



**COPADATA**  
do it your way

# zenon manual

## Allocations

v.7.20





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# 1. Welcome to COPA-DATA help

## GENERAL HELP

If you cannot find any information you require in this help chapter or can think of anything that you would like added, please send an email to [documentation@copadata.com](mailto:documentation@copadata.com) (<mailto:documentation@copadata.com>).

## PROJECT SUPPORT

You can receive support for any real project you may have from our Support Team, who you can contact via email at [support@copadata.com](mailto:support@copadata.com) (<mailto:support@copadata.com>).

## LICENSES AND MODULES

If you find that you need other modules or licenses, our staff will be happy to help you. Email [sales@copadata.com](mailto:sales@copadata.com) (<mailto:sales@copadata.com>).

# 2. Allocations

Allocations make it possible to place the current value of a variable onto a second variable within or without the driver.

In



### License information

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

zenon it is possible to write values from the controller directly into a SQL database or to write value changes from one driver to another driver when they occur. You can also make cross-project allocations.

Attention: Cross-project allocations are executed only after all projects have been loaded.

## TRANSFER

An allocation transfers value, state and time stamp of the source variable to the target variable.

Note: At the moment state and time stamp can only be processed by the following drivers:

- ▶ Internal driver
- ▶ SQL driver
- ▶ AK driver (SICAM 230)

States Real time external (T\_EXTERN), Real time internal (T\_INTERN) und Daylight saving time/standard time announcement (T\_CHG\_A) are not transferred. They are defined by the time stamp.

The signal resolution should therefore have the same limits for both variables (overflow behavior).

The transfer of the value occurs on a value change: Whenever the source variable's value is changed, the value of the target variable is changed as well. Should the value of the target variable be changed independently from that of the source variable, then the target variable has the different value as long as the value of the source variable does not change.



### Information

*Allocations to **Internal variables** are also only carried out on the server.*

## CONTEXT MENU PROJECT MANAGER

Menu item	Action
New allocation	Inserts a new allocation in the list.
Export XML all...	Exports all entries as an XML file.
Import XML...	Imports XML files.
Help	Opens online help.

## 3. Engineering in the Editor

To define allocations:

1. select sub-node **Allocations** in node **Variables** in the **Project manager**.
2. already existing allocations are displayed in the detail view
3. select the desired action from the context menu or the tool bar, e.g. **New allocation**
4. in the properties window the properties of the new allocation are displayed and can be edited

An allocation implicitly needs:

- ▶ an unique name
- ▶ a source variable
- ▶ a target variable

When selecting property **Source variable** or **Target variable** the corresponding variable list for selecting the desired variable is displayed. Each variable of one of each driver can be selected as a source. The target variable must be readable/writeable.

Each value change to the source variable is transmitted to the target variable of the allocation.

The context menu of the detailview of the Project Manager allows to cut, copy, insert or delete existing allocations.

## 4. Allocation detail view of toolbar and context menu



## CONTEXT MENU

Menu item	Action
<b>New allocation</b>	Inserts a new allocation in the list.
<b>Cut</b>	Copies the selected entries to the clipboard and deletes them from the list.
<b>Copy</b>	Copies the selected entries to the clipboard.
<b>Paste</b>	Pastes the contents of the clipboard. If an entry with the same name already exists, the content is pasted as " <b>Copy of . . .</b> ".
<b>Clear</b>	Deletes selected entries after a confirmation from list.
<b>Edit selected cell</b>	Opens the selected cell for editing. The binocular symbol in the header shows which cell has been selected in a highlighted line. Only cells that can be edited can be selected.
<b>Properties</b>	Opens the <b>Properties</b> window for the selected entry.
<b>Export selected XML</b>	Exports all selected entries as an XML file.
<b>Import XML</b>	Imports entries from an XML file.
<b>Remove filter</b>	Removes all filter settings.
<b>Help</b>	Opens online help.

## 5. Trigger variables and trigger type

A trigger variable and a trigger type can be defined for assignments. Event-triggered assignments can thus be defined. Values are thus no longer assigned automatically, but only when the value of a trigger variable changes.

Trigger variable must be `binary variable`. Possible configurations are:

Trigger variable	Trigger type	Result
not defined		Each change in the source variable causes the source value to be assigned to the target variable.
defined	Edge	The assignment is only executed if the trigger variable undergoes a value change from 0 to 1. Only a positive edge of the bit variable leads to the assignment being released. The assignment is no longer instigated by a change to the value of the source variable.
defined	Gage	The assignment is always carried out as long as the trigger variable has the value 1. Each time the value of the source variable changes, the assignment is activated and the value is written to the target variable. This assignment remains active until the value of the trigger variable changes back to 0.