**"



The image for the selected page can also be chosen in the "**Load image...**" menu.

Alternatively: Click the icon  in the toolbar.

CAN-TOUCH: One copy of the selected graphic file is copied from the **TA-Designer** to a new folder *Project name/TA-Designer*.

Password...: Only applies to **CAN-TOUCH** pages – a window opens where the password is entered (see chapter "[Setting a Password \(CAN-TOUCH\)](#)")

Properties...: Only applies to **C.M.I.** pages – the page properties can be changed

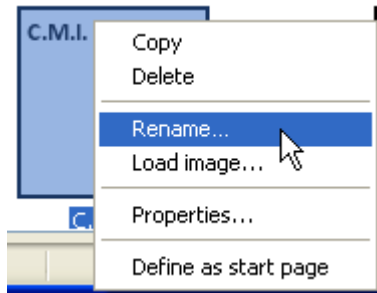
Through "**Define as start page**", pages programmed later can be defined as start page.

Change background...: Only applies to **BL-NET** – the background image can be replaced

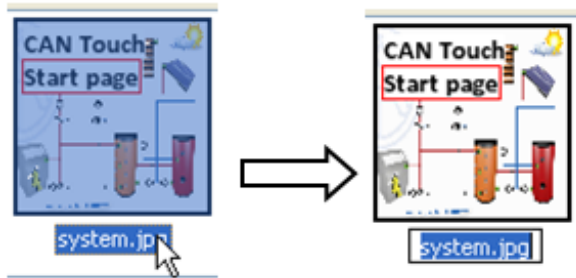
Changing the order

After selecting a page in the page overview, you can use the **Page ↑** and **Page ↓** keys on the keyboard to change the order of the pages.

Rename the page



Right-clicking the page icon opens a selection box.
Select "**Rename...**" to rename the page.



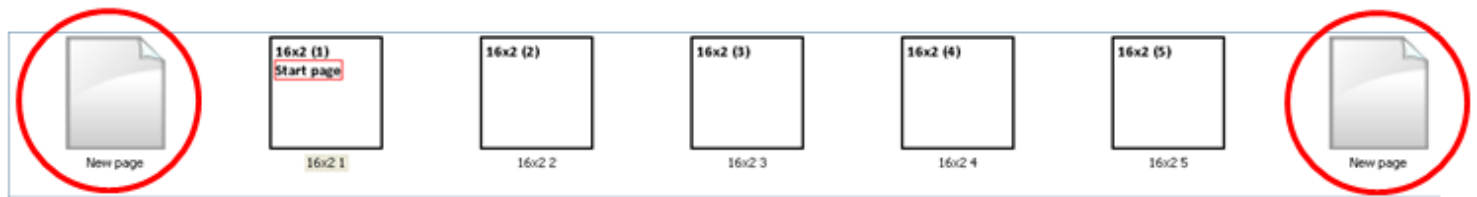
Other renaming options:

- Select the graphic name and left-click the name again.
- Select the graphic name and press F2.

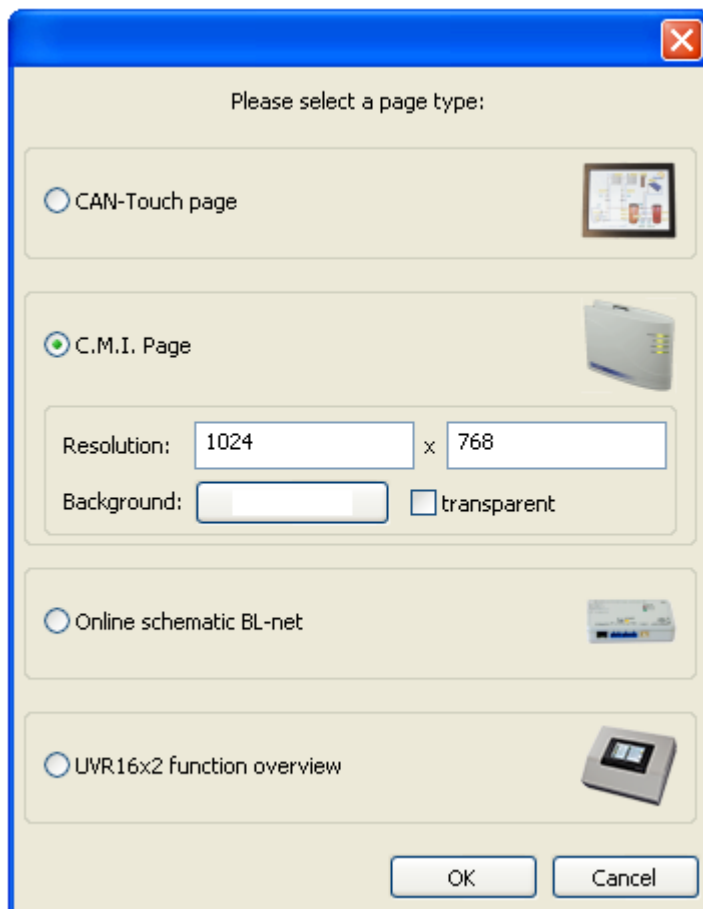
New page

Additional pages which can be selected by links are created by double-clicking the "**New page**" icon at bottom left or at the end of pages already created.

Example:



The following selection window appears:



Selection with a double-click on an icon or the font or highlighting the desired device and confirming with "**OK**".

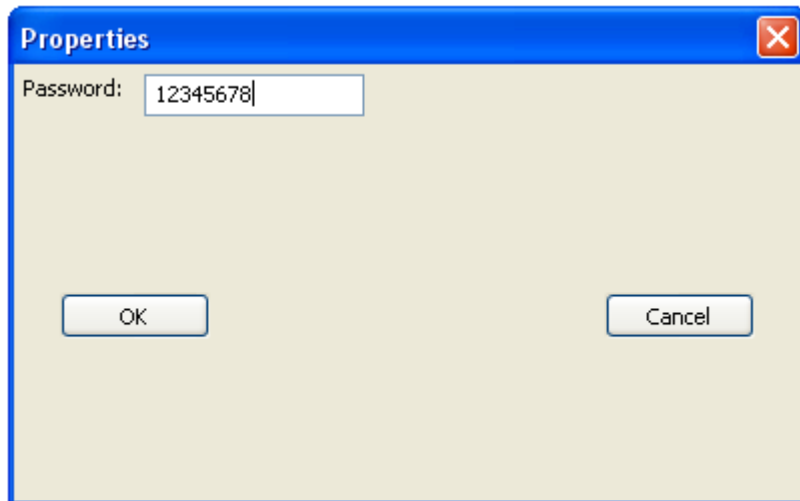
The resolution and background colour (for the page and the browser background) can be selected for a C.M.I. page.

Setting a password (CAN-TOUCH)



A password can be specified for the currently displayed page via the sub-menu "**Edit / Pass-word...**". This page can then only be called up to the touchscreen by entering the password. However this is not logical for the first start page. The password allocation logic should be well thought out as passwords make the quick searching through of sub-menus difficult.

Example:



The password must contain no more than 8 numbers and no letters or special characters.

After calling the page by touching a link field the password entry graphic first appears on the CAN-TOUCH:

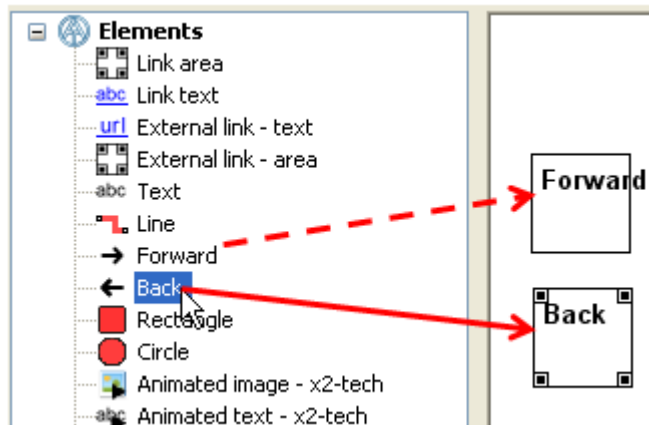


Forward / Back (C.M.I.)

Select "**Back**" to create links that enable navigation to the **last selected** page.

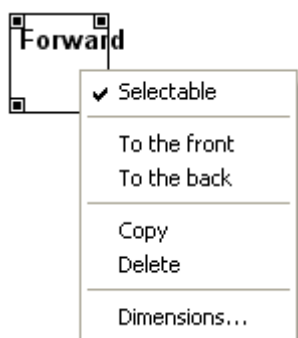
Select "**Forward**" to toggle back to the page, from which previously the screen was switched using "**Back**".

Example:



The link is positioned in the graphic exactly like any other link. The size of the link is specified by dragging the corner points.

Labelling of the link is carried out either by free text input in the **TA-Designer** or using the graphic itself.



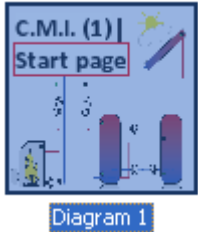
Clicking on a link with the right mouse button calls up a drop-down menu that prompts for selectability, front and back.

Copying of pages

(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

With this method it is possible to copy entire pages and insert them into a project. The copied page is inserted **with the original page type**.

1. Select the page to be copied in the bottom Selection bar by clicking.



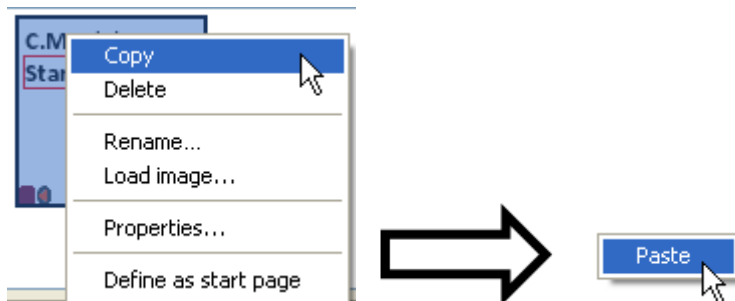
2. Click the "Copy page" icon in the toolbar or use the keyboard shortcut Ctrl + c.



3. Click the "Insert page" icon in the toolbar or use the keyboard shortcut Ctrl + v.



It is also possible to copy by right-clicking a selected page in the page overview at the bottom:



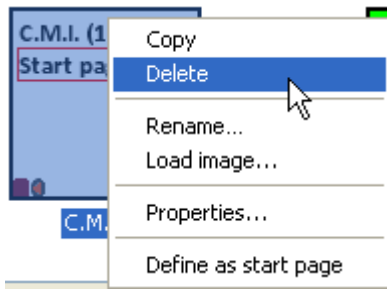
The page is copied and the copy can be inserted as a new page using "**Paste**" in the page overview.

A copied page can also be inserted in another existing project. However the already programmed links are then lost and must be redefined. The *.dat file of the original project must be identical with the *.dat file of the target project.

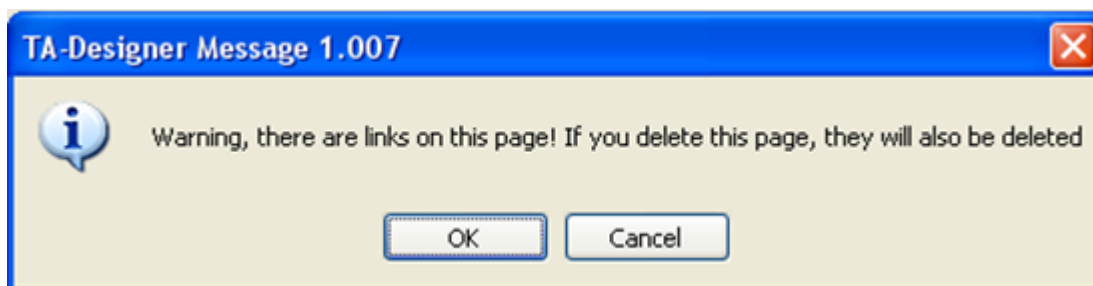
CAN-TOUCH and UVR16x2 function overview: Hence it is for example possible to create an identical page with password protection for service purposes, which can only be accessed by the password owner and which may contain sensitive adjustable values.

Deleting a page

A page can be deleted by **selecting** it (single click) and pressing the "**Delete**" key on the PC keyboard **from another page** or via the context menu in the page overview at the bottom.



If the page to be deleted contains links that originate from other pages, a warning message will appear:

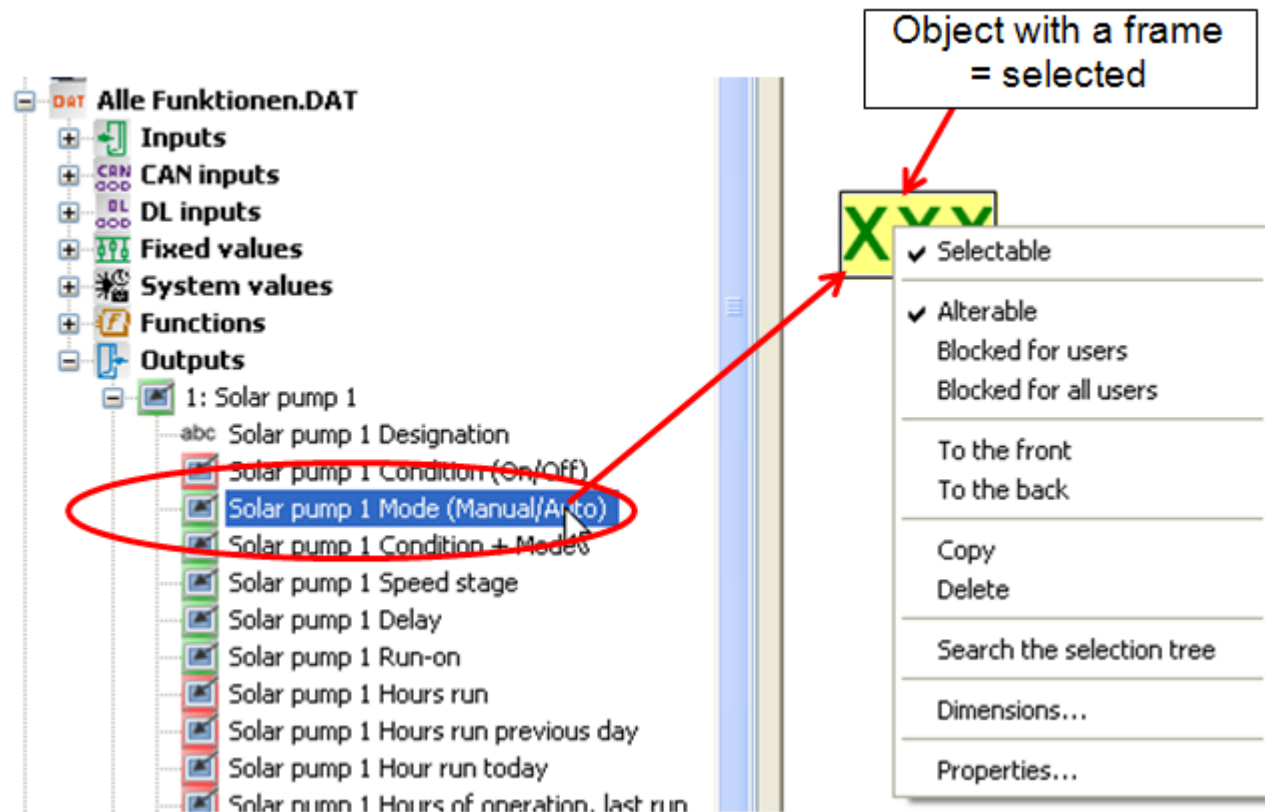


Editing objects

Inserting and defining dimensions


The objects (values, links, texts, drawing objects or icons) are dragged from the selection tree on the left to the relevant page using **drag & drop** (= moving the mouse whilst holding down the left mouse button). The properties are then specified.

Example: A value is dragged from the function data of a controller to the drawing area.



A selected object can be freely moved by holding down the left mouse button or by using the cursor keys on the keyboard.

Positioning

A click on the symbol  in the tool bar inserts a 10 pixel grid (visibly only with CAN-TOUCH, Online diagram C.M.I. and BL-NET).

The icon is thus highlighted in white: 

The grid can be switched off by clicking on the icon one more time.

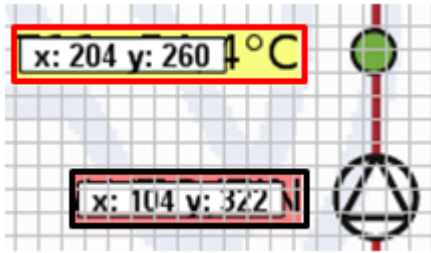
The grid can also be displayed temporarily with a click inside the diagram and by pressing and holding the **Alt key** on the keyboard.

The positions of all inserted objects are indicated with x/y coordinates.

The x-axis is horizontal, the y-axis vertical, the respective zero points are left or top.

The coordinates given for a value are based on the alignment (left aligned, right aligned or centred). For left-aligned values the top-left corner applies, for right-aligned values it is the bottom-right corner. For centred values, the coordinates of the middle of the top line are displayed.

Example:



Once the object has been selected, the markup colour (frame colour) turns **red**.

If an object has not been selected, the frame is displayed in **black**.

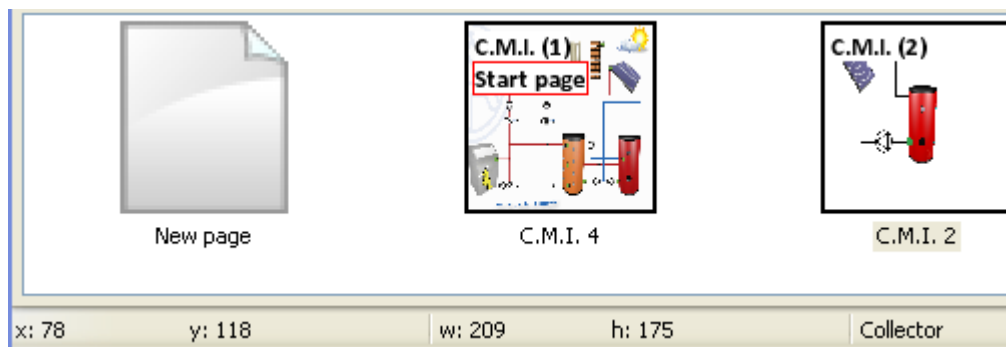
With a superimposed grid, the mouse can be used to move the **selected** object in 5-pixel steps within the grid.

The cursor keys on the keyboard can be used with a superimposed grid to move the object in single pixel steps, and as a result, position it with absolute accuracy.

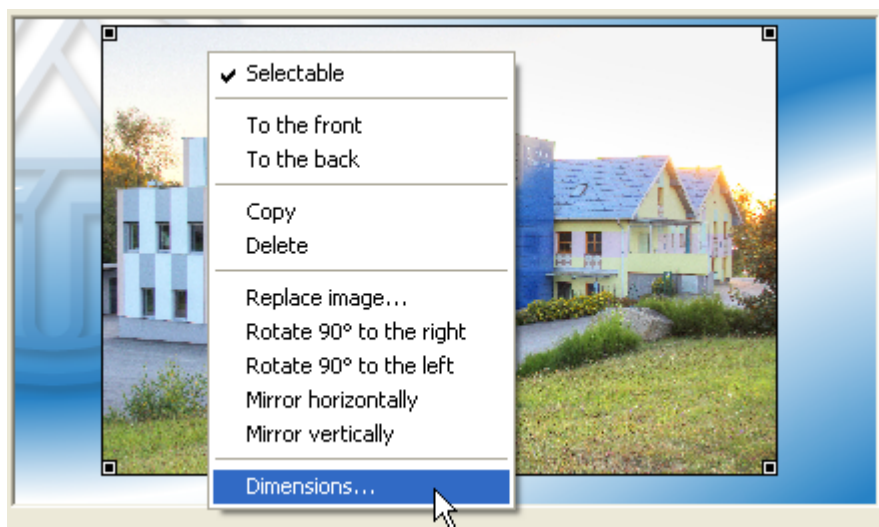
The coordinates (x/y) of **selected** objects are displayed in the bottom margin. For graphic objects and links, the size is also given (w = width, h = height).

The description is shown next to this.

Example: Graphic object "Collector"

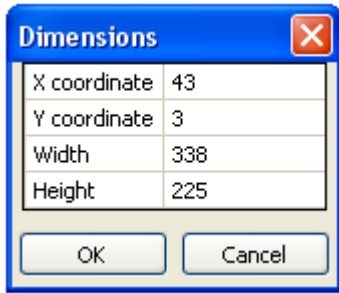


Dimensions



Right-clicking the object or selecting it and pressing **Ctrl+Enter** opens the context menu "**Dimensions...**". Here the object position (x/y coordinates) and dimensions (width/height) can be changed.

Example:

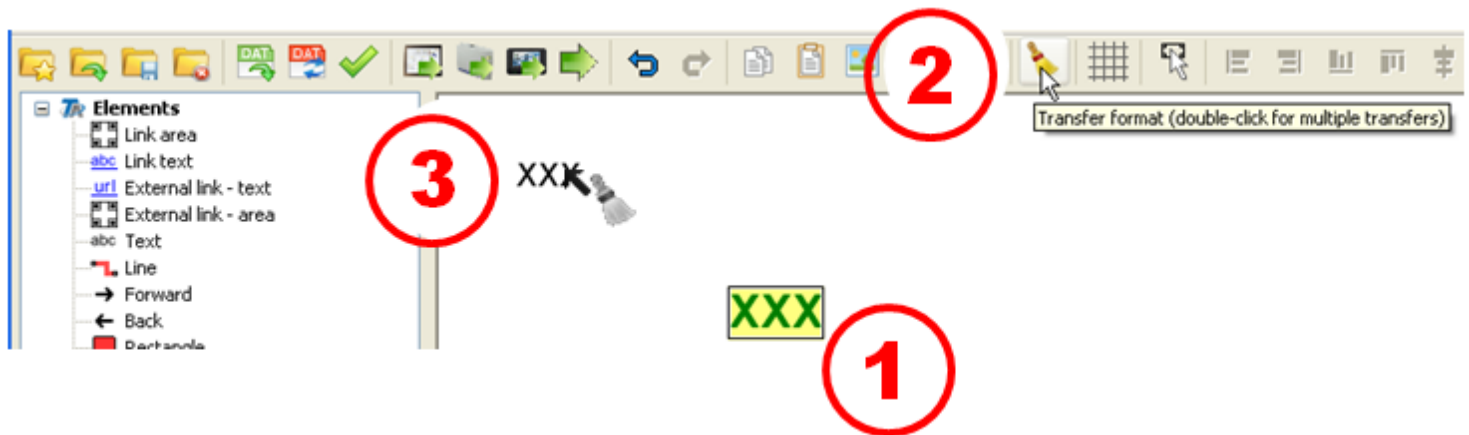
A screenshot of a 'Dimensions' dialog box. The dialog has a blue title bar with the text 'Dimensions' and a red close button. It contains a table with four rows: 'X coordinate' with value '43', 'Y coordinate' with value '3', 'Width' with value '338', and 'Height' with value '225'. At the bottom are 'OK' and 'Cancel' buttons.

Dimensions	
X coordinate	43
Y coordinate	3
Width	338
Height	225

OK Cancel


The zero coordinates of the page are at the top left.

Transfer format




With "**Transfer format**" it is possible to copy the formatting from a selected object and apply it to one or more others:


1. Select the object with the required formatting

2. A single click on the  icon in the toolbar begins the transfer of the formatting to **one** other object. Double clicking this icon enables the formatting to be transferred to **several** other objects. When the

function is active, the icon is displayed on a white background: 

3. The shape of the cursor changes to  in the graphic. Clicking on an object applies the formatting of the object initially selected.

If the format painter was selected for several objects, further objects can now be formatted.

The function is terminated by clicking the  icon or pressing the Esc key.

Selectability

(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

Inserted and selected objects can be made selectable or non-selectable in a separate selection window. These objects can be embedded images, graphics, lines, grouped objects, values, links of any kind or texts.

If embedded objects are overlapping, then the objects embedded first will be overlapped by the objects embedded later.

Example:

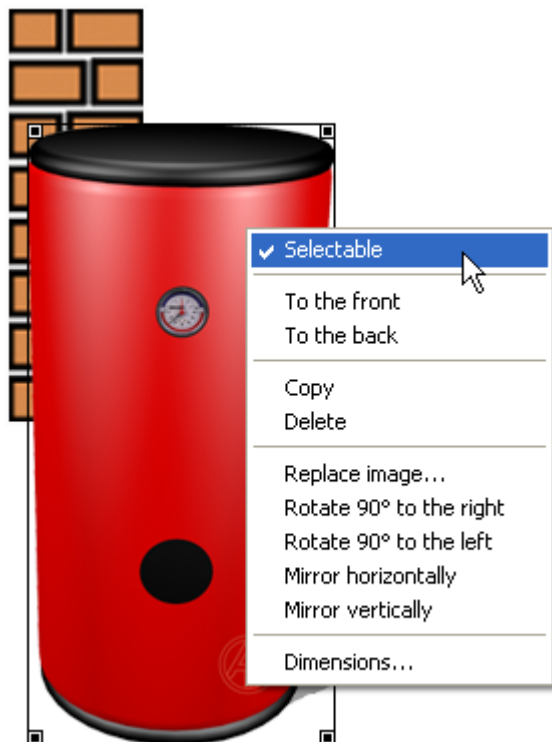


The wall icon was the first object to be pulled into the page, then the storage image and the burner icon last.

If selectability is not changed, all objects can be still be selected and edited or moved.

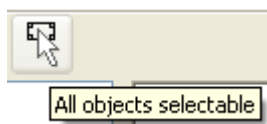


If a selectable object is selected with a mouse click, it is moved the front for editing. Selection is indicated with a frame with corner points.



A right click calls up a drop-down menu. If the checkmark for "**selectable**" is **deleted**, then the object is fixed in the page and can no longer be selected or edited. The predefined level (in the pulling-in sequence) remains.

All objects selectable



Clicking on the icon in the toolbar makes **all objects** in the page selectable.

As long as this function is active, **all objects** can be highlighted (selected) and edited. The active function



is indicated by a highlighting of the icon:

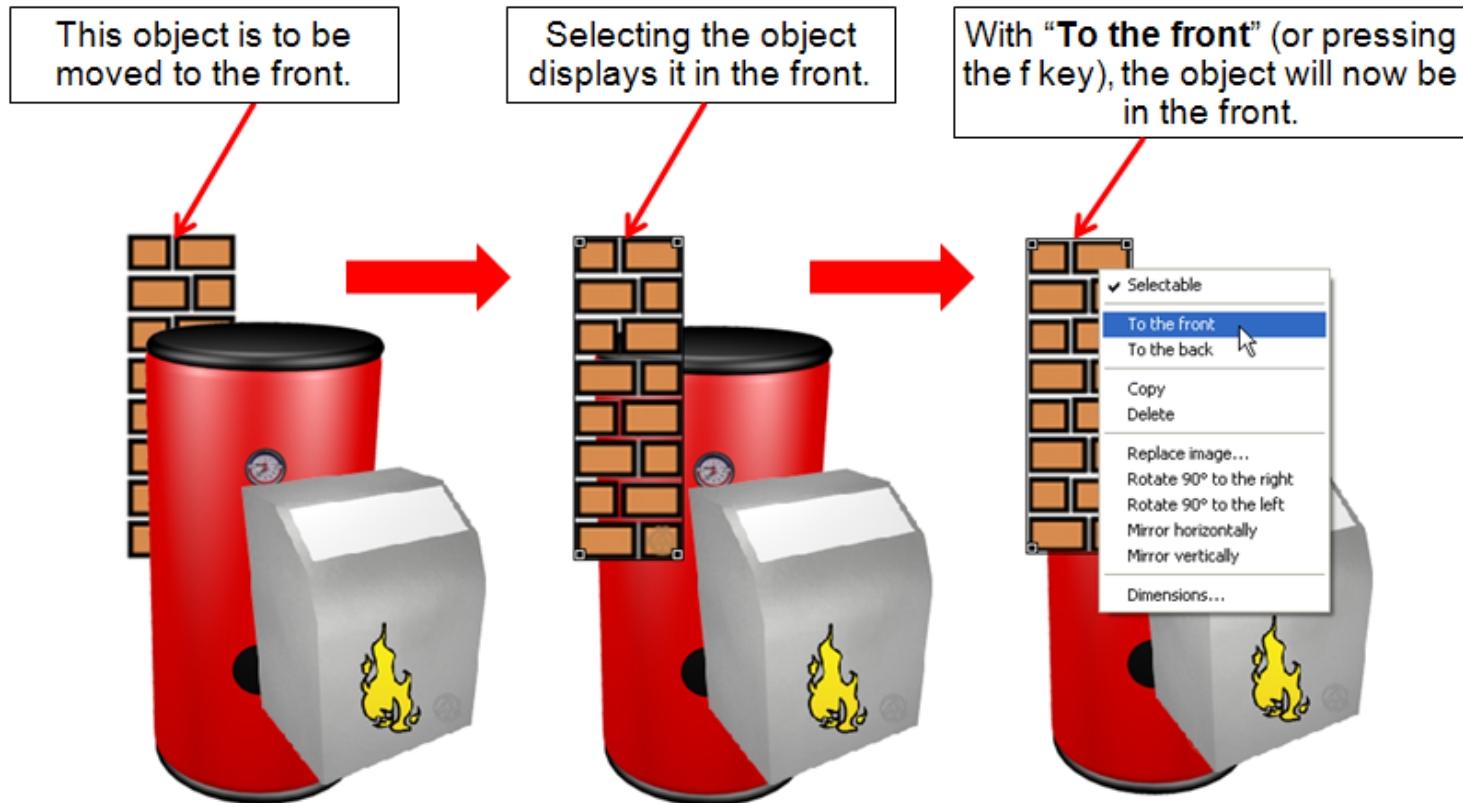
If there are several objects on the page that overlap or cover each other, then only the objects pulled in last will be displayed on the top level and therefore cover the previously placed objects.

Front / back

A selected object can be moved to the first level with "**To the front**" or by pressing the **f** key. It will then be displayed as if it had just been pulled into the page.

Likewise, a selected object can be moved to the last level with "**To the back**" or by pressing the **b** key. It will then be displayed as if it had been the first object placed on the page.

Example:



Changing the size

If a selectable object is selected with a left mouse click, it is displayed in the front for editing. Selection is indicated with a frame with corner points. The object size can be modified by dragging the corner points. If the Ctrl key is pressed simultaneously, then the size is changed with **locked** aspect ratio, i.e. undistorted.



The size of the selected object can also be changed by pressing **Ctrl + arrow keys** ← → ↑ ↓ .

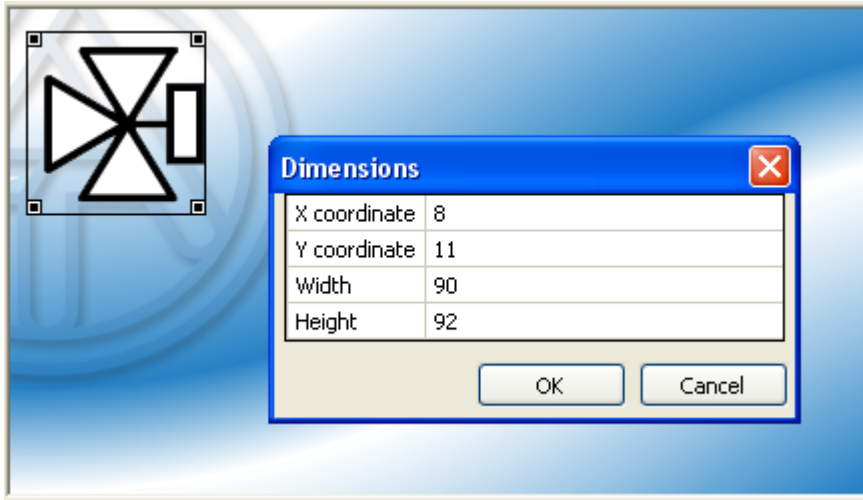
The keyboard shortcut **Ctrl+Enter** opens the "**Dimensions**" window.

In this window, you can change the positioning (X/Y coordinates) and the width and height of a selected object or group.

This allows you, for example, to adjust an image to match the full screen mode by changing its width and height.

Example:

The zero coordinates of the object are at the top left.



Rotating and flipping



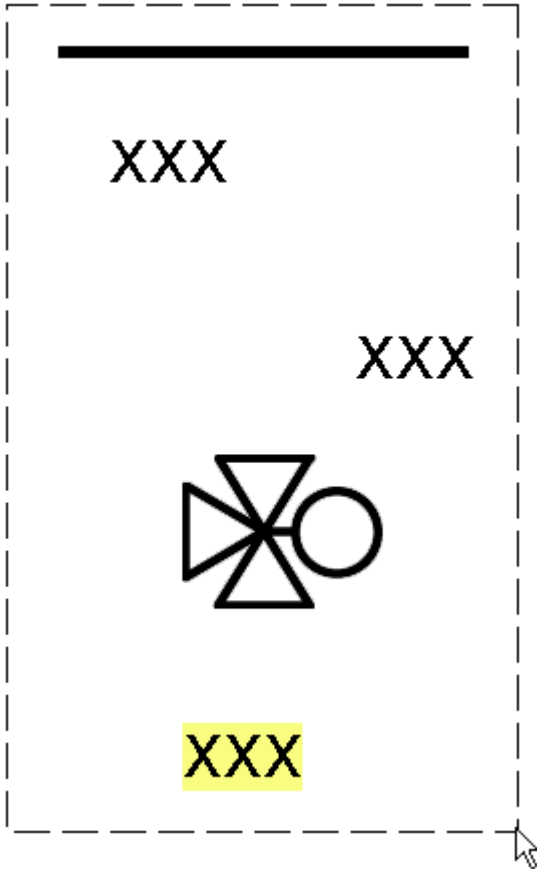
Right-clicking an object opens a context menu. Selection of the desired action rotates or flips the object.

Group

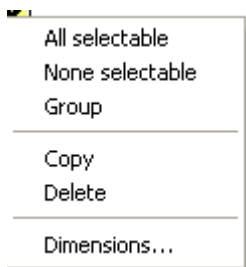
(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

Pulling a frame across a group of **selectable** objects with pressed **left** mouse button makes it possible to **group** these objects and/or make them selectable or non-selectable.

Example:



In the example, 4 objects (1 line, 2 values, 1 icon) were enclosed with a frame.



The subsequent **right** click makes a selection field with the required actions visible.

Individual objects can additionally be selected with a **left** mouse click and simultaneously pressed **Ctrl key**. This makes it possible to select and then group and/or jointly make selectable or non-selectable even objects that are not connected in the page.

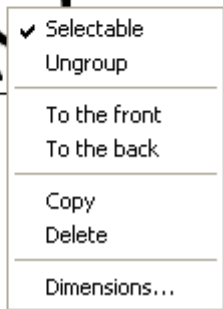
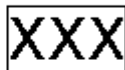
A left mouse click in the page and subsequently pressing the buttons **Ctrl + a** selects **all** selectable objects the page.

Editing a group of objects

A set of objects that is already grouped will behave like a single object. It can be moved, put in the front or in the back or its selectability be changed.

This requires the group to be selectable (see chapter "**Selectability**"). A **random** object of the group is selected with the **left** mouse button. This selects **all** objects of the group. A **right** mouse click makes a selection field visible and the group can be ungrouped or the selectability of the group be changed.

Example:



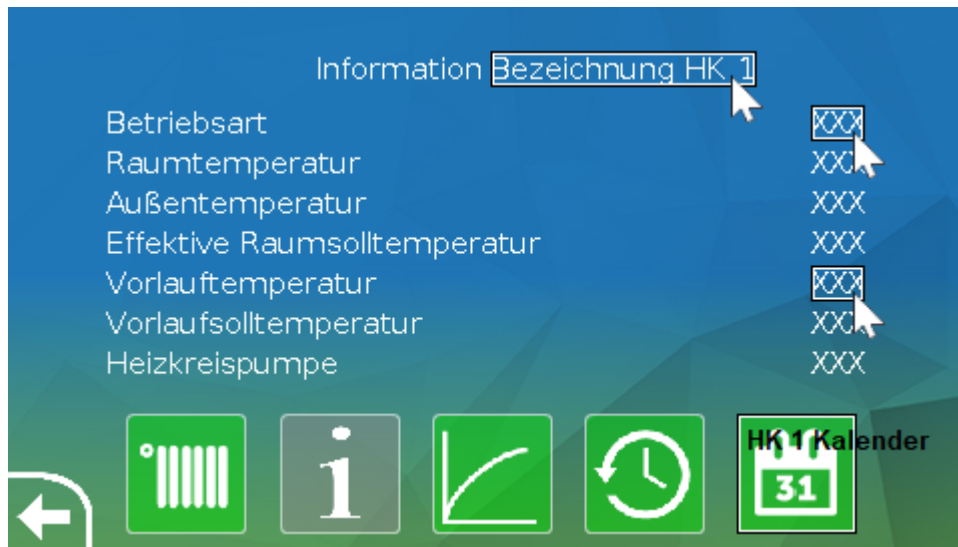
Using "**To the front**" or "**To the back**" or by pressing **f** or **b**, the selected group is brought forward or sent backward respectively.

Select

There are three ways to select multiple objects.

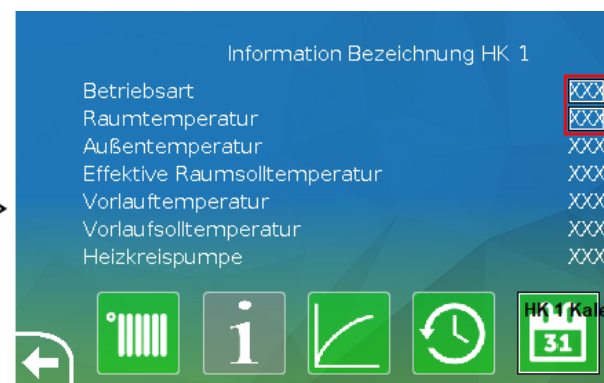
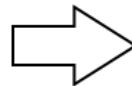
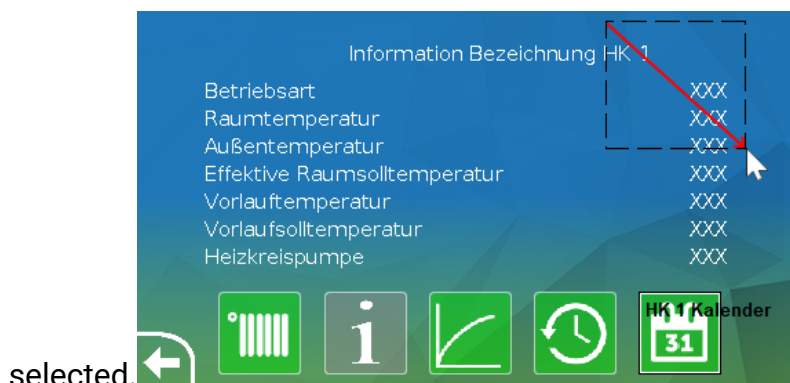
Ctrl+click

If you hold down the Ctrl key, a left click will select the chosen object in addition to the objects that have already been selected.



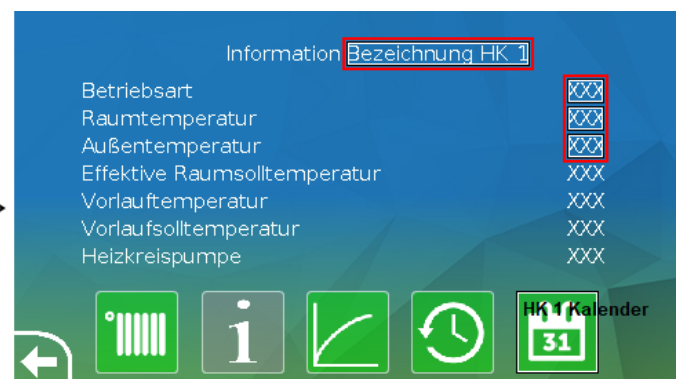
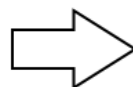
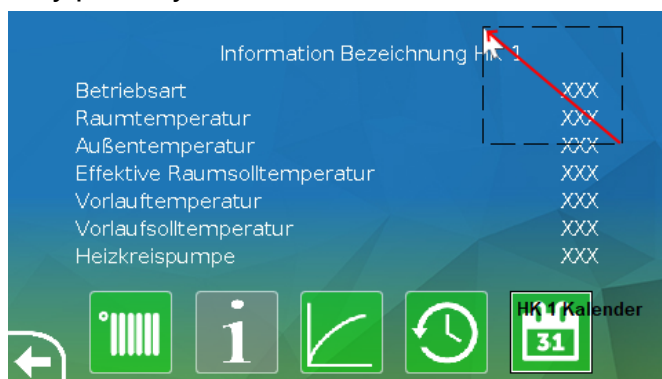
Draw a box (left to right)

If a box is drawn **from left to right** (left mouse key; up/down not relevant), all objects that are entirely within the box are selected.



Draw a box (right to left)

If a box is drawn **from right to left** (left mouse key; up/down not relevant), all objects that are entirely or only partially within the box are selected.



Aligning objects

The toolbar contains icons that can be used to align **highlighted** objects in accordance with various criteria.



- Centre highlighted objects **horizontally**
- Centre highlighted objects **vertically**
- Align highlighted objects with the **top** margin
- Align highlighted objects with the **bottom** margin
- Align highlighted objects with the **right-hand** margin
- Align highlighted objects with the **left-hand** margin

First **highlight** the objects that you wish to align.

You can do this by dragging a **frame** around the objects or by highlighting them individually with the **left** mouse key whilst holding down the **Ctrl** key.

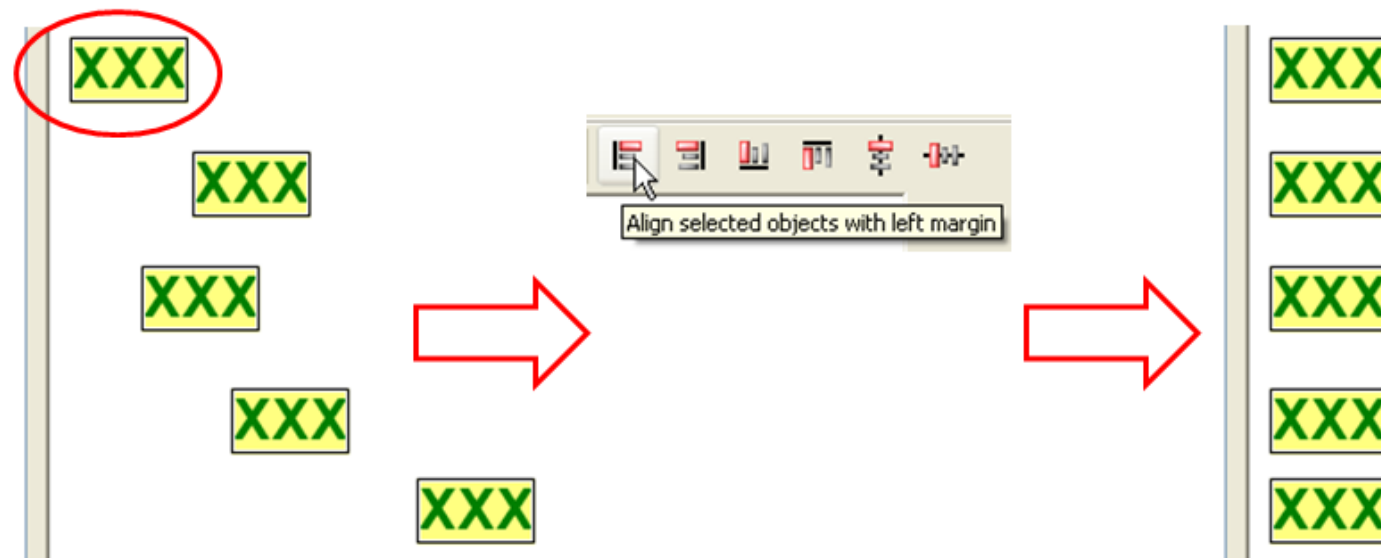
Then click on the required icon.



Aligning objects with the left or right-hand margin

The alignment is based on the object located the furthest to the left or right.

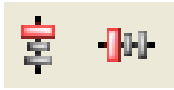
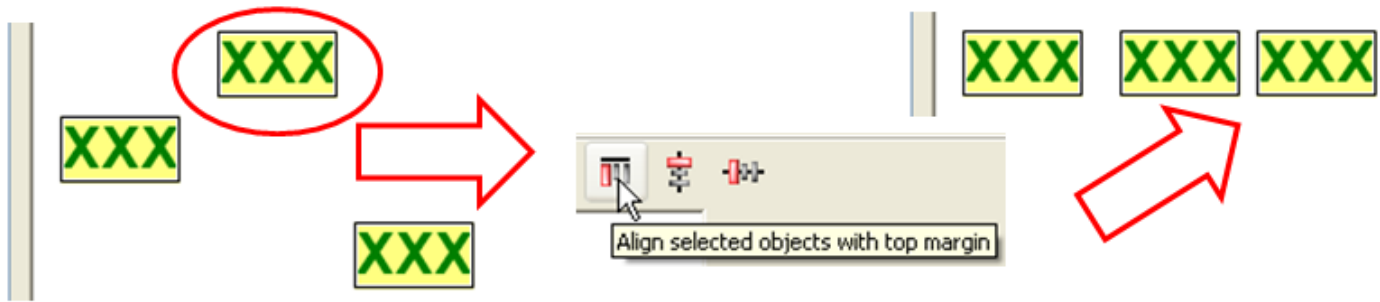
Example: Alignment with the left-hand margin



Aligning objects with the top or bottom margin

The alignment is based on the object located the furthest towards the top or bottom.

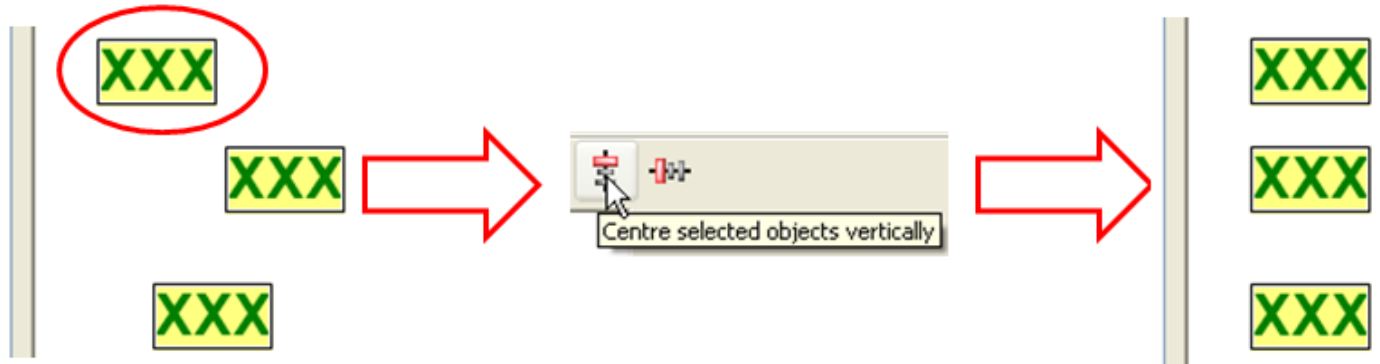
Example: Alignment with the top margin



Centring objects vertically or horizontally

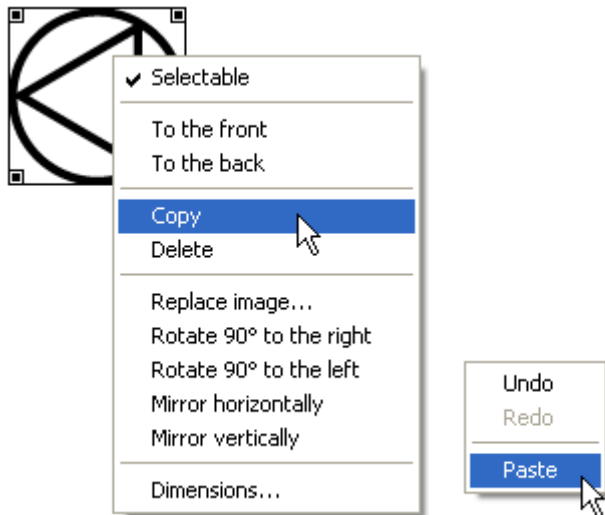
Vertical and horizontal centring is always based on the uppermost object.

Example: Vertical centring



Copying elements and groups of objects

AN-TOUCH, Online diagram C.M.I., Function overview UVR16x2



Right-clicking an object opens a selection menu. Elements and element groups can be inserted on the same page, on another page of the same project or on a page of a different project using "**Copy**" followed by "**Paste**".

Selected elements or element groups can also be copied by pressing **Ctrl + c** and pasted by pressing **Ctrl + v**.

If inserted in the same page, the inserted object will be embedded right next to the copied object.

Example:



Entire element groups, which were selected together using a single frame, are also copied in the same way.

Copying entire page contents

The keystroke combination **Ctrl + a** selects **all selectable** elements on the page.

These objects can then be **inserted** onto another page via the context menu "**Copy**" and then "**Paste**" (or **Ctrl + c** and **Ctrl + v**).

Copying and pasting from a **CAN-TOUCH** or **UVR16x2** page to a **C.M.I** page or from a **C.M.I** page to a **CAN-TOUCH** page is **entirely** possible.

Copying and embedding from a **CAN-TOUCH** or C.M.I. page into a **UVR16x2** page is possible, but will not deliver satisfactory results for the UVR16x2 because of the changed aspect ratio.


This makes it possible to convert a finished CAN-TOUCH or UVR16x2 page into a page for an online schematic C.M.I.. It must be noted that the font **DejaVuSans** should be installed on the PC because the fonts will otherwise be changed on the online schematic C.M.I. It can be downloaded from our home page at www.ta.co.at.

We do not recommend reversing the method because only graphical objects can be copied this way.

Online diagram BL-NET

Copying and pasting works by selecting text and pressing **Ctrl + c** and **Ctrl + v**. However, this is only possible within a single page or between two BL-NET pages.

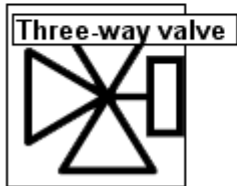
Display of the element descriptions

After clicking in the graphic field, pressing and holding the keyboard Shift key  displays the element descriptions.

Example: (cut-out)

1611E0WE.dat: HTG CIRC. 1 Set flow temperature

1611E0WE.dat: Solar Pump 1 Mode (Manual/Auto)



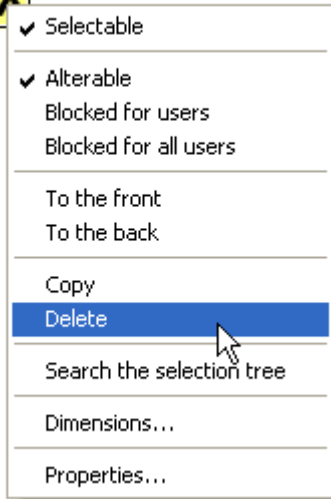
Adjustable values are shown in black, non-adjustable values in red.

Deleting objects

Objects can be deleted by selecting them and pressing the "**Delete**" key on the PC keyboard.

Right-clicking an object opens a context menu. The selected object can also be deleted by clicking "**Delete**".

XXX



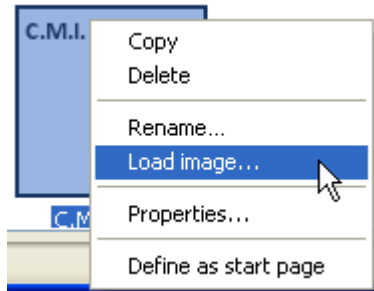
Images

Loading and editing

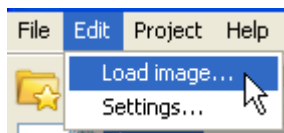
(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

Load image


With “Load image...” a background graphic can e.g. be loaded.



Images are loaded (inserted onto the page) by right-clicking the page icon in the page overview at the bottom.



Images can also be loaded by selecting the submenu “Load image...” take place.

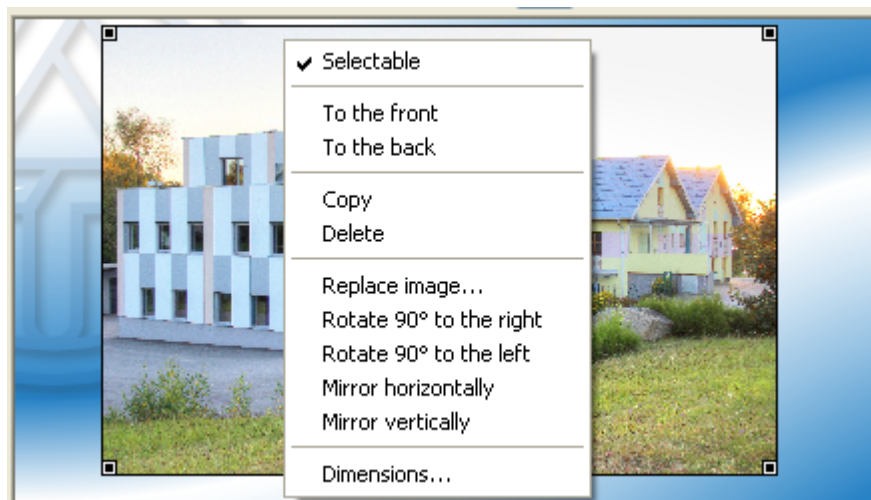
Alternative: Click the icon  in the toolbar.

The files for **CAN-TOUCH** must be *.jpg, *.bmp or *.png files. A full background image must have an aspect ratio of 4:3 (1024:768 pixels).

The files for the **C.M.I. online diagram** and the **UVR16x2 function overview** must be provided in the file formats *.bmp, *.gif, *.jpg or *.png.

UVR16x2 function overview: Objects that are larger than the page are adjusted to fit the page size. The size of the full screen display is 480:272 (pixels); the size of the standard display is 430:242 (pixels).

Example:



The image properties can then be edited (see chapter "[Editing objects](#)").

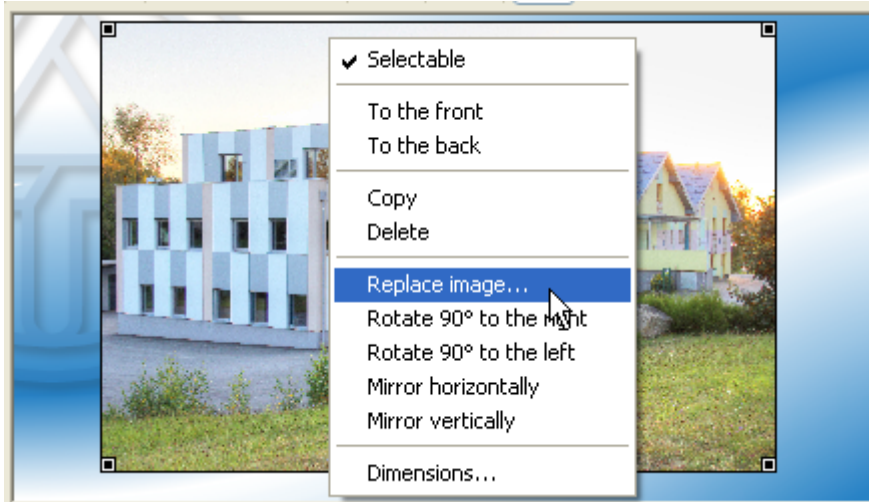
Replacing an image

This function enables one image to be replaced with another. The new image is adjusted to match the size of the original image. The image size and position can then be changed.

If a non-selectable background graphic is to be replaced, the graphic must first be made selectable (see chapter "**Selectability**").

After selecting with the right mouse button, a drop-down menu is visible in which the image to replace the selected image one can be selected.

Example:



The new image is loaded and can then be edited.

The predefined level (in the pulling-in sequence) remains.

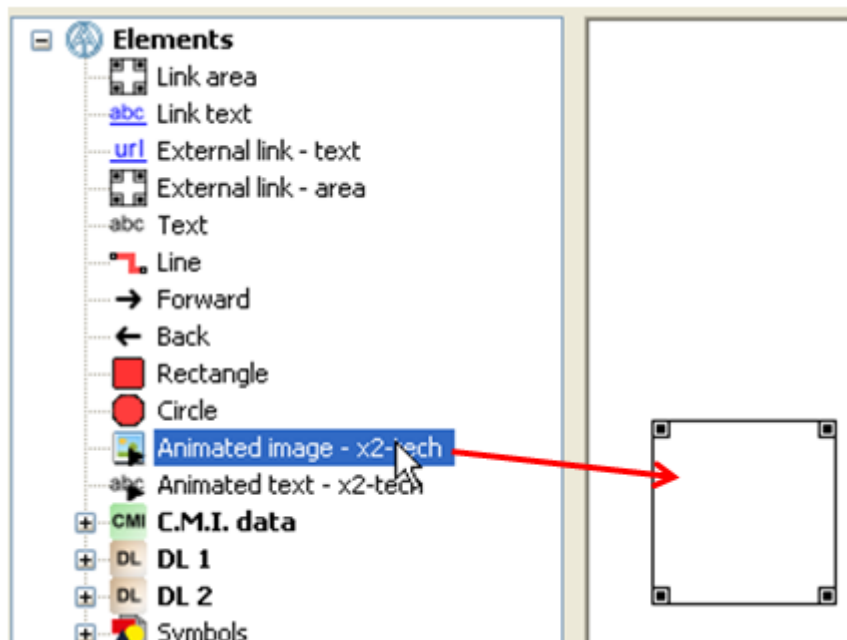
Animated images [C.M.I.]

This function makes it possible to display various images when the statuses of values change (digital or analogue values). The status of the value is indicated by a specific image.

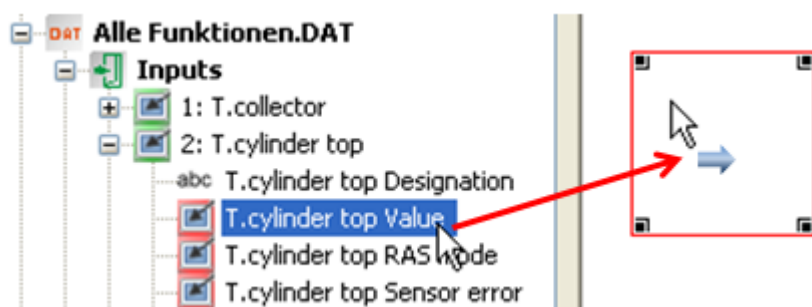
Animated images can only be linked with values from devices with x2 technology.

Link to a value:

1. Position the animated image in the drawing area and adjust its size by pulling the corner points or by using the keyboard shortcut **Ctrl+ Enter**.

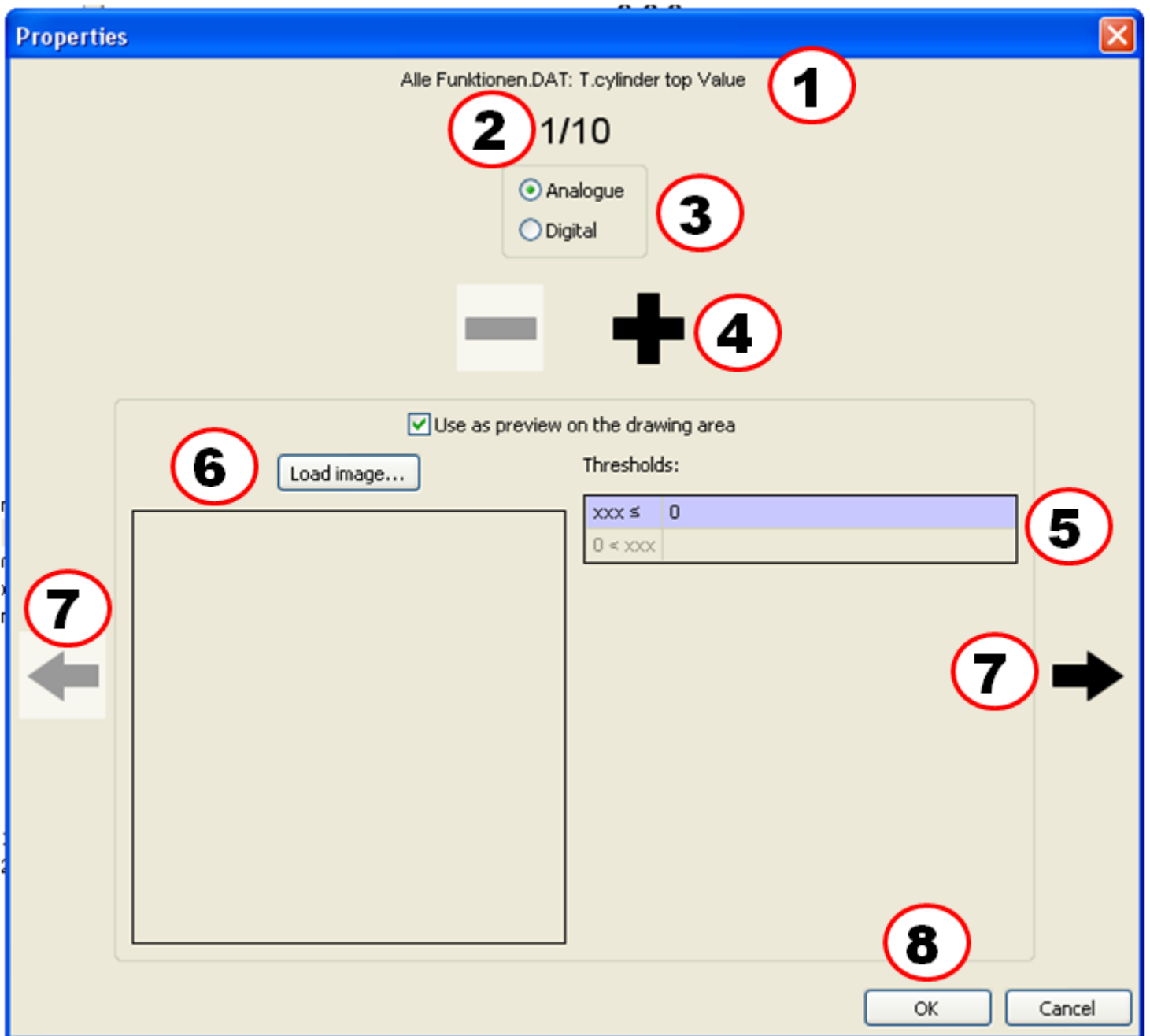
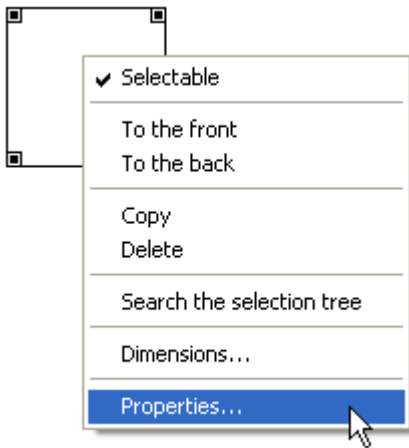


2. Choose the value you want to link to the image and drag it onto this area. The mouse pointer will then change to show a second arrow, and the border of the image area will turn red.



If you now execute the "**Search the selection tree**" function for the image area, you will see the link to the value.

3. Set the "**Properties**" of the animated image by double-clicking, pressing "Enter" if the area is already selected, or by right-clicking and selecting "Properties".



1. Display the allocated value
2. The first of up to 10 possible images (analogue values). Only 2 images are possible for digital values.

3. Select analogue or digital value.

4. For analogue values, up to 10 thresholds can be equipped with their own images. The number of thresholds can be set by clicking "+" or "-".

For digital values, 2 thresholds/images are permanently set (Off/No, On/Yes).

5. Enter the threshold values for analogue values. The threshold values are entered without decimal points (e.g. 50 °C -> entry: 50).

6. Load the matching image for each threshold value (permitted file formats: *.**bmp**, *.**gif**, *.jpg or *.png.)

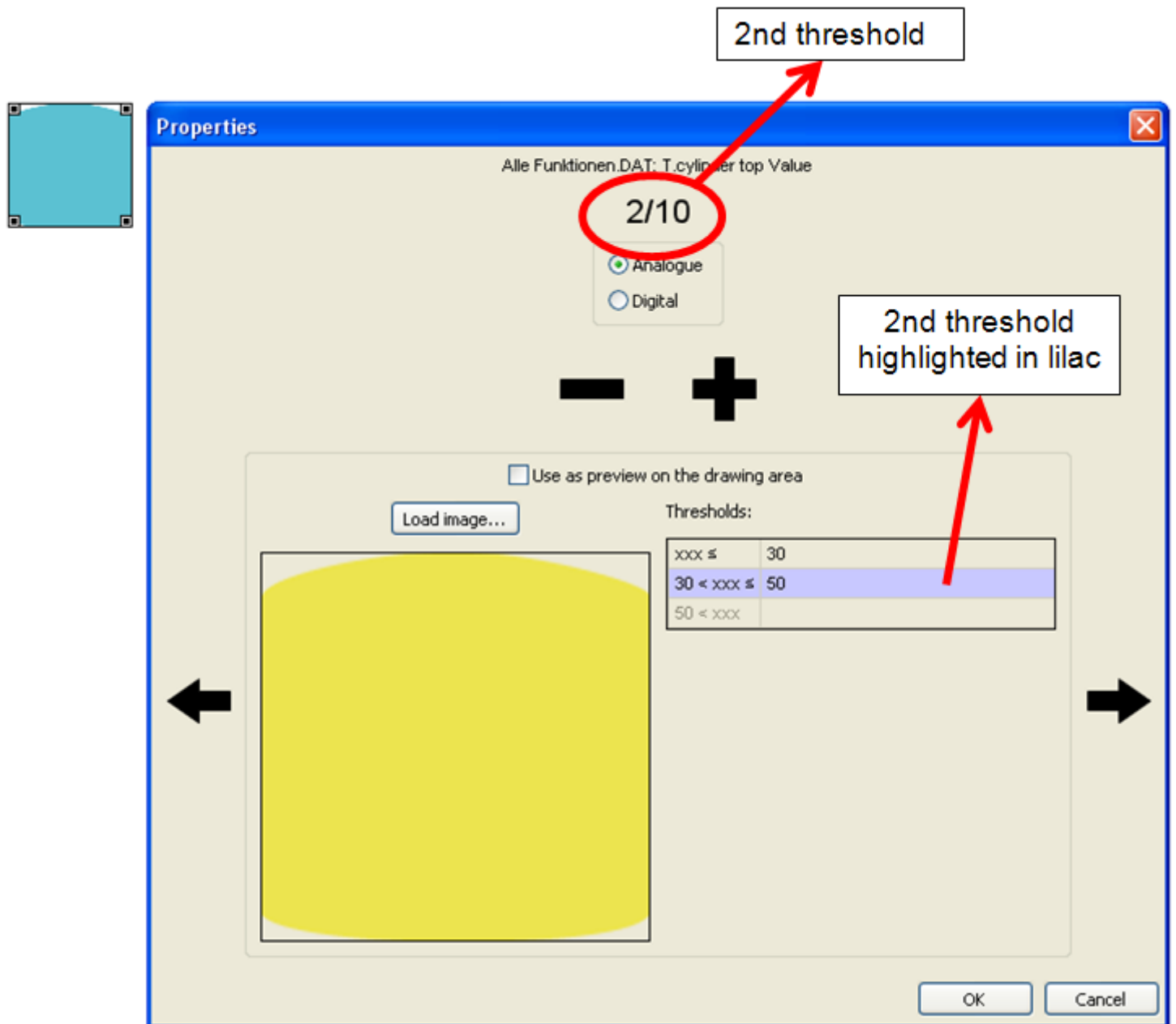
Animated *.gif files are also possible.

Select which image should be visible in the drawing area. Animated *.**gif** files are displayed statically in the preview on the drawing area.

7. Go back or to the next threshold. The number of the current threshold is shown at the top and the current threshold is shown on a lilac background.

8. Press "OK" to finish.

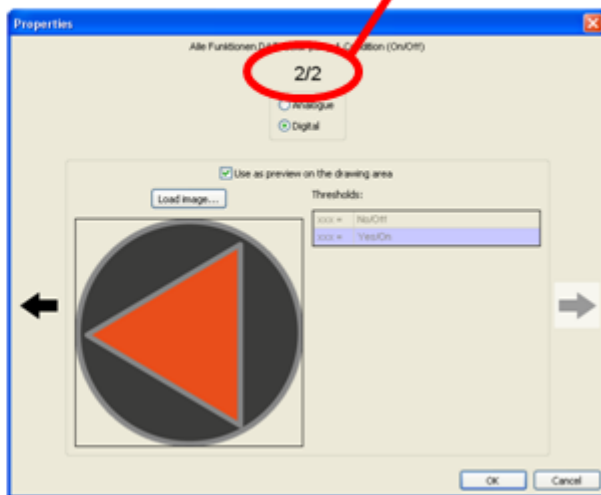
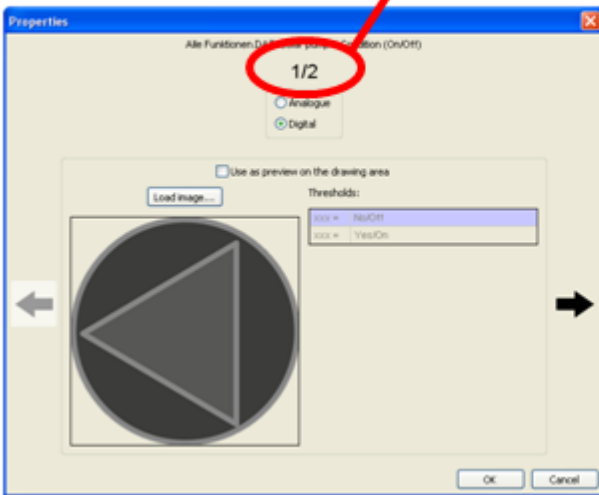
Example: Analogue value, 3 thresholds ($\text{value} \leq 30\text{ °C} / 30\text{ °C} < \text{value} \leq 50\text{ °C} / 50\text{ °C} < \text{value}$), current display: 2nd image; a different image was selected as the preview on the drawing area.



Example: Digital value; preview of the "On" image on the drawing area

"Off" image

"On" image



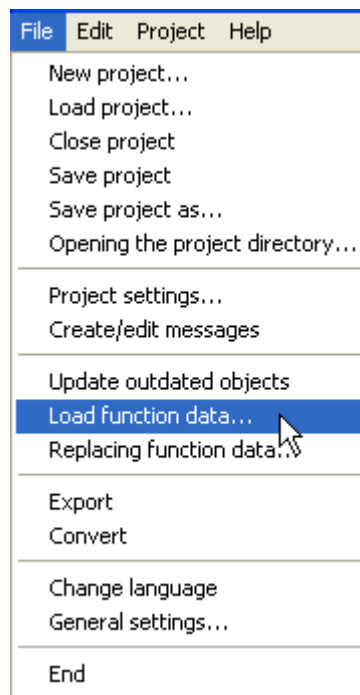
Animated images and texts [x2]

As of version 1.22 of the TA-Designer, the function for animated images is also available for UVR16x2. Use of .gif files is not possible, however.


Values from function data

Loading function data

To make it possible to insert function data values from CAN bus devices, the device function data (*.dat file) must first be loaded.



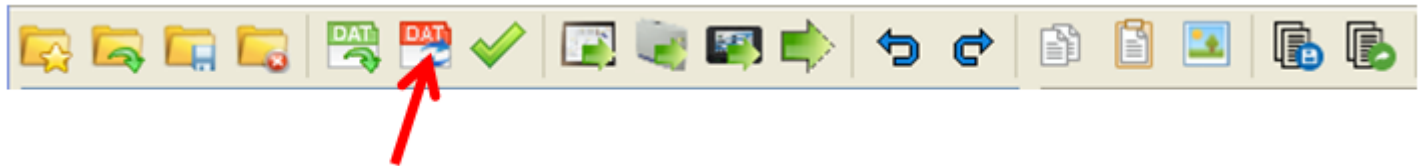
In an open project, select the menu “**File / Load function data...**” and then the *.dat file to be added.

Alternatively: Click the icon  in the toolbar.

One copy of the selected *.dat file is copied from the **TA-Designer** to the project folder.

Warning: If functions are subsequently added to the controller or deleted resulting in a change to the function sequence, the *.dat files must be replaced and the incorrect allocations must be corrected.

Replacing function data



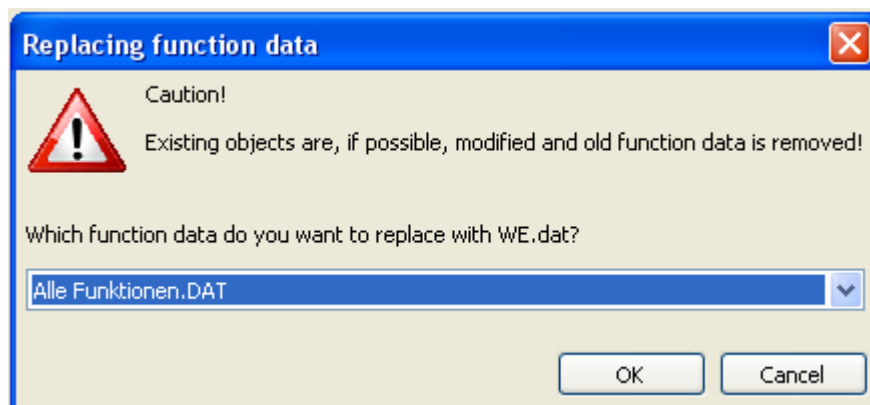
By clicking on this icon, function data of CAN bus devices in the search tree can be replaced if the TA-Designer project was created with **version 1.12B1 or later**.

The data may need to be replaced if changes are made in the **TAPPS** or **F-Editor** programming.

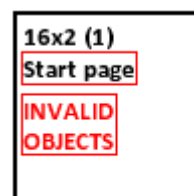
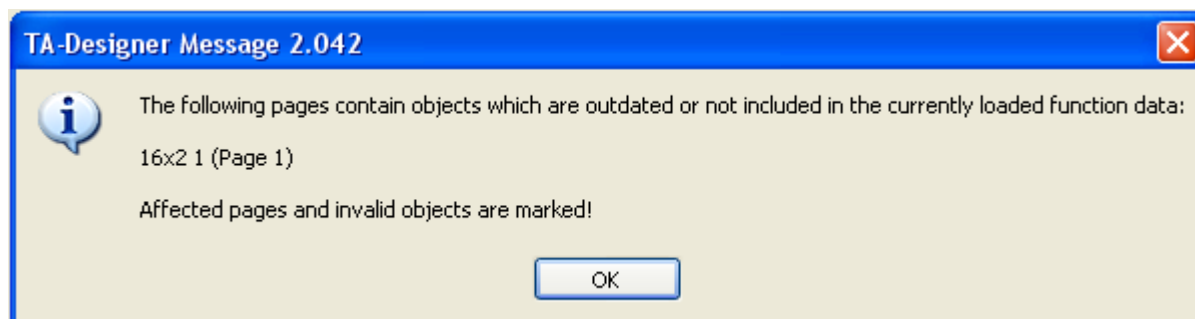
After the click, the new dat file is selected.

Selection is followed by the query for dat file of the search tree that is to be replaced with the selected file.

Example:



If objects are found during the replacement, that cannot be assigned to the new dat file, a message is output.



16x2 1

INVALID

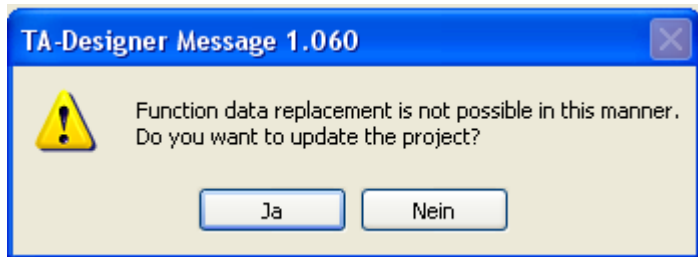
These pages and objects are marked as "invalid".

The following changes in the TAPPS programming are permissible without creating invalid objects:

- Changing the CAN **node number** of the device
- Changing the **sequence** (numbering) of the functions
- **Additional** functions, inputs or outputs, network variables, etc.
- Changing or deleting **links**

• **Deleting** functions. **Please note:** If functions are deleted, this should be done only **after** all other changes have been completed. If new functions are embedded after deleting functions, then "invalid objects" may be generated in the TA-Designer.

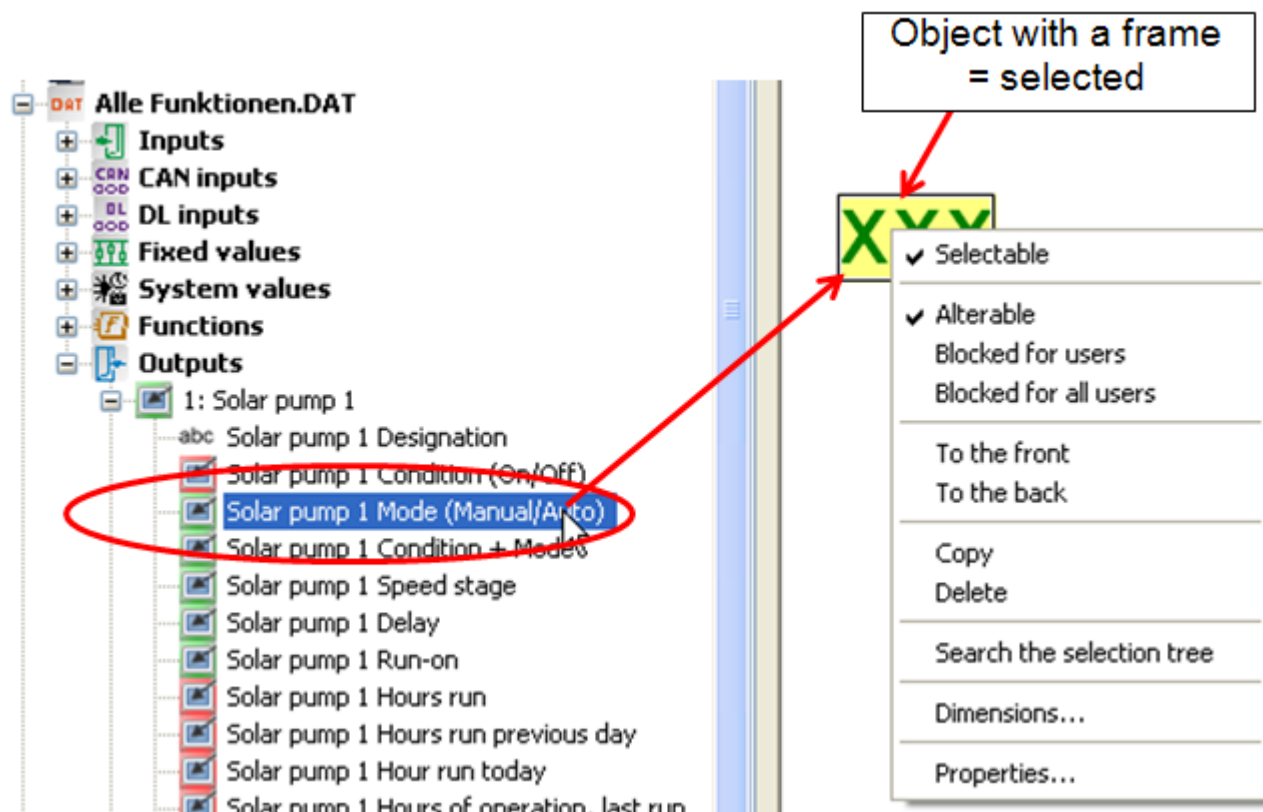
When a project that has been created with an earlier version of TA-Designer is opened, the following query can be displayed:



If the query was answered with "yes" and function data with identical node numbers exist in the project, then the update must be cancelled.



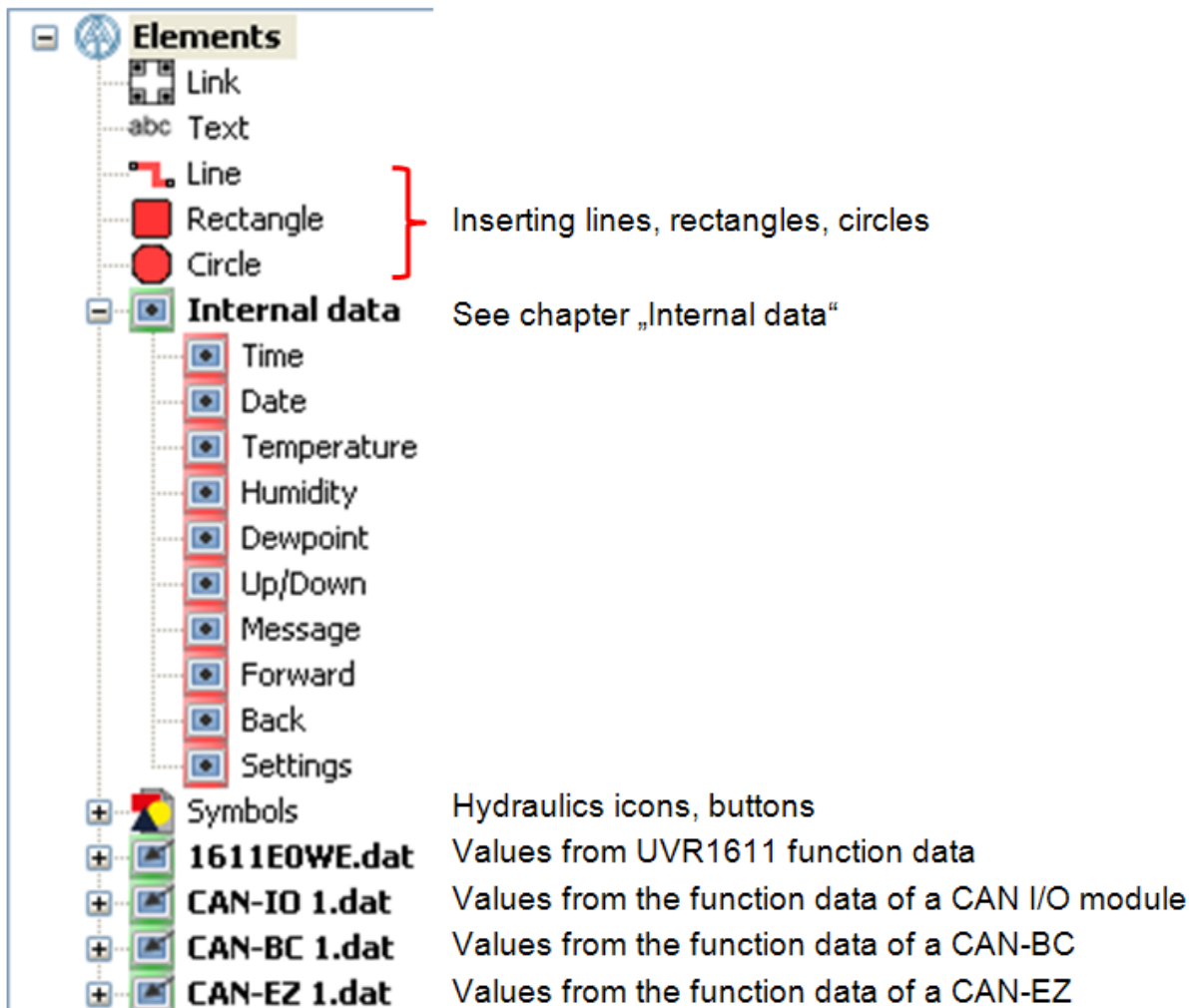
Inserting values



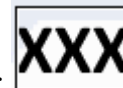
Values are inserted by selecting or highlighting the desired value in the search tree and dragging it with the mouse button pressed down to the desired position in the page ("drag & drop"). Right-clicking opens a context menu.

In the "Elements" area, the following value groups are available:

CAN-Touch

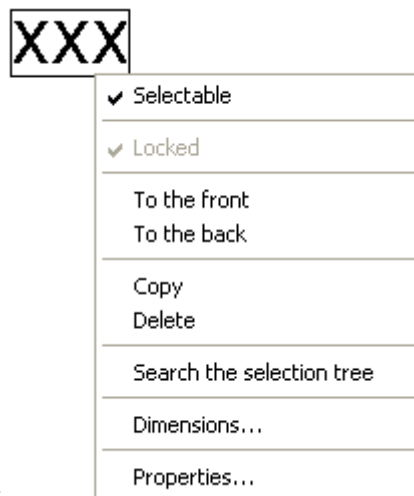


Up to 64 CAN objects from the function data can be displayed **on each page**.



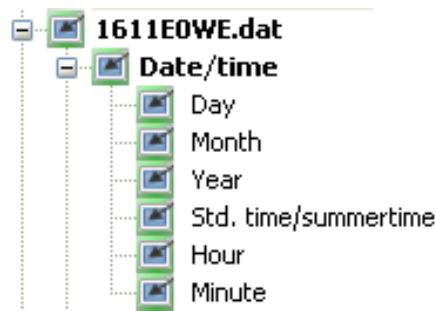
After the prior positioning of the value, the following display is visible:
The frame indicates that the object is selected.

Clicking the left mouse key causes a non-selected object to be selected and highlighted with a frame. A selected object can now be edited.

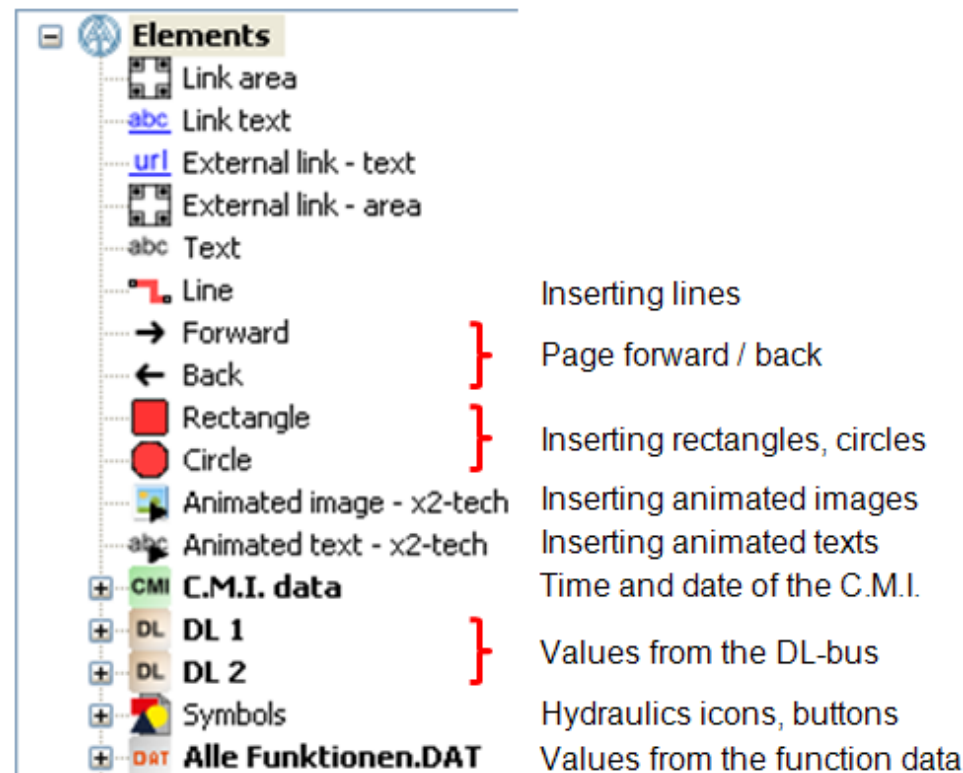


A right mouse-click opens a selection:

Date and time are also available in the function data section of controller UVR1611. Unlike the values from the "Internal data", these can be changed on the CAN-TOUCH if the controller has the node number 1.



Online diagram C.M.I.



For CAN bus devices, the "Values from the function data" method should preferably be applied because this has an easier and clearer structure.

Values from the DL-bus (DL1, DL2)

These values are fixed and cannot be changed. If with a UVR1611 controller the last query at output 14 (data link) was answered in their parameterizing with "yes" (**NETW.IP.=>DL.: yes**), then the area "DL2" contains the network inputs of the controller.

Values directly from the function data of a CAN bus device

All values specified by the function data of a CAN bus device can be displayed.

If values from several CAN bus devices are to be displayed, the relevant CAN node numbers must be programmed into the individual *.dat files.

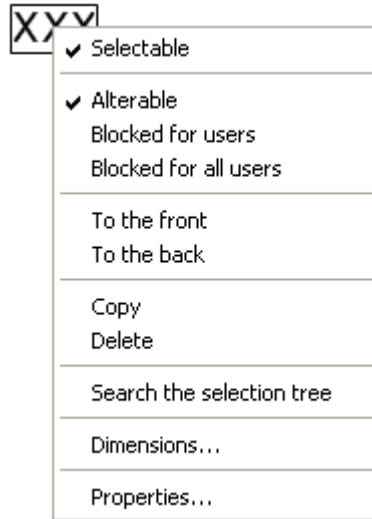
All CAN bus devices whose function data are embedded in TA-Designer must be connected with the CAN bus net because the online schematic will otherwise not be displayed.

Up to 64 CAN objects from the function data can be displayed **on each page**.



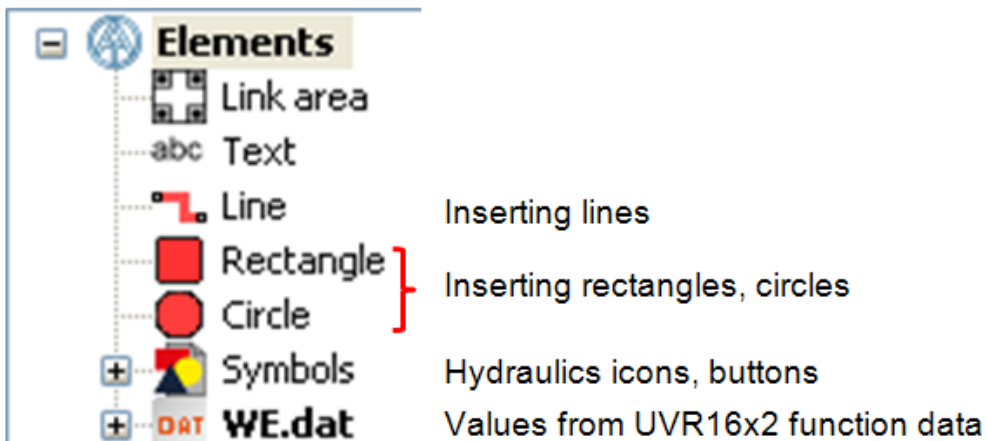
After the prior positioning of the value, the following display is visible:
The frame indicates that the object is selected.

Clicking the left mouse key causes a non-selected object to be selected and highlighted with a frame. A selected object can now be edited.



A right mouse-click opens a selection:

Function overview UVR16x2



In the function overview, only values from devices with x2 technology can be displayed (UVR16x2, RSM610, CAN-I/O45 and CAN-EZ2).

Scrolling is not possible in the function overview. Objects that are larger than the page will be adjusted to the size of the page.

Up to 64 CAN objects from the function data can be displayed **on each page**.

Online diagram BL-NET

<div> <div> <div></div> <div>Elements</div> </div> <div> <div>abc</div> <div>Text</div> </div> </div>		
+	DL	DL1
		Values of data lines 1 and 2
+	DL	DL2
		(Data logging using the DL-bus)
+	CAN	CAN-Data logging
		Value of the CAN data logging
+	NW	Network inputs
		Network inputs of the Bootloader BL-NET
+	DAT	1611E0WE.dat
		Values from UVR1611 function data
+	DAT	CAN-IO 1.dat
		Values from the function data of a CAN I/O module
+	DAT	CAN-BC 1.dat
		Values from the function data of a CAN-BC
+	DAT	CAN-EZ 1.dat
		Values from the function data of a CAN-EZ

The values for the online schematic can be selected

1. from value groups DL1, DL2 or
2. CAN data logging or
3. from the network inputs of the BL-NET or
4. **directly from the function data (*.dat files).**

For CAN bus devices, preferably the 4th method (values directly from function data) should be applied because this has an easier and clearer structure.

When using values from "DL1", "DL22 or "CAN data logging" it must be noted that **simultaneous** use of data from the DL bus and the CAN bus is not possible. The data logging method is specified (via DL-bus or CAN bus) in the **Winsol** program and thereby saved in the Bootloader.

The CAN network inputs to the BL-NET can be used by all methods.

Values from the DL-bus (DL1, DL2)

These values are fixed and cannot be changed. If with a UVR1611 controller the last query at output 14 (data link) was answered in their parameterizing with "yes" (**NETW.IP.=>DL.: yes**), then the area "DL2" contains the network inputs of the controller.

CAN bus values (CAN data logging)

There are 2 data records created in UVR1611 and CAN-EZ and only one data record in CAN-BC. In the **Winsol** program, a data record is allocated to each device and thereby saved in the boot loader. In selecting the values for the online schematic, it must therefore be known, which data records are set in **Winsol** for each device.

The values in the data records are specified either using **TAPPS**, **F-Editor** or directly at the controller. If they were not changed by programming using **TAPPS**, then standard values are specified.

Network inputs of the Bootloader BL-NET

The network inputs are configured via the browser remote control in the Bootloader.

Values directly from the function data of a CAN bus device

All values specified by the function data of a CAN bus device can be displayed.

If values from several CAN bus devices are to be displayed, the relevant CAN node numbers must be programmed into the individual *.dat files.

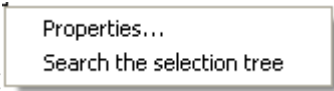
All programmed CAN bus devices must be connected to the CAN bus network, as otherwise timeout messages are displayed.

After the prior positioning of the value, the following display is visible:
The frame indicates that the object is selected.



Clicking the left mouse key causes a non-selected object to be selected and highlighted with a frame. A selected object can now be edited.

A right mouse-click opens a selection:

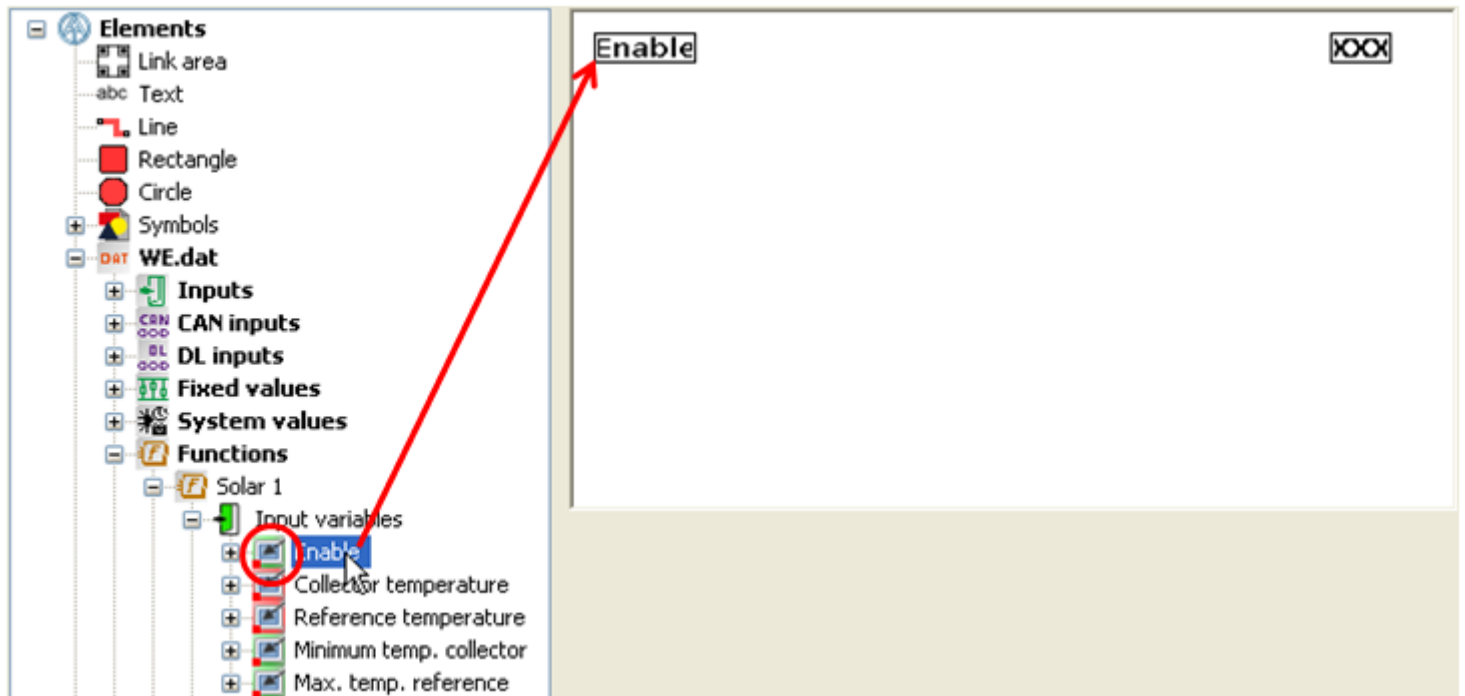
A context menu with a light gray background and a thin gray border. It contains two text-based options: 'Properties...' and 'Search the selection tree', both in a standard black font. The menu is positioned to the right of the text 'A right mouse-click opens a selection:'.

Properties...
Search the selection tree

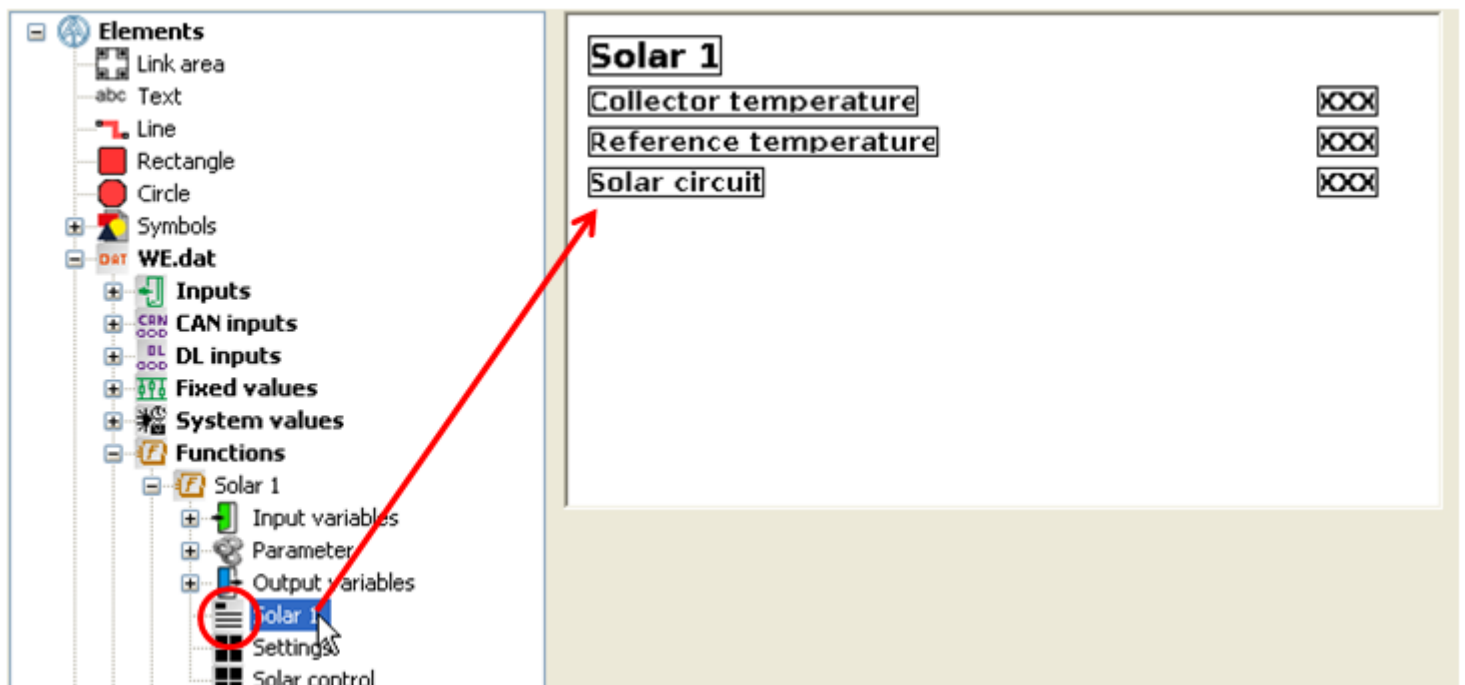
Inserting value groups

Entire value groups can also be dragged from the function data of x2 devices into the drawing area. This makes it possible to quickly and easily create a program for graphics.

Examples:

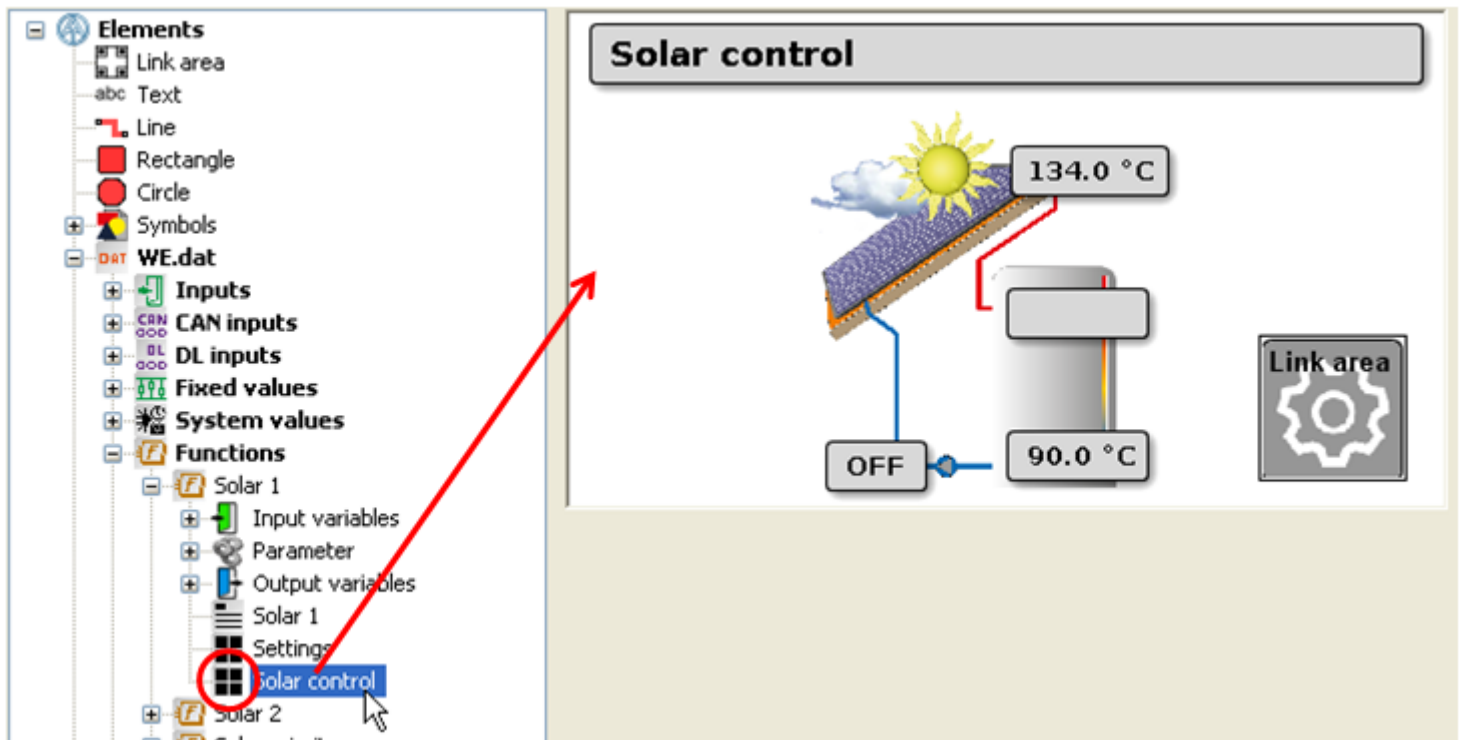



In this example, the designation and the value are embedded in the drawing as a value group. All values in the value group are grouped and selectable. These value groups are indicated by a red dot at the bottom left of the icon.



Larger groups of a function can also be embedded. These values are the most important values of a function and are preselected. In the example, the value group for the function "Solar 1" was embedded in the area. These value groups can be identified by the icon

It is possible, after ungrouping, to delete individual values or place them elsewhere. Additional values or value groups can also be embedded in the area.



For various functions, ready-made graphics with inserted values are available. These can be identified by the icon 

Alterable / Blocked

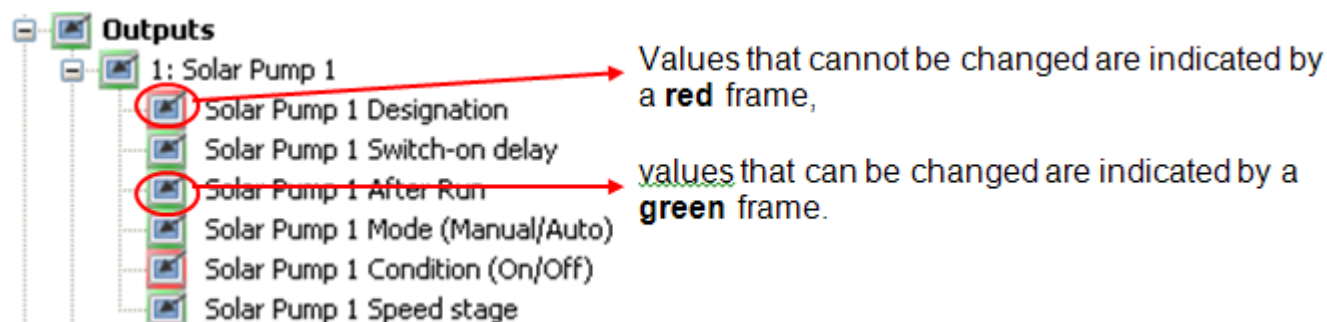
(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

Specific objects can be changed, but they can be blocked.

The selection of displayed values should be matched to the future user.

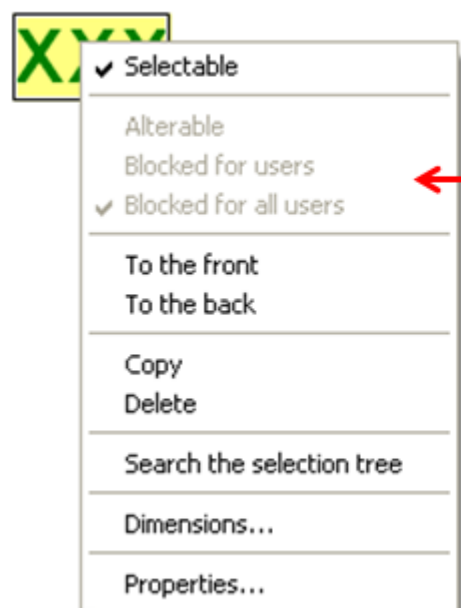
CAN-TOUCH: Sensitive **alterable** (= not locked) values should only be displayed on pages that are protected by a password.

C.M.I. Online schematic and function overview UVR16x2: The block can be limited to user groups.

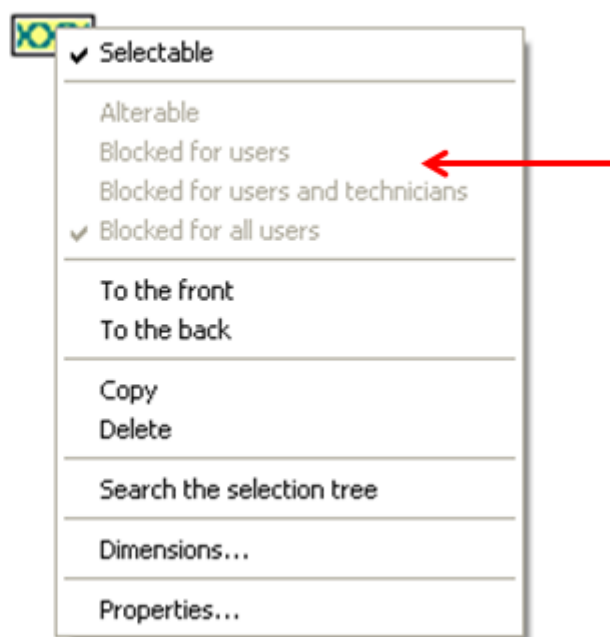


Right clicking the marked object causes a sub-menu to appear:

Online diagram C.M.I.



Function overview UVR16x2



This value cannot be changed at all. The selection is not available.



- ✓ Selectable
- ✓ Alterable
 - Blocked for users
 - Blocked for all users
- To the front
- To the back
- Copy
- Delete
- Search the selection tree
- Dimensions...
- Properties...



- ✓ Selectable
- ✓ Alterable
 - Blocked for users
 - Blocked for users and technicians
 - Blocked for all users
- To the front
- To the back
- Copy
- Delete
- Search the selection tree
- Dimensions...
- Properties...



This value is alterable and also released as alterable for all.



- ✓ Selectable
- Alterable
 - Blocked for users
- ✓ Blocked for all users
- To the front
- To the back
- Copy
- Delete
- Search the selection tree
- Dimensions...
- Properties...



- ✓ Selectable
- Alterable
 - Blocked for users
 - Blocked for users and technicians
- ✓ Blocked for all users
- To the front
- To the back
- Copy
- Delete
- Search the selection tree
- Dimensions...
- Properties...



This value is alterable but it is blocked for all users.



- ✓ Selectable
- Alterable
- ✓ Blocked for users ←
- Blocked for all users
- To the front
- To the back
- Copy
- Delete
- Search the selection tree
- Dimensions...
- Properties...



- ✓ Selectable
- Alterable
- ✓ Blocked for users ←
- Blocked for users and technicians
- Blocked for all users
- To the front
- To the back
- Copy
- Delete
- Search the selection tree
- Dimensions...
- Properties...

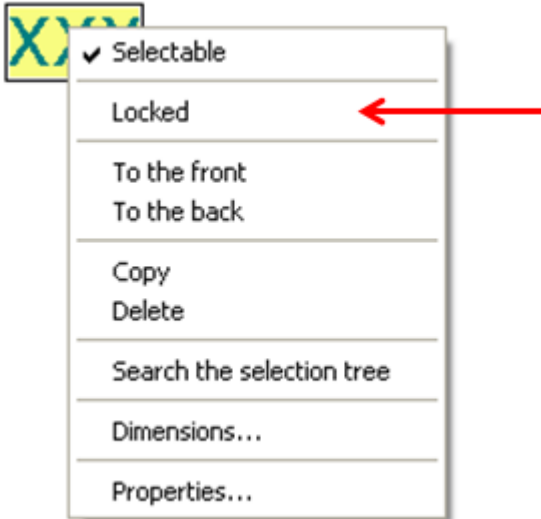
This value is alterable but it is blocked for "User". Users who are logged in as "Expert" in the C.M.I. or as "Technician" or "Expert" in the UVR16x2, can change the value.

CAN-TOUCH



- ✓ Selectable
- ✓ Locked ←
- To the front
- To the back
- Copy
- Delete
- Search the selection tree
- Dimensions...
- Properties...

This value cannot generally be changed.



This value can be changed. However, it can be locked (tick next to "Locked" = cannot be changed).

Input variable values of a function are automatically locked.

Exceptions: Enables, which are set by "User" and are not linked

Profile function: Start, Stop, Sync., if not linked

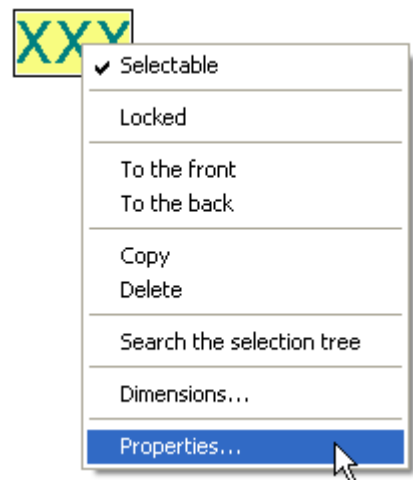
Output variable values of a function cannot be changed ("**Condition** (On/Off)").

Therefore should the switch output be manually switchable, then the "**Mode** (Manual/Auto)" from the list of **Outputs** must be positioned in the drawing.

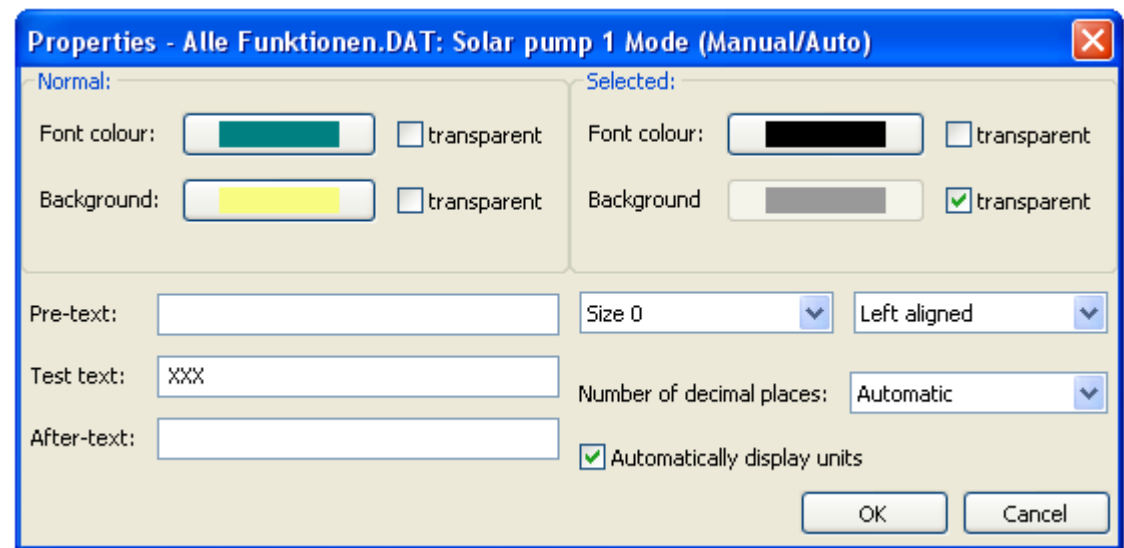
Properties

Specification of the font colour, the background, the position and entry of pre- and after-texts and a test text for checking.

CAN-TOUCH



Double-clicking the highlighted field "XXX", clicking "Properties" or selecting and pressing the **Enter** key opens the following window:



The properties of the value are displayed in the "Normal" field if it is displayed in **Normal status** on the touchscreen. For the case of the time program (weekday allocation) these properties apply for the display of the **allocated days**.

The properties of the value are displayed on the touchscreen in the field "Selected" **during the change**. For the case of the time program (weekday allocation) these properties apply for the display of the **non-allocated days**.

Pre-text and **After-text** are visible in the CAN-Touch. A measuring unit can be displayed using the **After-text**, if it is not automatically inserted. The **Test text** is used for simple positioning of the display in the graphic and is only displayed in the programming. The texts can contain no more than 31 characters.

5 fonts of different font size are available.

Moreover for better positioning there is also a choice of whether the display is to be **left aligned**, **right aligned** or **centred**.

Number of decimal places

In some cases it is advisable to increase the number of decimal places for optical reasons (zeros are added) or to decrease it (no rounding).

Automatic units: If this selection is checked, then all values are displayed with the units specified by the function data (factory setting).

However if in-house special units are to be displayed, the check-mark is deleted and the desired unit names entered in the "**After-text**".

Changing of the pre-set font and background colours:



Default setting: Font black, background transparent.

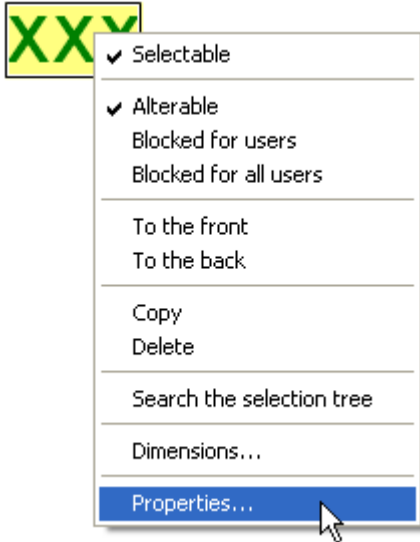
Clicking causes the font or background colour to be displayed in the selection field in which the desired colour can be set.

User-defined colours are also possible; these remain saved.

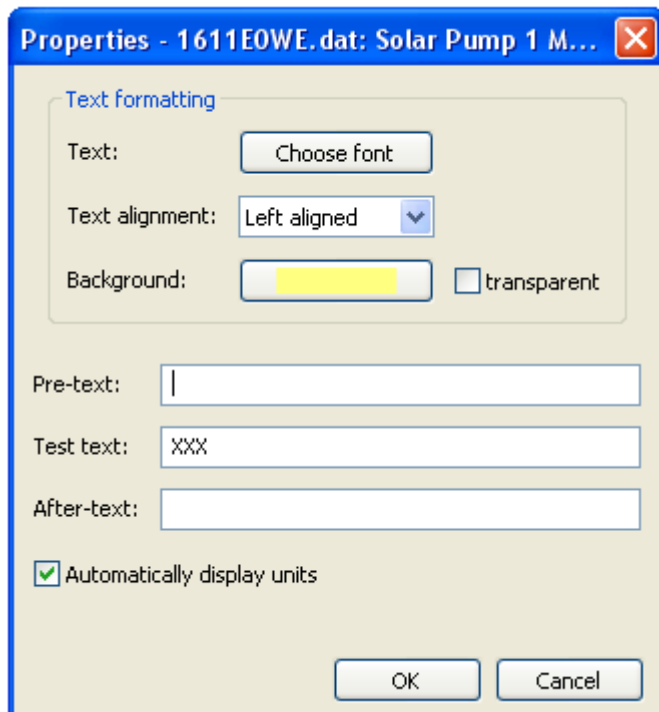
The language in this window depends on the language setting in the PC operating system.

Online diagram C.M.I.

If a format is assigned to an object, then this format is stored for all **subsequent** objects of this "group". Differentiation is made here whether the object is part of the group of **changeable** or **non-changeable** objects.

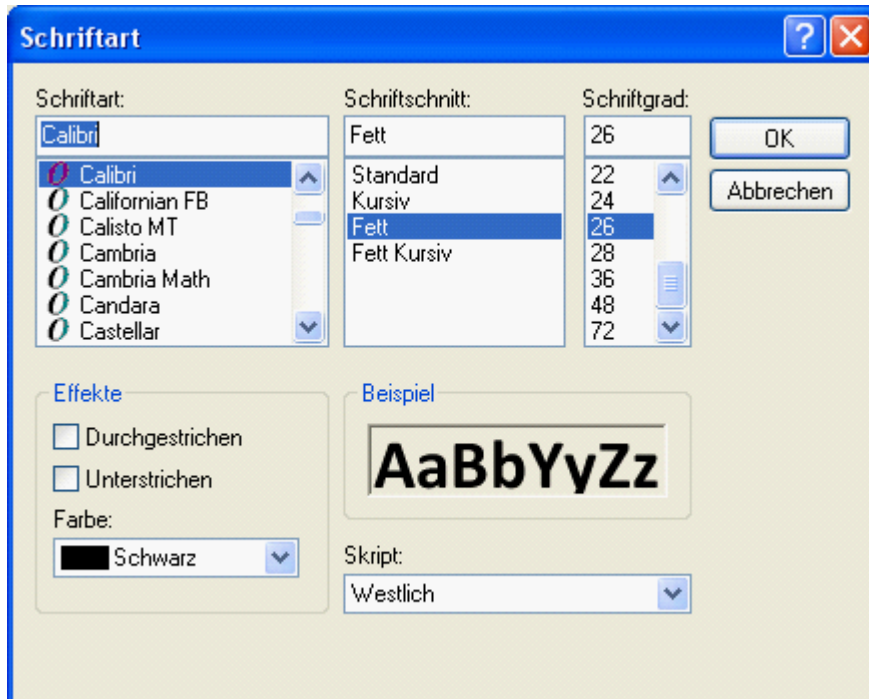


Double-clicking the highlighted field "XXX", clicking "**Properties**" or selecting and pressing the **Enter** key opens the following window:



The following **properties** are set in this window:

Font Setting of the font type and colour in the following window:



The language in this window depends on the language setting in the PC operating system. Depending on the display device, it is not guaranteed that the required font is displayed correctly.

Left aligned/right aligned

Background colour



Changing of the pre-set font and background colours:

Default setting: Background transparent.

Clicking causes the font or background colour to be displayed in the selection field in which the desired colour can be set.

User-defined colours are also possible; these remain saved.

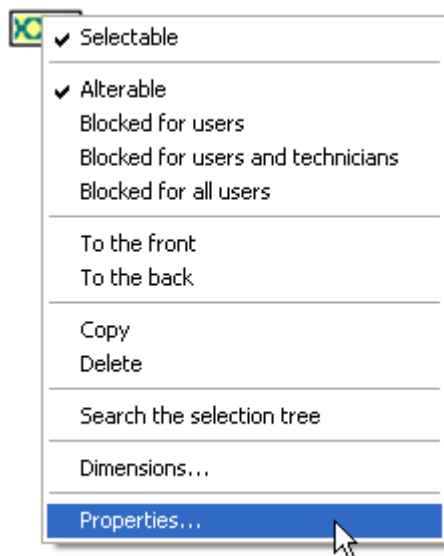
The language in this window depends on the language setting in the PC operating system.

Pre-text, Test text, After-text

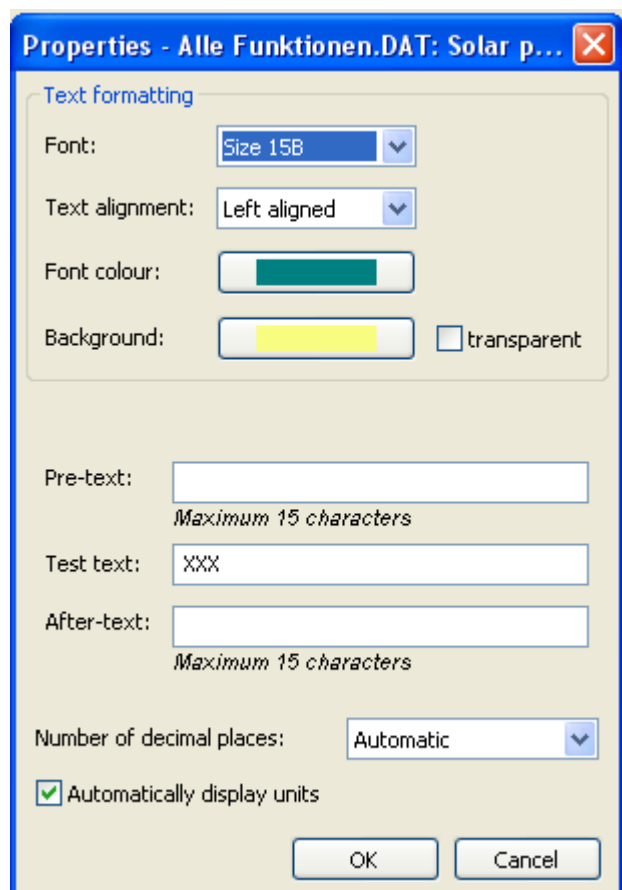
Pre-text and **After-text** are visible in the online schematic. The **Test text** is used for simple positioning of the display in the graphic and is only displayed in the programming.

Selection **with** or **without** automatic display of the **unit**

Function overview UVR16x2



Double-clicking the highlighted field "**XXX**", clicking "**Properties**" or selecting and pressing the **Enter** key opens the following window:



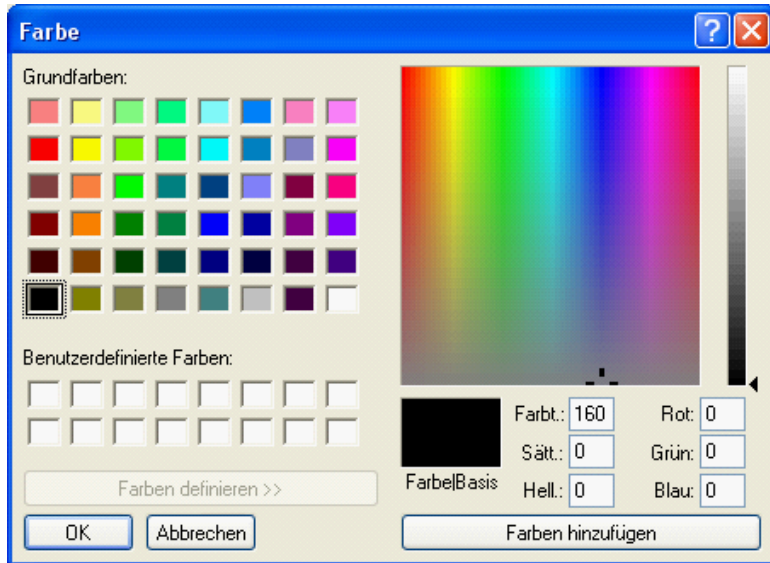
The following **properties** are set in this window:

Font

Text alignment: Left aligned/right aligned

Font colour

Background colour



Changing the pre-set background colour:

Default setting: background transparent.

Clicking on the background colour calls up the selection field in which the desired colour can be set. User-defined colours are also possible; these remain saved.

Pre-text, test-text, after-text

Pre-text and **after-text** are visible in the function overview. The **test-text** serves for easier positioning of the display in the graphic and is only displayed in the programming.

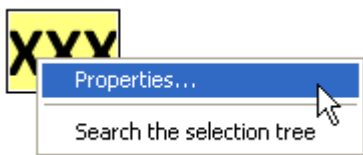
Number of decimal places

In some cases it is advisable to increase the number of decimal places for optical reasons (zeros are added) or to decrease it (no rounding).

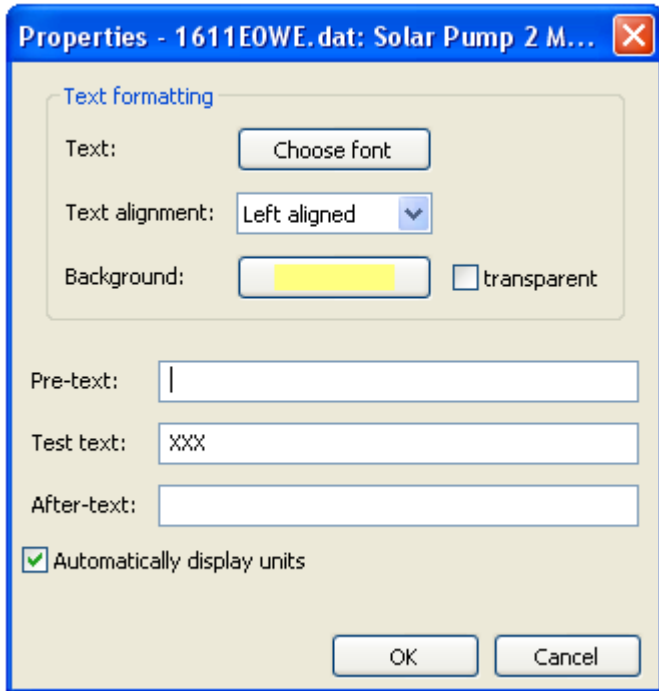
Selection **with** or **without** automatic display of the **unit**

Online diagram BL-NET

If a format is assigned to an object, then this format is stored for subsequent objects.

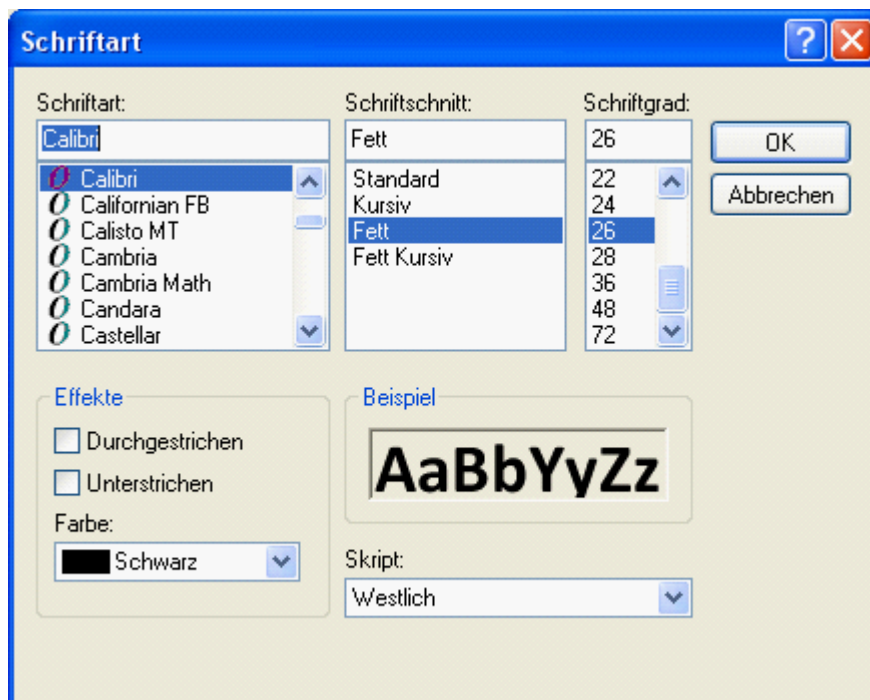


Double-clicking the highlighted field "**XXX**", clicking "**Properties**" or selecting and pressing the **Enter** key opens the following window:



The following **properties** are set in this window:

Font Setting of the font type and colour in the following window:



The language in this window depends on the language setting in the PC operating system.

Left aligned/right aligned

Background colour

Changing of the pre-set font and background colours:



Default setting: Font green, background transparent.

Clicking causes the font or background colour to be displayed in the selection field in which the desired colour can be set.

User-defined colours are also possible; these remain saved.

The language in this window depends on the language setting in the PC operating system.

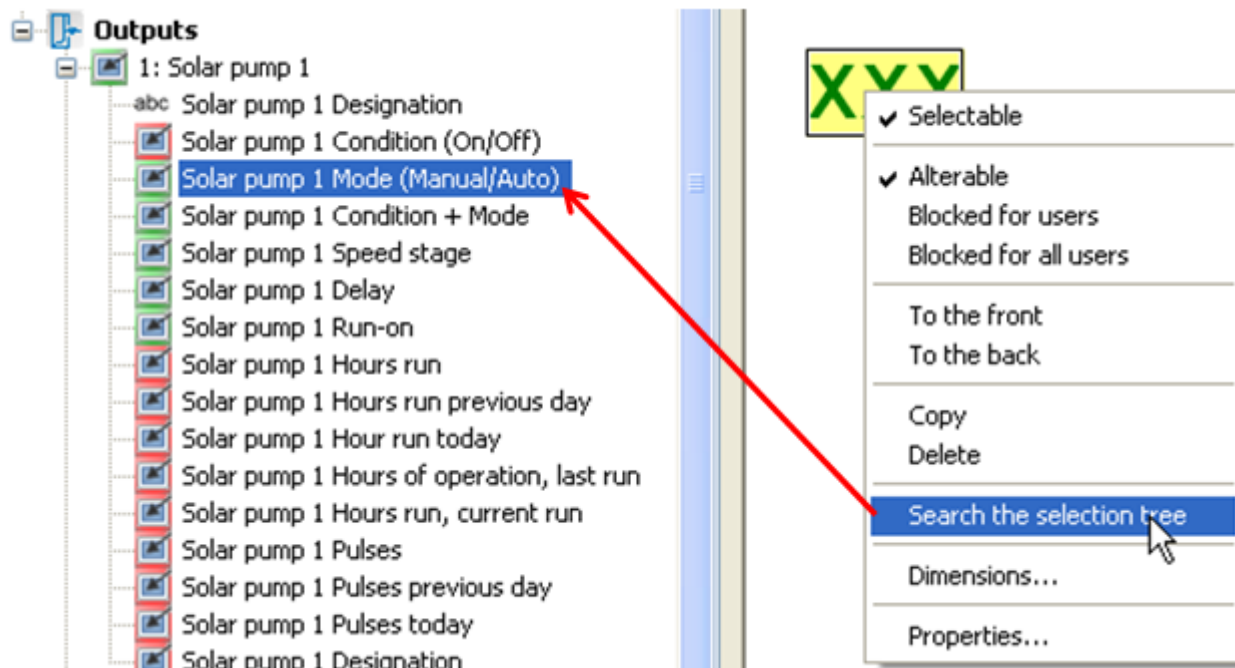
Pre-text, Test text, After-text

Pre-text and **After-text** are visible in the online schematic. The **Test text** is used for simple positioning of the display in the graphic and is only displayed in the programming.

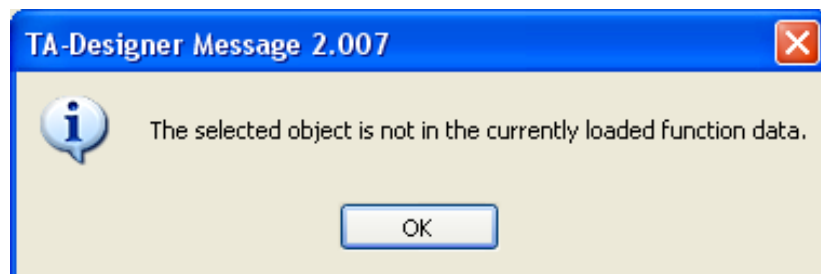
Display with or without **automatic units**

Search the selection tree

This function allows the determination of the allocations of an object for the entry in the selection tree. This is sometimes helpful with especially comprehensive programming.



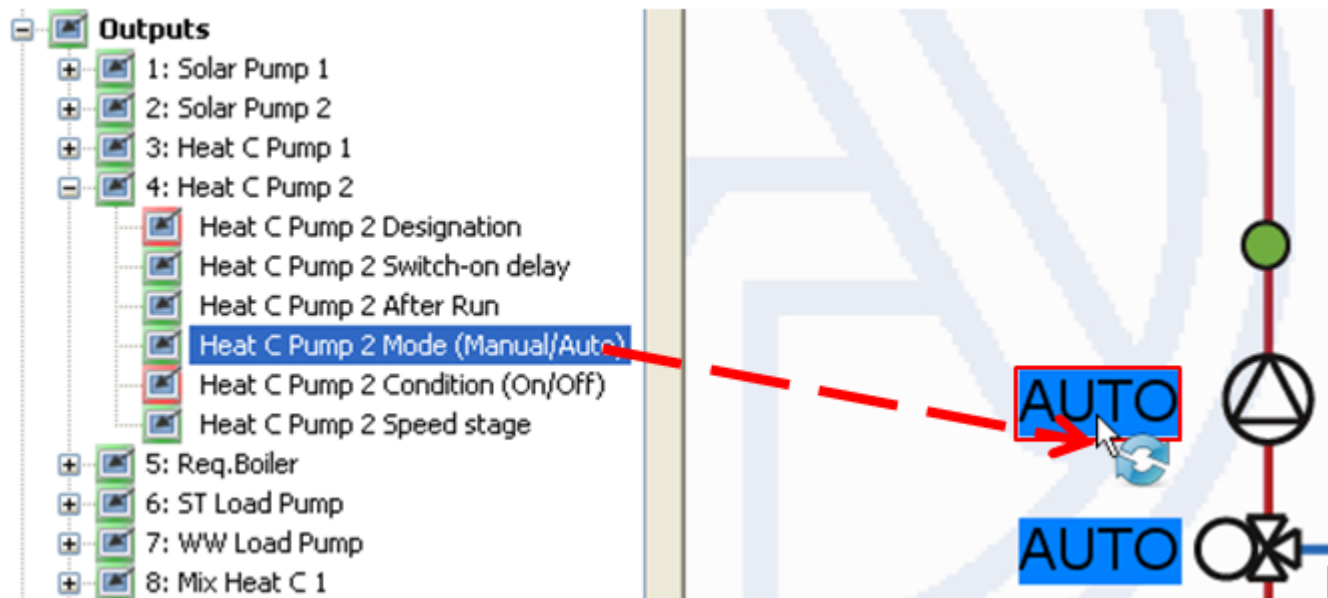
The selection is unfolded, if necessary and the entries in the selection are highlighted in colour. If an object without reference to a loaded function file is selected the following message will be displayed (see also the chapter “**Testing function**”):



Replacing values

Objects already positioned in the diagram can be replaced with new objects from the selection tree. This is done by clicking on the object in the selection tree and dragging it to the object to be replaced keeping the mouse button pressed.


All properties of the original object are copied in the process (position, text formatting, pre-text, test text, after-text, display of the unit).



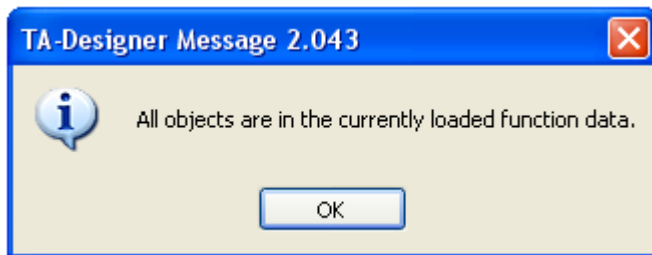
Replacement is only possible for single values, not for value groups.

Testing function

To complete project creation, the compliance of the inserted objects with the loaded function data (*.dat files) can be checked. The node number is also checked in doing that.

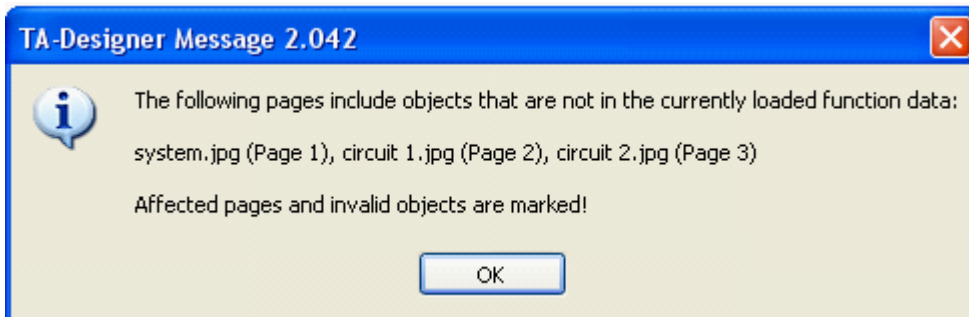
Clicking on the  icon in the tool bar starts testing.

The following message is displayed if the test was positive:



However, if invalid objects are found there will be a message indicating the missing pages. All invalid objects and missing pages are marked.

Example:



invalid object




system.jpg

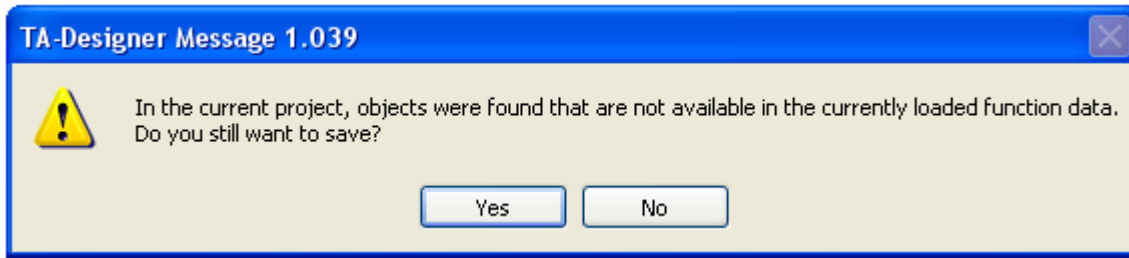


circuit 1.jpg

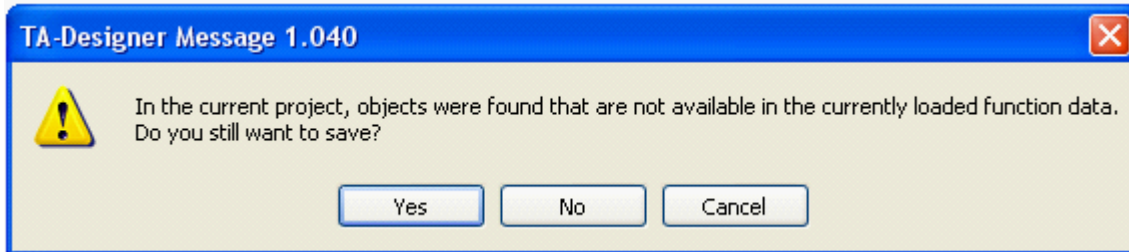
faulty pages (example: CAN-TOUCH)

The markings "invalid" or "invalid objects" can be deleted by clicking on and deactivating the icon  in the toolbar.

If a faulty project is to be saved, there will be a prompt to check whether the project is to be saved despite the error.



If a fault project is closed there will be a similar query because closing the project can save the project.

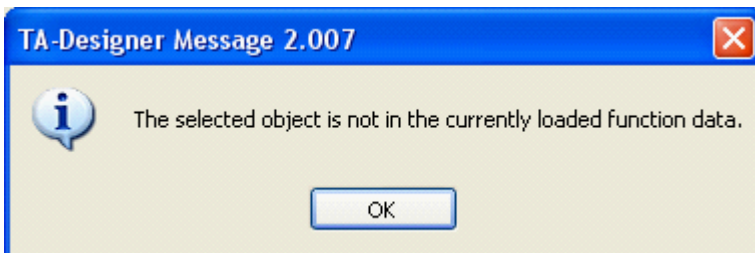


The answer "**Yes**" saves the faulty project and subsequently closes it.

The answer "**No**" **cancels** the changes made since the project was saved last and closes it.

The project will be neither saved nor closed if you select "**Cancel**".

If an object without reference to a loaded function file is selected with the function "**Search the selection tree**", the following message will be displayed:



Outdated objects

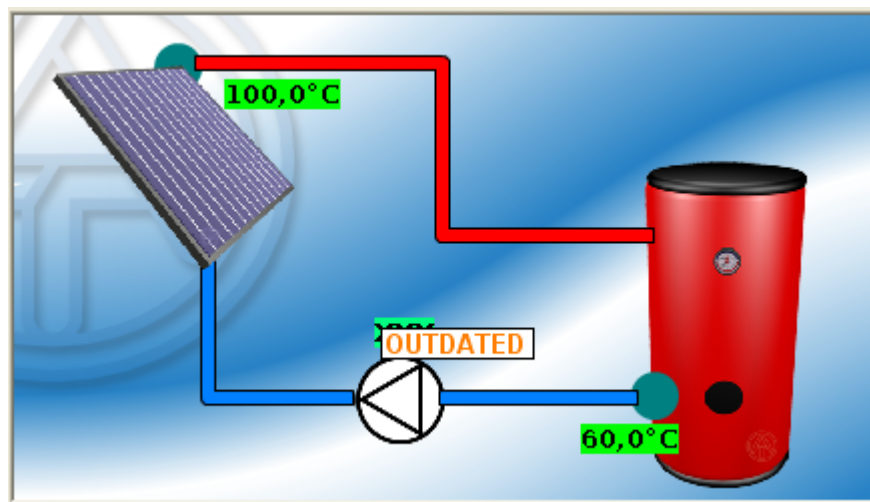
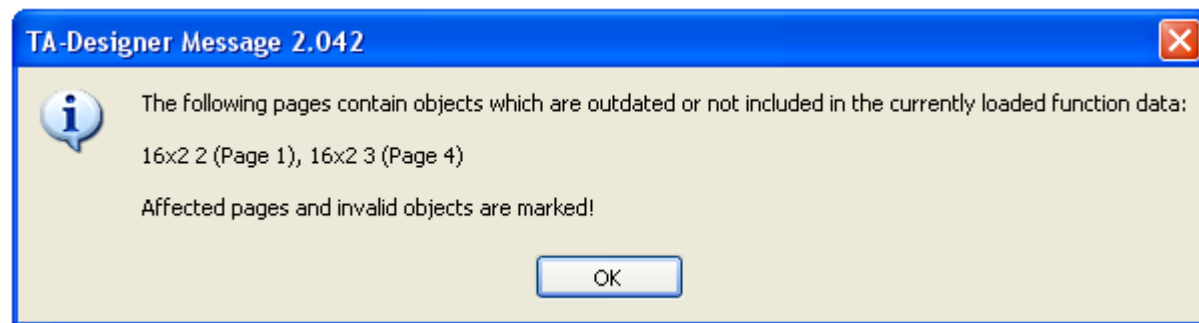
Application scenarios:

Function data was **deleted** and then **inserted** again later without using the "**Replacing function data...**" button.

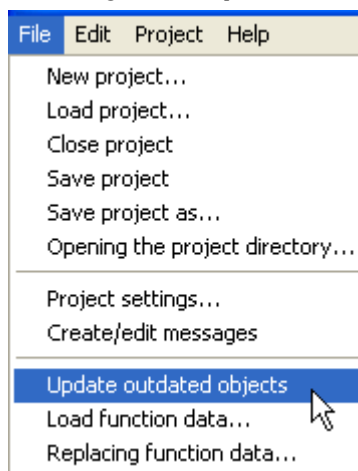
Function data was replaced with the "**Replacing function data...**" button, but functions were deleted or added in the new function data.

This may cause values to be **outdated**.

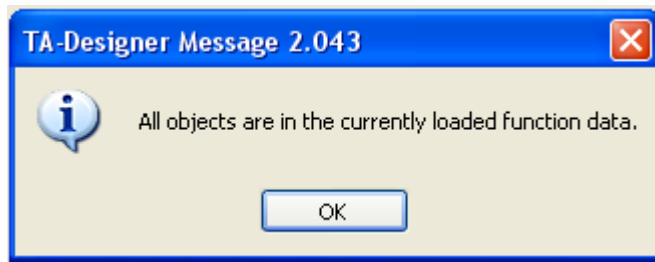
When the testing function is started by clicking the  icon, these outdated objects will be identified and a message displayed.



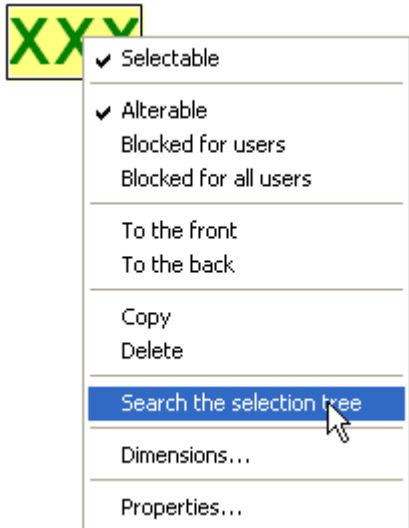
Starting "**File/Update outdated objects**" will link these objects to the newly loaded function data.



This will be followed by a display indicating whether all the objects are now in the function data.



If the newly loaded function data is not identical to the deleted data (functions have been deleted or added), the links to the function data must be checked using "**Search the selection tree**" and corrected with replacements where necessary (see "**Replacing values**").



Information about values from UVR1611 function data

CAN-TOUCH

For all functions:	
Enable ... Value	If a value is not programmed as "locked" and the source is set to "User", then the function can be switched off or on.
Input variables, with the exception of all "Enable", profile functions and Timer - trigger inputs	These values can never be changed, even if they are not linked in the function.

Time programs:	
Week day allocation	It is important to select different colours for the background of "Normal" and "Selected", so that it can be seen which day is highlighted and therefore allocated ("Normal" = allocated, "Selected" not allocated)
Change in the number of programs or time windows	A reduction in the number of programs or time windows in the controller programming after programming of the CAN-Touch causes timeouts and faults. If there is an increase, the additional programs and time windows are not displayed.

Heating circuit:	
Operating mode	Current operating mode (e.g. RAS, TIME/AUTO, NORMAL, HOLIDAY, etc.), can be changed
Mode in Time/Auto mode	LOWERED or NORMAL (not changeable), dependent on the time program
RAS status	Heating circuit status in RAS operating mode (e.g. TIME/AUTO)
Party end	Entry of the party end, if "PARTY" operating mode is selected
Holiday/National holiday end	Entry of the date of the last day of a holiday or national holiday

WW requirement:	
On-off loading start/end	For these objects a pre-text must be entered; this can be typed in at the CAN-TOUCH.

Counter:	
Counter reset	For this object a pre-text must be entered; this can be typed in at the CAN-TOUCH.

Heat quantity counter:	
Megawatt hours	This object is displayed without units.
Counter reset	For this object a pre-text must be entered; this can be typed in at the CAN-TOUCH.

Timer:	
Start/Stop	For these objects a pre-text must be entered; this can be typed in at the CAN-TOUCH.

Control function:	
Error status	Display "OK" or "ERROR"
Error message	Specification of the error type (e.g. "too high")
Delete error display	For these objects a pre-text must be entered; this can be typed in at the CAN-TOUCH.

Profile function:	
Start/Stop profile	For these objects a pre-text must be entered; this can be typed in at the CAN-TOUCH.

Maintenance function:	
External Switch	If set to "User", the value is always ON (cannot be changed)
Starting/Stopping the maintenance function	For these objects a pre-text must be entered; this can be typed in at the CAN-TOUCH. The Start/Stop function is active independent of the input variables "External switch".

Outputs:	
PSC-Speed stage	This value may only be selected with the outputs 1, 2, 6 or 7, as otherwise a timeout display is output
Mode (Manual/Auto)	In object mode the switching status of the output can be changed (AUTO/ON or AUTO/OFF (dependent on the function status), MANUAL/ON, MANUAL/OFF), if not locked.
Condition (On/Off)	Only shows the output status and cannot be changed.

Online diagram C.M.I.

For all functions:	
Enable ... Value	If a value is not programmed as "locked" and the source is set to "User", then the function can be switched off or on.

Heating circuit:	
Operating mode	Current operating mode (e.g. RAS, TIME/AUTO, NORMAL, HOLIDAY, etc.), can be changed. In the modes VACATION, PARTY, HOLIDAY, time information is displayed below and can also be modified.

WW requirement:	
On-off loading start/end	For these objects a pre-text must be entered that can be selected for activation.

Counter:	
Counter reset	For these objects a pre-text must be entered that can be selected for activation.

Heat quantity counter:	
Megawatt hours	This object is displayed without units.
Counter reset	For these objects a pre-text must be entered that can be selected for activation.

Timer:	
Start/Stop	For these objects a pre-text must be entered that can be selected for activation.

Control function:	
Delete error display	For these objects a pre-text must be entered that can be selected for activation.

Profile function:	
Start/Stop profile	For these objects a pre-text must be entered that can be selected for activation.

Maintenance function:	
Starting/Stopping the maintenance function	For these objects a pre-text must be entered that can be selected for activation.

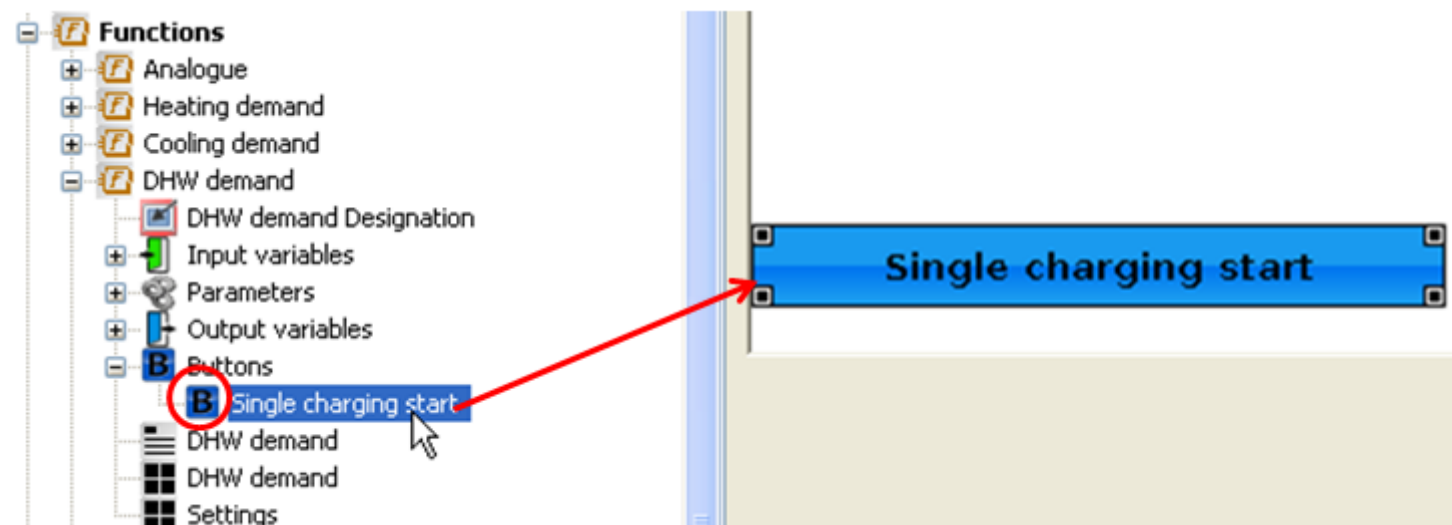
Outputs 1 to 14:	
Mode (Manual/Auto)	In the object mode, the switching state of the output can be changed (AUTO or MANUAL), if it is not blocked. To display the condition ON or OFF, the "Status" must additional be displayed.
Analogue outputs 15-16	Only shows the output status and cannot be changed.
Mode (Manual/Auto)	However, the status of the output is displayed below and can be modified in the mode Manual as with outputs 1–14.

Buttons

Inserting buttons

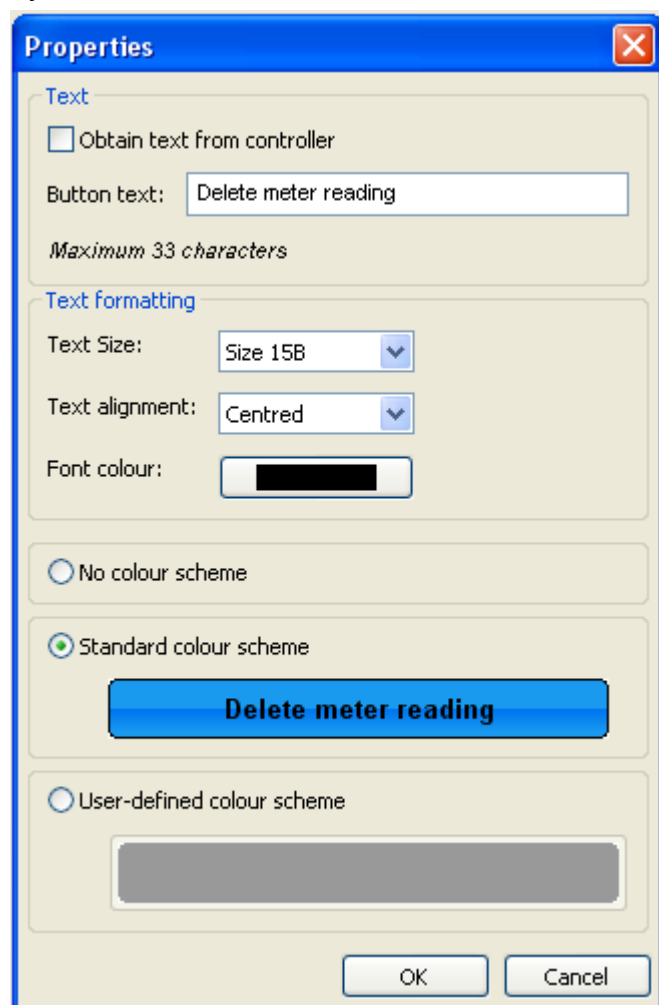
In certain x2 device functions, "**Buttons**" are also available for carrying out actions within the function.

Example: One-off loading of the requirement hot water



Properties

Texts and surface colours can be selected for buttons. The text can be taken from the controller or defined by the user. If "**No colour scheme**" is selected, the background of the button remains transparent.



Buttons with two functions (e.g. start/stop), have expanded selection options for the 2nd button:

Properties

Text

☐ Obtain text from controller

not active:

active:

Maximum 33 characters

Text formatting

not active

active

Text Size:

Text alignment:

Font colour:

☐ No colour scheme

☒ Standard colour scheme

not active

active

Single charging start

Single charging stop

☐ User-defined colour scheme

not active

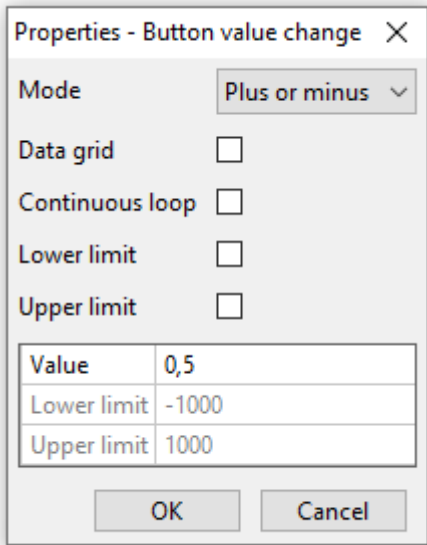
active

OK

Cancel

Button value change

A value is assigned to this button, which can then be increased, reduced or set to a specific number. Its value is assigned in the same way as for animated images.



The dialog box titled "Properties - Button value change" contains the following elements:

- Mode:** A dropdown menu currently set to "Plus or minus".
- Data grid:** An unchecked checkbox.
- Continuous loop:** An unchecked checkbox.
- Lower limit:** An unchecked checkbox.
- Upper limit:** An unchecked checkbox.
- Value table:** A table with three rows: "Value" (0,5), "Lower limit" (-1000), and "Upper limit" (1000).
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Value	0,5
Lower limit	-1000
Upper limit	1000

Mode

1. Plus or minus
 - a. The "Value" is always added. To subtract, enter a negative value (example: by 0.5).
2. Value
 - a. The value is set to the number under "Value" (example: to 0.5).

Data grid

With "Plus or minus", the value is set to the nearest number that is divisible by "Value".
Example: With "Value" set to 0.5, adding at a value of 20.4 would result in a value of 20.5. Subtracting ("Value" -0.5) would result in 20.0.

Continuous loop

If an addition is made when the upper limit has already been reached, the value is set to the lower limit. Likewise, if a subtraction takes the value below the lower limit, it is set to the upper limit.

Lower limit

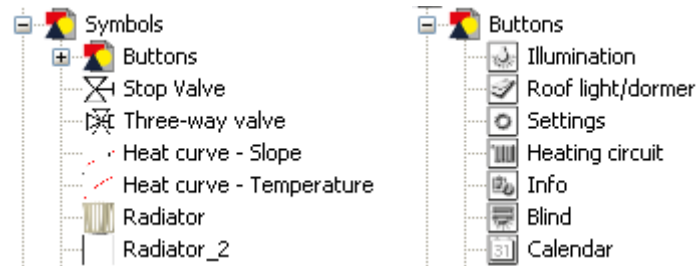
A value below this limit cannot be set.

Upper limit

A value above this limit cannot be set.

Icons

Hydraulic icons and buttons are available in the search tree for insertion into the drawing area.



As with all objects, these icons and buttons are inserted into the drawing area using drag & drop. The icons can be edited further (resize, rotate, flip, etc. – see chapter "[Editing objects](#)")

Links

(only CAN-TOUCH, Online diagram C.M.I. and Function overview UVR16x2)

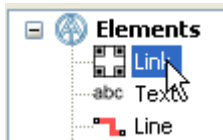
Using links it is possible, to change from one page to any other saved page (= sub-menu). A touch within this field switches the touchscreen to the other page. A touch or a click within the link area switches to the other page.

Before the insertion of links in the page, all pages that are to be accessible with the links must be created with the function "**New page**".

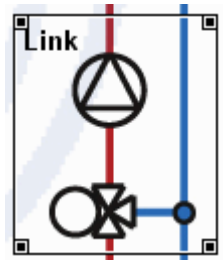
The insertion of links takes place by dragging the "**Link**" element in the search tree with the mouse button pressed down into the desired position in the graphic ("drag & drop").

The size of the link (=contact area) in the graphic can be set by dragging the **corner points**.

CAN-TOUCH



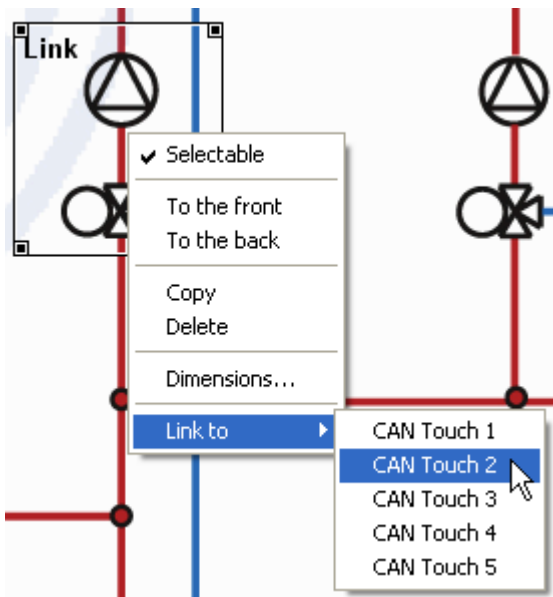
Example:



Up to 16 links per page can be created.

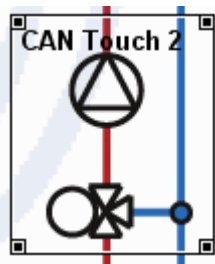
Clicking on a link with the right mouse button calls up a drop-down menu that prompts for selectability, front, back, dimensions and possible links to already created pages.

Example:



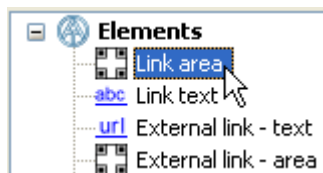
The selection is made by highlighting. A forwarding link must be created on the target page in order to be able to switch to other pages.

Example: Page 2 selected as a target

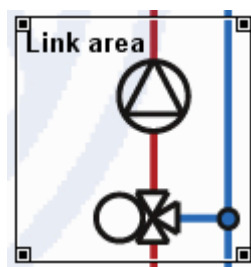


If a link to the **self-created page** is created, then the page is immediately refreshed when the link area is touched.

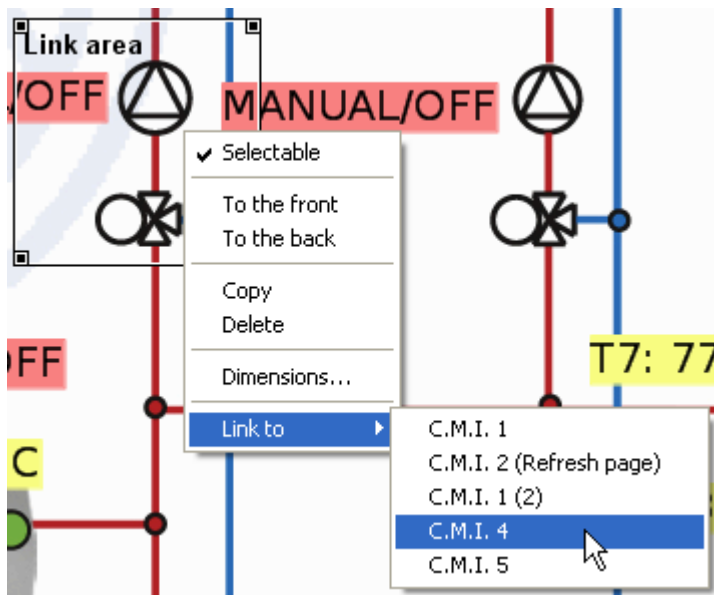
Online diagram C.M.I.



Link Area



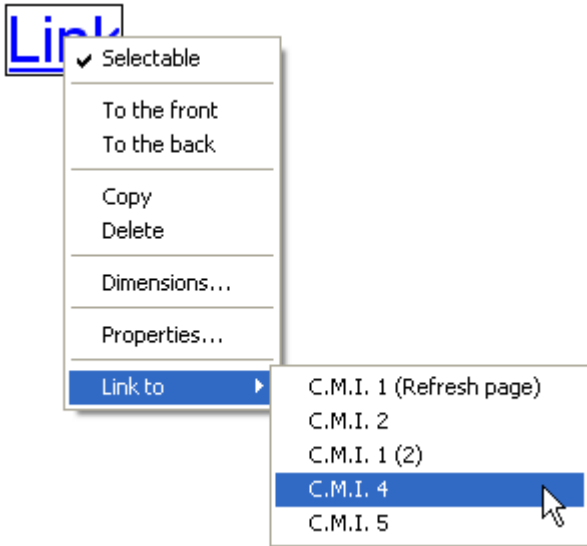
The link **Area** creates an “invisible” area in the online schematic. The size of the link (=contact area) in the graphic can be set by dragging the **corner points**.



Clicking on a link with the right mouse button calls up a drop-down menu that prompts for selectability, front, back, dimensions and possible links to already created pages.

The selection is made by highlighting.

Link Text



The **link text** creates text that switches the page with a click.

Clicking on a link with the right mouse button calls up a drop-down menu that prompts for selectability, front, back, dimensions and possible links to already created pages. The text format can be specified with **"Properties"**.

If an area or text link to the self-created page is created, then the page is **immediately** refreshed after a click on the link area.

It is sufficient to drag the "empty" link to the diagram. The page does not have to be specially selected. A forwarding link must be created on the target page in order to be able to switch to other pages.

External link - text

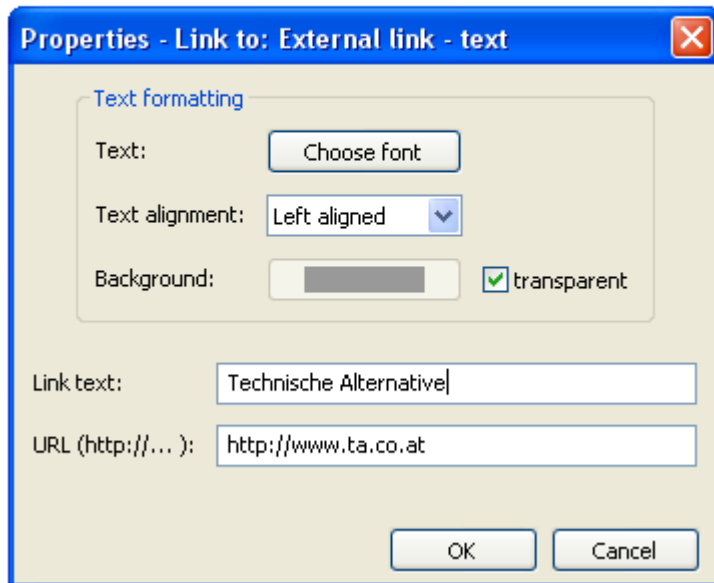


You can switch immediately to the specified web page by entering the URL of a web page in **"Properties"**. The "Link text" is visible in the online schematic.

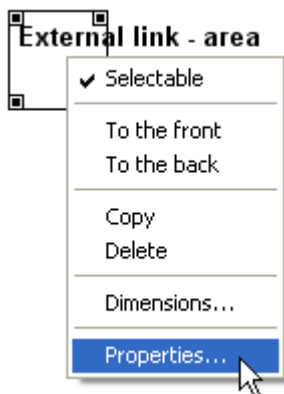
The text format can also be specified with **"Properties"**.

Example: Link to Technische Alternative

Technische Alternative

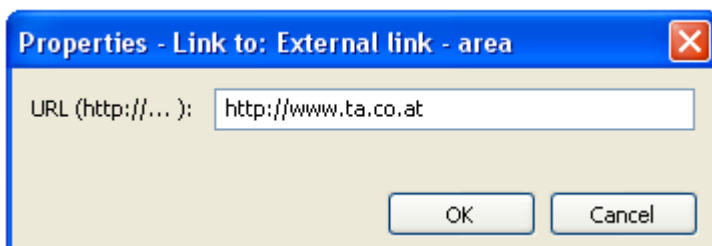


External link - area

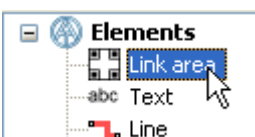


You can switch immediately to the specified web page by entering the URL of a web page in **"Properties"**. Unlike the "External link text", this link area can have e.g. an added graphic object.

Example: Link to Technische Alternative



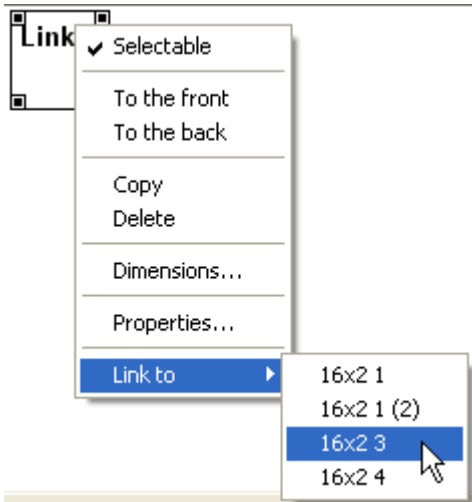
Function overview UVR16x2



The size of the link (=contact area) in the graphic can be set by dragging the **corner points**.

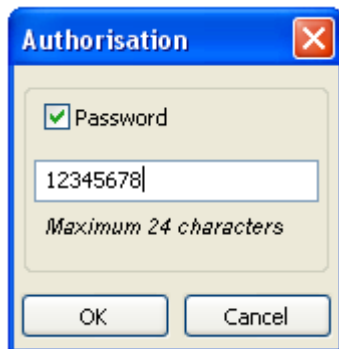
Clicking on a link with the right mouse button calls up a drop-down menu that prompts for selectability, front, back and possible links to already created pages.

Example:

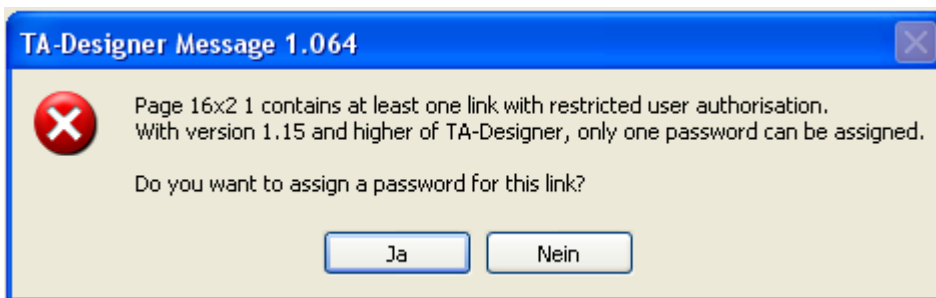


A forwarding link must be created on the target page in order to be able to switch to other pages. If a link to the self-created page is created, then the page is **immediately** refreshed after a click on the link area.

Double-clicking the link area allows a password to be assigned for access to the linked page.

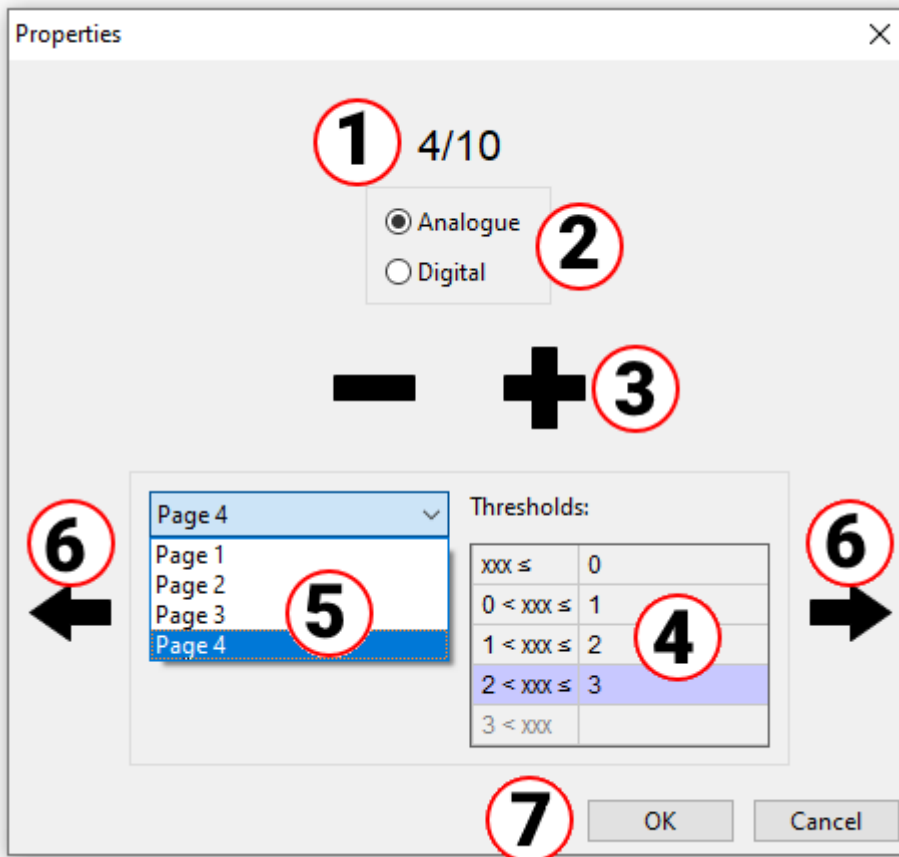


If a project is loaded which was created with an older version of TA-Designer and contains a link with restricted user authorisation, the following query appears:



Value-dependent link

This is a link that changes its target depending on a value. Its value is assigned in the same way as for animated images.



Properties

1 4/10

☒ Analogue 2
☐ Digital

— + 3

6 ← 5 → 6

Thresholds:

xxx ≤	0
0 < xxx ≤	1
1 < xxx ≤	2
2 < xxx ≤	3
3 < xxx	

7 OK Cancel

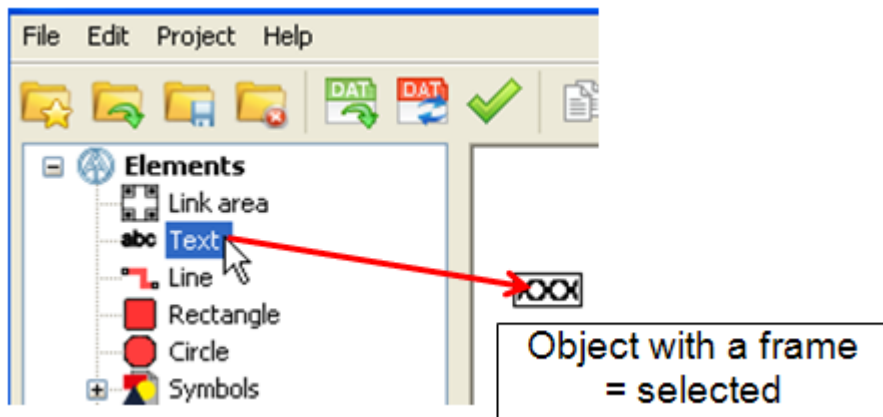
1. The first of up to 10 possible links.
2. Select analogue or digital value.
3. For analogue values, up to 10 thresholds can be defined. The number of thresholds can be set by clicking "+" or "-". For digital values, 2 thresholds are permanently set (Off/On or No/Yes).
4. Enter the threshold values for analogue values. The threshold values are entered without decimal points or units (e.g. for 50.0 °C, enter 50).
5. Setting the appropriate link target (=page) for each threshold value (all existing x2 pages are available).
6. Switch between the various thresholds to assign pages to them. The number of the current threshold is shown at the top and the current threshold is shown on a lilac background.
7. Press "OK" to finish

Texts

Insertion of text items

The insertion of text items takes place by dragging the "Text" element in the search tree with the mouse button pressed down into the desired position in the graphic ("drag & drop").

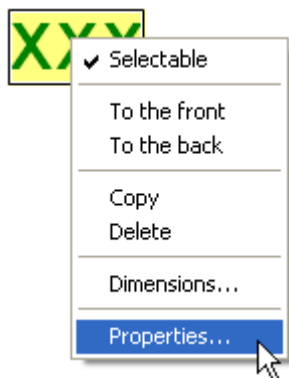
Only single-line text is possible.



Clicking the left mouse button causes a non-selected object to be selected and highlighted with a frame. Only a selected object can be edited.

Text properties

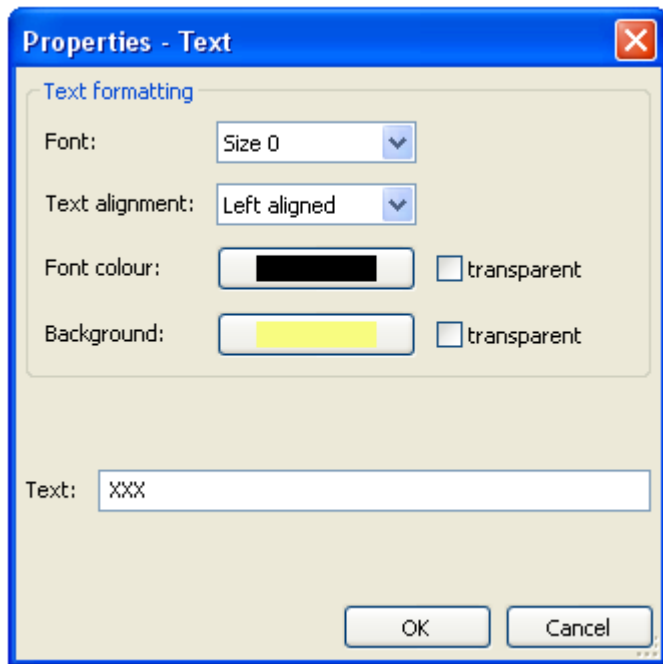
A right mouse click calls up a drop-down menu.



Specification of the text type, the text direction, the font colour (CAN-TOUCH only), the background and entry of text.

CAN-TOUCH

Double-clicking the highlighted field "XXX", clicking "**Properties**" or selecting and pressing the **Enter** key opens the following window:



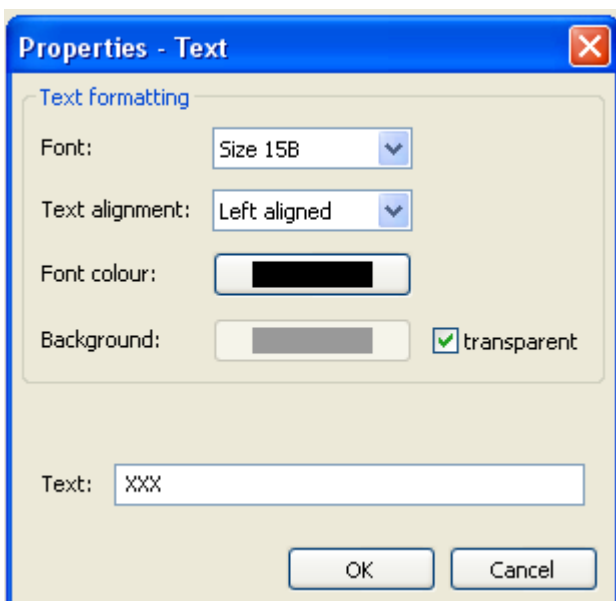
5 fonts of different font size are available.

Moreover for better positioning there is also a choice of whether the display is to be **left-aligned**, **right-aligned** or **centred**. Clicking causes the font or background colour to be displayed in the selection field in which the desired colour can be set.

So that you can use the CAN-TOUCH font on your PC, for example to insert it in a graphic, you require the font **DejaVuSans**. This is used by the CAN-TOUCH in the sizes **13, 16, 22, 30 and 40** points and can be downloaded from our home page under www.ta.co.at.

Function overview UVR16x2

Double-clicking the highlighted field "XXX", clicking "Properties" or selecting and pressing the **Enter** key opens the following window:

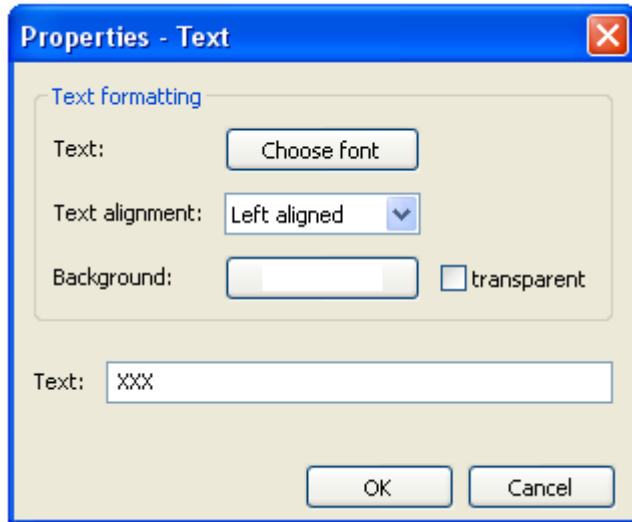


Six fonts of different font sizes and faces are available.

Moreover for better positioning there is also a choice of whether the display is to be **left-aligned**, **right-aligned** or **centred**. Clicking causes the font or background colour to be displayed in the selection field in which the desired colour can be set.

Online diagram C.M.I. and BL-NET

Double-clicking the highlighted field "XXX", clicking "**Properties**" or selecting and pressing the **Enter** key opens the following window:



In this window, the values of the following **Properties** are set analogously to setting Properties:

- **Font**
- **Left aligned/right aligned**
- **Background colour**
- **Text**

Translation memory

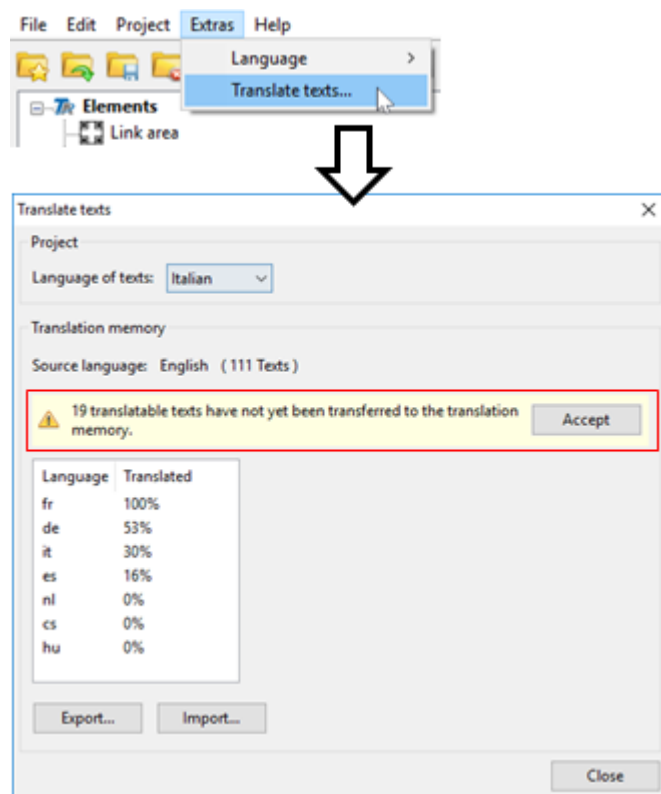
Translate texts (translation memory)

Using the **"Translate texts"** function, it is possible to create translations for texts in the project and apply them in the required language.

This refers to all texts that do not originate from the controller or its function data, but from the TA-Designer project itself.

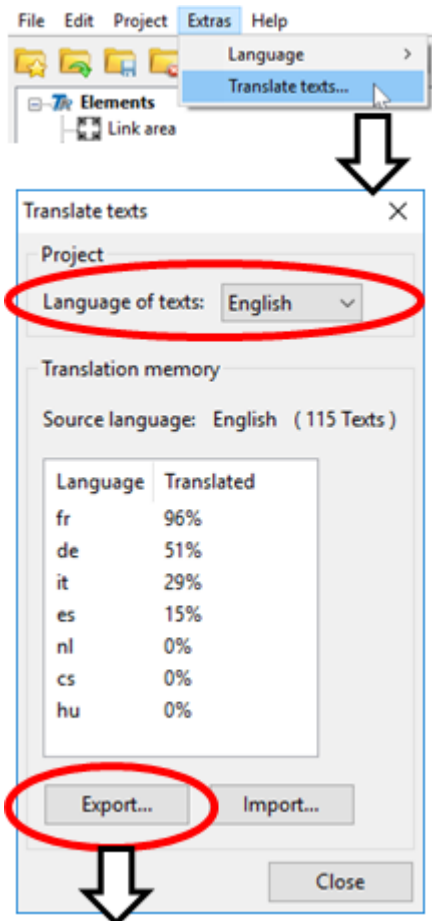
For this purpose, a **translation memory** is created, which is saved on the user's PC independently of the respective project, and which can be called up from TA-Designer.

Transferring texts to the translation memory

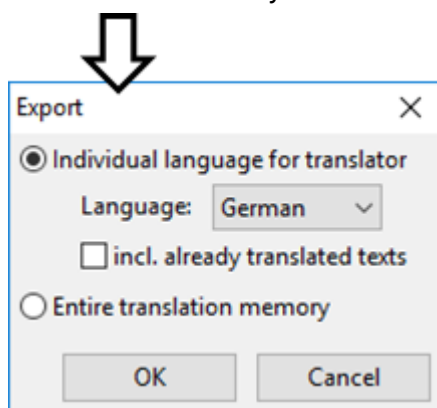


New texts must be transferred manually to the translation memory. If the project contains a text which has not yet been transferred, a message will appear in the left-hand image when the translation dialogue box is opened.

Exporting the translation memory



45 texts are currently saved. Once the "**Language of texts**" has been set, a .csv file can be created for a translator.



The programmer can enter explanatory comments on the terms for the translator in the csv file.

A typical situation calling for the **Entire translation memory** (i.e. all previously translated texts in all languages) to be exported to the csv file is if the memory is going to be used on another computer.

After selecting "OK", a directory and file name must be specified for the csv file.

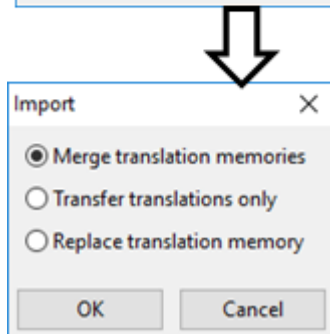
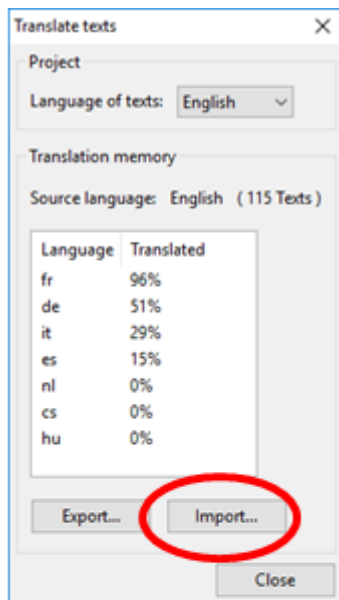
Structure of a .csv file

	A	B	C	D
1	de	[comment]	[length]	en
2	Status Anforderung		128	
3	eff. Solltemperatur		128	
4	Mischerposition		128	
5	Heizkreispumpe		128	
6	eff. Raumsoll		128	
7	T.Vorlauf Soll		128	
8	T.Vorlauf Ist		128	
9	Ausschaltdifferenz		128	
10	Einschaltdifferenz		128	
11	Raumeinfluss		128	
12	T.Vorlauf Max		128	

In der csv-Datei kann der Programmierer erläuternde Kommentare zu den Begriffen für den Übersetzer eintragen. The translator puts the translated texts in the relevant language column. In this example, the csv file was created for English (column "en" = English).

Importing a translation memory

After translation, this table can be reimported into TA-Designer.



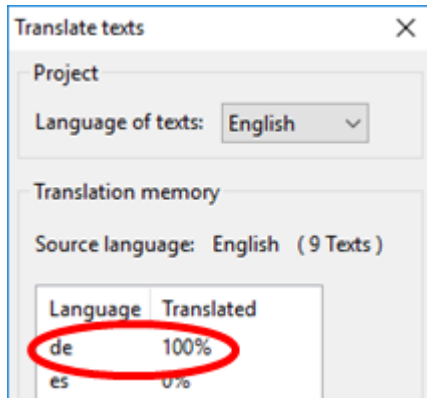
Merge translation memories: Existing texts are translated and new texts, along with their translations, are transferred.

Only transfer translations: Only the translations of existing texts are transferred.

Replace translation memory: With this option, existing entries in the translation memory can potentially be overwritten!

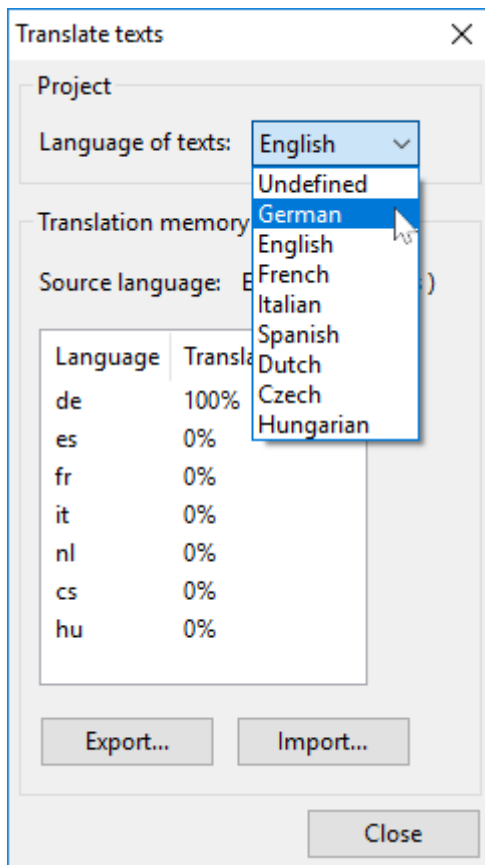
Press **"OK"** to finish.

In the **"Translate texts"** menu, you can see whether all the texts in the translation memory are translated (= 100 %).



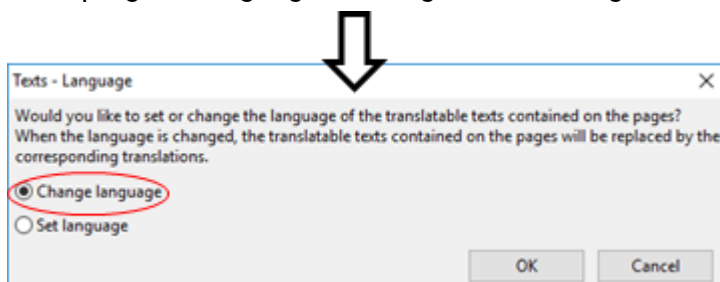
Applying the translated texts

Example: In a project that has been created in **German**, the translatable texts also need to be shown in **English** for an **English-speaking** user.



The original language was **German**. Before the change is made, therefore, German texts are shown. Consequently the language of the texts needs to be **changed** to **English**.

If the program language is changed in TA-Designer, this change is also adopted for the **Language of texts** item.



The language has to be **changed** for most application scenarios.

The **Set language** option also changes the language selected under **Language of texts** and is only necessary if the relevant language has not yet been selected under this item.

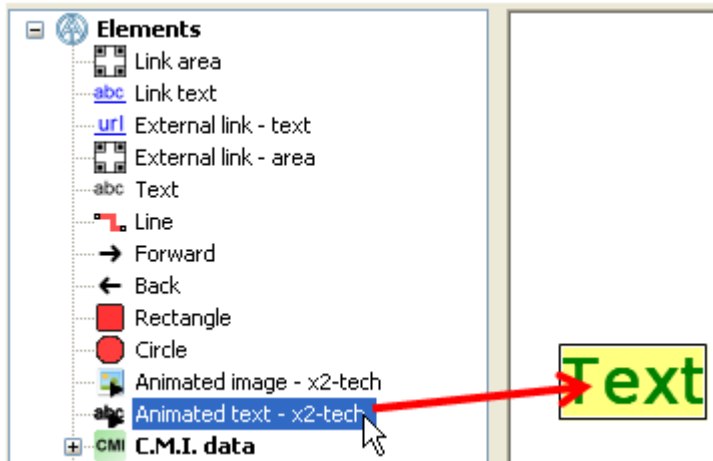
Animated texts on C.M.I. pages

This function makes it possible to display various texts when the statuses of values change (digital or analogue values). The status of the value is then indicated by a specific text.

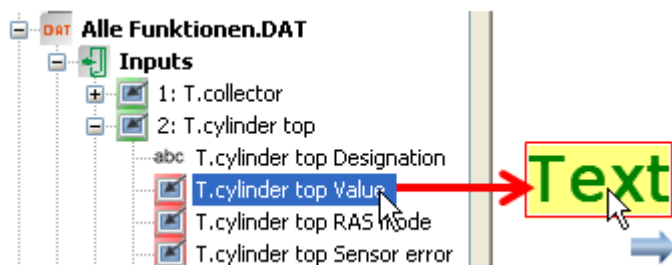
Animated texts can only be linked with values from devices with x2 technology.

Link to a value:

1. Position the animated text in the drawing area.



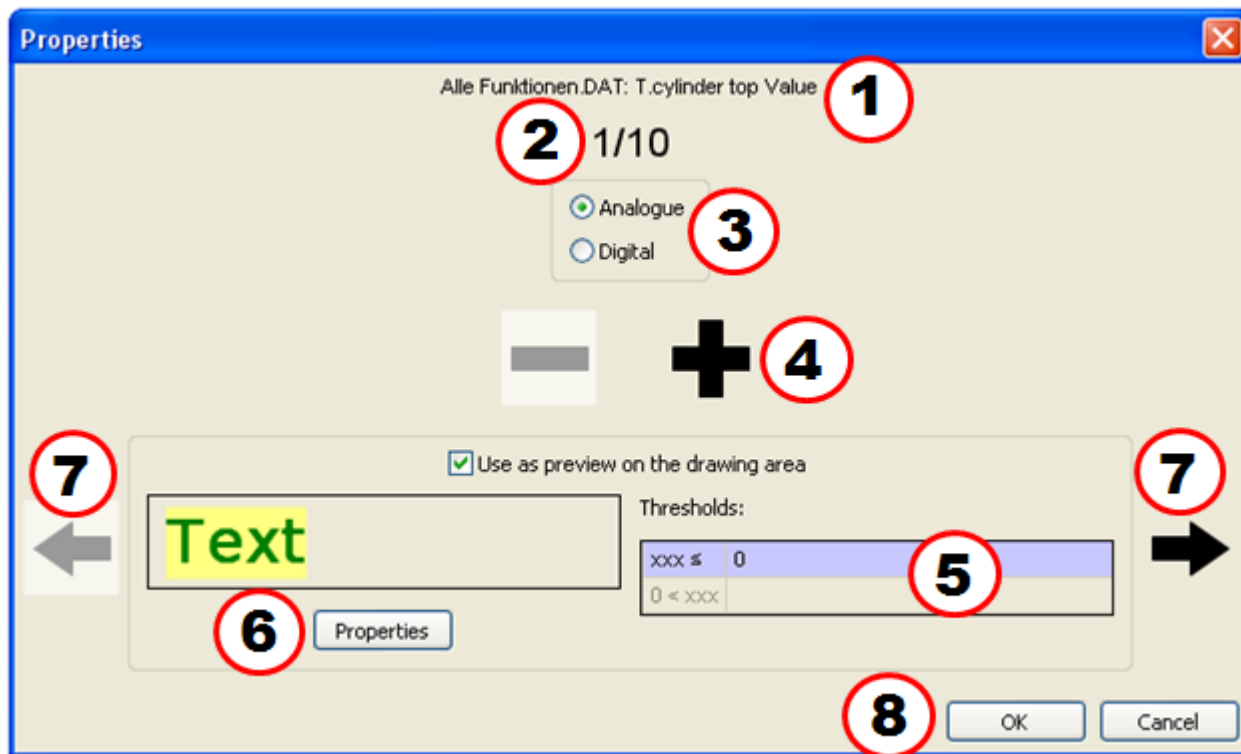
2. Drag the value linked to the text onto this area. The mouse pointer will then change to show a second arrow and the border of the text will turn red.



If you now execute the "**Search the selection tree**" function for the text area, you will see the link to the value.

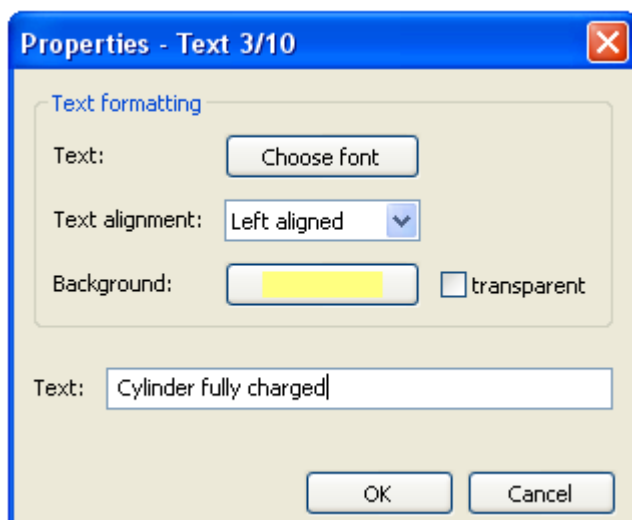
3. Set the "**Properties**" of the animated text by double-clicking or by right-clicking and selecting "Properties".





1. Display the allocated value.
2. The first of up to 10 possible texts. Only 2 texts are possible for digital values.
3. Select analogue or digital value.
4. For analogue values, up to 10 thresholds can be equipped with their own texts. The number of thresholds can be set by clicking "+" or "-".
For digital values, 2 thresholds/texts are permanently set (Off/No, On/Yes).
5. Enter the threshold values for analogue values. The threshold values are entered without decimal points (e.g. 50 °C -> entry: 50).
6. Load the matching text for each threshold using "Properties", specify the formatting and enter the text.

Example:



The following **properties** have been set in this window:

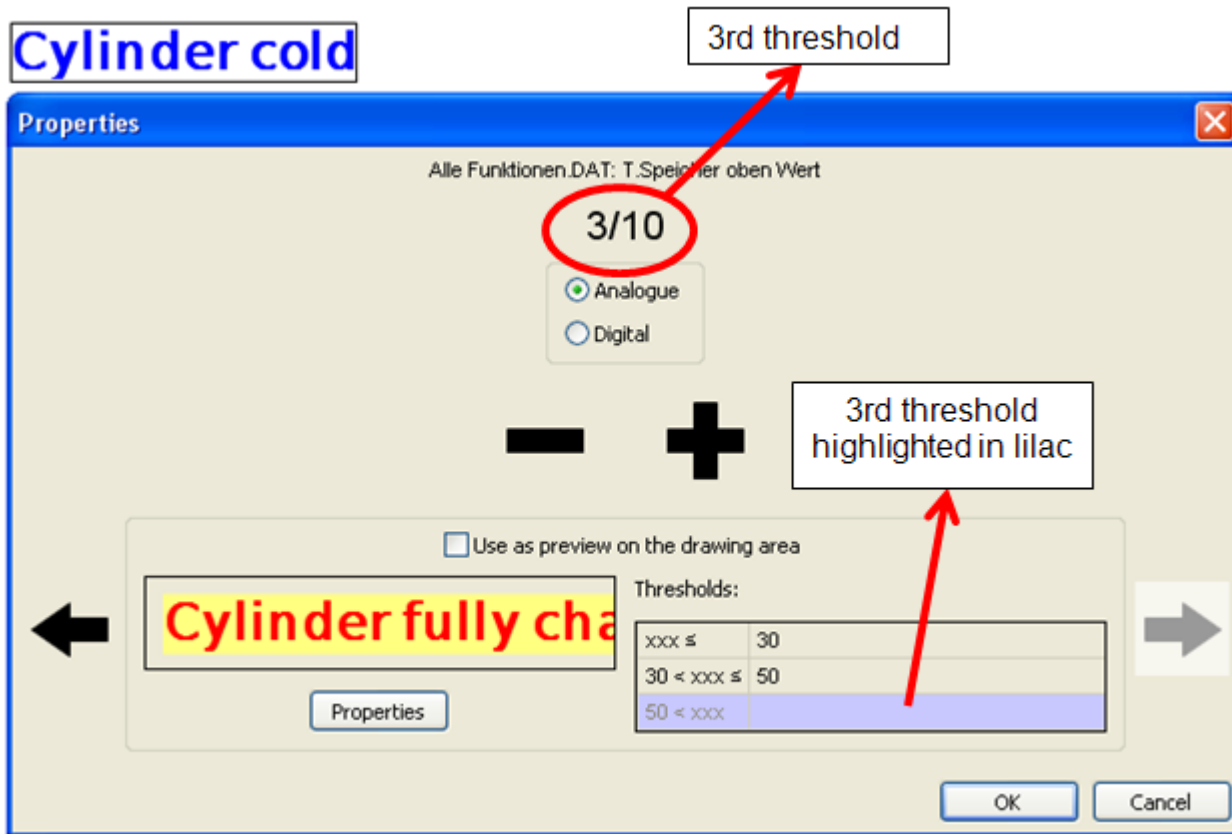
- **Font**
- **Left aligned/right aligned**
- **Background colour**

- **Text**

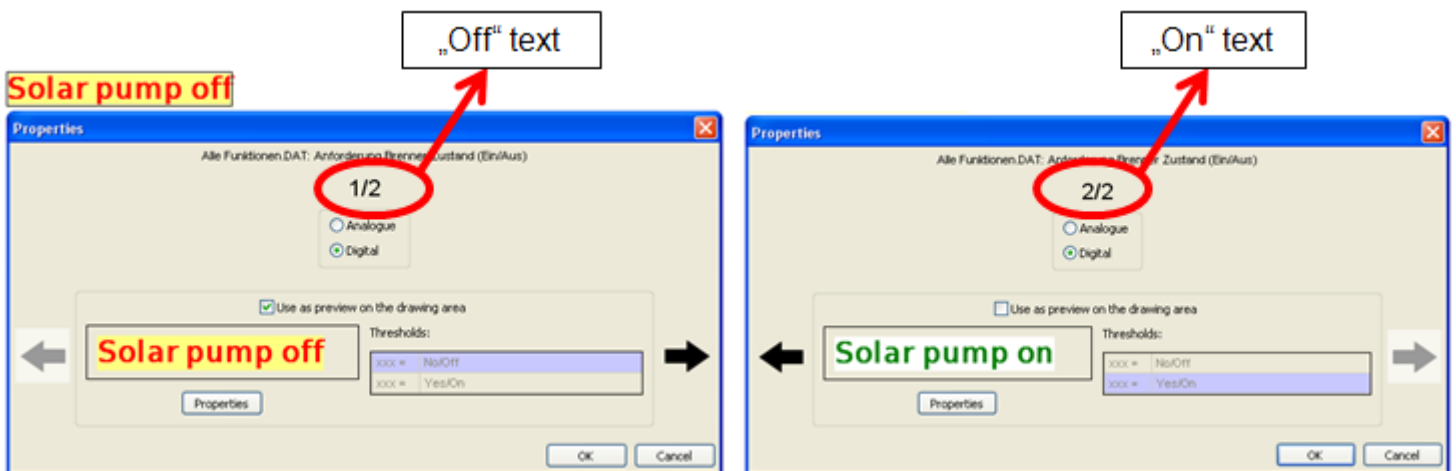
7. Go back or to the next threshold. The number of the current threshold is shown at the top and the current threshold is shown on a lilac background.

8. Press "OK" to finish.

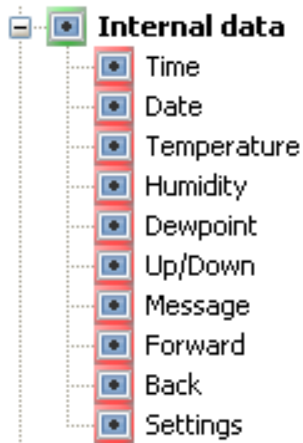
Example: Analogue value, 3 thresholds ($\text{value} \leq 30\text{ }^{\circ}\text{C} / 30\text{ }^{\circ}\text{C} < \text{value} \leq 50\text{ }^{\circ}\text{C} / 50\text{ }^{\circ}\text{C} < \text{value}$), current display: 3rd text; a different text was selected as the preview on the drawing area.



Example: Digital value; preview of the "Off" text on the drawing area



Internal data (CAN-TOUCH)



The **time** and **date** can be inserted into the graphic from the search tree field "**Internal data**". These values are taken from the CAN bus device with the node number 1 and **cannot** be changed. If the time and/or date need to be adjustable, then these values must be taken from the UVR1611 or UVR16x2 function data. (see chapter "[Date/time](#)").

If the touchscreen is equipped with the sensor module, the **room temperature**, **room humidity** and **dew point** can also be positioned. The properties of these displays can be set like all other values.

Likewise an "**Up/Down**" button can be dragged into the diagram (see chapter "[Insertion of an Up/Down button](#)").

A warning triangle can be displayed in the page if there is an active **message** (see chapter "[Messages](#)").

Select "**Forward**" or "**Back**" to create links that enable navigation to the last selected page (see chapter "[Insertion of a \"Forward\" or \"Back\" link](#) ").

Select "**Settings**" to create a link to a fixed pre-programmed page, on which CAN-TOUCH settings can be changed and updates made in the CAN bus network (see chapter "[Inserting the \"Settings\" link](#)").

Insertion of an Up/Down button

The changing of **changeable values** (= non-locked values) generally takes place through the display of up and down arrows alongside the value after touching of the value.

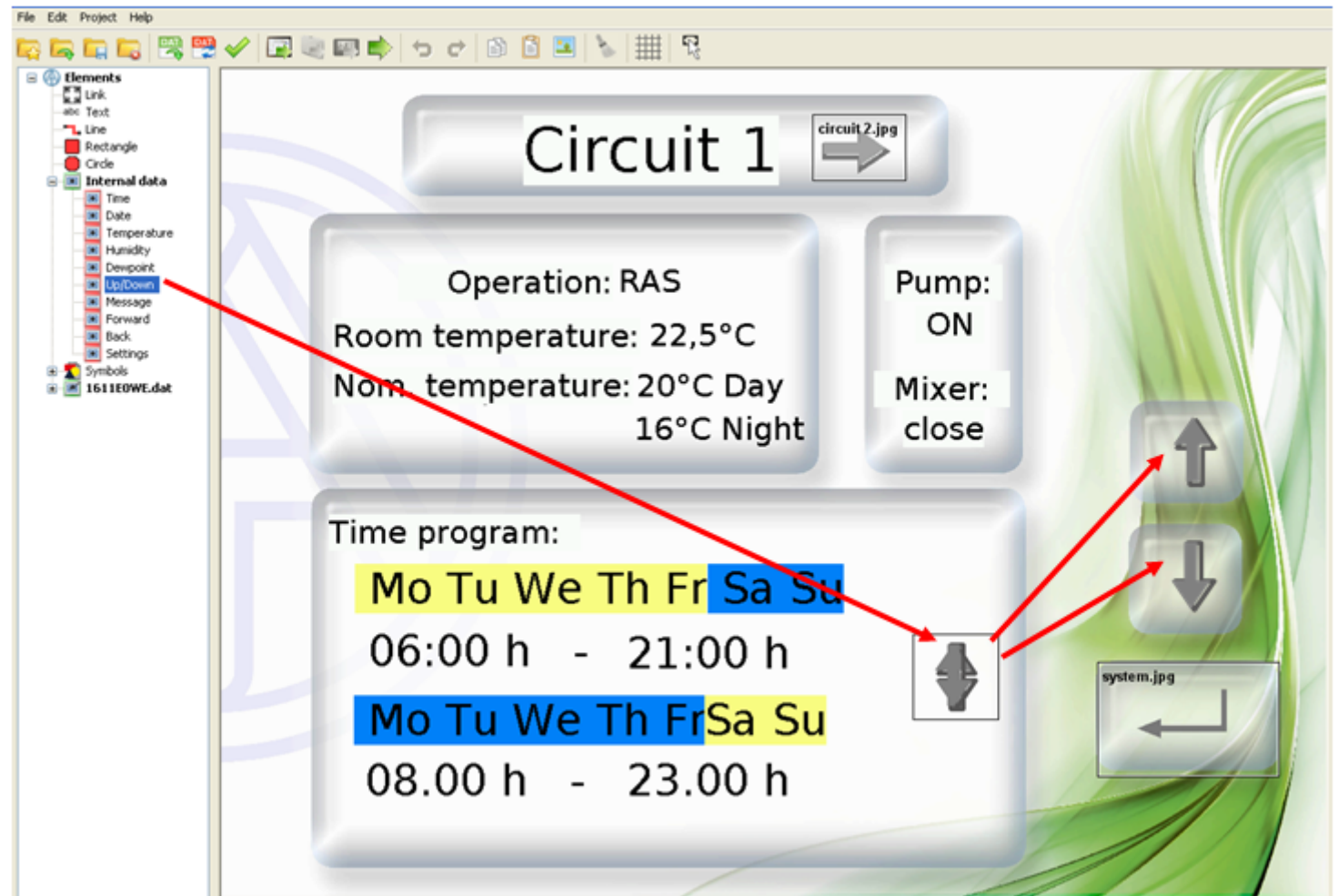
Through the insertion of both an up and down button, it is however possible to ensure that the changing of all values on this page **always** takes place using these special buttons.

These buttons can be taken over from the element area "[Internal data](#)" into the graphic. Here both characters are dragged simultaneously into the graphic field and then separately positioned.

Only **one** Up and **one** Down button can be inserted per graphic.

If the buttons are to be deleted, they must be deleted individually.

Example:



Messages

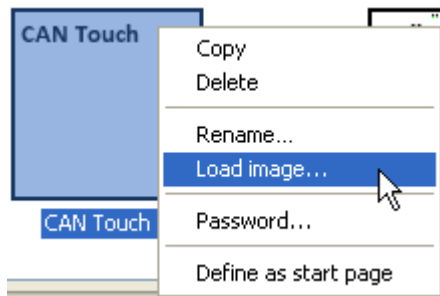
With the help of this function, it is possible to generate a **pop-up window** when specific definable events occur.

- The importance of the message can be emphasised at the same time with a **signal sound** and/or the **flashing** of the background lighting.
- Acknowledging the message with a touch takes you to a programmed **return link** to the page shown last.
- A **warning triangle** can be displayed on every page as long as at least one message is still active. Touching the warning triangle returns you to the message page. If several messages are active then they are displayed consecutively.
- Up to 32 messages can be programmed

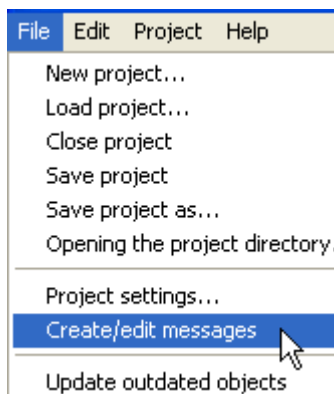
Note: These CAN-TOUCH messages are **not** connected with the messages of the UVR1611.

Creating a message

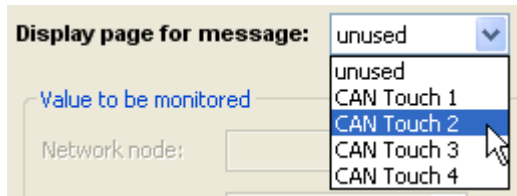
1. Definition of a **network output** for the value of a CAN bus device that is to be monitored.
2. **Optional:** Creating the graphic for the pop-up window. The graphic file must be a *.jpg, *.bmp or *.png – file with the ratio 4: 3 (1024 : 768 pixels) .
3. Set up a new page by double clicking on **“New page”** on the bottom left and selecting the **“CAN touch page”**.
4. Select an image right-clicking with the mouse on the empty image symbol in the bottom bar. If no graphic is selected for the message page, the page will stay white. Free texts and/or objects (e.g. sensor values) can be inserted in this page.



5. Select the menu **“File / Create/edit messages”**

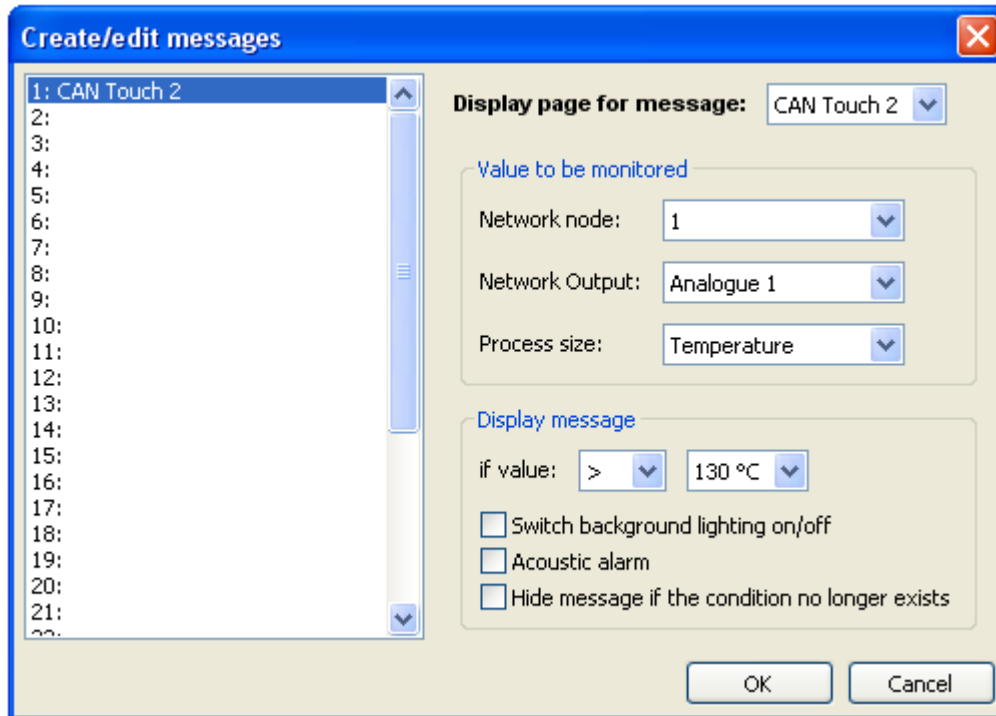


6. Selection of the display page for the message

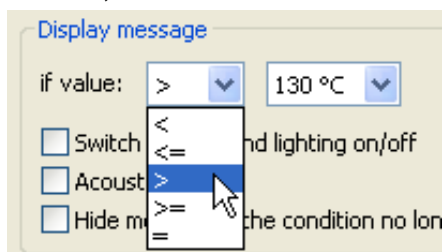


7. Defining the settings for the message

Example:

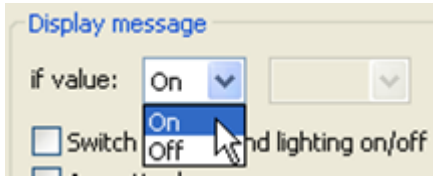


- **Value to be monitored:** Up to 32 analogue or digital **network outputs** of CAN bus devices can be monitored.
 - o Selection of the sending network node and
 - o its network output,
 - o indication of the process size.
- **Display messages (analogue value):** Selection of the condition for message activation (options: <, <=, >, >=, =) and of the threshold value.



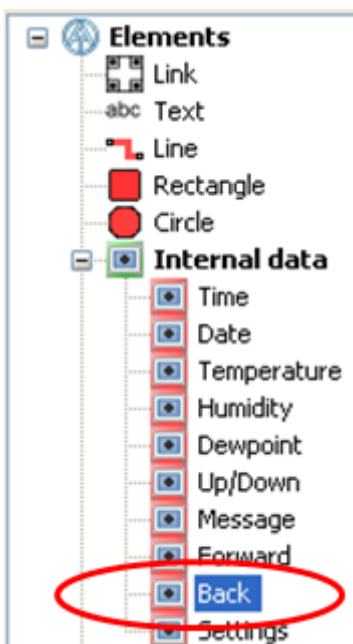
or

- **Display messages (digital value):** During the monitoring of a digital network output, the status (**off** or **on**) for message activation is selected.



- **Selection of additional actions:**
 - o Switching the background lighting on/off (light flashes),
 - o acoustic alarm,
 - o hiding the message if the status no longer exists.
- Completion with **"OK"** after entry of all messages.

8. IMPORTANT! Positioning a **return link** on the message page.

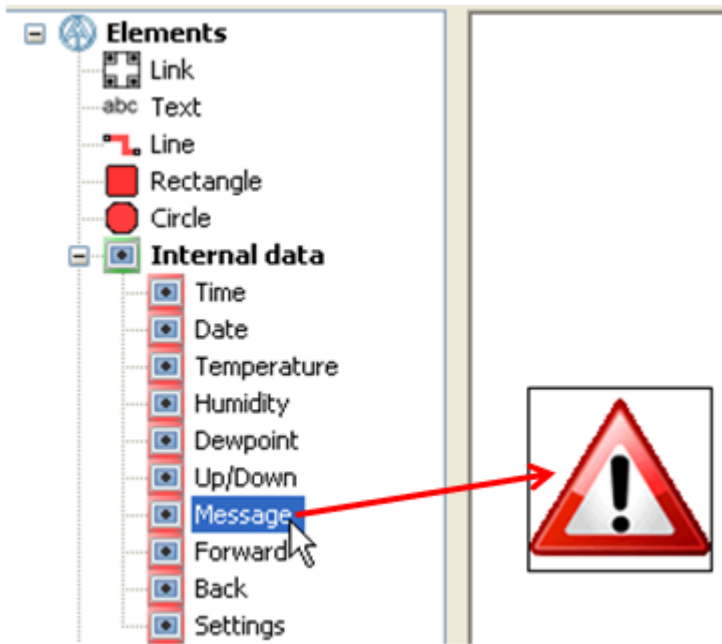


This allows acknowledgement of the page. The display jumps to the page shown last (application of the link **"Back"** from internal data).

It makes sense to place the link area across the entire graphics. This way it does not matter which area of the touch screen is used for acknowledgement.

9. Optional: Free texts and/or objects (e.g. sensor values) can be inserted in the message page.

10. Optional: Inserting a **warning triangle** in the display pages



After acknowledging a message page with the back link, a warning triangle can be inserted on the target page of the link.

The warning triangle is displayed as long as a message is active. This triangle is at the same time a link to the page of the active message.

If several messages are active then they are displayed consecutively.

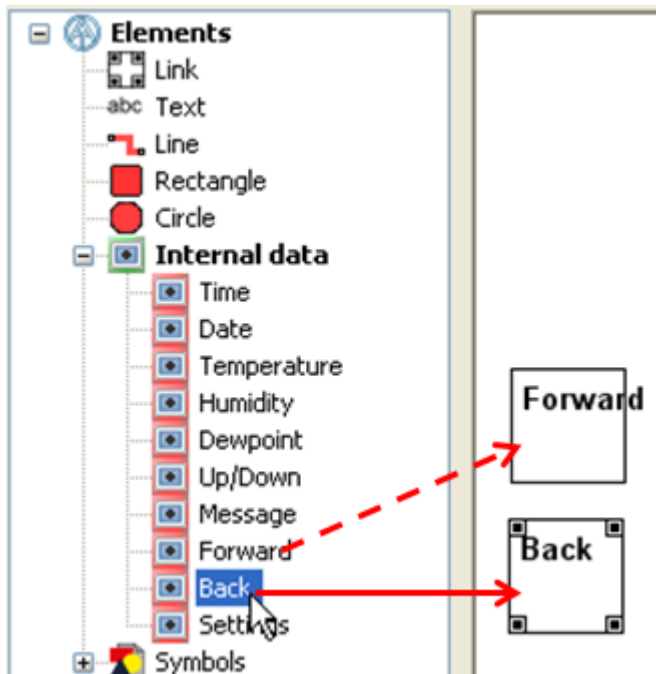
To delete the warning triangle, select it and then press the computer's "Delete" key.

Insertion of a "Forward" or "Back" link

Select "**Back**" to create links that enable navigation to the **last selected** page.

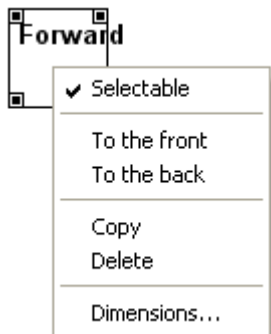
Select "**Forward**" to toggle back to the page, from which previously the screen was switched using "**Back**".

Example:



The link is positioned in the graphic exactly like any other link. The size of the link is specified by dragging the corner points.

Labelling of the link is carried out either by free text input in the **TA-Designer** or using the graphic itself.



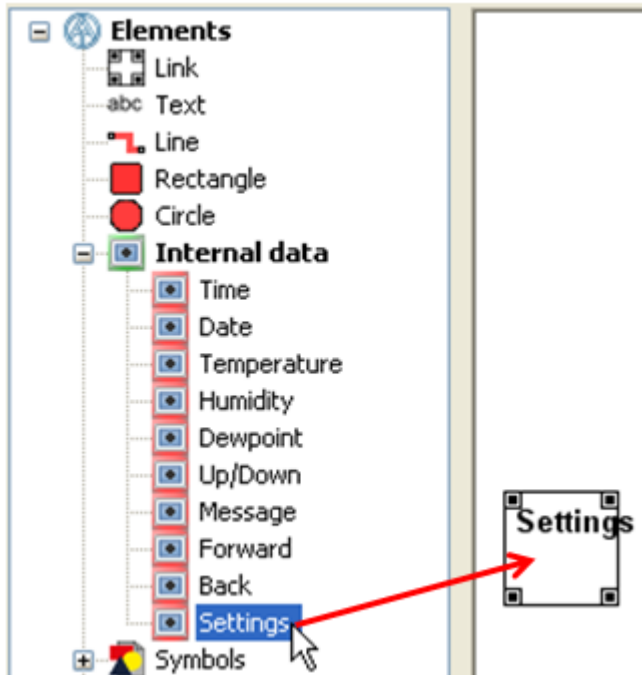
Clicking on a link with the right mouse button calls up a drop-down menu that prompts for selectability, front and back, dimensions.

Inserting the "Settings" link

The "**Settings**" link opens a fixed pre-programmed page, on which the CAN-TOUCH properties Language, Brightness, Lighting Switch-on period and Node number can be changed.

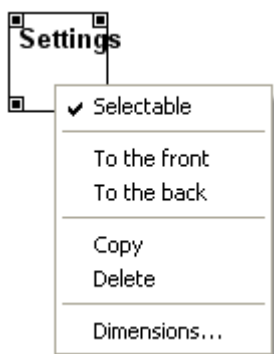
Additionally, the CAN-TOUCH operating system can be updated from this page, operating systems and function data of all other CAN bus members can be uploaded and function data from other CAN bus members can be downloaded (except for BL-NET). Also the system date and time (CAN bus device with the node number 1) can be set.

Example:



The link is positioned in the graphic exactly like any other link. The size of the link is specified by dragging the corner points.

Labelling of the link is carried out either by free text input in the **TA-Designer** or using the graphic itself.



Clicking on a link with the right mouse button calls up a drop-down menu that prompts for selectability, front and back, dimensions.

The setting link can be inserted just once on each page.

To delete the link, select it and then press the computer's "Delete" key.

Safety instruction:

On the target side of the link, sensitive values (e.g. node number) can be changed or updates carried out. If it should only be possible for an expert to carry this out, then you must first create a normal link

to a self-created (custom) page, which is then **password** protected. The "**Settings**" link is then only inserted on this protected page.

The operation of this Settings page is described in the "**Operation**" chapter of the CAN-TOUCH manual.

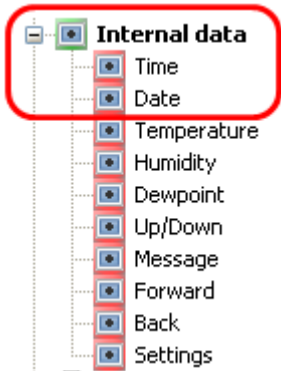
Date / time

In the CAN bus network, the time for all devices is always taken from the device with the **node number 1**. This can be a controller (UVR1611, UVR16x2, RSM610) or the C.M.I.

Depending on the display unit, there are several possibilities for displaying date and time.

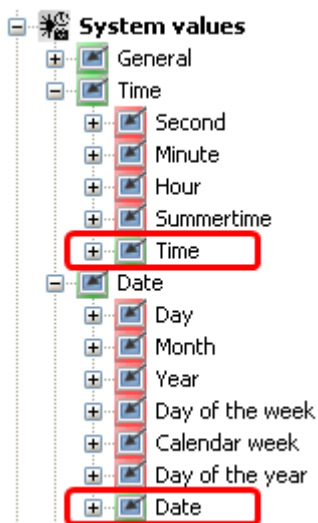
CAN-TOUCH

Internal data



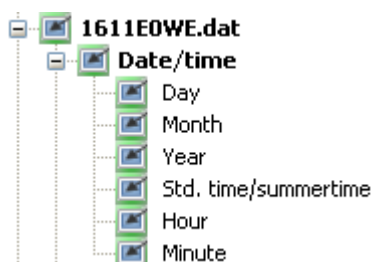
The display from the **"Internal data"** **cannot** be changed.

System values for x2 devices



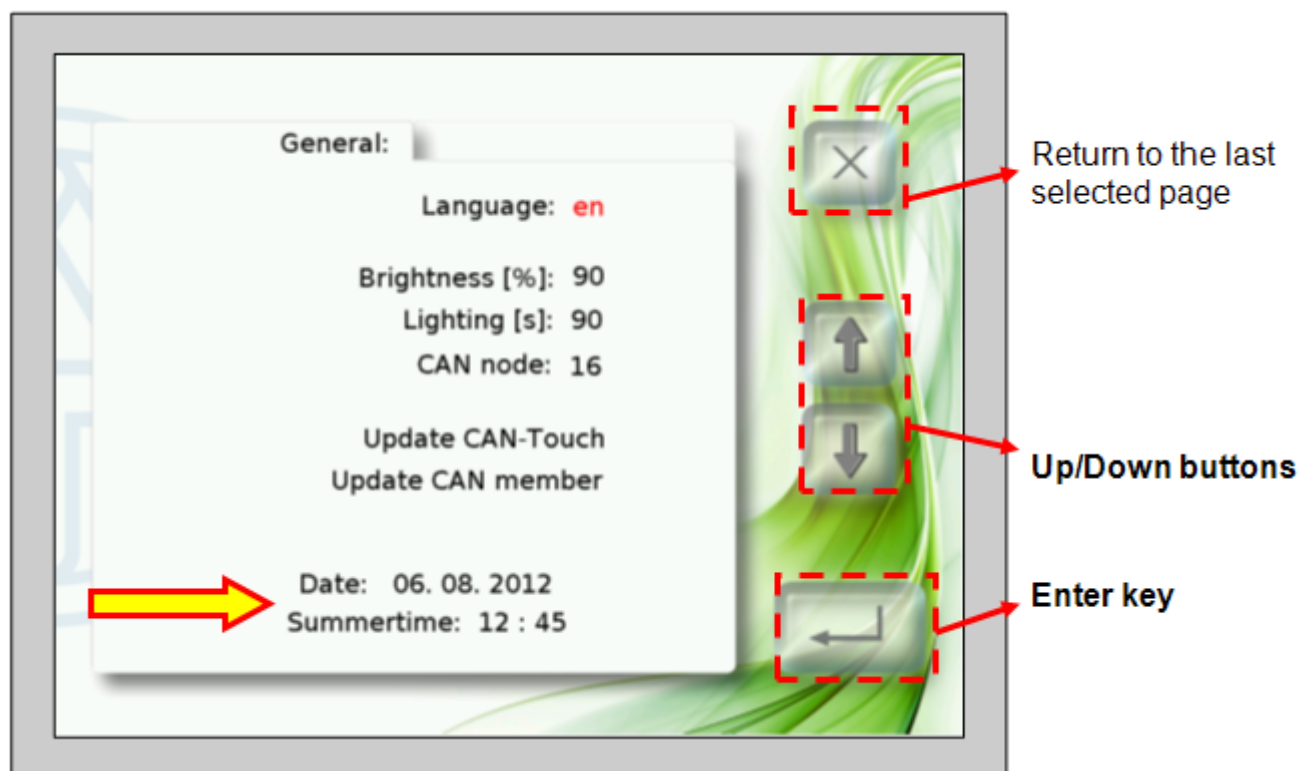
This display is only useful if the x2 device has the node number 1. The values can be changed on the CAN-TOUCH and are then adopted by the other CAN bus devices. It can take up to a minute to transfer the values. The C.M.I. only adopts the value if "CAN" is specified as the source of reference in the C.M.I. time settings.

UVR1611



This display is only useful if the UVR1611 has the node number 1. The values can be changed on the CAN-TOUCH and are then adopted by the other CAN bus devices. It can take up to a minute to transfer

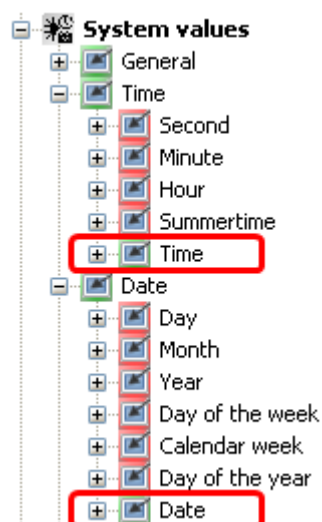
the values. The C.M.I. only adopts the value if "CAN" is specified as the source of reference in the C.M.I. time settings.



On the CAN-TOUCH page, which can be reached via the "**Settings**" link from the "**Internal data**", the date and time for the device with the CAN node number 1 can also be adjusted. If the values are adopted from the C.M.I. with the node number 1 and "Web" is specified as the source of reference in the C.M.I. time settings, then the settings cannot be changed.

x2 device function overview

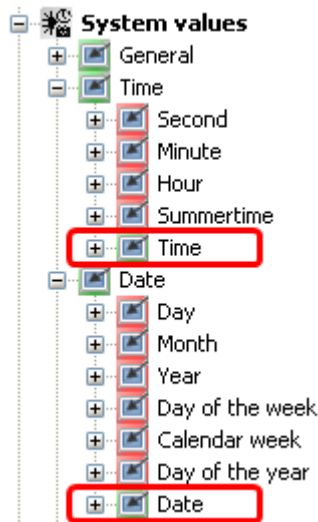
System values for x2 devices



This display is only useful if the x2 device has the node number 1. The values can be changed in the function overview and are then adopted by the other CAN bus devices. It can take up to a minute to transfer the values. The C.M.I. only adopts the value if "CAN" is specified as the source of reference in the C.M.I. time settings.

C.M.I. online diagram

System values for x2 devices



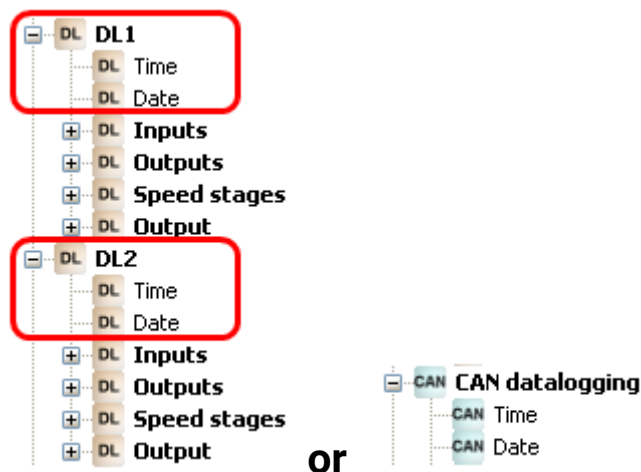
This display is only useful if the x2 device has the node number 1. The values can be changed in the online diagram and are then adopted by the other CAN bus devices. It can take up to a minute to transfer the values. The C.M.I. only adopts the value if "CAN" is specified as the source of reference in the C.M.I. time settings.

C.M.I. data



The display from the "C.M.I. data" **cannot** be changed. Depending on the time setting in the C.M.I., one of the following is displayed: the web time, the time on the CAN bus device with the node number 1 or the time on the device which is connected to the C.M.I. via a data link.

BL-NET online diagram



The values can be transferred to the C.M.I. via the CAN bus or the DL bus and displayed in the BL-NET online diagram. As is the case for all values in the BL-NET online diagram, it is **not** possible to make a change.

Templates

Using the "**Save new template**" and "**Insert template**" icons, it is possible to create page groups as templates, which can be inserted into other projects.

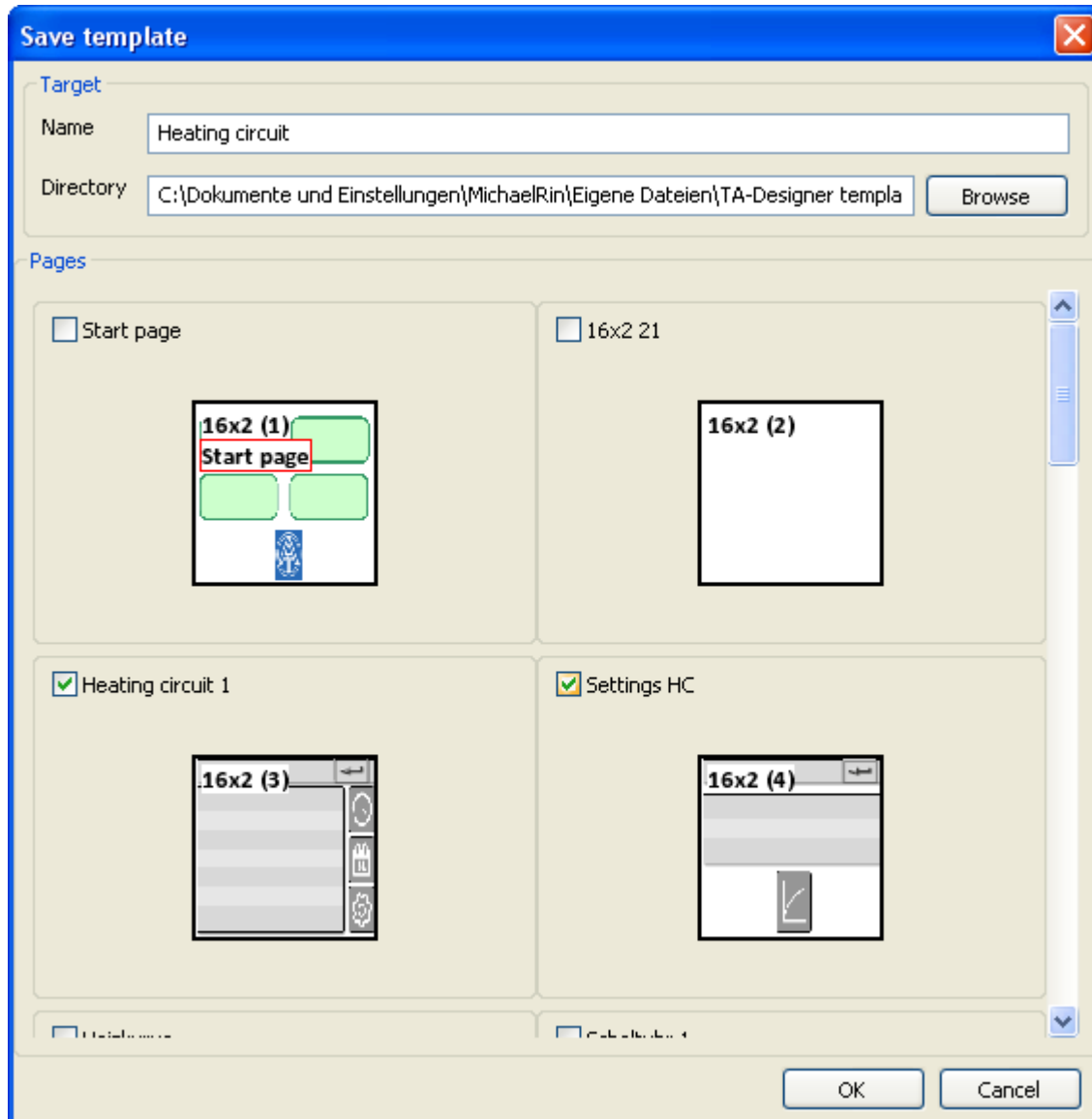
Templates can be created for the **CAN-TOUCH**, the **C.M.I.** (online diagram) or the **x2 function overview**.

Creating a new template



To create a new template, click on the **"Save new template"** icon in the menu bar.

A window then appears where the name, file location and pages for the template can be defined.



Name Enter a file name under which the template will be saved.

Directory TA-Designer suggests a file path, but this can be changed.

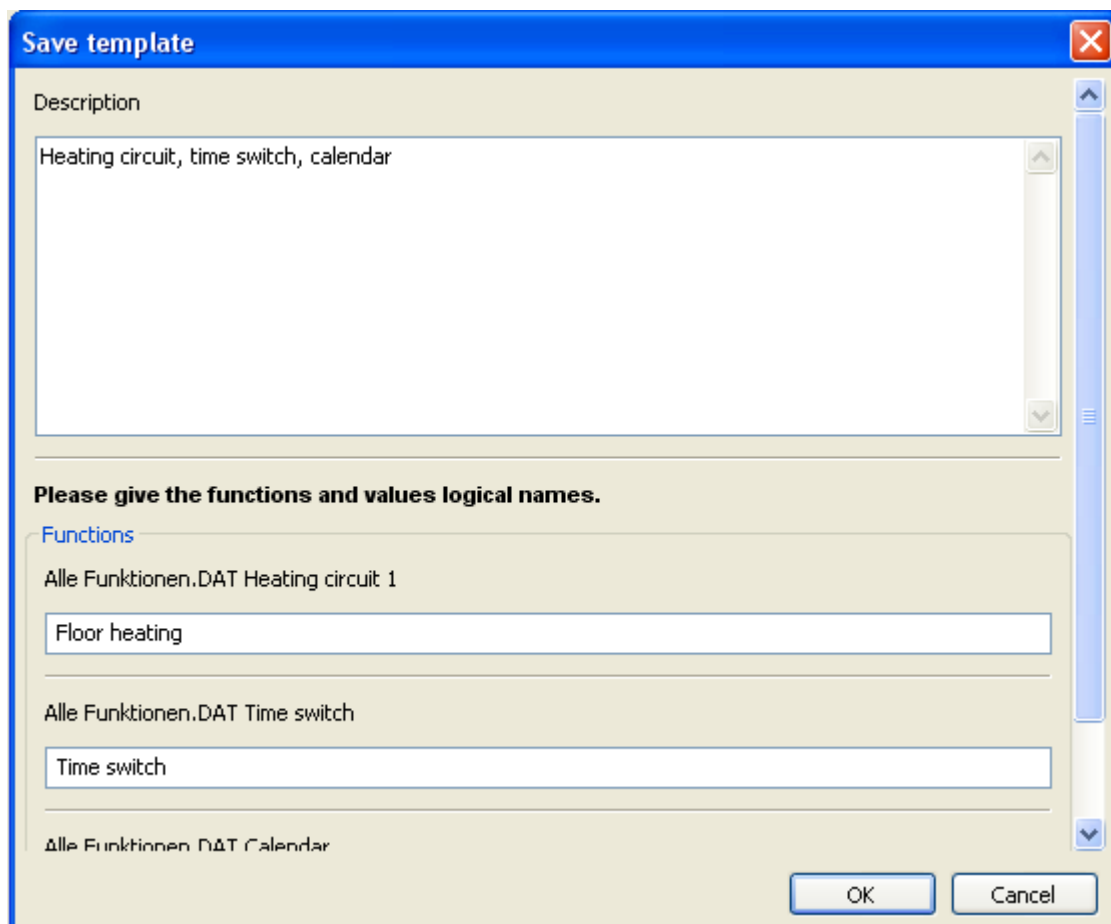
Pages Tick the pages which you would like the template to contain.

Finish with **OK**.

When selecting the pages, note the page type to avoid an unintentional mixture of different kinds.

Next, a window appears where a general description of the template and individual designations for the functions and values can be entered.

"Values" only includes values that were not directly assigned from the functions, e.g. inputs, outputs, etc. The designations are subsequently shown when inserting the template into a program.



The image shows a 'Save template' dialog box with a blue title bar and a close button. It contains a 'Description' text area with the text 'Heating circuit, time switch, calendar'. Below this is a section titled 'Please give the functions and values logical names.' with a 'Functions' sub-section. Under 'Functions', there are three entries: 'Alle Funktionen.DAT Heating circuit 1' with a text field containing 'Floor heating', 'Alle Funktionen.DAT Time switch' with a text field containing 'Time switch', and 'Alle Funktionen.DAT Calendar' with an empty text field. At the bottom right are 'OK' and 'Cancel' buttons.

Save template

Description

Heating circuit, time switch, calendar

Please give the functions and values logical names.

Functions

Alle Funktionen.DAT Heating circuit 1

Floor heating

Alle Funktionen.DAT Time switch

Time switch

Alle Funktionen.DAT Calendar

OK Cancel

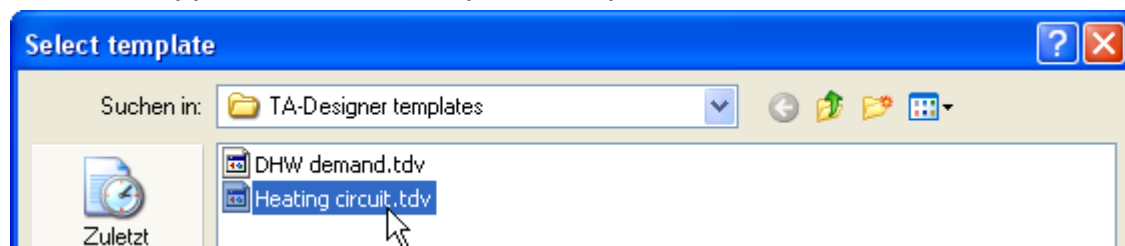
Scroll down the list to see the "Values" and change their designations if required.
Press **OK** to finish.
The templates are now saved as a ***tdv** file in the selected directory.

Inserting a template

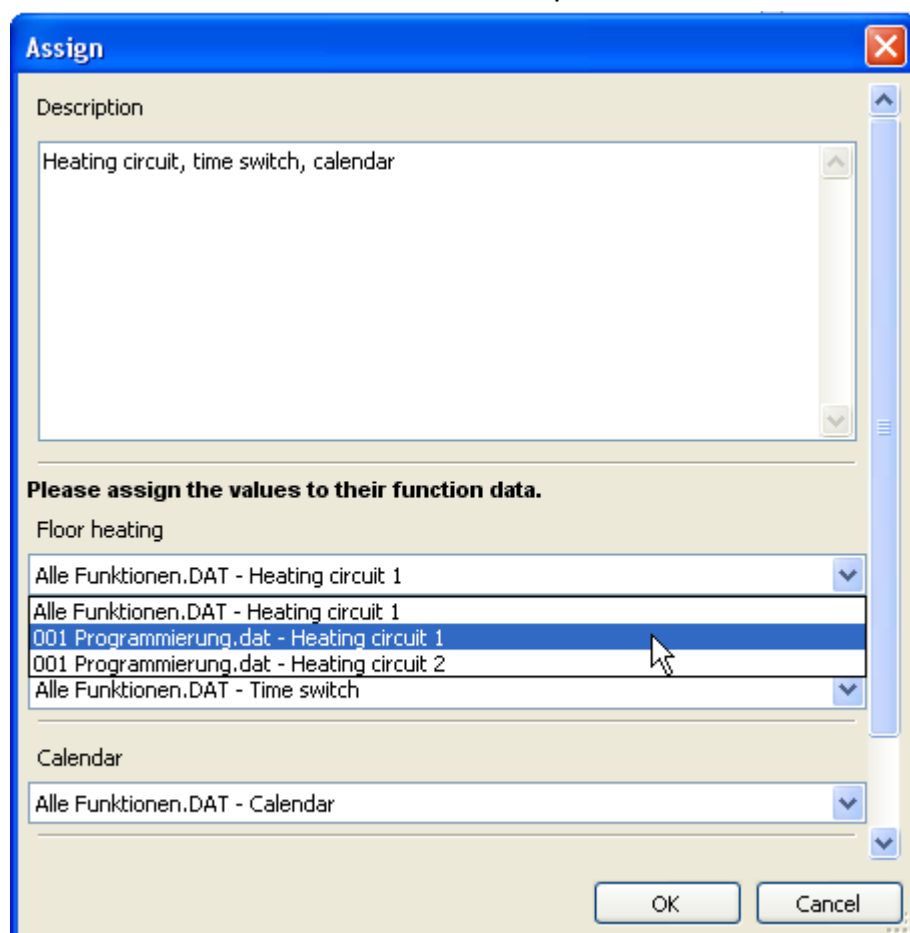


A saved template can be loaded into an existing project by clicking on the "**Insert template**" icon.

A window appears where the required template can be selected from a list of saved templates.



The functions and values of the template are then assigned to the functions and values of the function data that has been loaded. In the example below, 3 heating circuit functions are available and heating circuit 1 has been selected for the template.



If the function data that has been loaded does not contain any matching functions or values, the relevant template functions will be shown in **red** and cannot be assigned.

Please assign the values to their function data.

Alle Funktionen.DAT: T.Puffer mitte Wert

WW-Anf.dat: T.DHW Value

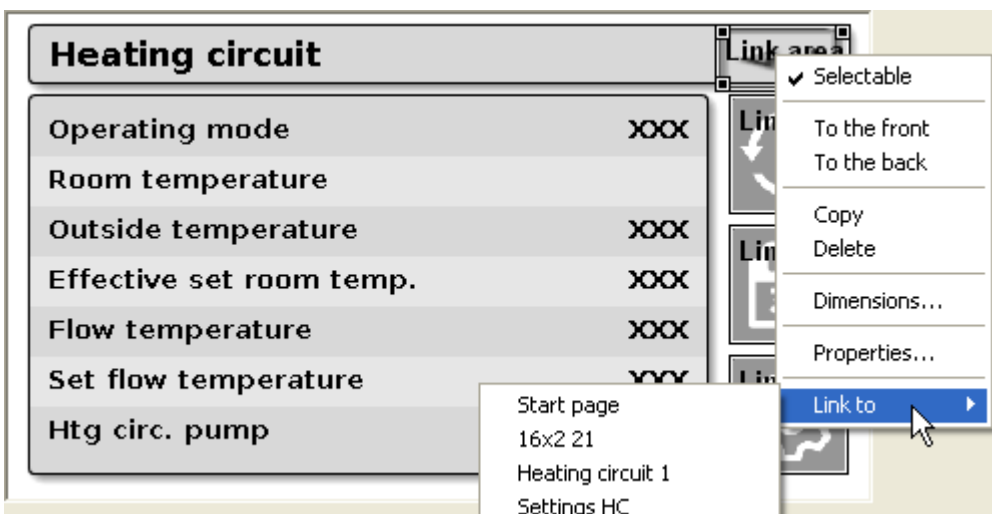
Floor heating

Time switch

Calendar

OK Cancel

Links within the template pages are retained; links to existing pages of the projects have to be redefined.



This link, which originally linked to the start page when the template was created, has to be redefined after the template is inserted.

If a template is inserted frequently, e.g. because there are several heating circuits, a number in brackets is added to the template designations.

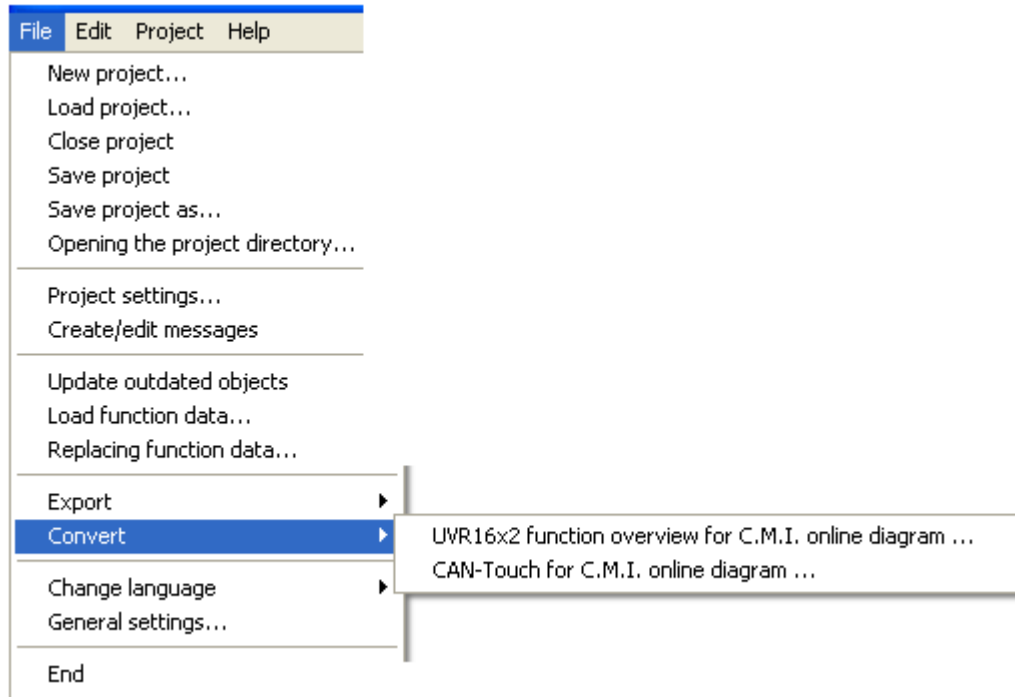
Example:



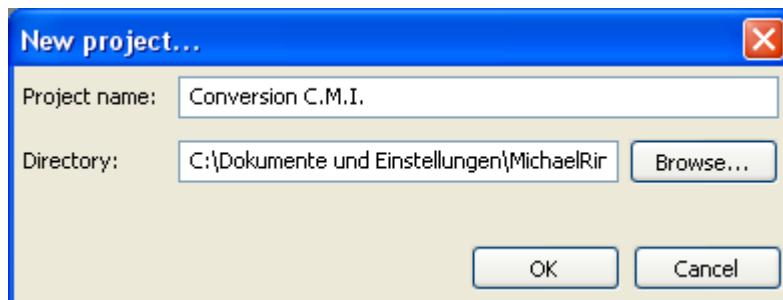
Heating circuit 1 (2)

This designation can later be adjusted to suit the program (see chapter "[Editing pages](#)")

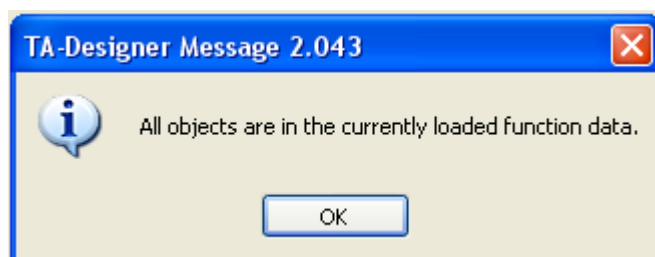
Converting



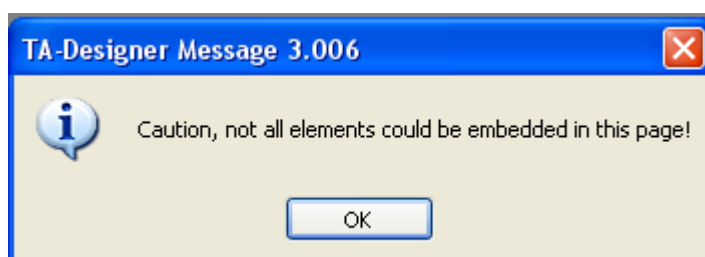
This function allows a UVR16x2 function overview or CAN-TOUCH program to be converted into a C.M.I. online diagram. This creates a new project with its own project name.



If you have activated "**Export**" when saving, you will see a message telling you whether all the objects are in the currently loaded function data.



or:

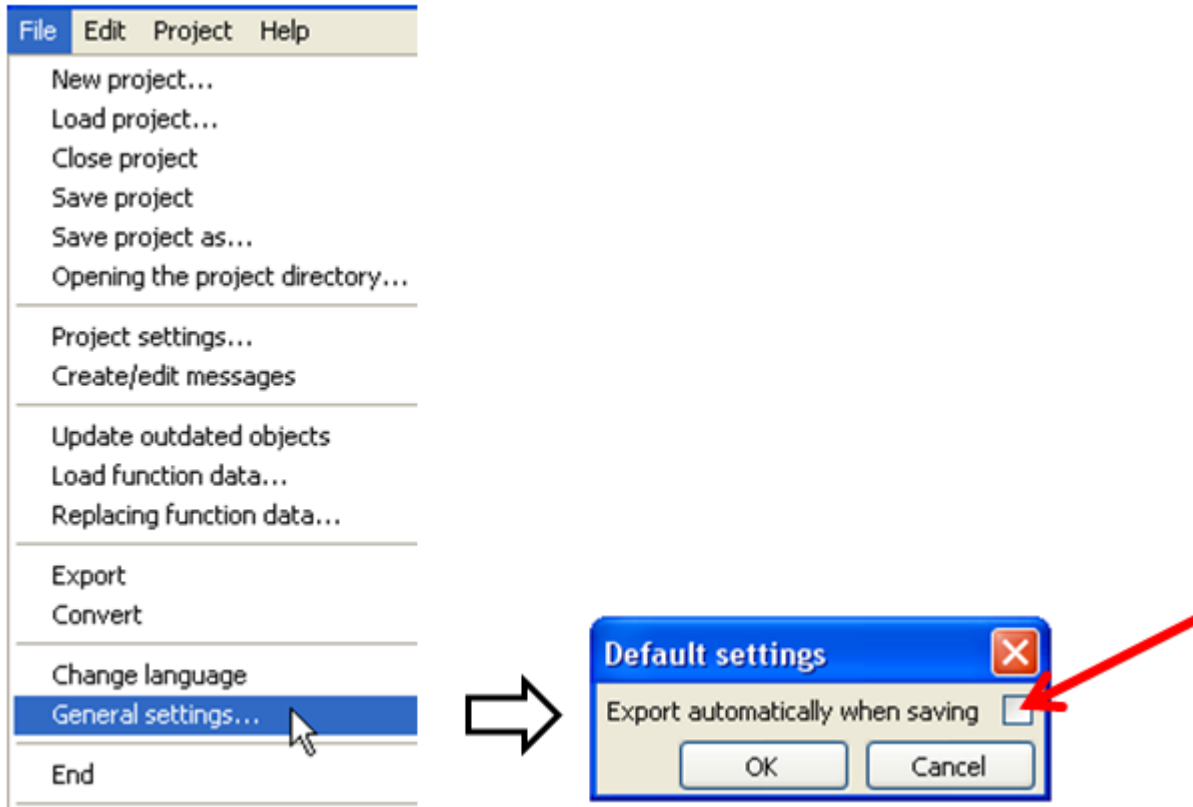


Save / Export

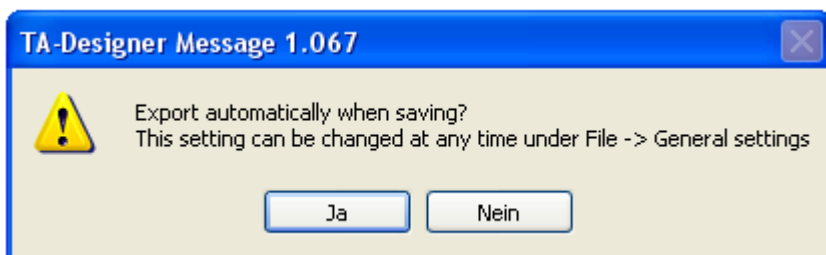
When programming with TA-Designer, an ***.xml file** is generated when saving. You select this *.xml when you want to edit the project further.

Separate files must be created for the individual CAN-TOUCH, C.M.I. and UVR16x2/CAN-MTx2 devices. This is referred to in TA-Designer as an **"Export"**.

In the **"File/General settings..."** menu you can preset whether **"Save"** should **only** save the *.xml file or whether the files for the devices should be exported as well. This setting is applied to all projects and remains in effect when the program is restarted.

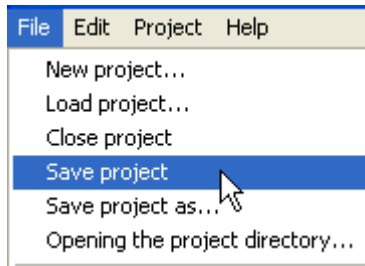



When you use TA-Designer for **the first time after installing**, the first time you select **"Save"** you will be asked:



After answering with **yes** or **no**, this setting will be applied to all subsequent projects until it is changed in the **"File/General settings"** menu.

Saving with or without exporting is done via the **"File/Save project..."** menu item.



Alternatively: Click the icon  on the toolbar.

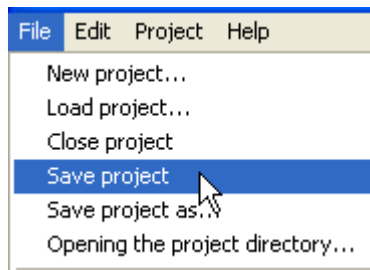
If you want to generate the device files when the project is saved without using "**Export**", or to test the programming **without** saving the *.xml file, there is the option of **exporting** the files for the devices. The following buttons on the toolbar used for this purpose:




Completion of the programming

If the programming is completed, the following steps are necessary to load the data into the respective devices:

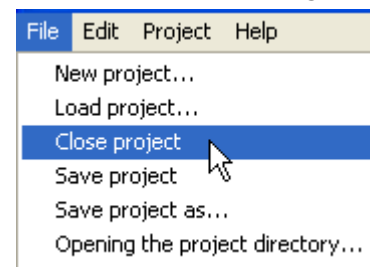
1. Save the programming under "**File/Save project...**"; if all values and links are inserted in the graphic and the properties have been specified.




Alternatively: Click the icon  in the toolbar.

The presets in the "**File/General settings**" menu are applied when saving (see chapter "[Save / Export](#)"). Separate buttons are available on the toolbar to simply export one or more files for the devices without saving the *.xml file (see chapter "[Save / Export](#)"). This has the advantage that the programming can be tested without modifying the *.xml file as well.

2. Close the project

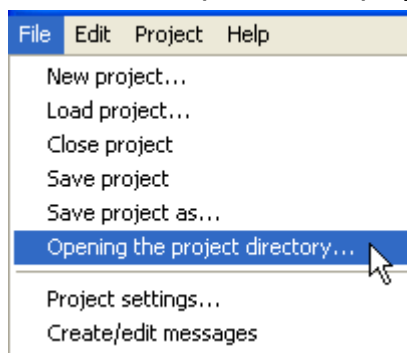


Warning: Before closing the project it must be saved as otherwise all settings will be lost.

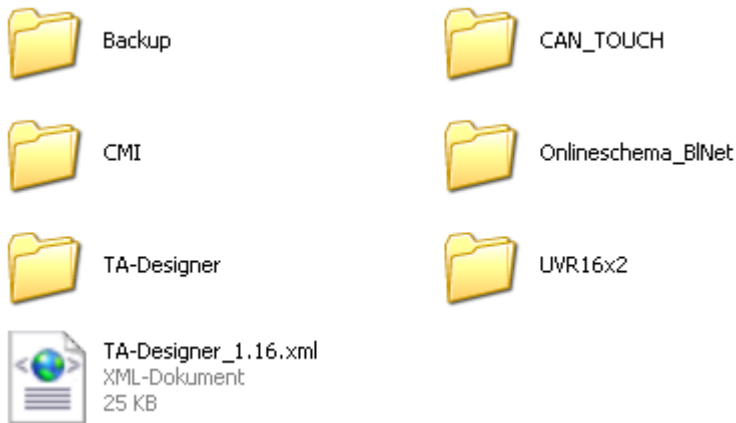
Alternatively: Icon in the toolbar : 

3. Copy the files

An individual folder with the files that must be copied is created in the project folder for each page type. There is the option to display the project directory in the menu "**File / Open project directory...**".



Example:



In this example, a project was created for all four page types.

The "Backup" folder contains up to 5 of the most recently saved versions of the project (xml file and "TA-Designer" folder). The folder "TA-Designer" serves as a folder for cached files.

CAN-Touch

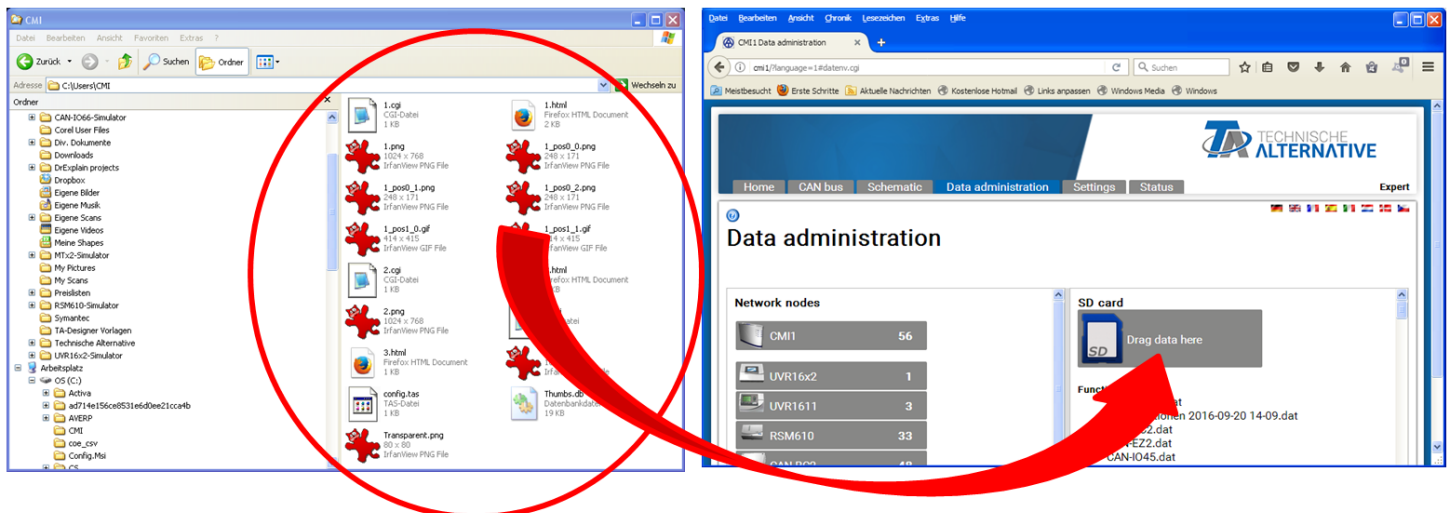
Copy **all** files in subfolder **CAN_TOUCH** of the project folder (several *.raw files, one each settings.ct and messages.ct) to the root directory of the SD card for the CAN-TOUCH (no subfolders). The folders **dat**, **font**, **menu**, **prg** and **system** on the SD-card must not be deleted.

Online diagram C.M.I.

Copying the files to folder **CMI** (config.tas and for each page, one *.cgi, *.html and graphic file each) to the SD card of the C.M.I..

There are two ways to do this:

1. Direct copying to the SD card on the PC into folder "**schematic_files**" which may have to be created first.
2. Drag & drop from the Explorer to the SD card symbol in the CMI data administration



The files are pulled to the SD card symbol with drag & drop and thus copied to the SD card.

Function overview UVR16x2/ CAN-MTx2

After exporting, the **UVR16x2** folder will contain an *.x2d file. These files are copied to the SD card of the controller or CAN-MTx2 CAN monitor and then loaded via **data administration** on the device.

The x2d file cannot be loaded onto the device SD card via the C.M.I.

If there are still x2f files from an old version of TA-Designer on the SD card, they will be ignored once an x2d file has been loaded onto the SD card.

Online diagram BL-NET

Transfer of the *.html and *.gif tile from the folder **Onlineschema_BINet** into the BL-NET boot loader using the ***Memory Manager*** program.

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