

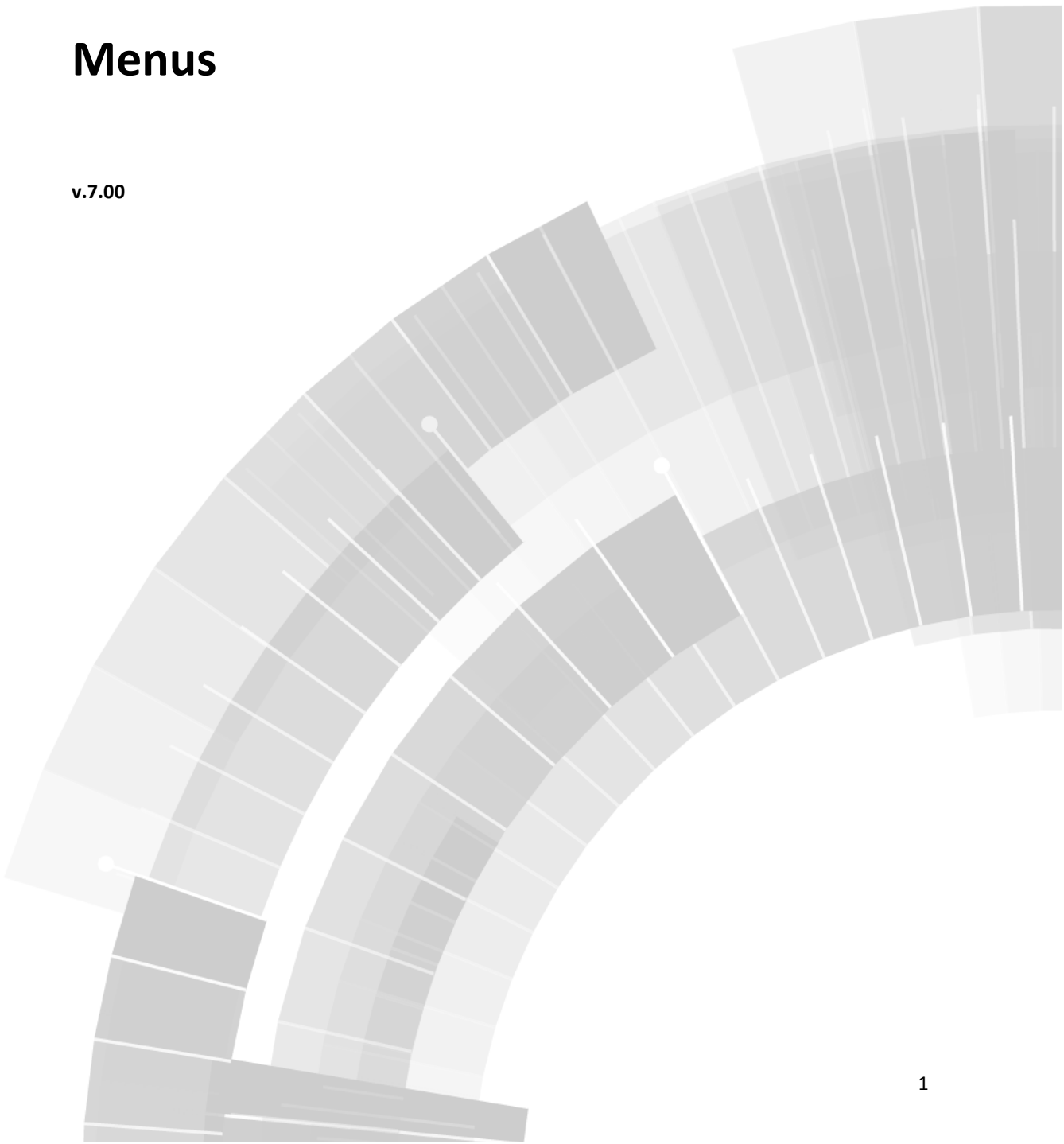


**COPADATA**  
do it your way

# zenon manual

## Menus

v.7.00





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# 1. Welcome to COPA-DATA help

## GENERAL HELP

If you miss any information in this help chapter or have any suggestions for additions, please feel free to contact us via e-mail: [documentation@copadata.com](mailto:documentation@copadata.com) (<mailto:documentation@copadata.com>).

## PROJECT SUPPORT

If you have concrete questions relating to your project, please feel free to contact the support team via e-mail: [support@copadata.com](mailto:support@copadata.com) (<mailto:support@copadata.com>)

## LICENSES AND MODULES

If you realize that you need additional licenses or modules, please feel free to contact the sales team via e-mail: [sales@copadata.com](mailto:sales@copadata.com) (<mailto:sales@copadata.com>)

# 2. Menus

Windows-compliant menus are created in the menu editor. Two different types of menus are available:

- ▶ Main menu
- ▶ Context menu

**Note:** The operating system does not allow separate menus for single screens or frames.

### License information

*Part of the standard license of the Editor and Runtime.*

## PROJECT MANAGER CONTEXT MENU

Menu item	Action
Main menu new	Inserts a new main menu in the menu list of the detail view.
Context menu new	Inserts a new context menu in the menu list of the detail view.
Export XML all ...	Exports all entries as an XML file.
Import XML	Imports entries from an XML file.
Profile	Opens the drop-down list which includes pre-defined Profiles.
Help	Opens online help.

## 3. Engineering in the Editor

Select menu item Project Manager in order to open the menu editor in detailed view. You can chose from main and sub menus. With the context menu (entry **Main menu new** Or **Context menu new**) you can create new menus. They then are displayed in the right part of the detail view. Menus can be imported and exported. You will find more information in chapter Import / Export / Menus.

### Attention

*Requirement if main menus should be displayed in Runtime: The `Main menus active (NodesGraphical design)` property must be activated in project properties.*

## CREATE NEW MENU ITEM

To create a new menu item:

1. Highlight the last entry

2. Confirm this with the Enter key
3. A new empty input field is created

### CREATE NEW SUB-MENU

To create a new sub-menu, activate the `Submenu` property in the superordinate menu item. A new entry field is thus opened for the sub-menu.

### MOVE MENU ITEM

1. Highlight the desired item (multiple selection is possible)
2. Hold down the left mouse button and move it to the new position
3. **Note:** If you move sub-menus to a menu item that is not defined as a sub-menu, the items are created as main menus.  
If you move the uppermost item, all sub-menus are moved with it.

### COPY MENU ITEM

1. Highlight the desired item (multiple selection is possible)
2. Select Copy in the context menu or in the tool bar
3. Select the save location for the copy

**Note:** If you copy sub-menus to a menu item that is not defined as a sub-menu, the items are created as main menus.

If you move the uppermost item, all sub-menus are copied with it.

4. Select Insert in the context menu or in the tool bar
5. Hold down the left mouse button and move it to the new position

### RENAME MENU ITEM

1. select the menu item and edit it via:
  - double click or delayed double click on the entry
  - or

- press key **F2** or key **Return** when the entry is selected  
or
  - select command **Rename** in the context menu or from the tool bar
2. the current entry is highlighted
  3. Enter the new name
  4. confirm the change via:
    - Pressing key **Return**
    - switch to another menu item
  5. or cancel the changes by pressing **Esc**

## MULTIPLE SELECTION

To edit several entries at once

- ▶ press and hold **ctrl** and click on the entries  
or
- ▶ press and hold **shift** and click on the entries  
or
- ▶ press and hold **shift** and use the arrow keys of the keyboard

To deselect an entry, click on the entry while still holding **ctrl** or **shift**.

To deselect all entries and only select a single entry, click on the desired entry.

## 3.1 Menus detail view toolbar and context menu

### TOOLBAR



Menu item	Action
Main menu new	Inserts a new main menu in the menu list of the detail view.
Context menu new	Inserts a new context menu in the menu list of the detail view.
Create standard function	Opens the dialog for selecting an action and creates a suitable function. The action is documented in the output window.
Jump back to starting element	If you entered the list via function <code>linked elements</code> , the symbol leads back to the start element. Only available in the context menu when all linked elements are opened.
Copy	Copies selected entry to the clipboard.
Paste	Pastes the contents of the clipboard.
Delete	Deletes the selected entry without confirmation.
Export selected XML	Exports selected entries as an XML file.
Import XML	Imports entries from an XML file.
Rename	Opens menu item for renaming.
Properties	Opens the properties window for the selected entry.
Help	Opens online help.

### CONTEXT MENU RUNTIME MENUS

Menu item	Action
Main menu new	Inserts a new main menu in the menu list of the detail view.
Context menu new	Inserts a new context menu in the menu list of the detail view.
Help	Opens online help.

### CONTEXT MENUS MAIN MENUS

Menu item	Action
Main menu new	Inserts a new main menu in the menu list of the detail view.
Help	Opens online help.



## CONTEXT MENUS CONTEXT MENUS

Menu item	Action
Context menu new	Inserts a new context menu in the menu list of the detail view.
Help	Opens online help.

## CONTEXT MENUS MENUS

Menu item	Action
Export selected XML	Exports selected entries as an XML file.
Import XML	Imports entries from an XML file.
Delete	Deletes the selected entry without confirmation.
Create standard function	Opens the dialog for selecting an action and creates a suitable function. The action is documented in the output window.
Properties	Opens the properties window for the selected entry.
Help	Opens online help.

## 3.2 Define entries

Generally there are three types of menu entries:

Parameters	Description
Action type	<p>Sets out which type of action is to be carried out via the corresponding menu item in Runtime. Not all action types are available in the main menu (on page 11), some are only available via the context menu (on page 12).</p> <ul style="list-style-type: none"> <li>▶ Acknowledge alarm (context menu only)</li> <li>▶ Command input (context menu only)</li> <li>▶ Acknowledge flashing (context menu only)</li> <li>▶ Function</li> <li>▶ Help</li> <li>▶ No action</li> <li>▶ Send value to hardware</li> <li>▶ VBA macro (context menu only)</li> </ul>
Submenu	Opens a sub-menu in Runtime.
Separator	A horizontal line divides menu entries.

Underline text: Entering a & causes the following characters to be displayed as underlined.

Plan entries

To configure a menu item in the main menu or context menu:

1. Activate the corresponding menu cell
2. In properties, select:
  - Action type: depending on menu type  
see also: Main menu action types (on page 11) and Context menu action types (on page 12)
  - Menu ID: entry ID  
Hint: There are pre-defined types with a fixed ID available in the command input at Command input (on page 12)
  - Text: clear labeling of the menu cells

 **Attention**

*The name of the `Text` property must be unique. If two names the same are issued, further menu items with the same name are not displayed.*

### 3.2.1 Action type main menu

Parameters	Description
Function	A defined function of zenon is executed by selecting the menu entry in the Runtime.
Help	A help chapter from a CHM file is displayed.
No action	No action is executed.
Setting values	By selecting menu item <code>Setting values</code> a fixed value can be send or a variable value can be increase or decrease by a fixed amount during Runtime. The entry is made with the help of the zenon standard dialog box. If one of the 3 keyboard screens ( <code>SETVALUEKBD</code> , <code>SETBOOLKBD</code> or <code>SETSTRINGKBD</code> ) is available in the project, it is automatically used. For this action a variable can be selected directly, or if used in a context menu the variable can be selected from the clicked element.

### 3.2.2 Action type context menu

Parameters	Description
Function	A defined function of zenon is executed by selecting the menu entry in the Runtime.
Help	A help chapter from a CHM file is displayed.
No action	No action is executed.
Setting values	By selecting menu item <code>Setting values</code> a fixed value can be send or a variable value can be increase or decrease by a fixed amount during Runtime. The entry is made with the help of the zenon standard dialog box. If one of the 3 keyboard screens ( <code>SETVALUEKBD</code> , <code>SETBOOLKBD</code> or <code>SETSTRINGKBD</code> ) is available in the project, it is automatically used. For this action a variable can be selected directly, or if used in a context menu the variable can be selected from the clicked element.
VBA macro	A VBA macro is executed by selecting the menu entry in the Runtime. You can only select the VBA macros which are declared as Init event.
Alarms : Acknowledge	The alarms of all variables linked to the dynamic element that the context menu relates to are acknowledged.
Acknowledge flashing	Switches off the blinking of all alarms for variables that are linked to the dynamic element, which the context menu relates to. The alarms are not acknowledged by this.
Command input	Opens the defined command input window (only with an energy license)

#### Command

When creating a new action in the command input, a menu ID corresponding to the action type and the switching direction for the `Action type` property is created and offered in the drop-down list. If the content corresponds to an ID defined as standard text for the action type and switching direction, the content is adapted if the action type or switching direction change.

To create a context menu for the command input:

1. Create the desired actions in the command input
2. Select `Action type` in the properties of the context menu item as `command input`
3. Select the desired action and switching direction via the drop-down menu with the `Menu ID` property

4. Give it a clear label in the `Text` property

Hint: If no entry is defined for `Text`, the field is automatically filled with the "`command input`" label.

 **Attention**

*The name of the `Text` property must be unique. If two names the same are issued, further menu items with the same name are not displayed.*

*Because automatically created menu items with the same action result in the same text, there are macros (on page 15) available for these.*

*The character sequence `ID_CMD_AUTO` is reserved for automatically created menu items. These must always be used with macros, because otherwise only the menu item is inserted.*

## ACTIONS FOR ACTION TYPE COMMAND INPUT

Action	Switching direction	Menu ID
ID_CMD_AUTO		This menu entry automatically shows all possible actions for an element, if no direct menu entry from the list is used already.
Single command	ON (1)	ID_CMD_EBEF_ON
Single command	OFF (1)	ID_CMD_EBEF_OFF
Single command	NONE	ID_CMD_EBEF_NONE
Double command	ON (1)	ID_CMD_DBEF_ON
Double command	OFF (2)	ID_CMD_DBEF_OFF
Double command	NONE	ID_CMD_DBEF_NONE
Set value	NONE	ID_CMD_SVALUE
Set value	DIRECT	ID_CMD_SVALUE_DIR
Status default	NONE	ID_CMD_STATE
Status default	ON (1)	ID_CMD_STATE_ON
Status default	OFF (0)	ID_CMD_STATE_OFF
Replace	NONE	ID_CMD_REPL_NONE
Replace	ON (1)	ID_CMD_REPL_ON
Replace	OFF (0)	ID_CMD_REPL_OFF
Replace	FAULT	ID_CMD_REPL_DEF
Replace	DIFF	ID_CMD_REPL_DIFF
Manual correction	NONE	ID_CMD_UPD_NONE
Manual correction	ON (1)	ID_CMD_UPD_ON
Manual correction	OFF (0)	ID_CMD_UPD_OFF
Manual correction	DIFF	ID_CMD_UPD_DIFF
Manual correction	FAULT	ID_CMD_UPD_DEF
Manual correction	DIRECT	ID_CMD_UPD_DIR
Block	NONE	ID_CMD_BLOCK

Action	Switching direction	Menu ID
Release	NONE	ID_CMD_UNLOCK
Lock	NONE	ID_CMD_LOCK
Revision	OFF (0)	ID_CMD_REV_OFF
Revision	ON (1)	ID_CMD_REV_ON



### Info

*For more information about using the context menus in the Command see chapter Energy Edition in section Context menu Command.*

## Macros for the context menu

A macro is a defined character sequence that is replaced by another text when menu items are created in Runtime. Virtually all macros can occur more than once per menu item. They can also contain further macros as a result. In doing so, the expansion sequence must be considered. Macros are case insensitive when configuring menus. If macros contain a macro as a result, the macro must be contained in capitals in the result. The entry is made with \$ as a prefix and suffix.

The sequence of the expansion is from left to right in the following priority.

1. \$NOTE\$
2. \$TAG\$
3. \$REMA<Status>\$
4. \$RDIR\$
5. \$ALL\$
6. \$DIR\$
7. \$ACT\$
8. \$NOTE\$

Macro	Description
\$NOTE\$	The whole text including the macro is interpreted as a note. If the resulting text is empty, the \$ALL\$ macro is used.
\$TAG\$	Is replaced by the identification of the action variable.  The identification can be translated by the online language translation function. If no translation character (@) is contained, the whole identification is highlighted for translation.
\$REMA<Status>\$	<Status> is a Rema or limit value state, the text of which is used as a replacement.  If the status is not present, the menu item is not displayed.  The limit value text is translated linguistically according to the placement of @ .  The status can be a number between $-2^{31}$ and $2^{31-1}$ . Leading characters and a prefix are permitted. If characters are contained that cannot be converted to a number, or the number is outside the given area, the menu item is not displayed.
\$RDIR\$	Text for the switching direction from reaction matrix/limit value as in \$DIR\$ macro, with the exception of: <ul style="list-style-type: none"> <li>▶ Action Write set value direct The text is taken from the rema/limit value of the status, which corresponds to the value of the set point to be set.</li> <li>▶ Action Status on and Status off Text is taken from the rema/limit value for the on or off statuses.</li> <li>▶ Action Correct direct The text is taken from the rema/limit value of the status, which corresponds to the value of the set point to be set.</li> </ul>
\$ALL\$	Results in Action naming: Switching direction.  Corresponds to the combination of the \$ACT\$: macro \$DIR\$
\$DIR\$	Switching direction of the action.
\$ACT\$	Action naming of the action.
\$NOTE\$	For the last macro, the note macro is again checked and the text to the right of this including the macro is deleted.  If the resulting text is empty or only consists of spaces, the menu item is not



	inserted.
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### **AUTOMATICALLY CREATED MENU ITEMS**

Automatically created menu items are created as a menu ID with ID\_CMD\_AUTO. In this case, macros must always be used, because otherwise only a menu item would be inserted.

### **COMPATIBILITY**

Previous to version 6.51 text at automatic menu items was ignored. When converting projects that were created with versions earlier than 6.51, the macros \$ALL\$\$NOTE\$ are automatically inserted before the configured text. Therefore the menu items behave as before.

### **ONLINE LANGUAGE SWITCH**

The labeling for the menu item in the `Text` property is translated linguistically before macro expansion from the character @.

**Note:** If, for the \$TAGS\$ macro, no translation indicator (@) is contained, the complete text is translated.

## **3.2.3 Graphical design**

The menus can be influenced graphically via the following functions

Parameters	Description
Graphics file	Displays a graphics file in the left area.
Background graphic	A graphics file is used as the background of the menu entry. The alignment can be either in original size or stretched.
Check mark	Displays a check mark in the left area. This check mark has no influence on the availability of the linked functionality but only serves the display. The display and the functionality can only be controlled via VBA/VSTA in the Runtime.
visible	Activated: Menu item is displayed in Runtime and linked functionality is available. The visibility can only be controlled via VBA/VSTA in Runtime.
Separator active	Displays a horizontal dividing line instead of the menu item for logical categorization of the menu.  The dividing line can be defined in a width of 0 to 50 pixels and in any color desired.

### 3.2.4 Submenu

To create sub-menus:

1. Activate the `Submenu` property
2. A new, empty menu field is created to the right of this
3. Define the items for the sub-menu or further sub-menus

Sub-menus are shown by an arrow to the right. Sub-menus can also be created as nested sub-menus.

## 4. Operating during Runtime

The menu editor menus correspond to the usual functionality common in Windows applications.

Menus are located and fixed in the upper left corner.

Note: If there is alarm pending, the alarm line may cover the menus. In this case, the menus can only be operated once the alarms have been acknowledged. To avoid this, plan the alarm status line at a different location or activate frames for the template.

## 4.1 Displays menus in Runtime

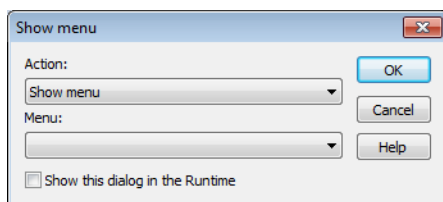
To display main menus (on page 19) in Runtime, the corresponding function must be created and linked.

Context menu (on page 20) are defined in the properties for the respective dynamic elements.

### 4.1.1 Displaying main menus

This function controls the display of main menus (on page 4).

1. Create a new function with **New function**
2. In the **screens** node, select the **Display menu** function
3. Define the action to be carried out and the main menu



Parameters	Description
<b>Action</b>	Selection of the action:
Show menu	The selected menu is displayed.
Hide menu	The selected menu is hidden.
Change menu	The current menu is hidden and the selected menu is displayed instead.
If no menu exists	The selected menu is displayed, if no menu is displayed at the moment.
<b>Menu</b>	Selection of menu.
Show this dialog in the Runtime	<b>Active :</b> This dialog is opened when the function is carried out in Runtime.



### Info

In the zenon Web Client (Web Server and Web Server Pro) the main menus are not displayed.

*Under CE (zenon under Windows CE) menus can only be displayed in the standards supported by Windows CE. Colors and fonts different than the Windows colors/fonts cannot explicitly be selected in the menus under CE.*

When the standard function is created from the context menu in the detail view, zenon automatically creates the function 'Show menu' for the selected menu.

## 4.1.2 Displaying context menus

Context menus can be used in Runtime for dynamic elements. To display a context menu in Runtime, link the context menu with the desired dynamic element.

To do this:

1. navigate to the `Runtime` node in the dynamic element properties
2. select the `Context menu` property
3. select the desired context menu from the drop-down list

 **Attention**

*Context menus are referenced via their name. This means: If a context menu is renamed, the linking to the dynamic element is lost and must be newly created.*