zenon manual

Recipegroup Manager

v.7.10
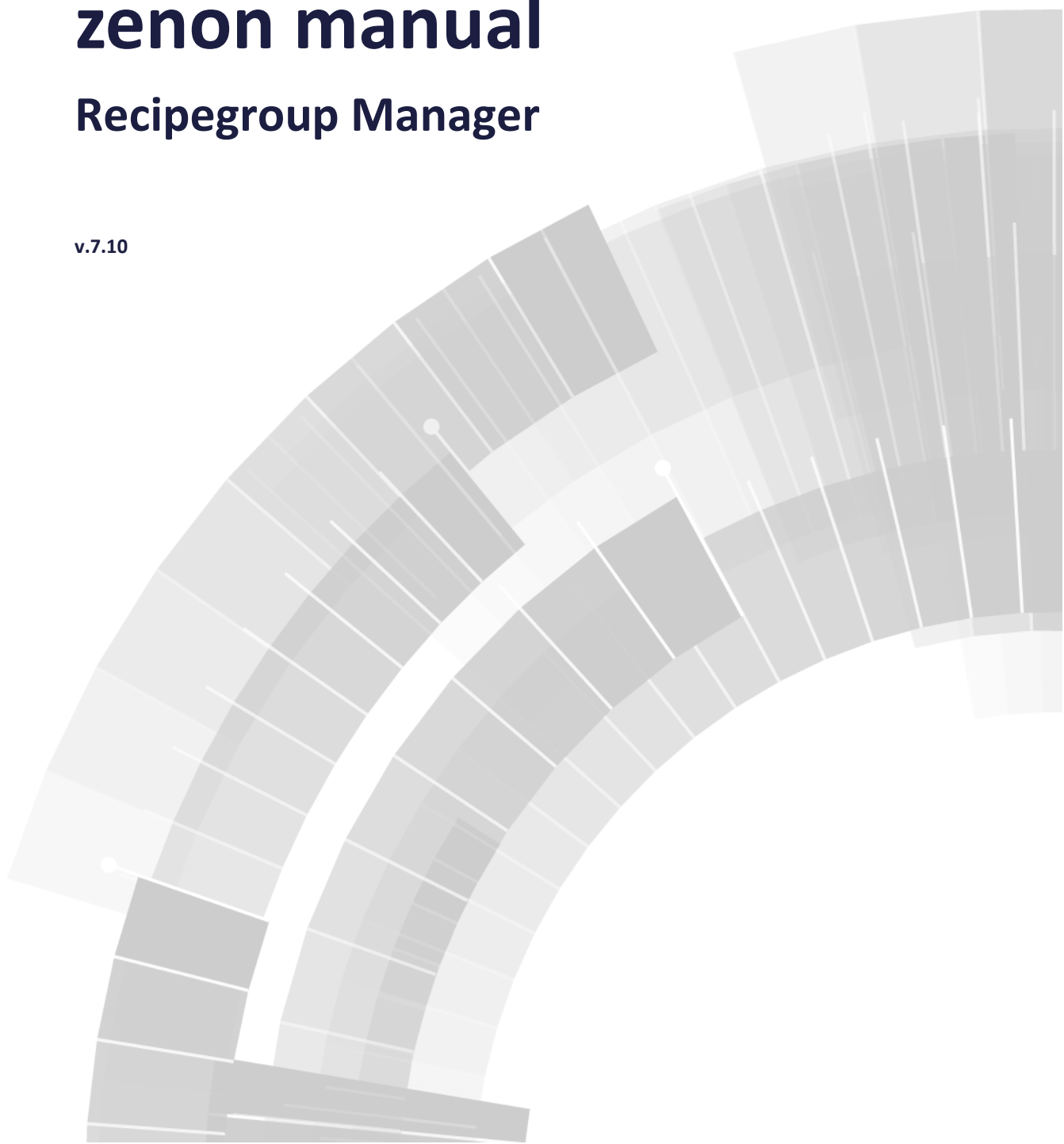
COPADATA
do it your way

Contents

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).

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).

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).

2. Recipegroup Manager

Additionally to the Recipes the Recipegroup Manager offers further functionality:

Tabular layout design (standard format or freely definable format with the Report Generator), free layout design with dynamic elements, recipes accessible via OLE, indirect recipe execution (e.g. depending on a process variable on opening a screen), free grouping.

▶ **License information**

Must be licensed for Editor and Runtime (single-user, Server, Standby and Client).

Only read access is possible in Runtime without a license. The following commands are not available without a license:

▸ `Save`

▸ `Save as`

▸ `New`

▸ `Export/import`

FILE STORAGE

Up to and including version 7.0, `MS Access` or `binary data` could be selected for the RGM as a file storage location. From version 7.10 the MS Access database is no longer supported in the Recipegroup Manager. When opening an existing project the filing is automatically converted to `Binary data`. You can find details on this in the project conversion handbook in the **Converting recipegroup manager database** chapter.

For versions before 7.10 with data storage in MS Access active, please note:

▸ The maximum text length for response variables (on page 27) is 300 characters

▸ In the network, the use of MS Access when using CE devices as a client or server can lead to errors in Runtime; the `binary data` format must be used

▸ The use of Unicode characters in recipe names, the recipe group or a comment is not supported.

2.1 Engineering in the Editor

To engineer the RGM, you generally need:

▸ a screen (on page 11) of type Recipegroup Manager

▸ Recipe groups (on page 21) and Recipes (on page 28)

▸ Functions (on page 44) for the operation of the recipegroup manager in the Runtime (on page 134)

Note for the name convention: For recipes alphanumeric characters are allowed. Invalid characters are `(\"'./*?<>!|)`.

2.1.1 Project Manager context menu

Menu item	Action
`Recipe group new`	Creates a new recipegroup in the list and opens the name for editing.
`Export XML all...`	Exports all entries as an XML file.
`Import XML`	Imports from an XML file.
`Profile`	Opens the drop-down list in which you can allocate an Editor profile.
`Help`	Opens online help.

2.1.2   Context menu detail view

TOOLBAR

Parameter	Description
`Recipe group new`	Creates a new recipegroup in the list and opens the name for editing.
`Recipe new`	Creates a new recipe in the list and opens the cell with the name for editing.
`Edit recipe`	Opens the dialog with the recipes.
`Change variable parameters`	Opens the dialog with the recipes.
`Create standard function`	Opens the dialog for selecting a recipe and defining an action.
`Add variable`	Opens the dialog for selecting variables.
`Delete variable`	Deletes selected variables from the list.
`Move upwards`	Moves the selected variable up.
`Move downwards`	Moves the selected variable down.
`Duplicate`	Creates a new recipegroup with the content of the selected recipegroup and assigns a name following this pattern automatically: `original name`+0, `Default10` becomes `Default100`.
`Delete`	Deletes selected entry.
`Export selected recipegroup XML`	Exports selected recipegroup as an XML file.
`Import XML`	Imports from an XML file.
`Import ASCII`	Imports from an ASCII file.
`Rename`	Makes it possible to rename the selected objects.
Help	Opens online help.

CONTEXT MENU RECIPEGROUP

Menu item	Action
`Recipe group new`	Creates a new recipegroup in the list and opens the name for editing.
`Export XML all...`	Exports all entries as an XML file.
`Import XML`	Imports recipes and recipe groups from an XML file.
`Help`	Opens online help.

CONTEXT MENU SELECTED RECIPEGROUP

Menu item	Action
`Duplicate`	Creates a new recipe group with the content of the selected recipe group and assigns a name following the pattern `original name+[consecutive number]`: `Default10` becomes `Default100`, and `Default101 if it is duplicated again ...` Note: with the group of linked recipe variables, replacement can take place in a rule-based manner during duplication.
`Delete`	Deletes the selected recipegroup after a confirmation message.
`Equipment groups...`	Opens the dialog for selecting an Equipment group.
`Export selected recipegroup XML`	Exports selected recipegroup as an XML file.
`Import XML`	Imports from an XML file.
`Rename`	Opens the cell with the name of the recipegroup for editing.
`Help`	Opens online help.

CONTEXT MENU VARIABLE

Menu item	Action
`Add variable`	Opens the dialog for selecting variables.
`Change variable parameters`	Opens the dialog with the recipes.
`Help`	Opens online help.

CONTEXT MENU SELECTED VARIABLE

Menu item	Action
`Delete variable`	Deletes variable from the list.
`Move upwards`	Moves variable in a list up one place.
`Move downwards`	Moves variable in a list down one place.

`Help`	Opens online help.

CONTEXT MENU RECIPES

Menu item	Action
`Recipe new`	Creates a new recipe in the list and opens the cell with the name for editing.
`Import ASCII`	Imports from an ASCII file.
`Help`	Opens online help.

CONTEXT MENU SELECTED RECIPE
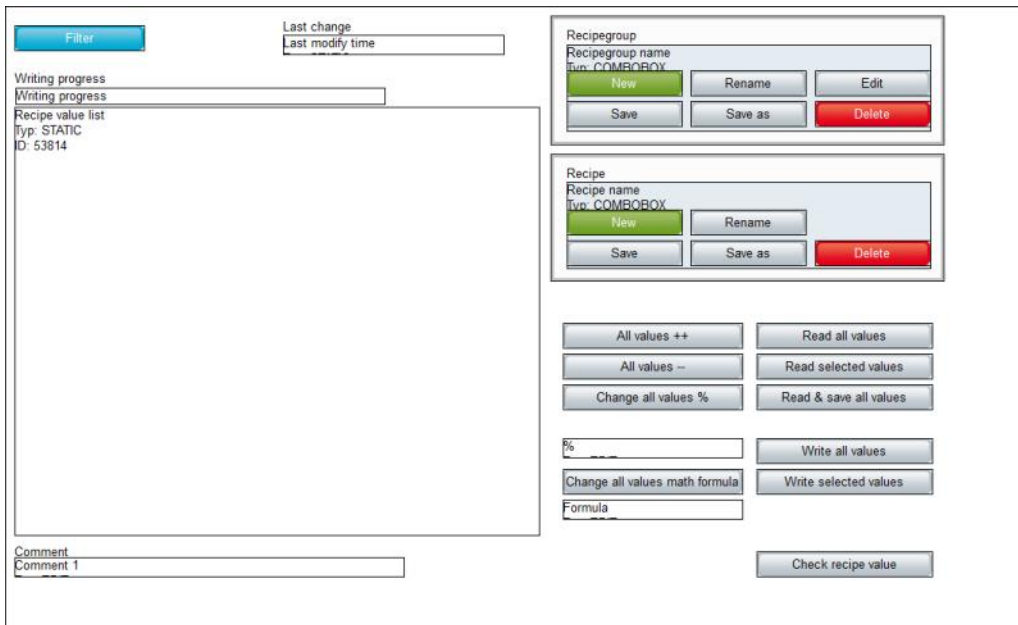
Menu item	Action
`Edit recipe`	Opens the dialog with the recipes.
`Create new recipe version`	Creates a new version of the recipe.
`Create standard function`	Opens the dialog for selecting a recipe and defining an action.
`Duplicate as recipe version`	Creates a new version of the selected recipe.
`Duplicate`	Creates a new recipe group with the content of the selected recipe group and assigns a name following the pattern `original name+[consecutive number]`: `Default10` becomes `Default100`, and `Default101 if it is duplicated again ...` Note: Source variables for the `Link to variable` action can be replaced when the recipe is duplicated.
`Delete`	Deletes selected recipe after a confirmation message.
`Export selected recipe XML`	Exports the selected recipe as an XML file.
`Rename`	Opens the cell with the name of the recipe for editing.
`Help`	Opens online help.

2.1.3   Create screen of type Recipegroup manager

Individual recipes and grouped recipes in Runtime are administered by using a screen for the Recipe Group Manager.

You create a screen of type Recipegroup Manager in the Editor by creating a new screen and choosing the type `Recipegroup Manager`. (For more information about pre-defined screen types see chapter Screens->Kinds of screen types.) In order to create screen Recipegroup Manager:

▶   create a new screen

▶   select as screen type `Recipegroup Manager` from the drop-down list.

▶   open the screen

▶   select menu item `Add template` from menu `Control elements` or select individual control element.

▶   configure the screen

With the help of the control elements you can carry out actions in the Runtime.

💡 **Info**

During reading, exporting, importing and saving of recipes in the Runtime, a progress bar informs you about the progress of the action. For details see chapter Creation of system driver variables for standard recipes and Recipegroup Manager

(sysdrv.chm::/25964.htm)

CONTROL ELEMENTS

Control element	Description
`Add template`	Opens the dialog for selecting a template for the screen type.
	Templates are shipped together with zenon and can also be created by the user.
	Templates add pre-defined control elements to pre-defined locations in the screen. Elements that are not necessary can also be removed individually once they have been created. Additional elements are selected from the drop-down list and dragged onto the screen. Elements can be moved on the screen and arranged individually.
Information	Information on recipes, users and changes
`Recipegroup name`	Name or selection of the current recipe group.
`Recipe list`	Displays all recipe/recipe versions as a list. The selection only contains recipes which are included in the recipe filter (on page 52) of function screen switch (on page 45) at the call up of the screen.
	One respective entry can be selected in Runtime. The selected recipe is displayed on the screen and can be edited.
	If the `Recipe name` and/or `Recipe version` control elements are used, the selection is always synchronized. If the selection in the control element is changed, the selection in the recipe list changes and vice versa. If a filter criterion excludes the selected entry in the list, nothing is selected in the list.
	Hints:
	▸ New recipes are added to the bottom of the list, regardless of the filter criteria.
	▸ Changes to recipe data are only displayed once the recipe is saved.
	▸ The language can be switched with the following list contents: - Headings in the header - Comment text - Recipe status texts
`Recipe name`	Name or selection of the current recipe. Default: Combobox (see also Display of the recipe name (on page 20))
`Recipe number`	Recipe number that is searched for after pressing the `Find`

	`recipe number` button
`Recipe version`	Creates a drop-down list that contains all version numbers of the selected recipe in Runtime.
`Recipe status`	Creates a drop-down list that contains all configures statuses in Runtime. The current status of the selected recipe version is displayed. The status can be changed here in Runtime. It is only accepted after the recipe is saved. Hint: The change of status in Runtime can be monitored and/or cancelled in Runtime with the `StatusChange` VBA event.
`Recipe value table`	Display of the current recipe in a table
`Recipe filter`	Drop-down list with recipe filter (on page 26).
`Username`	Name of user who last changed the current recipe
`Last modified time`	Date and time the current recipe was last changed
`Send progress`	Graphic display of the duration for which a recipe is sent.
Edit	
Filter	Open filter dialog of recipe screen
`Read selected values`	The values of the variables selected in the table are read from the process and entered into the table. Changes have to be saved!
`Write selected values`	The values of the variables selected in the table are written to the process as displayed in the table.
`Read all values`	The values of the variables of the selected recipe are read from the process and entered into the table. Changes have to be saved!
`Read and save all values`	Write the values of the process directly to the current recipe and save it immediately
`Write all values`	The values of the variables of the selected recipe are written to the process as displayed in the table.
`All values ++`	All values of the selected recipe are increased by 1
`All value --`	All values of the selected recipe are decreased by 1
`Change all values %`	When the button is pressed in Runtime, all values of the selected recipe are changed by the percentage value given in the `Value %`

	change editing window, depending on the prefix:
	▸ Plus prefix (+): Value is increased accordingly Example: +20% -> 100 becomes 120
	▸ Minus prefix (-): Value is reduced accordingly Example: -20% -> 100 becomes 80
	▸ No prefix: Percentage value of the current value becomes new value Example: 20% -> 100 becomes 20
Field %	All values of the selected recipe are increased (+) or decreased (-) by the percentage entered here after the button "all values %" is pressed
Change all values math formula	All values of the selected recipe are changed by the mathematical operation entered in the element **value math**. Exactly one operation can be carried out. This affects all numerical variables. Addition (+), subtraction (-), multiplication (*) and division (/) are possible. The value in the recipe corresponds to the left operand, the user defines the operation in the **Formula field** and the right operands. This means: $NewValue = $CurrentValue $**Formula field**. $**Formula field** must contain an operator. ### Example: ▸ Entry in field **Formula** $+100$ ▸ Result: All values are increased by $100.$ Attention: Only one operator can be entered. Several operations lead to unforeseen results. For example, the entry $/250+5$ would increase all values by $2505.$
Mathematical formula field	All values of the selected recipe are changed by the mathematical operation entered here after the button **Change all values math formula** is pressed
Print list	Print table as displayed
Navigation	
Recipegroup<	Move to the previous recipe group

`Recipegroup>`	Move to the next recipe group
`Recipegroups <<`	Move to the first recipe group
`Recipegroups >>`	Move to the last recipe group
`Recipe <`	Move to the previous recipe in the current recipe group
`Recipe >`	Move to the next recipe in the current recipe group
`Recipe <<`	Move to the first recipe in the current recipe group
`Recipe >>`	Move to the last recipe in the current recipe group
`Find recipe number`	Display the first recipe with the number entered in the element "source recipe number"
`Version <`	On the previous version.
`Version >`	On the next version.
`Version <<`	On the first version.
`Version >>`	On the last version.
`Column left`	Move one column left in the table
`Column right`	Move one column right in the table
`Table line up`	Move one line up in the table
`Table line down`	Move one line down in the table
`Page left`	Move one page left in the table
`Table page right`	Move one page right in the table
`Table page up`	Move one page up in the table
`Table page down`	Move one page down in the table
Import / Export	
`Export recipe (txt)`	Exports current recipe to a TXT file.
`Import recipe (txt)`	Imports current recipe from a TXT file.
`Export recipe group (XML)`	Exports recipe group to an XML file.
`Export recipe (XML)`	Exports current recipe to an XML file.
`Importing an XML file`	Imports recipe or recipe group from an XML file.
	If the file has individual recipes, a recipe group must be selected for

	import.
Administering recipes	
`Recipe new`	Create a new recipe
`Recipe rename`	Rename current recipe
`Save recipe`	Save current recipe under the same name
`Recipe save as`	Save current recipe under a different name
`Delete recipe`	Delete current recipe
`New recipe version`	Creates a new version of the recipe. The values of the newly created recipe version are filled with the values of the replacement values. Hint: This action can be checked with the `VersionCreate` VBA event.
`Duplicating a recipe version`	Duplicates selected recipe version. A new version is created and the recipe values are filled with the values of the previously selected version. Hint: This action can be checked with the `VersionDuplicate` VBA event.
`Duplicating and replacing a recipe version`	Duplicates selected recipe version and then reads it in. Firstly, a new version of the selected recipe is set up. The recipe values are filled with the values of the selected version. The values for the new version are then read in by the PLC. Hint: This action can be checked with the `VersionDuplicateRead` VBA event.
`Delete recipe version`	Deletes selected recipe version. If the selected recipe version is the last remaining version of this recipe, the whole recipe is thus deleted. Hint: This action can be checked with the `VersionDelete` VBA event.
`Set status 1 - 10`	Sets one of ten possible statuses. The function sets the status value (1 - 10) to the recipe currently selected in the screen. To accept the status in the recipe, the recipe must then be saved. Only statuses that were also configured (on page 37) in the Recipe Group Manager are set. If a status value that is not available is set,

	the system driver variable for **RGM recipe function in processing (sysdrv.chm::/25964.htm)** is set to an error and a CEL entry is generated. Note: The status selected with this button is displayed in the **Recipe status** drop-down list. The **list of recipes**, in contrast, always displays the status of the recipe as in the data storage. The change of status is only actually accepted after the change of status and is then displayed in the **list of recipes**.
Check recipe values	To test the recipe values, all variables that are linked to the recipe are read and the current recipe values are compared. The results are displayed in the **Current Value** column in color. If the values are the same, the corresponding cell is displayed in green, if not it is red. Attention: The function of the control element uses decimal points for synchronization with the PLC. If, for variables with the REAL data type, the Decimals property is not configured along the lines of the PLC settings and the values in the decimal point area are different, the function displays different values.
Recipe group	
Recipe group new	Create a new recipe group
Recipe group edit	Edit current recipe group
Rename recipegroup	Rename current recipe group
Recipe group save	Save current recipe group under the same name
Recipe group save as	Save current recipe group under a different name
Recipe group delete	Delete current recipe group
Comment	
Comment 1 - 8	Comment lines for the current recipe. Up to 8 comments are possible. The comment fields have a Representation/Translate displayed text property. Comment fields are also written during XML export and import. In VBA, the comment fields can be read and written to using the DynProperties (name "**Commentn**", **n=1** to **8**) in the "**Recipes**" object

> 💡 **Info**
>
> *A decimal value can be entered with either a* **comma** *or a* **point** *as a decimal separator, it will automatically be changed to a* **point***.*

Filter

By clicking *Control elements -> General -> Information*, you add the drop-down list `Recipe filter` to the screen. In the Runtime you can use the drop-down list to filter the displayed variables according to the Filter texts (on page 26) defined beforehand.

Appearance of the recipe list

The table view of the **recipe list** can be adapted to individual requirements:

COLUMN SETTINGS

The column settings for display in Runtime are set during configuration of screen switching. For details, see the Recipe list column settings (on page 56) section.

SCROLL BARS

To define the size and appearance of scroll bars for the table:

1. In project properties, select the `Extended graphical settings` property in the `Representation` group

2. Define the desired properties in the groups `Scroll bars` and `Header and grid` for the Alarm Message List element on the screen

    > 💡 **Info**
    >
    > *If the* `Graphics file` *property is selected for the* `Display style` *property, then all elements for which no graphics file has been selected are shown with a color gradient. Transparent graphics cannot be used for control elements for lists.*

LINE HEIGHT

The row height can be adjusted, regardless of the font size, using the `Representation`/`Line height [pixel]` property.

The default value is `0 pixels`. The row height is thus set regardless of the font size. Each value above `0` defines a fixed value in pixels for the row height. If a line height is defined, then graphical illustrations are not scaled according to the line height but adapted to the font size.

Attention: If the row height

▸ is selected is too large, nothing is displayed in Runtime in certain circumstances.

▸ is selected as smaller than the font size, then graphical illustrations are cut off.

PREVIEW

By activating the `Representation`/`Extended graphical settings` property in the Editor, the header and scroll bars can be previewed. This way, details such as color fill effects, light effects or grids can be configured more easily.

Attention: As the size of the scroll bars equals their size in the Runtime, the total size of the list in the Editor can vary from the size in the Runtime. This is also true for the size of the header and the font of the header.

Display of the recipe names

In the default setting the recipe names are displayed in a combobox. The selected recipe is displayed. You can select the other available recipes via the drop-down list.

Change the display type from combobox to listbox by changing the value of property `Style L` from 322 to 321 at the display properties of the corresponding element. Thus a listbox with the engineered size is displayed in the Runtime.

> 💡 **Info**
>
> *If you change the value of property `Style L` to 321, make sure that the now engineered listbox does not overlay other elements. The overlaid elements cannot be used in the Runtime anymore.*

By entering the corresponding characters you can jump to the respective position in the listbox. You can also scroll up and down in the list with the help of the scroll bar.

The recipe which you have selected is always displayed directly above the list.

> **Info**
>
> *This different display function is not available for under Windows CE.*

2.1.4 Creating a Recipegroup

There are two methods for setting up a new recipe group:

1. *Recipe/recipe group manager node -> Context menu -> New recipe group*

2. *Recipe/recipe group manager detail view -> Context menu -> New recipe group*

A new recipe group with a standard name is created. The name is already highlighted for further editing.

> **Info**
>
> *If the recipe group is to be used as binary data, the name may only contain alphanumerical characters.*

Variables (on page 21) and recipes (on page 28) must be added to each recipe group.

2.1.5 Variables for recipe groups

A recipe group consists of the assigned process variables and the recipes. All process variables required in the recipes must first be inserted in the `Variable` submenu using the context menu.
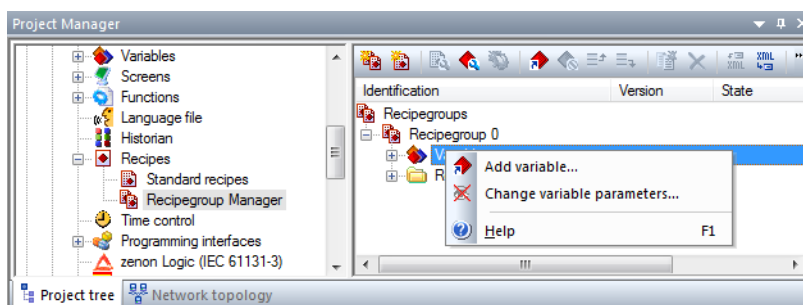
To set up variables:

1. Right-click on the **Parameters** variable

2. Select the **Insert variable** command in the context menu

3. The dialog for selecting several variables is opened

4. Select the desired variables

   Note: Variables from other projects that have been loaded can also be selected.

5. confirm by clicking on the **OK** button

It is possible to configure separate corresponding limits for minimum and maximum values (on page 23) for the individual variables.

> **Info**
>
> *Archive filler value is used as a standard value:*
>
> ▸ For variables of new recipes
>
> ▸ When adding variables to a recipe group in new recipes
>
> Info
>
> *Either a comma or a decimal point can be used as a decimal separator. The decimal separator is automatically changed to a decimal point.*

SORTING VARIABLES

You can sort variables in the Recipegroup Manager as you wish.

Select the variable that you want to change the sequence of and choose one of the following actions:

- choose **up** or **down** in the context menu
- move variables via drag&drop

Alternatively, you can move variables in the variable selection dialog with the arrow buttons in the lower right corner.

DELETING VARIABLES

To remove variables:

1. Highlight the desired variables

    (multiple selection is possible)

2. Right-click on the highlighted variables

3. Select the **Remove variable** command in the context menu

4. The variables are removed after a request to confirm this

    Note: The variables are only removed from the recipe group, but remain in the project.

Change variable parameters

Select menu item `Change variable parameter` in the context menu of `Variables`.

In the dialog you can make the following settings.
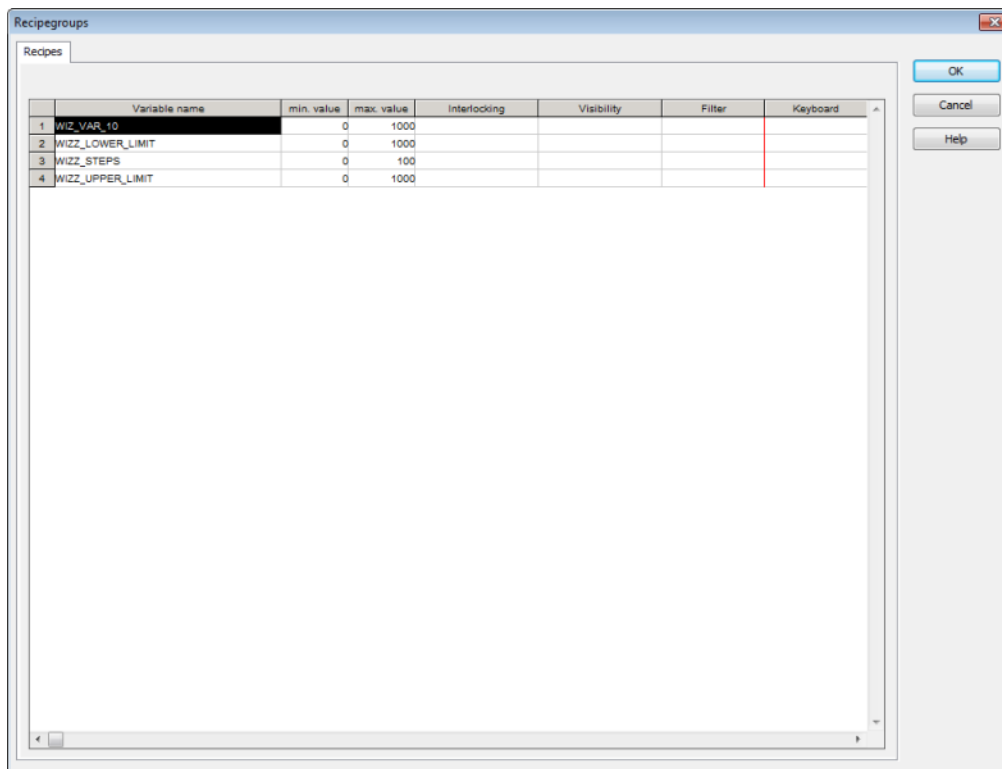
Parameters	Description
`Variable name`	In this column all variables are displayed which are used in this recipe group.
`min. value`	Define the minimal value of the variable. Note: Binary variables have 0 as a `minimum value`. This value cannot be changed.
`max. value`	Define the maximal value of the variable. Note: Binary variables have 1 as a `maximum value`. This value cannot be changed.
`Interlocking`	Select the desired interlocking from the drop-down list. (See also Interlocking and visibility (on page 25))
`Visibility`	Choose a fitting variable by right clicking and selecting menu item Variable selection. As an alternative you can enter the name of the variable directly. (See also Interlocking and visibility (on page 25))
`Filter`	Enter a filter text. (See also Filter (on page 26).)
`Keyboard`	Choose a fitting screen by right clicking and selecting menu item Screen selection. As an alternative you can enter the name of the screen directly. (See also Keyboard (on page 27).)

Info

Controlling the visibility of variables

You have the following available to control the visibility and operation of variables:

▸ Filter (on page 26): Defines terms according to which variables can be filtered. Variables that do not fit in the filter are not displayed. Filters are controlled by the user.

▸ Visibility (on page 25): Controls the display of variables in the list using the limit value of a variable. Variables that were set to "not visible" are not displayed. Visibility is controlled by the process.

▸ Authorization (on page 29): Defines the permissions with which a variable can be changed. Variables for which the user does not have permission are displayed but cannot be operated. Permissions are controlled by the person that configures the project and the administrator.

KEYS FOR RGM KEYBOARD

Keyboards serve with zenon as virtual keyboards that allow inputs on devices without a hardware keyboard in the Runtime. Keyboards are projected with a screen type `keyboard`. zenon provides automatically generated keyboards that can be projected by the user.

Under *Control elements -> RGM specific* you can find the following elements which are available for the Keyboard in the recipe group manager:

Element	Description
`Send value`	The set value is sent to the variable and the keyboard is closed
`Save recipe`	The recipe is saved and the keyboard is closed.
`Send value and save recipe`	The set value is sent to the variable, the recipe is saved and the keyboard is closed
`1` to `32`	Keys can be linked with limits from a reaction matrix. For this the corresponding variable ▸ must be linked with **Numeric reaction matrix** or **String reaction matrix** and ▸ `equals` states must be included In the Runtime, used keys are shown. Clicking the button writes the linked value as recommendation for the recipe value in the input window.

Interlocking and visibility

You can forbid the user the access to certain areas of the recipe table by using either interlocking or visibility. The difference is that with interlocking the corresponding area is grayed out and with visibility it is not displayed at all.

INTERLOCKING

You allocate an interlocking to each variable in the column interlocking. The dropdown list shows the available interlockings. In the Runtime the line is displayed normal or grayed out depending on the state of the interlocking. You can find more information in chapter Interlocking.

> **Info**
>
> *Display with report functions*
>
> *The name of the interlocking is not available in Runtime. This means that only interlocking IDs are displayed in the recipe list when the interlocking is displayed with the help of functions recipew or recipef.*

VISIBILITY

You allocate a visibility to each variable in the column visibility. To do this:

1. Right-click in the cell and select the variable that is to control the visibility or enter the name directly into the cell

2. Define a limit value for the variable

As soon as the controlling variable exceeds the defined limit value, the assigned variable in the recipe table is hidden.

> **Info**
>
> *The recipe table is refreshed after every change of an allocated state. During the engineering keep in mind that a frequent change of the allocated states can be a problem during the Runtime.*

Filter

Filters make it possible to hide recipes at user level.

Filters are defined using the `Filter text` property for the variables in the detail view of the RGM. The variables are assigned a freely selectable filter term. This filter text is used in the screen Recipegroup Manager in order to reduce the display of variables. This filter can be set:

▶   This is carried out in Runtime in the Recipe Group Manager (on page 11) screen using the `Recipe filter` drop-down list

▶   When screen switching (on page 45) to the Recipe Group Manager screen

If no filter is selected, all variables which do not have a filter text are displayed.

Info

The filtering is only related to the display of the recipe table. If a recipe is sent to the control, for example, all values of the recipe are written.

Keyboard

You can link a screen of type Keyboard for each variable in this column. In the Runtime the linked screen keyboard is called up when you click on the value of the variable. It is no longer possible to enter values directly. After you leave the screen keyboard with `OK`, the new value is entered in the recipe table. In the addition the new screen function Setpoint input is available. With one click you can transfer a setpoint which you defined beforehand.

Acknowledgement variables

Variables can be linked to each recipe group, which are provided with recipe data for the actions of writing, reading, checking and XML import. These RGM-specific acknowledgement variables act like the global `system driver variables (sysdrv.chm::/25964.htm)`, but are assigned to individual recipe groups. Therefore several recipe groups can be evaluated in parallel.

It is possible to link as many variables as you want.
Note for versions before zenon 7.10 SP0: If the `RGM data storage` property is set to `MS Access`, the text length is a maximum of 300 characters. The binary file storage is used automatically from version 7.10.

The following recipe data can be set to variables:

▶ Recipe name

▶ Recipe number

▶ Recipe version

▶ Recipe status as text
   (in the form "`1 - Text`", whereby the text is not translated, which can however be released via the display element)

▶ Recipe status as number

▶ Recipe authorization level

▶ Time of the last change

▶ User that made the last change

▶ Comments 1 - 8

CREATING AN ACKNOWLEDGEMENT VARIABLE

To create an acknowledgement variable:

1. Highlight the recipe group

2. Navigate to the desired node

   - `Write feedback recipe`
   - `Read feedback recipe`
   - `Check feedback recipe value`
   - `Feedback XML import`

3. Click on the ... button next to the desired property

4. The dialog for linking variables is opened

You can find notes on the individual properties in the help for the respective property. The result is provided locally and to the network for all actions by means of `system driver variables` (`sysdrv.chm::/25964.htm`).

💡 **Info**

Changes made via VBA are only visible after the after the RGM has been opened again.

2.1.6 Adding recipes to a recipegroup

To add a recipe to a recipe group:

1. Right-click on the `Recipe` node in the desired recipe group

2. Select `New recipe` in the context menu.

3. A new recipe with a standard name is created; the name is already highlighted for further processing

4. assign the desired properties to name, number, version, authorization and comment

> **Info**
>
> *If the recipe is to be used as binary file, the name may only contain alphanumerical characters.*

ISSUING A NAME DURING CREATION

New recipes are created with a default name, e.g. `recipe_0`. In addition a recipe number is assigned to each new recipe. For each new recipe the recipe number is increased incrementally.

The recipe name must be unique. The recipe number is not checked for uniqueness. It is only used in order to call a recipe via a variable with the help of function `Recipegroup Manager`. If several recipes with the same number exist, zenon use the recipe it finds first.
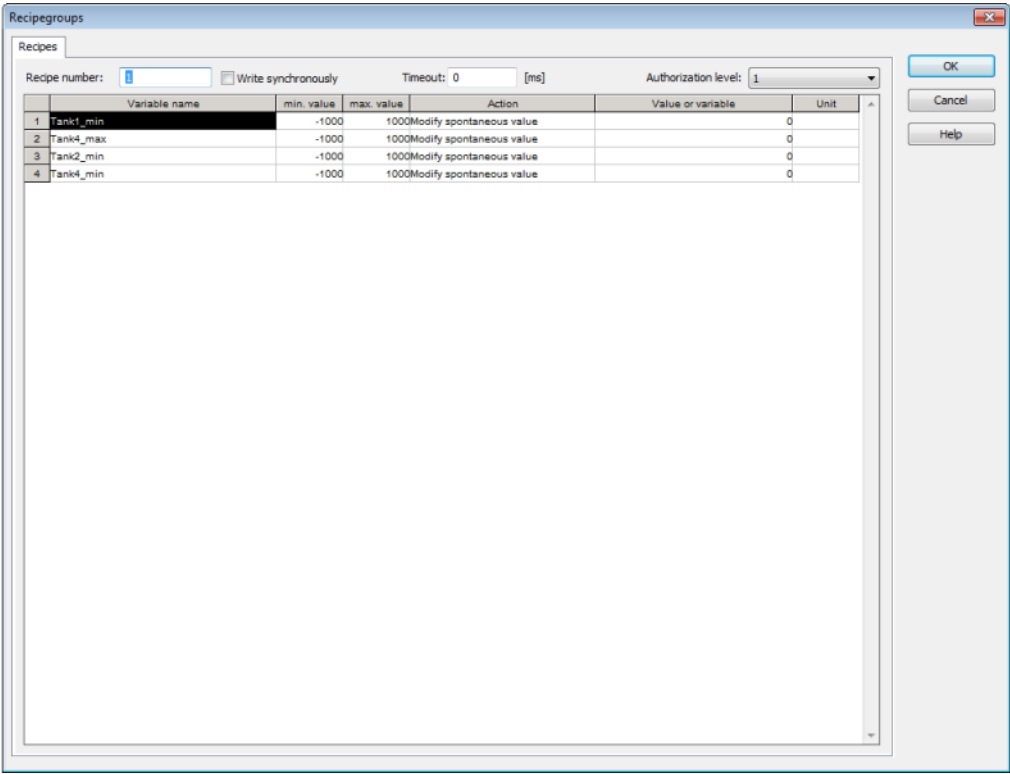
> **Example**
>
> *There is already a `Recipe_0` with the* $recipe\ number\ 0$ *and a `Recipe_2` with the* $recipe\ number\ 2$. *When being newly created, a recipe with the* $name$ `Recipe_1` *and the* $recipe\ number\ 3$ *is created.*

Editing a recipe from a recipegroup

In order to edit a recipe from a recipe group:

▶ right-click on a recipe

▶ select the command edit recipe

▸ The dialog `Recipe groups` is opened

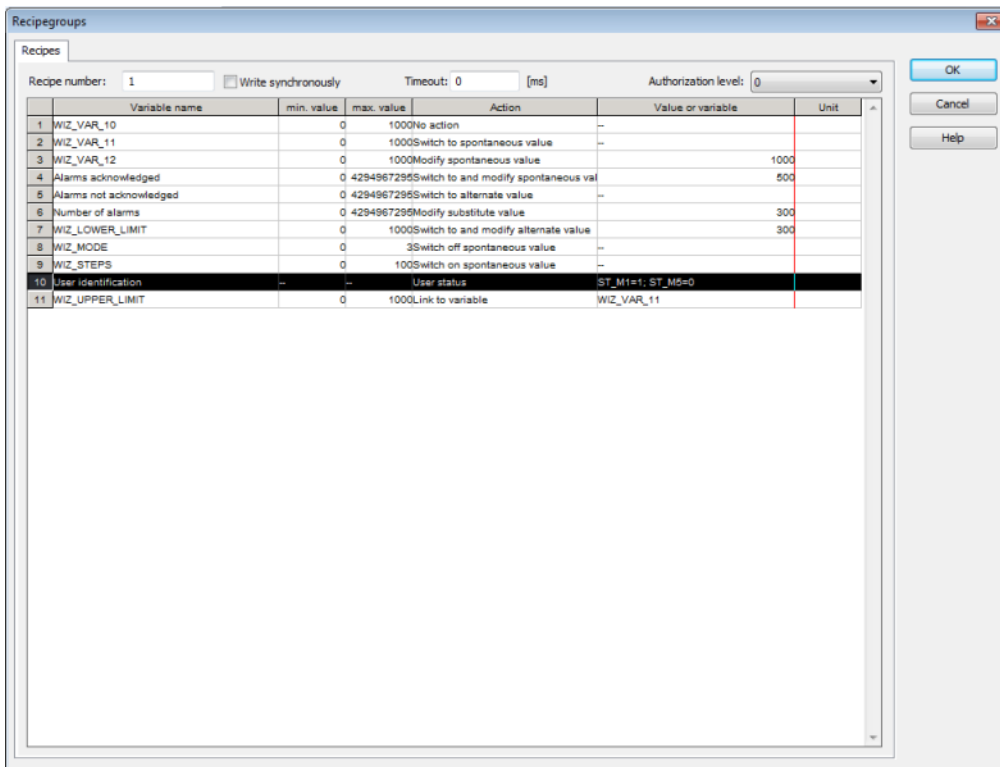| Entry	Description
General	
`Recipe number`	Number of the recipe
`Write synchronously`	`Active`: When writing a recipe, all control elements are locked in the Recipe Group Manager screen until the driver confirms that all values have been written successfully or the defined `time-out` has expired. `Inactive`: The values of the recipe are written without waiting for a confirmation. The control elements can be used again immediately. The confirmation of the driver is done with the status bit `WR-SUC`, which is set to 1, when values have been written successfully. **Hints:** ▸ This setting can be changed in the Runtime in the screen of the recipegroup manager with the button `Rename recipe`. ▸ The progress bar only works if this property is active.
`Timeout [ms]`	If **Write synchronously** is activated in a recipe, here the timeout can be defined. The control elements of the **Recipe Group Manager** screen can be operated once again after this time at the latest. If, in **Timeout**, the value `0` is entered, zenon calculates the timeout in the following way: 30000+(100*number of datapoints) **Hint:** This setting can be changed in the Runtime in the screen of the recipegroup manager with the button **Rename recipe**.
`Authorization level`	Only users with the authorization level entered here are allowed to change the recipe in the Runtime. This not only means manually editing the recipe in the screen of the recipe group manager but also renaming and deleting the recipe as well as reading its values from the hardware. **Note:** Recipe groups can only be changed by users, which have the authorization for all recipes of the according recipe group.
Lists entries	
Variable name	Name of a variable. Display only, cannot be changed.
min. value	Minimum value of variable Display only, cannot be changed.
max. value	Maximum value of variable

	Display only, cannot be changed.
Action	Function which is carried out on variables. Entry can be edited in the list. For details, see the Actions (on page 33) chapter.
Value or variable	Value which is transferred to the control when the recipe is written. Value dependent on **action**, can be edited in the list.
Measuring unit	Unit of a variable. Display only, cannot be changed.

🔆 Info

The recipe name must be unique. The recipe number is not checked for uniqueness. It is only used in order to call a recipe via a variable with the help of function **Recipegroup Manager** *(on page 61). If several recipes with the same number exist, zenon use the recipe it finds first.*

Actions

To define an action, click on the respective variable in line `Action`. Click on the symbol with the arrow and select the desired action from the drop-down list. If you need entries in cell `Value or variable`, click in the cell and enter a value. For a variable selection right click in the cell in order to open the selection dialog.

Action	Description	Entry in `Value or variable`
`No action`	Deactivates a variable in this recipe	No input.
`Switch to spontaneous value`	Switches from Alternate value to Spontaneous value	No input.
`Modify spontaneous value`	Sets the Spontaneous value to the value stated under **`Value or variable`**.	Enter set value.
`Switch and modified spontaneous value`	Switches from Alternate value to Spontaneous value and sets the spontaneous value to the value stated under **`Value or variable`**.	Enter set value.
`Switch to alternate value`	Switches from Spontaneous value to Alternate value	No input.
`Modify alternate value`	Sets the Alternate value to the value stated under **`Value or variable`**.	Enter Alternate value.
`Switch to and modify Alternate value`	Switches from Spontaneous value to Alternate value and sets the alternate value to the value stated under **`Value or variable`**.	Enter Alternate value.
`Switch off spontaneous value`	Switches off the spontaneous value by setting status bit `OFF` (Bit `20`).	No input.
`Switch on spontaneous value`	Switches on spontaneous value by resetting `OFF` bit.	No input.
`User status`	Status information. Sets the according status bit of the variable. **Note:** You can only set status bits which were tagged as set by the user. Status bits which were automatically set by the system cannot be changed.	Enter status short label: `=1` to set `=0` to reset You can enter more states separating them by semicolon (;). For example: `M1=1; M5=0`
`Link with variable`	Links a variable with another variable.	Name of a variable.

		Right-click the field in order to open the context menu in which you can open the dialog for selecting variables. The value of the variable is transferred to the selected recipe variable. It is also possible to use variables of other loaded projects.

⚠ **Attention**

If the `Read all values` *function is used with the* `Link with variable` *action for a recipe, neither user authorization is checked nor is the action logged. If you want a logging, you must create it manually, e.g. using a VBA macro.*

Note for FDA regulations: As a consequence, this functionality is not allowed to be used for projects with a strict FDA standard!

Check write set value

When writing values, the value receives a status bit that is has been written. If the writting process is successful, the corresponding status bit is set:

▶   WR-ACK

The driver received a value for writing.

▶   WR-SUC

Value `1`: Writing successful.

Value `0`: Writing not successful. The value could not be written.

💡 **Info**

In case of reload or Server-Standby switch, the currently active responses or writing affirmations are discarded.

This status combination are active until the next value change is triggered. Then both states are set to `0` until the writing action is finished. For evaluation the following bit combination must be requested in the reaction matrix:

WR-ACK, WR-SUC

Result:

▶ WR-ACK `1`, WR-SUC `1`: Writing action successful.

▶ WR-ACK `1`, WR-SUC `0`: Writing action not successful.

> ⚠ **Attention**
>
> *The mechanism only shows, that the writing action was successful (or not successful) to the PLC. This does not mean, that the value has indeed been changed in the PLC, since the PLC can reset/overwrite the value immediately. (For example for writing the outputs or the transient bits which are only set for a short time.)*

MODULES

This mechanism can be used in the following modules:

▶ function **Write set value**: Activate option `Wait for writing confirmation` in the configuration dialog of the function.

▶ **Standard recipes**: Activate property `Write synchronously` .

▶ **Recipegroup Manager** (on page 33): Activate property `Write synchronously`.

ENTRY IN CEL

▶ Function Write set value

For the entry in the CEL you must activate property `Function Set SV` in node `Chronologic event list` in the project settings. After this the positive or negative response the execution of the function is written to the CEL.

▶ Standard recipes and Recipegroup Manager

For the entry in the CEL a system driver variable is used which is set to `1` when a recipe is written successfully. A global variable is evaluated on the Server, a local variable on every Client in order to determine when the recipe executed last was written completely.
With this variables a CEL entry can be created via limit or reaction matrix. The query is carried out via a multi analog or a multi binary reaction matrix.

2.1.7   Recipe version

Recipes can be versioned. The versions can be administered in Runtime using the settings in the Editor and functions and control elements in Runtime.

To create a new recipe version in the Editor, you have two possibilities:

1. New recipe version: Creates a new version of the selected recipe.
   To do this:

   a) Highlight the recipe in the detail view of the Recipe Group Manager

   b) Select the `Create new recipe version` command in the context menu

   or

2. Duplicating a recipe version: Creates a copy of the selected recipe version as new version.
   To do this:

   a) highlight the recipe version in the detail view of the RGM

   b) select the `Duplicate as recipe version` command in the context menu

A new version of the recipe is created and inserted below the recipe. The version number is automatically issued in the `Recipe version` property. The number of available versions is displayed to the right of the original recipe.

To create a new recipe version in Runtime, use the Create new recipe version (on page 94) function.

> ### 💡 Info
>
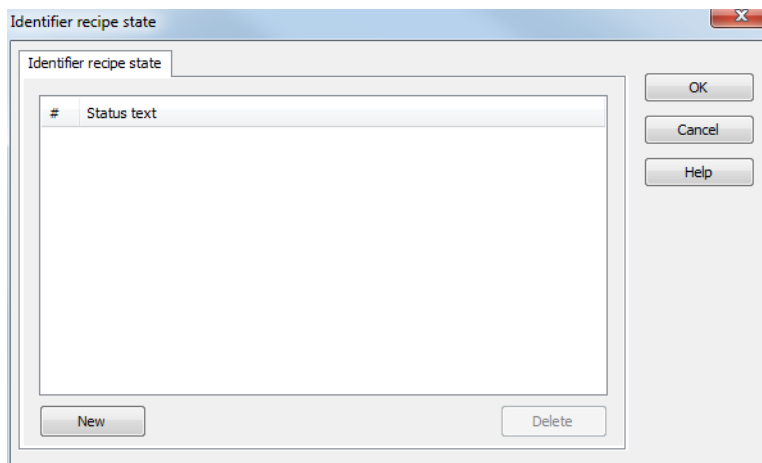> *A maximum of 89999 recipe versions can be created.*

2.1.8   Recipe status

The recipe status is used for identifying and filtering a recipe with:

▶ `State` property for recipe

▶ RGM (on page 11) screen

▶ Screen switching to RGM (on page 45) function

▶ Recipe Group Manager (on page 61) function

It consists of an index given by zenon and an individual status text. The recipe status can be set differently for each recipe version (on page 37). This property can be changed using functions and control elements in the screen in Runtime.

To create a recipe status:

1. Highlight the name 'Recipe Groups' in the detail view of the Recipe Group Manager

2. click on property `Identifier recipe state`

3. The dialog for configuring the recipe status is opened

Parameters	Description
`Identifier recipe state`	Creating and administering the name for the recipe status.
`#`	Status index. This is issued automatically.
`Status text`	Status text is defined as in this dialog: ▶ Creation: Click on New button. ▶ Edit: A mouse click in the text allows editing. This text can also contain keywords (with a prefix of @) for language switching.
`New`	Creates new status at the end of the list.
`Delete`	Deletes highlighted status text. If the status to be deleted is at the end of the list, the status text and index number are deleted. If the status to be deleted is not at the end of the list, the text is deleted but the index is left. This way the gaps can be refilled again later.
`OK`	*Accepts input and closes dialog.*
`Cancel`	*Discards all changes and closes the dialog.*
`Help`	Opens online help.

2.1.9   List of status bits

Bit number	Short term	Long name	zenon Logic label
0	M1	User status1	_VSB_ST_M1
1	M2	User status2	_VSB_ST_M2
2	M3	User status3	_VSB_ST_M3
3	M4	User status4	_VSB_ST_M4
4	M5	User status5	_VSB_ST_M5
5	M6	User status6	_VSB_ST_M6
6	M7	User status7	_VSB_ST_M7
7	M8	User status8	_VSB_ST_M8
8	NET_SEL	Select in the network	_VSB_SELEC
9	REVISION	Revision	_VSB_REV
10	PROGRESS	In operation	_VSB_DIREC
11	TIMEOUT	Runtime exceedance	_VSB_RTE
12	MAN_VAL	Manual value	_VSB_MVALUE
13	M14	User status14	_VSB_ST_14
14	M15	User status15	_VSB_ST_15
15	M16	User status16	_VSB_ST_16
16	GI	General query	_VSB_GR
17	SPONT	Spontaneous	_VSB_SPONT
18	INVALID	Invalid	_VSB_I_BIT
19	T_CHG_A	Daylight saving time/winter time announcement	_VSB_SUWI
20	OFF	Switched off	_VSB_N_UPD
21	T_EXTERN	Real time external	_VSB_RT_E
22	T_INTERN	Realtime internal	_VSB_RT_I
23	N_SORTAB	Not sortable	_VSB_NSORT

24	FM_TR	Error message transformer value	_VSB_DM_TR
25	RM_TR	Working message transformer value	_VSB_RM_TR
26	INFO	Information for the variable	_VSB_INFO
27	ALT_VAL	Alternate value If no value was transferred, the defined alternate value is used otherwise the last valid value is used.	_VSB_AVALUE
28	RES28	Reserved for internal use (alarm flashing)	_VSB_RES28
29	N_UPDATE	Not updated	_VSB_ACTUAL
30	T_STD	Standard time	_VSB_WINTER
31	RES31	Reserved for internal use (alarm flashing)	_VSB_RES31
32	COT0	Cause of transmission bit 1	_VSB_TCB0
33	COT1	Cause of transmission bit 2	_VSB_TCB1
34	COT2	Cause of transmission bit 3	_VSB_TCB2
35	COT3	Cause of transmission bit 4	_VSB_TCB3
36	COT4	Cause of transmission bit 5	_VSB_TCB4
37	COT5	Cause of transmission bit 6	_VSB_TCB5
38	N_CONF	Negative acceptance of Select by device (IEC 60870)	_VSB_PN_BIT
39	TEST	Test bit (IEC870 [T])	_VSB_T_BIT
40	WR_ACK	Writing acknowledged	_VSB_WR_ACK
41	WR_SUC	Writing successful	_VSB_WR_SUC
42	NORM	Normal status	_VSB_NORM
43	N_NORM	Deviation normal status	_VSB_ABNORM
44	BL_870	IEC 60870 Status: blocked	_VSB_BL_BIT
45	SB_870	IEC 60870 Status: substituted	_VSB_SP_BIT

46	NT_870	IEC 60870 Status: not topical	_VSB_NT_BIT
47	OV_870	IEC 60870 Status: overflow	_VSB_OV_BIT
48	SE_870	IEC 60870 Status: select	_VSB_SE_BIT
49	T_INVAL	Time invalid	not defined
50	CB_TRIP	Breaker tripping detected	not defined
51	CB_TR_I	Breaker tripping detection inactive	not defined
52	RES52	reserved	not defined
53	RES53	reserved	not defined
54	RES54	reserved	not defined
55	RES55	reserved	not defined
56	RES56	reserved	not defined
57	RES57	reserved	not defined
58	RES58	reserved	not defined
59	RES59	reserved	not defined
60	RES60	reserved	not defined
61	RES61	reserved	not defined
62	RES62	reserved	not defined
63	RES63	reserved	not defined

Info

In formulas all status bits are available. For other use the availability can be reduced.

You can read details on status processing in the Status processing chapter.

2.1.10   Windows CE

In order to use the recipe group manager under Windows CE, the data of the RGM must be stored alternatively to the MS Access database. For Windows CE the data is stored in a binary way in a file structure.

If you activate in *Project properties* -> `General` check box `Windows CE project`, the data for the RGM are automatically stored in a binary way.
You can define the binary saving of the data manually independent of the CE project via:
Property recipe group -> `Recipegroup Manager` -> `RGM data storage` -> `binary files CE compatible).`

> ⚠ Attention
>
> *A conversion from MS Access database to binary or vice versa is not provided.*
>
> *Already existing RGM data are not converted! If necessary you must export the data to XML prior to the conversion. After that you can convert the project and import the data in the new data storage.*

CHANGING THE DATABASE

If you selected for the RGM in property `RGM data storage` `MS ACCESS DB` as database and you then activated check box `Windows CE project`, a hint for the conversion is displayed:
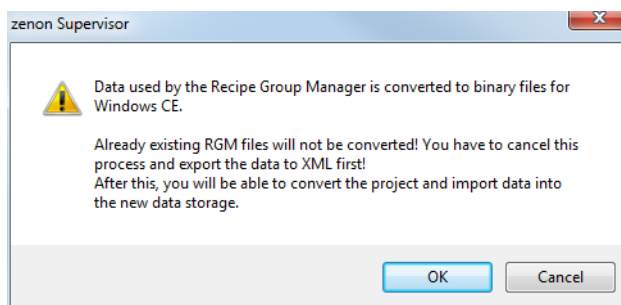
To conserve the data of the present database:

1. export the data to XML

2. convert the database

3. import the XML file

FILTER DIALOG IN THE RUNTIME

If you activate property `Show dialog in the Runtime` at the options of the Recipe value list (on page 46) in the screen switch, there are only restricted options available in Windows CE:

▸ Recipe filter

▸ Column settings (for recipe table)

`Recipe selection, Equipment modeling` and column settings for the `recipe list` are not available.

MULTI-USER PROJECTS

In multi-user projects you can check out binary data and MS Access database independent of each other.

In window `Under construction` always the state of the type of storage set on this computer is displayed. If binary files are used you cannot see that the Access database is also checked out.

With this the following scenario is possible:

▸ on PC `A` the Access database is checked out

▸ on PC `B` the Windows CE project is activated and therefore converted to binary data

▸ on PC `B` the binary files are checked out

▸ on PC `B` the changes are applied and then synchronized with PC `A`

▸ with this PC `A` is also converted to binary files

▸ the Access database however stays checked out on PC `A`

▸ only when PC `B` converts back to Access database you can see that the Access database is checked out on PC `A`

2.2 Functions

When the standard function is created from the context menu in the detail view, zenon automatically creates a function `Recipegroup manager` for the selected recipe.

2.2.1　Function screen switch Recipegroup Manager

With screen switching to a Recipe Group Manager screen, you define a recipe that is to be sent when switching. These settings can also be made in Runtime, if the `Offer dialog in Runtime` option is active.

To configure screen switching:

1. create a new function

2. select `Screen switch`

3. Select the Recipe Group Manager screen

4. Select your settings in the individual tabs

    - Recipe value table (on page 46): Settings for the recipe.
    - Recipe value table column setting (on page 51): Settings for display in Runtime.
    - Recipe filter (on page 52): Definition of recipes of a recipe group that should be displayed in a Recipe Group Manager screen.
    - Recipe list column settings (on page 56): Settings for the display of the recipe lists.
    - Equipment modeling (on page 60): Selection of equipment models.
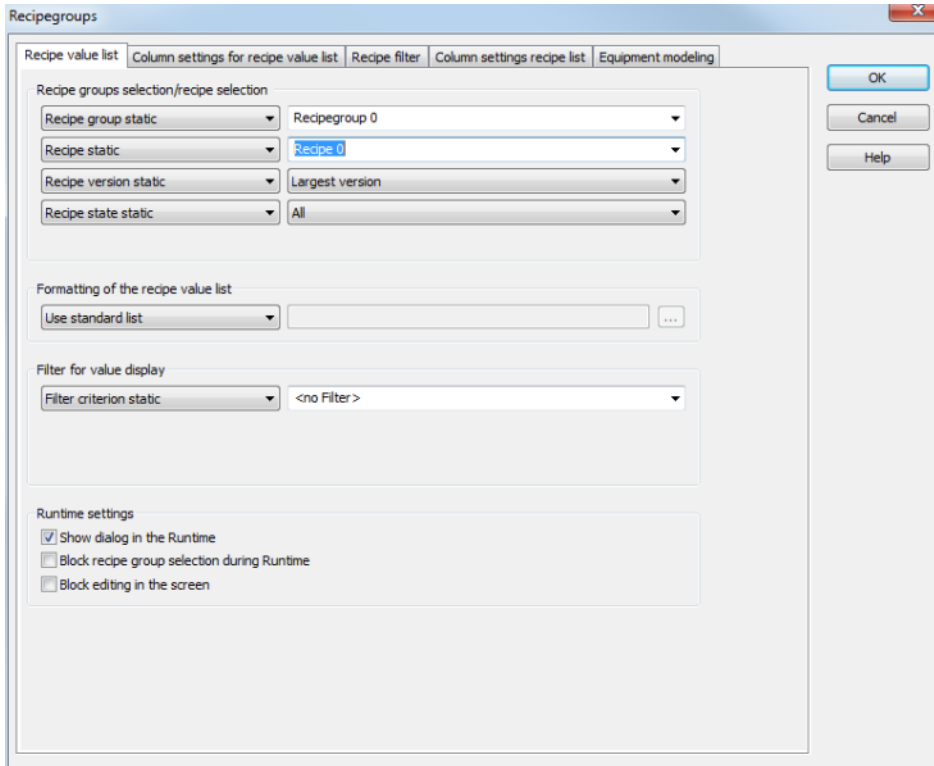
> 💡 **Info**
>
> *You can find the settings for visibility of variables in Runtime in:*
>
> ▶ Changing variable parameters (on page 23): Filter (on page 26), Visibility (on page 25)
>
> ▶ Editing recipe from a recipe group (on page 29): Authorization levels
>
> *These settings only relate to the display in the recipe table. If a recipe is sent to the control, for example, all values of the recipe are written.*

Recipe value table

The recipe that is to be sent is selected in this tab.

Parameters	Description
`Recipe groups-/` `Recipe selection`	Selection of the recipe group and the recipe. The selection can take place: ▶ Statically from pre-defined entries ▶ Dynamically using variables ▶ From a file Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▶ Recipe group static ▶ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▶ Recipe static ▶ Recipe name from variable name ▶ Recipe name from variable no. Note: If the recipe selection leads to an error in Runtime (recipe not present in Runtime, no selection made, recipe not contained in the filter), then no recipe is selected and the display of the drop-down list `Recipe` remains empty.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables.

	If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened .
Recipe version	Selection of recipe version (on page 37) from existing versions or using a variable.

`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection:
	
	  ▸ Pre-existing recipe version (on page 37)
	
	  ▸ `Smallest version;`
	      additional selection of a recipe status possible
	
	  ▸ `Largest version;`
	      additional selection of a recipe status possible

`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	
	Note: If the recipe version is obtained from a numerical variable, the following applies:
	
	  ▸ Value 90000 corresponds to static **lowest recipe version**
	
	  ▸ Value 90001 corresponds to static **highest recipe version**

Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.

`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `largest version` or `smallest version` or is taken from a variable. Example: `Largest version` **with status** `released`.
	
	Selection of a recipe status from drop-down list:
	
	  ▸ Existing status (on page 37)
	
	  ▸ **All**

`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	
	Note: If the recipe status is obtained from a numerical variable, the following applies:
	
	  ▸ Value `0` is valued as `all`
	
	  ▸ The action is cancelled if the status cannot be found in the recipe

|	
Formatting of the recipe value table	Settings for the formatting of the recipe value table.
Table	Selection of report file. Click the button to open a drop-down list for selection. ▸ Use standard list ▸ Use format file for list
`Use standard table:`	The recipe values are displayed in Runtime in a simple table in a `Recipe Group Manager` screen. The columns of this table can be defined using the Recipe value table column table (on page 51).
`Using the format file for table:`	Allows the use of a report file (`*.xrs`) for the display of the recipe values. This file must have been created in the Report Generator before. A click on the `...` button opens the file selection dialog.
Filter for value display	Selection of the filter (on page 26) that is to be active when switching in order to limit the list of displayed recipe values.
Filter criterion	Selection of the filter. Clicking on text opens a drop-down list to select the filter: ▸ Filter criterion static ▸ Filter criterion as variable
`Static filter criterion:`	Selection of a filter that was defined at the `Filter text` variable property.
`Filter criterion as variable:`	Filter criterion is is taken from a STRING variable.
Runtime settings	Settings for operation in Runtime.
`Show dialog in the Runtime`	`Active:` The dialog is shown in Runtime so that changes can be made. Note: Only limited functions are available under Windows CE and when called up using the `Filter`button in the Recipe Group Manager screen: ▸ Recipe filter ▸ Column settings (for recipe table)
`Block recipe group selection in Runtime`	`Active:` Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
`Block editing in the`	Blocks all control elements in the RGM screen. The user cannot make

`screen`	any changes to the RGM.
OK	Accepts settings in all tabs and closes dialog.
Cancel	Discards changes for all tabs and closes dialog. The function is created the first time screen switching is configured, however without a target.
Help	Opens online help.

💡 Info

The recipe name must be unique. The recipe number is not checked for uniqueness. It is only used in order to call a recipe via a variable with the help of function **Recipegroup Manager**. *If several recipes with the same number exist, zenon use the recipe it finds first.*

Recipe value table column setting

All columns of the recipe list are freely configurable. The columns can be made visible, sorted and labeled as you wish. In addition you can blank out the line numbering.
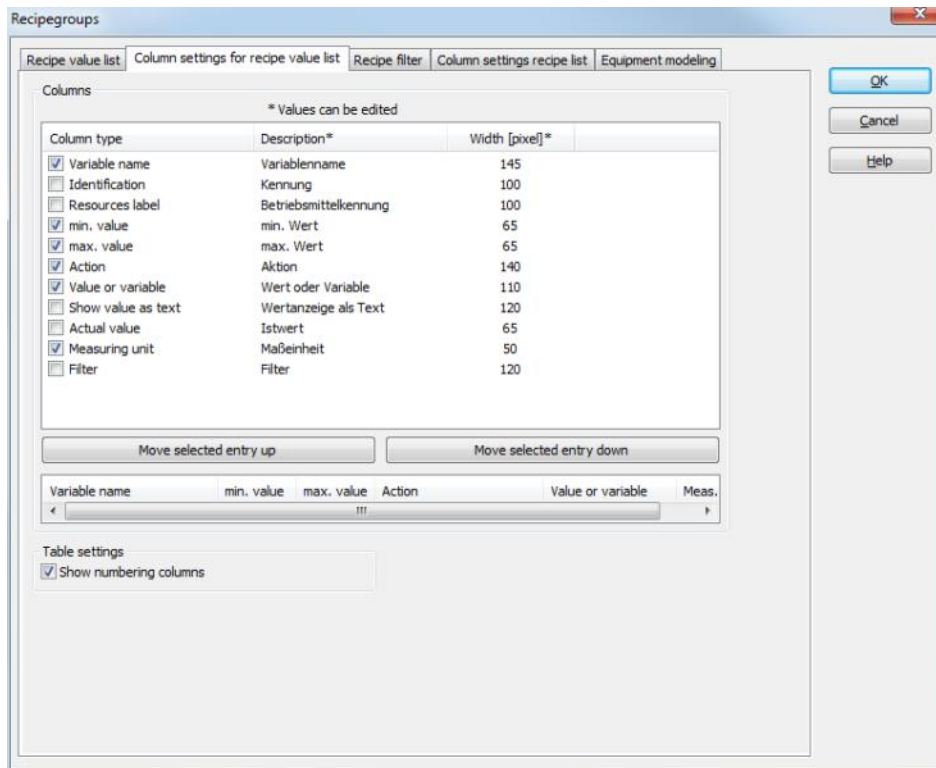
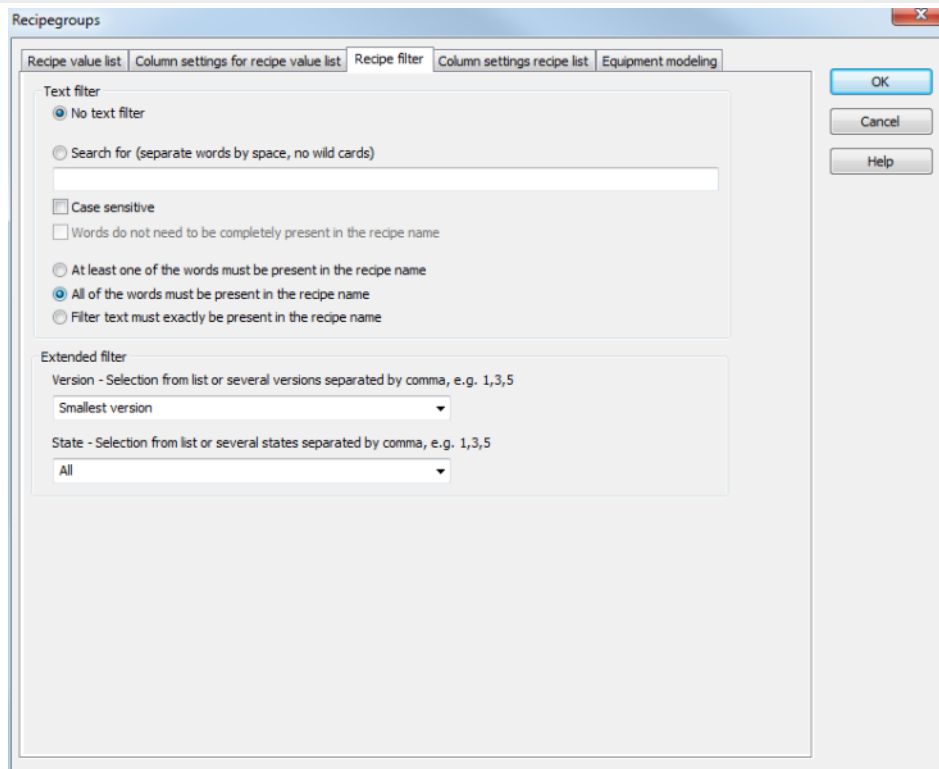| Parameters	Description
`Column type`	Type of the column. Cannot be edited. The display in the Runtime is activated or deactivated with the help of a checkbox.
`Description`	Defines the header of the respective column. You can configure it as language switchable. The value can be edited.
`Width`	Defines the width of the column in characters. You can also define the width of the column by clicking and dragging the column with the mouse in the list with the horizontal display of the column names. The value can be edited.
`Move selected entry up`	Moves the selected column up. You can also move the columns with drag&drop.
`Move selected entry down`	Moves the selected column down. You can also move the columns with drag&drop.
`Field with horizontal display of the column names`	Shows the columns which are active in the list. You can define the size of the columns by clicking and dragging the column borders with the mouse.
Display numbering column	`Active:` The first column of the report is displayed with line numbers.
`OK`	Accepts settings in all tabs and closes dialog.
`Cancel`	Discards changes for all tabs and closes dialog. The function is created the first time screen switching is configured, however without a target.
`Help`	Opens online help.

Recipe filter

On this tab you define which recipes of a recipe group should be displayed in a Recipegroup Manager screen. Only recipes are displayed which are allowed by the recipe filter of the screen switch function. The filtering is based on the recipe names.

💡 **Info**

If the recipe selection leads to an error in Runtime (recipe not present in Runtime, no selection made, recipe not contained in the filter), then no recipe is selected and the display of the drop-down list `Recipe` *remains empty.*

Parameters	Description
Text filter	Defines filter criteria.
No text filter	Active: The text filter is not used.
Search for (words separated by spaces)	Active: The recipe filter is used. The additional settings are activated.
Input field	Enter the corresponding words or character strings.
Note capitalization	Active: Capitalization is taken into account when filtering.
Words do not have to appear in the recipe name in full	Active: The expressions entered in the **input field** are also taken into account if they only appear in the recipe name as part of a word.
At least one word must be present in the recipe name	Active: At least one word of the search string must appear in the recipe name.
All words must be present in the recipe name	Active: All words of the search string must be present in the recipe name but the order does not matter.
Filter text must appear in the recipe name exactly	Active: All words of the search string must be present in the recipe name in the same order.
Extended filter	Filter settings for version and status.
Version	Version filter: Selection from drop-down list or direct input. Drop-down list: ▸ Smallest version ▸ Largest version ▸ All These settings are always combined with the status. Direct input: ▸ Numerical input, separated by a comma. For example: **1.2.6** Entries may consist of numbers, commas or spaces and are checked to see if they are valid. Erroneous inputs are noticed when the dialog is confirmed with OK or the tab is changed. The dialog remains open

	and the focus is placed on the combobox with the erroneous input.

`Status`	Filter criterion for status. Selection:
	
	 <u>Drop-down list:</u>
	
	   ▸ All
	
	   ▸ Already configured status (on page 37)
	
	 <u>Direct input:</u>
	
	   ▸ Numerical input, separated by a comma. For example: `1.2.6`
	
	 The language of status texts can be switched.
	
	 Entries may consist of numbers, commas or spaces and are checked to see if they are valid. Erroneous inputs (such as letters) are noticed when the dialog is confirmed with OK. The dialog remains open and the focus is placed on the combobox with the erroneous input.

OK	Accepts settings in all tabs and closes dialog.
Cancel	Discards changes for all tabs and closes dialog. The function is created the first time screen switching is configured, however without a target.
Help	Opens online help.

**POSSIBLE COMBINATIONS OF THE VERSION FILTER WITH THE STATUS FILTER**

Version filter	Status filter	Result
`Smallest version`	`All`	Only the smallest respective versions of all recipes are shown.
`Smallest version`	`1.2`	Only the smallest respective versions of all recipe versions with status `1` or `2` are displayed.
`Largest version`	`All`	Only the largest respective versions of all recipes are shown.
`Largest version`	`1.2`	Only the largest respective versions of all recipe versions with status `1` or `2` are displayed.

All	All	All recipe versions are displayed.
All	1.2	All recipe versions with the status 1 or 2 are displayed.
2.3	All	All recipe versions 2 and 3 are displayed regardless of status.
2.3	1.2	The respective recipe version 2 and 3 is displayed if these have either the status 1 or 2.

Column settings recipe list

In this tab, the column settings for the display of the `recipe list` (on page 11) in Runtime is configured.

Attention: The column settings for the recipe list are not available for CE projects.
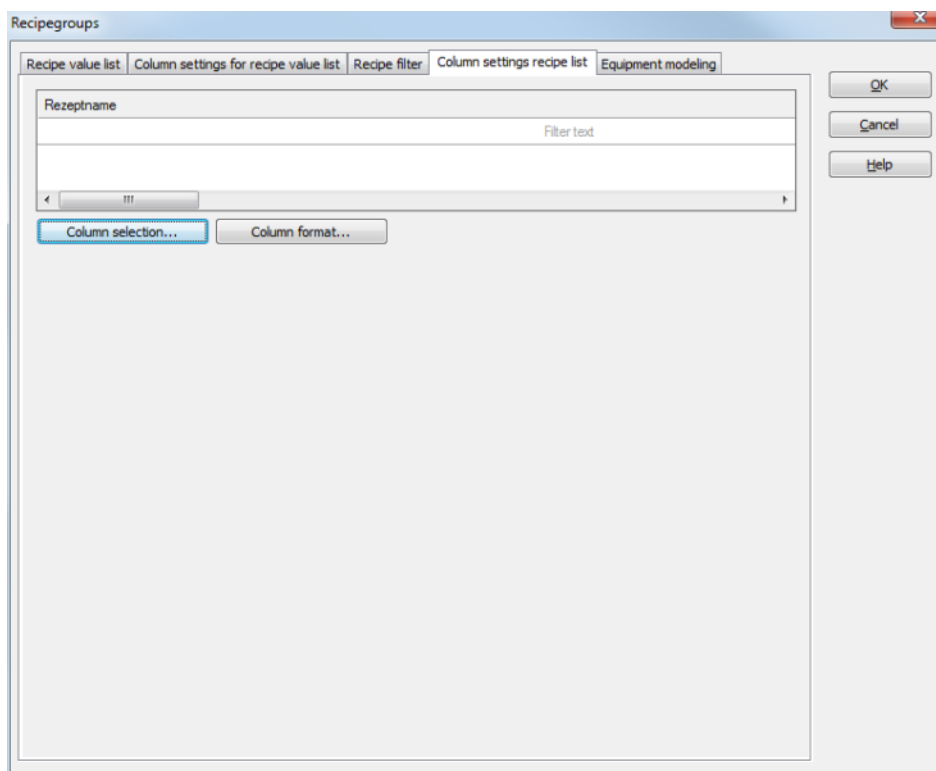
Parameters	Description
List field	Display of the configured columns.
Column selection	Opens dialog to select the character columns.
Column format	Opens a dialog to format the columns.
OK	Applies all changes and closes dialog.
Cancel	Discards all changes and closes dialog.
Help	Opens online help.

Other settings, such as scroll bars, are configured in the list field properties. For details, see `Appearance of recipe list` (on page 19) section.
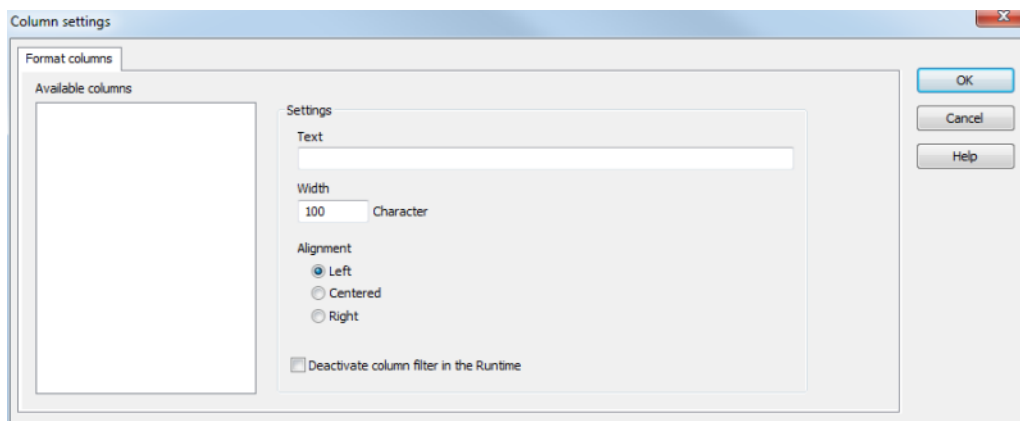
Column selection

You configure the columns to be displayed in Runtime here.
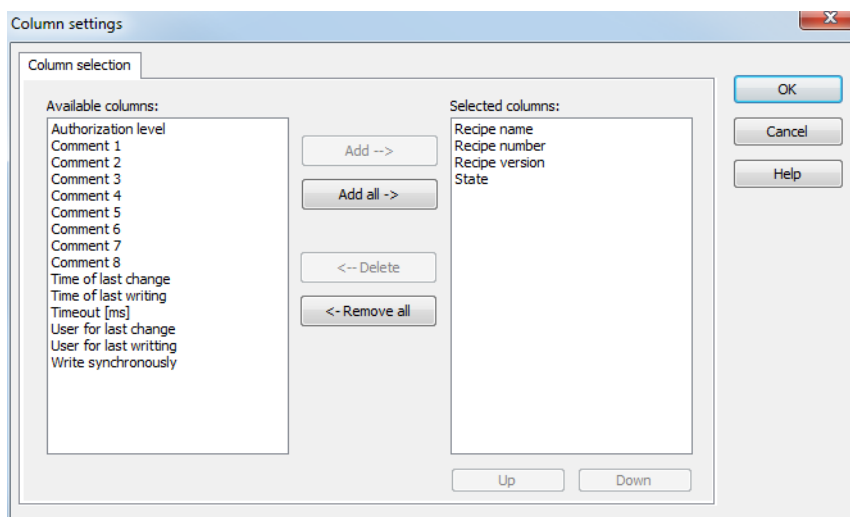
| Button	Function
Add	Moves the selected column from the available ones to the selected items. After you confirm the dialog with OK, they are shown in the detail view.
Add all	Moves all available columns to the selected columns.
Remove	Removes the marked columns from the selected items and shows them in the list of available columns. After you confirm the dialog with OK, they are removed from the detail view.
Remove all	All columns are removed from the list of the selected columns.
Up	Moves the selected entry upward. This function is only available for unique entries, multiple selection is not possible.
Down	Moves the selected entry downward. This function is only available for unique entries, multiple selection is not possible.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog.
Help	Opens online help.

Column format

The columns are formatted here.

Parameter	Description
`Available columns`	List of columns available using `column selection`. The column selected here is configured using the settings in the `Parameters` section.
`Parameter`	Settings for selected column.
`Labeling`	Name for column title. The column title is online language switchable. For this you must enter character @ in front of the name.
`Width`	Width of the column in characters. Calculation: Number time average character width of the selected font.
`Alignment`	Alignment. Possible settings: ▸ Left-justified: Text is justified on the left edge of the column. ▸ Centered: Text is displayed centered in the column. ▸ Right-justified: Text is justified on the right edge of the column.
`Block column filter in Runtime`	`Active:` The filter for this column cannot be changed in Runtime. **Note:** Only available for: ▸ Batch Control ▸ Extended Trend ▸ Message Control ▸ Recipegroup Manager
`OK`	Applies settings and closes dialog.
`Cancel`	Discards settings and closes the dialog.
`Help`	Opens online help.

Equipment modeling

Here you allocate equipment models and levels:
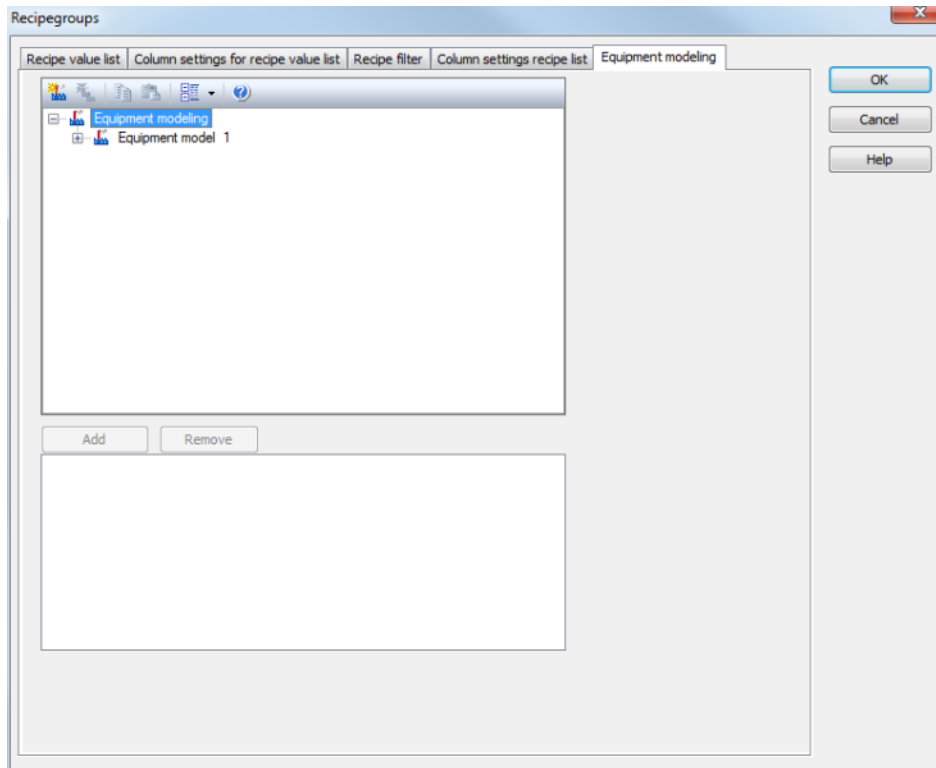
Property	Description
Toolbar	See chapter tool bar and context menu detail view.
Add	Adds selected groups and levels to the selection.
Remove	Deletes selected elements from the selection.
OK	Accepts settings in all tabs and closes dialog.
Cancel	No element is selected.
Help	Opens online help.

ADD GROUPS

▶ select the desired equipment model

▶ select an equipment group or level, elements on the same hierarchical level can be selected at the same time via multiselect (hold the `ctrl` key)

▸ add this to the list with the `Add` button in the lowere area of the dialog

▸ Subgroups are not automatically added
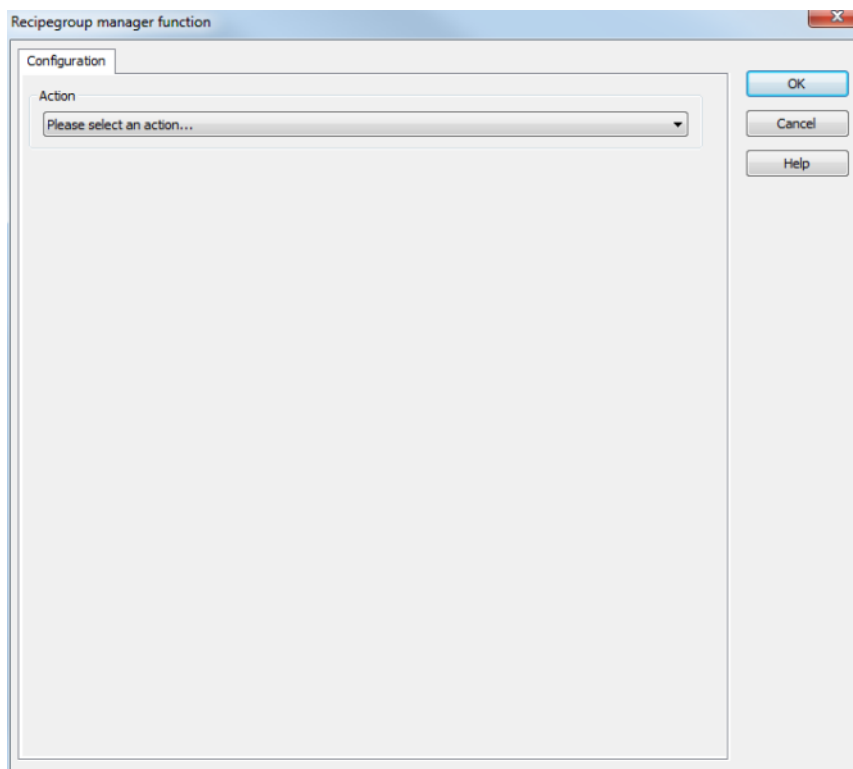
▸ it is possible to link as many groups as you want

DELETE GROUPS

▸ Select the elements you wish to delete in the lower area of the dialog

▸ click the `Delete` button

Note: Changes in a tree element remain preserved independent of clicking button `Cancel`. `Cancel` only means that no element has been selected.

2.2.2   Function Recipegroup Manager

This function carries out defined actions for a selected recipe of the Recipegroup Manager in the Runtime.

Parameters	Description
Action	Selection of desired function from drop-down list. Selection can be subsequently changed. Possible functions: ▸ Write recipe (on page 63) ▸ Read recipe (on page 66) ▸ Check recipe value (on page 69) ▸ Rename recipe (on page 75) ▸ Change recipe status (on page 77) ▸ Create new recipe (on page 82) ▸ Delete recipe (on page 84) ▸ Duplicate (on page 86) ▸ Duplicate and teach (on page 90) ▸ Create new recipe version (on page 94) ▸ Delete recipe version (on page 96) ▸ Duplicate as new recipe version (on page 99) ▸ Duplicating and reading as a new recipe version (on page 102) ▸ Write recipe values to shadow variables (on page 105) ▸ Write shadow variables to recipe values (on page 108) ▸ Export XML all (on page 111) ▸ Export recipe group XML (on page 114) ▸ Export recipe XML (on page 117) ▸ Import XML (on page 122) ▸ Detailed recipe data on saving documentation in XML (on page 124) ▸ Export recipe to text file (on page 128) ▸ Import recipe of text file (on page 132)
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without an

	`action.`
Help	Opens online help.

> **Info**
>
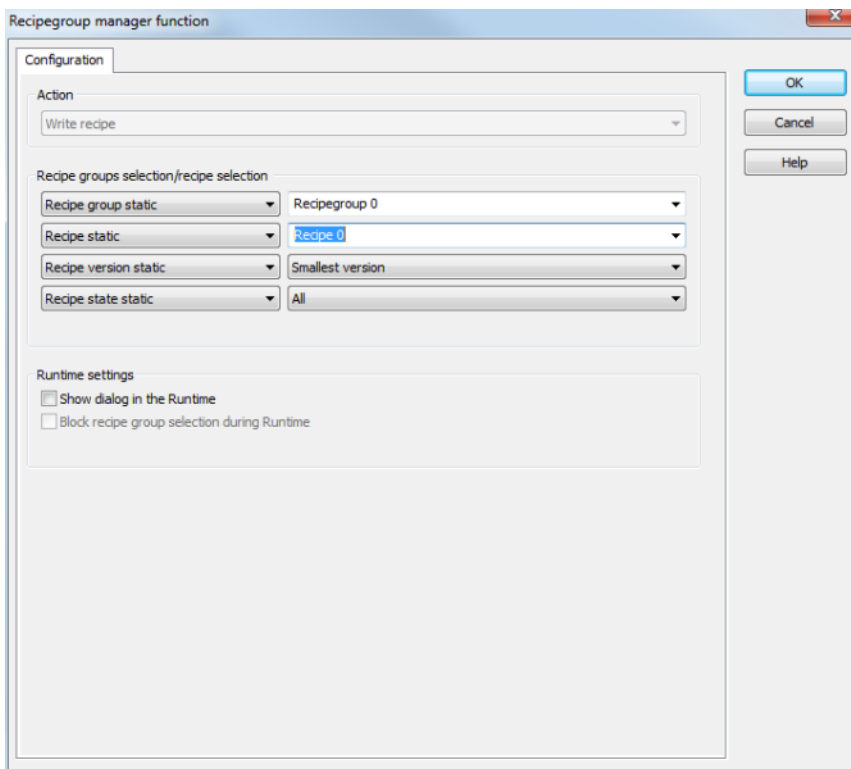> *The recipe name of all functions must be unambiguous. The recipe number is not checked for uniqueness. It is only used in order to call a recipe via a variable with the help of function* **Recipegroup Manager**. *If several recipes with the same number exist, zenon use the recipe it finds first.*

Write recipe

This function sends the selected recipe in Runtime.

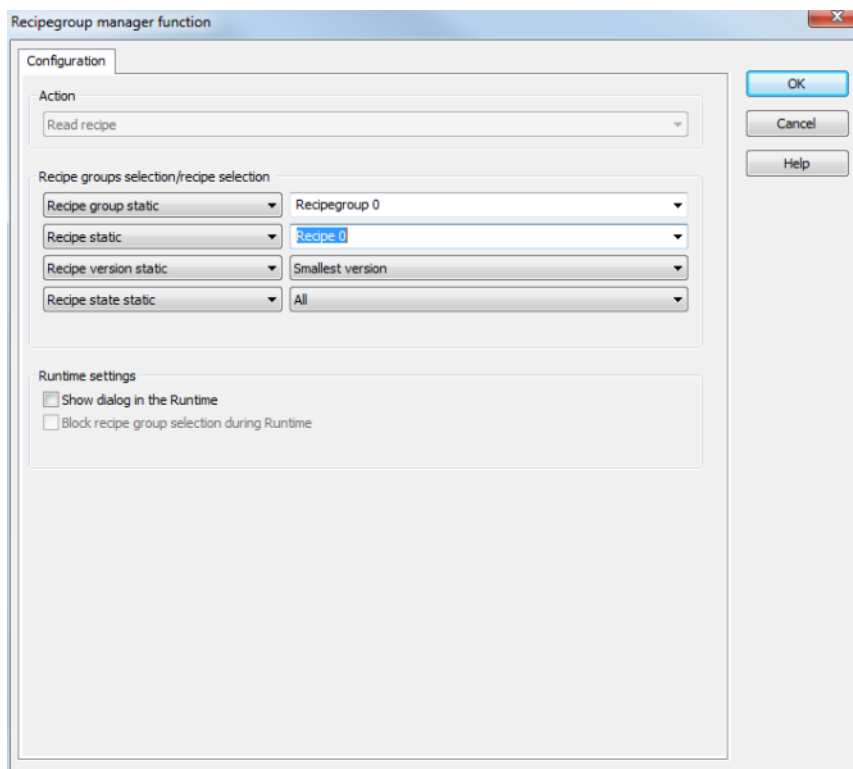| Parameter	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/` **`Recipe selection`**	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection:
	▸ Pre-existing recipe version (on page 37)
	▸ `Smallest version;` additional selection of a recipe status possible
	▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	Note: If the recipe version is obtained from a numerical variable, the following applies:
	▸ Value 90000 matches the statistical `smallest version`
	▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`.
	Selection of a recipe status from drop-down list:
	▸ Existing status (on page 37)
	▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	Note: If the recipe status is obtained from a numerical variable, the following applies:
	▸ Value `0` is valued as `all`
	▸ The action is cancelled if the status cannot be found in the recipe
Runtime settings	Settings for operation in Runtime.
`Show dialog in the`	`Active`: The dialog is shown in Runtime so that changes can be

Runtime	made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Read recipe

The values of the corresponding variables are read off and written to the selected recipe (teaching).

When reading, a check is carried out to see if the values of the properties (on page 29) **minimum value** and max. **value** have been adhered to. If the values are gone below or exceeded, or the variable has the status INVALID, the values are not written to the recipe. Errors can be evaluated using the system variables (sysdrv.chm::/25964.htm).

Parameters	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened .
Recipe version	Selection of recipe version (on page 37) from existing versions or

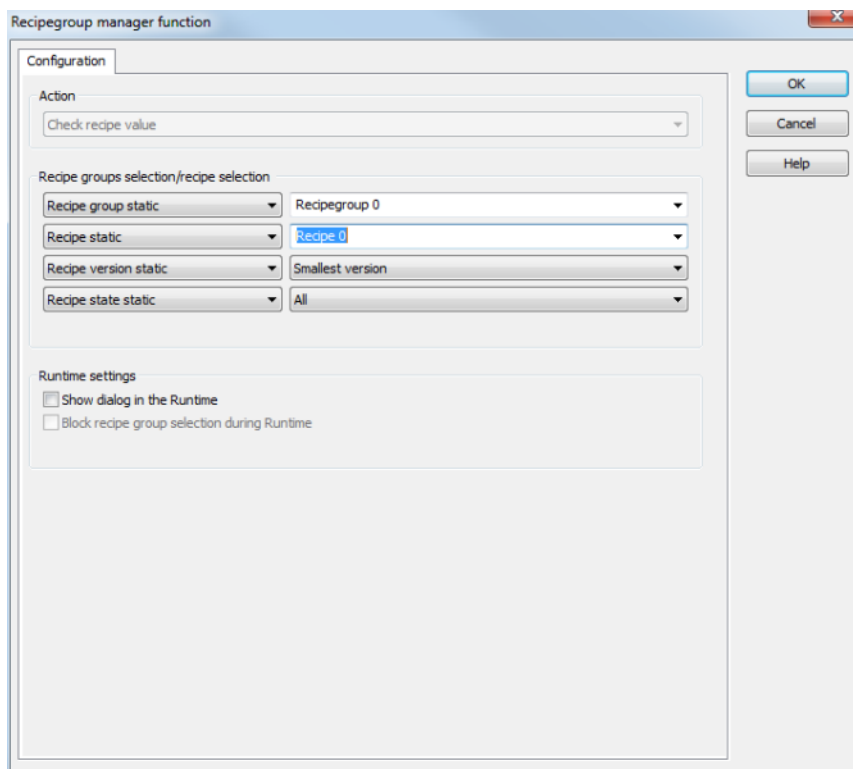|	
	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection: ▸ Pre-existing recipe version (on page 37) ▸ `Smallest version;` additional selection of a recipe status possible ▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
Runtime settings	Settings for operation in Runtime.
`Show dialog in the`	`Active`: The dialog is shown in Runtime so that changes can be

Runtime	made.
Block recipe group selection in Runtime	Active: Selection of recipe group is blocked in Runtime. Only available if Offer dialog in Runtime is active.
OK	Applies settings and closes the dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Check recipe value

This function carries out a recipe check. At this recipe value and actual value are compared and the result is transferred to the corresponding system variable (sysdrv.chm::/25964.htm).

Recipe values can be checked using the Recipegroup Manager function or by means of the VBA.

RECIPEGROUP MANAGER

Parameter	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/ Recipe selection`	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection:
	▸ Pre-existing recipe version (on page 37)
	▸ `Smallest version;`
	additional selection of a recipe status possible
	▸ `Largest version;`
	additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	Note: If the recipe version is obtained from a numerical variable, the following applies:
	▸ Value 90000 matches the statistical `smallest version`
	▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`.
	Selection of a recipe status from drop-down list:
	▸ Existing status (on page 37)
	▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	Note: If the recipe status is obtained from a numerical variable, the following applies:
	▸ Value `0` is valued as `all`
	▸ The action is cancelled if the status cannot be found in the recipe
Runtime settings	Settings for operation in Runtime.
`Show dialog in the`	`Active`: The dialog is shown in Runtime so that changes can be

Runtime	made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

> ⚠ **Attention**
>
> *The function uses decimal points for synchronization with the PLC. If, for variables with the REAL data type, the* `Decimals` *property is not configured along the lines of the PLC settings and the values in the decimal point area are different, the function displays different values.*

VBA

Recipe values can be carried out automatically via VBA: For this function **(Check())** is used. It takes over the following parameters or delivers the following return values:

```
Check(ByRef vList As Variant)as Long
```

▶ Return value: matches the values of the system variable **RGM recipe value check - result.**

▶ **vList**: matches the values of the system variable **RGM recipe value check - deviations.** At this a new entry is used for every array index (no line feed).
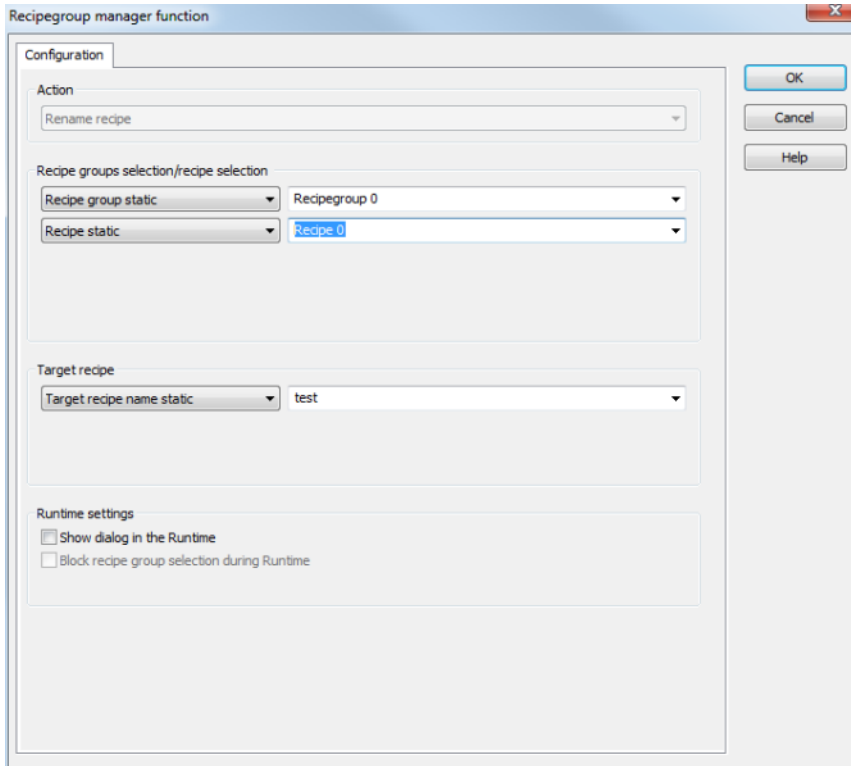
SYSTEM VARIABLES

The function carries out a recipe check. At this recipe value and actual value are compared and the result is transferred to the corresponding system variable (sysdrv.chm::/25964.htm). The variable can be selected and checked locally or globally. Variables that cannot be checked due to erroneous communication with the PLC (INVALID status) are marked by a colored background (red).

Variable	Data type	Description
RGM recipe values check - deviations (global/local)	STRING	List all variable differences in the following order: [`Variable name; recipe value; variable value; unit`] each entry is written in a new line. Requirement: Variable `RGM recipe value check - result` has the value 1. Attention: Variable can either be created and evaluated globally or locally.
Check RGM recipe values - authorization (global/local)	DINT	Authorization level of the last recipe checked.
Check RGM recipe values - last user change (global/local)	STRING	Name of the user who was logged in when the last change was made to the last recipe checked.
RGM recipe values check - result (global/local)	DINT	Result of the check: ▸ 0: All value match. ▸ 1: At least one variable value deviates from the recipe value. ▸ 2: At least one variable is faulty (INVALID). Error messages: ▸ -1: En error while reading the variable value occurred. ▸ -2: The recipe group could not be opened. ▸ -3: The recipe could not be opened. Attention: Variable can either be created and evaluated globally or locally.
Check RGM recipe values - comment 1 to 8 (global/local)	STRING	Eight comments can be added to a recipe. The variable contains the comment of the respective number for the last recipe checked.
Check RGM recipe values - recipe group name (global/local)	STRING	Name of the recipe group of the recipe checked last. Requirement: Variable `RGM recipe value check - result` has a value >= -1. Attention: Variable can either be created and evaluated

		globally or locally.
RGM recipe values check - recipe name (global/local)	STRING	Name of the recipe checked last. Requirement: Variable **RGM recipe value check - result** has a value >= -1. **Attention**: Variable can either be created and evaluated globally or locally.
RGM recipe values check - recipe number (global/local)	UDINT	Number of the recipe checked last. Requirement: Variable **RGM recipe value check - result** has a value >= -1. **Attention**: Variable can either be created and evaluated globally or locally.
Check RGM recipe values - recipe status (global/local)	DINT	Status of the last recipe checked as a number.
Check RGM recipe values - recipe status text (global/local)	STRING	Status of the last recipe checked as text in the format: **1 - @Text**
Check RGM recipe values - recipe version (global/local)	DINT	Version of the last recipe checked.
Check RGM recipe values - time of last user change (global/local)	STRING	Time of the last recipe change of the last recipe checked.

Rename recipe

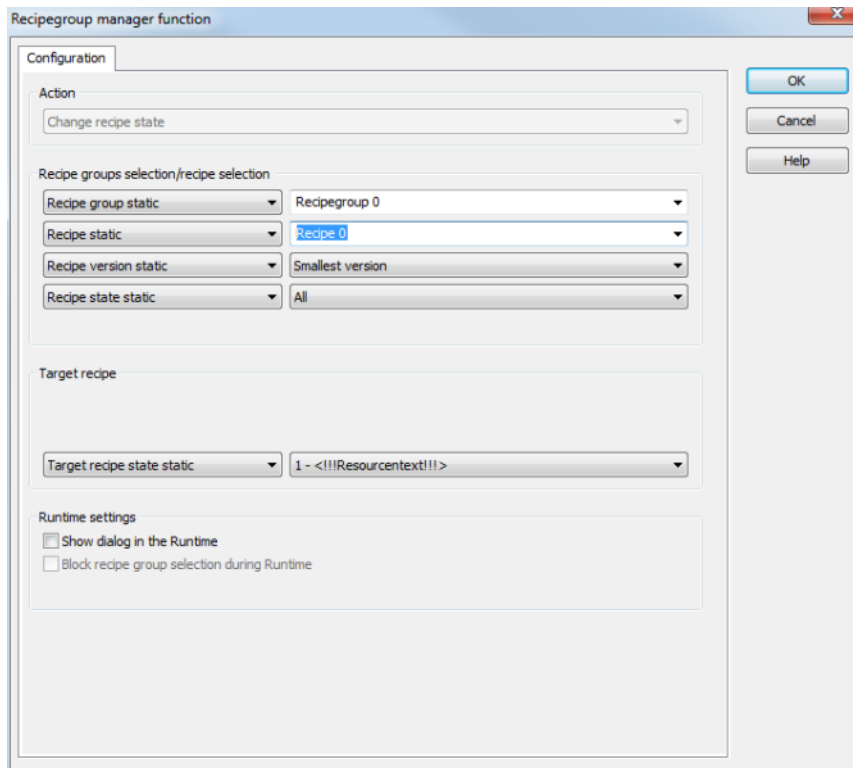This function renames the selected recipe and all its versions.

Parameters	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.

Target recipe	Select how the target recipe of the renaming is created:
	▸ Target recipe name static
	▸ Create new target recipe
	▸ Target recipe name from variable
Static target recipe name:	Selection of an existing recipe from drop-down list.
Create new target recipe name	A new recipe with an automatically-generated name is created.
Target recipe name from variable:	Name of the target recipe is taken from a variable. Click on button ... opens the dialog for selecting variables. The recipe is not renamed if the values of the variables are invalid.
Runtime settings	Settings for operation in Runtime.
Show dialog in the Runtime	Active: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	Active: Selection of recipe group is blocked in Runtime. Only available if Offer dialog in Runtime is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Change recipe status

This function changes the status of a recipe.

An attempt is made to set the status value to the selected recipe and the recipe is then saved. If the given status value is not valid, (0 or a non-configured status value (on page 37)) the recipe remains unchanged and a CEL entry is generated. The `RGM recipe function being processed` (`sysdrv.chm::/25964.htm`) variable displays an error in this case (4).
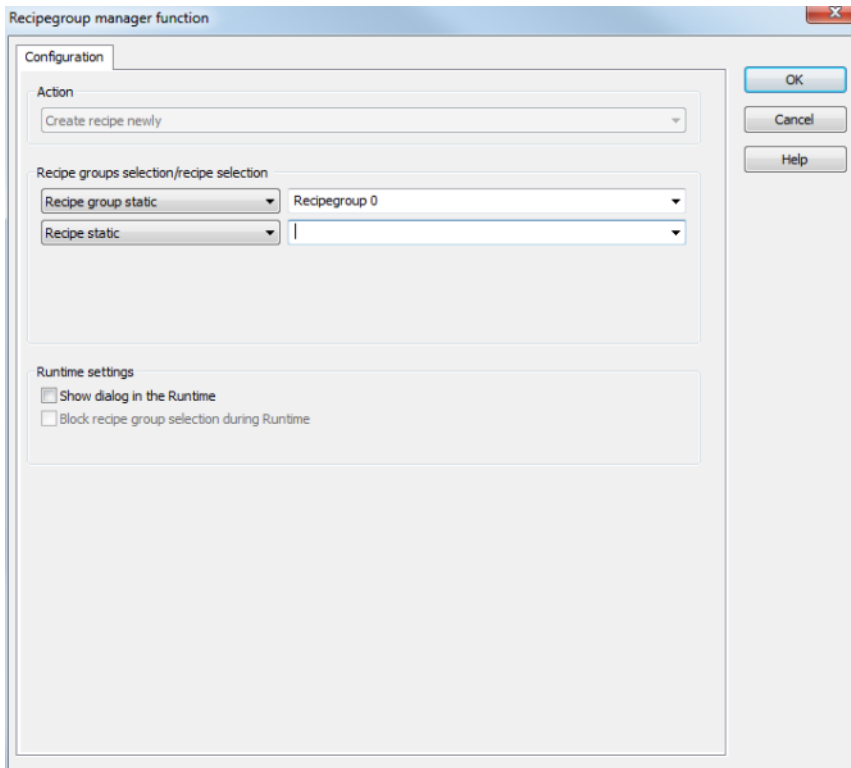
Parameters	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection:
	▸ Pre-existing recipe version (on page 37)
	▸ `Smallest version;` additional selection of a recipe status possible
	▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **`with status`** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
`Target recipe`	Status definition for target recipe.
Target recipe status	Selection of new recipe status (on page 37) from existing status or

	using a variable.
`Static target recipe list:`	Selection of an existing status (on page 37) from drop-down list.
`Target recipe status from variable:`	Recipe status is taken from a variable as a numerical value. Click on button `...` opens the dialog for selecting variables. The action is cancelled if the status cannot be found in the recipe
`Runtime settings`	Settings for operation in Runtime.
`Show dialog in the Runtime`	`Active:` The dialog is shown in Runtime so that changes can be made.
`Block recipe group selection in Runtime`	`Active:` Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
`OK`	Applies settings and closes dialog.
`Cancel`	Discards settings and closes the dialog. The function is created, however without a target.
`Help`	Opens online help.

Create new recipe
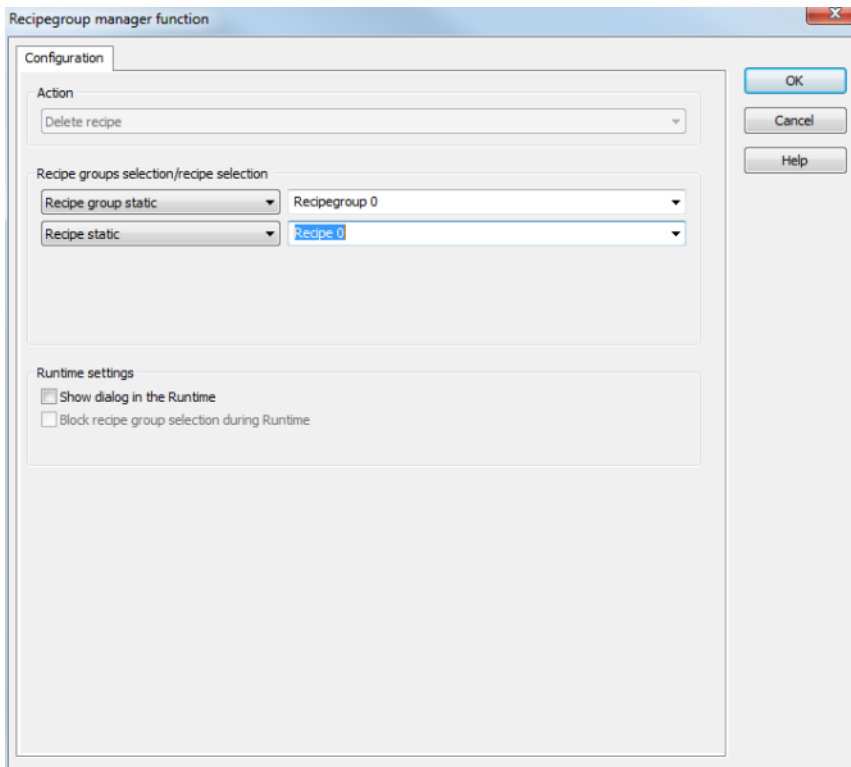
This function creates a new recipe in the selected recipe group.

Parameters	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/ Recipe selection`	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
`Runtime settings`	Settings for operation in Runtime.

Show dialog in the Runtime	**Active**: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	**Active**: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Delete recipe

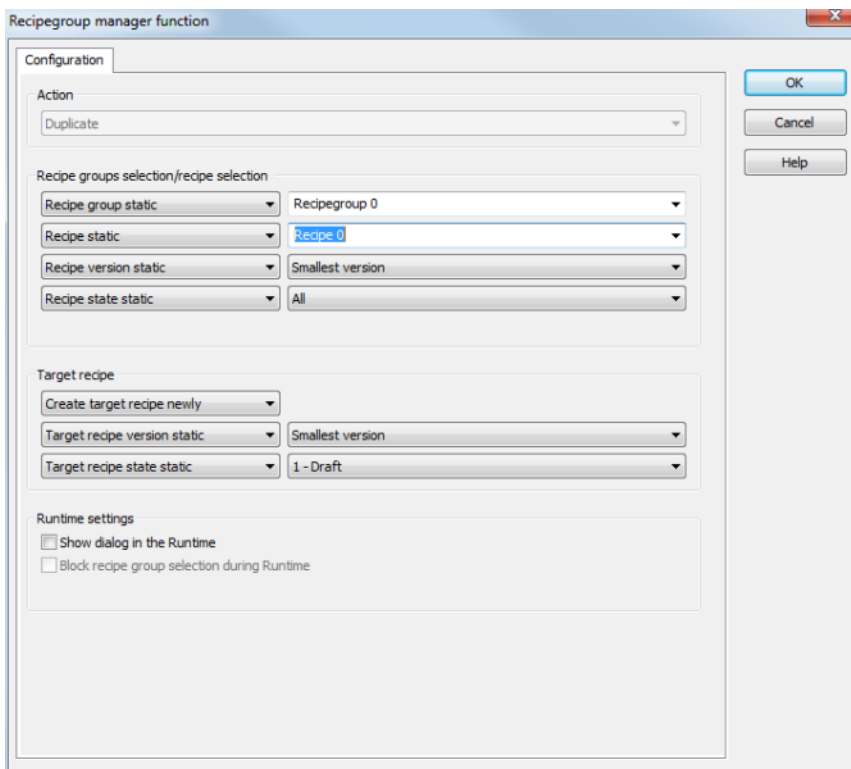This function deletes the selected recipe with all its versions.

Parameters	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
Runtime settings	Settings for operation in Runtime.

Show dialog in the Runtime	**Active**: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	**Active**: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Duplicate

This function duplicates the selected recipe. The values of the corresponding variables are written to the new recipe.

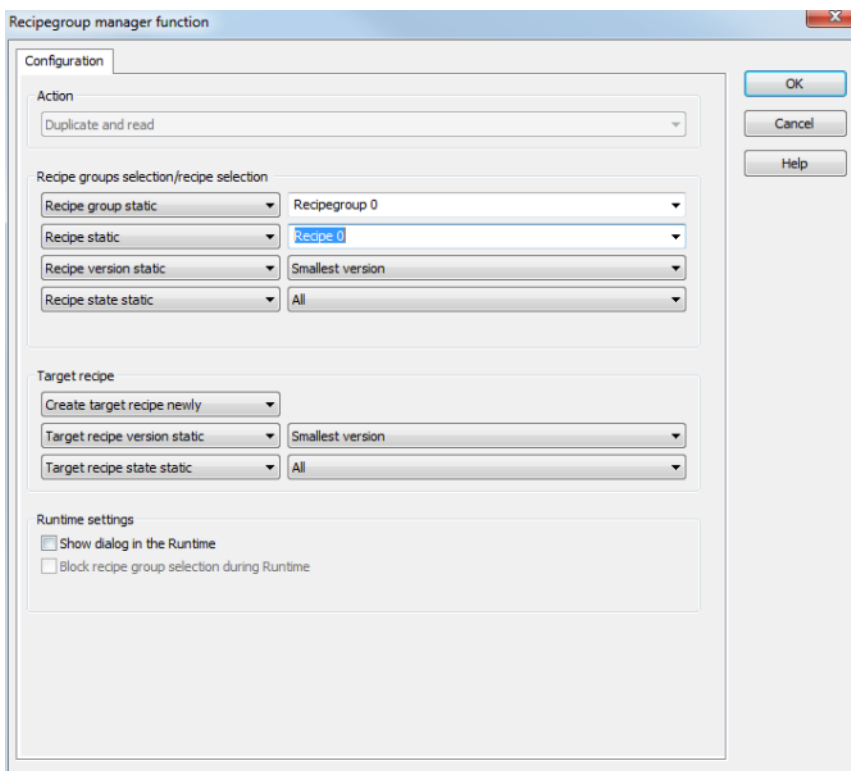| Parameter	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/` **`Recipe selection`**	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened .
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.

`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection:
	
	▸ Pre-existing recipe version (on page 37)
	
	▸ `Smallest version;`
	   additional selection of a recipe status possible
	
	▸ `Largest version;`
	   additional selection of a recipe status possible

`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
Target recipe	Status definition for target recipe.
Create target recipe	Settings for recipe naming. Click on the text to open a drop-down list

	for selection:
	▶ Target recipe name static
	▶ Create new target recipe
	▶ Target recipe name from variable
`Target recipe name static`	Assumption of an existing name from drop-down list.
`Create new target recipe`	The name is created and issued by the system.
`Target recipe name from variable`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
Target recipe version	Selection of target recipe version from existing versions or using a variable.
`Static target recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection: ▶ Pre-existing recipe version (on page 37) ▶ `Smallest version;` additional selection of a recipe status possible ▶ `Largest version;` additional selection of a recipe status possible
`Target recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▶ Value 90000 matches the statistical `smallest version` ▶ Value 90001 matches the statistical `largest version`
Target recipe status	Selection of new recipe status (on page 37) from existing status or using a variable.
`Static target recipe list:`	Selection of an existing status (on page 37) from drop-down list.
`Target recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. The action is cancelled if the status cannot be found in the recipe

Runtime settings	Settings for operation in Runtime.
Show dialog in the Runtime	Active: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	Active: Selection of recipe group is blocked in Runtime. Only available if Offer dialog in Runtime is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Duplicate and read

This function duplicates the selected recipe. The values of the corresponding variables are written to the new recipe. The values from the PLC are then read in. If the values cannot be read in, then the values of the duplicate no no longer come from the PLC, but are only copied from the original recipe.

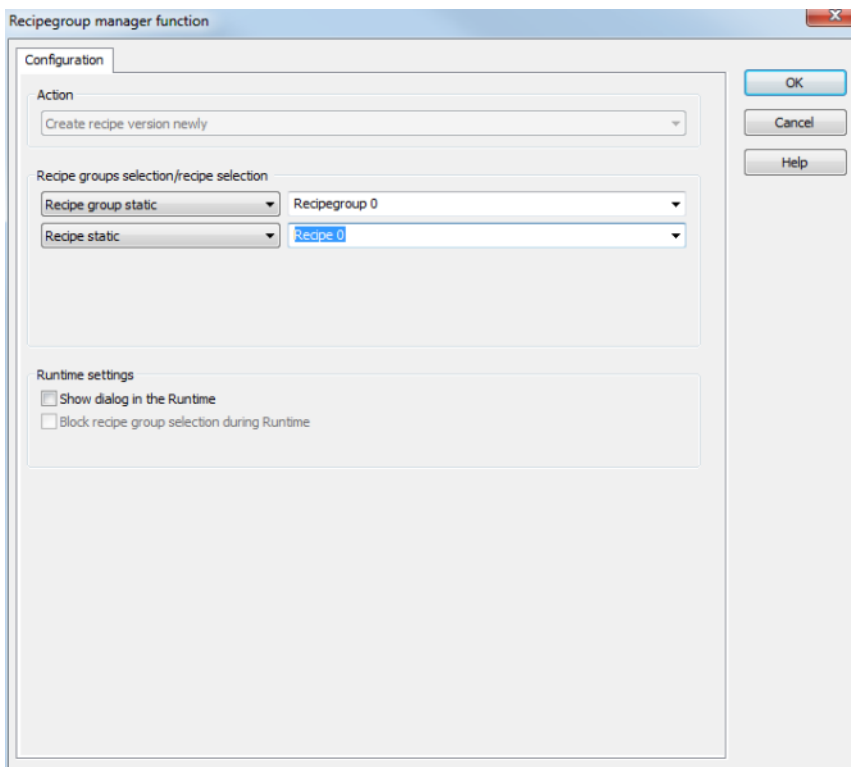| Parameter	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/` **`Recipe selection`**	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened .
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.

`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection:
	
	▸ pre-existing version
	
	▸ `Smallest version;`
	   additional selection of a recipe status possible
	
	▸ `Largest version;`
	   additional selection of a recipe status possible

`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
Target recipe	Status definition for target recipe.
Create target recipe	Settings for recipe naming. Click on the text to open a drop-down list

	for selection:
	▸ Target recipe name static
	▸ Create new target recipe
	▸ Target recipe name from variable
`Target recipe name static`	Assumption of an existing name from drop-down list.
`Create new target recipe`	The name is created and issued by the system.
`Target recipe name from variable`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
Target recipe version	Selection of target recipe version from existing versions or using a variable.
`Static target recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection: ▸ Pre-existing recipe version (on page 37) ▸ `Smallest version;` additional selection of a recipe status possible ▸ `Largest version;` additional selection of a recipe status possible
`Target recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Target recipe status	Selection of new recipe status (on page 37) from existing status or using a variable.
`Static target recipe list:`	Selection of an existing status (on page 37) from drop-down list.
`Target recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. The action is cancelled if the status cannot be found in the recipe

Runtime settings	Settings for operation in Runtime.
Show dialog in the Runtime	Active: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	Active: Selection of recipe group is blocked in Runtime.
	Only available if Offer dialog in Runtime is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Create new recipe version

This function creates a new recipe version for the selected recipe. The recipe values are filled with the replacement values of the selected variables. A maximum of 89999 recipe versions can be created.
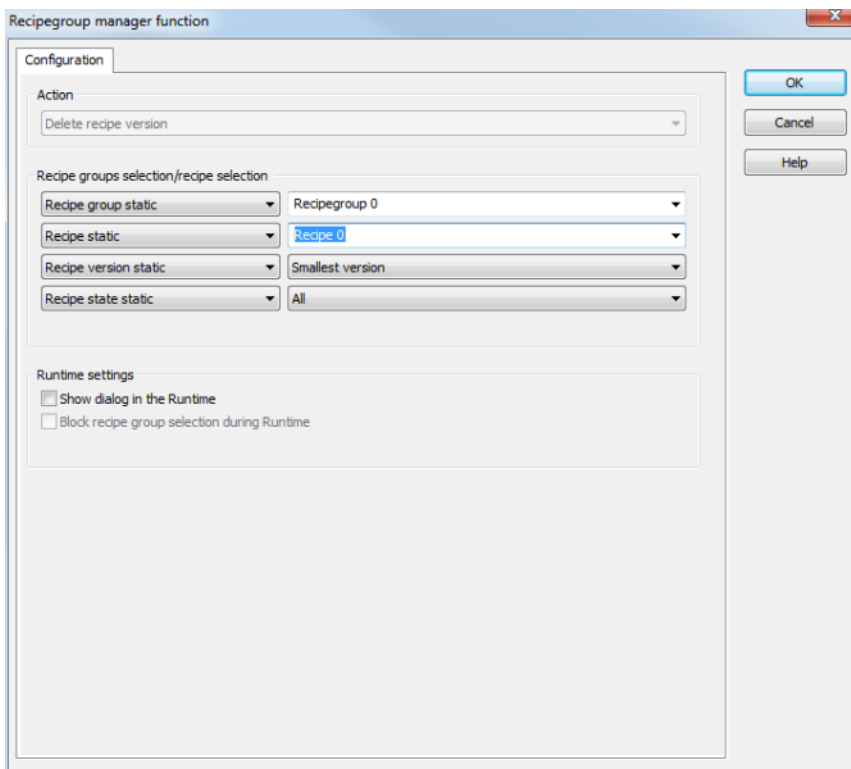
Parameters	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/` **`Recipe selection`**	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened .
`Runtime settings`	Settings for operation in Runtime.

Show dialog in the Runtime	**Active:** The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	**Active:** Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Delete recipe version

This function deletes the selected recipe version. The whole recipe is deleted if there is only one recipe version.
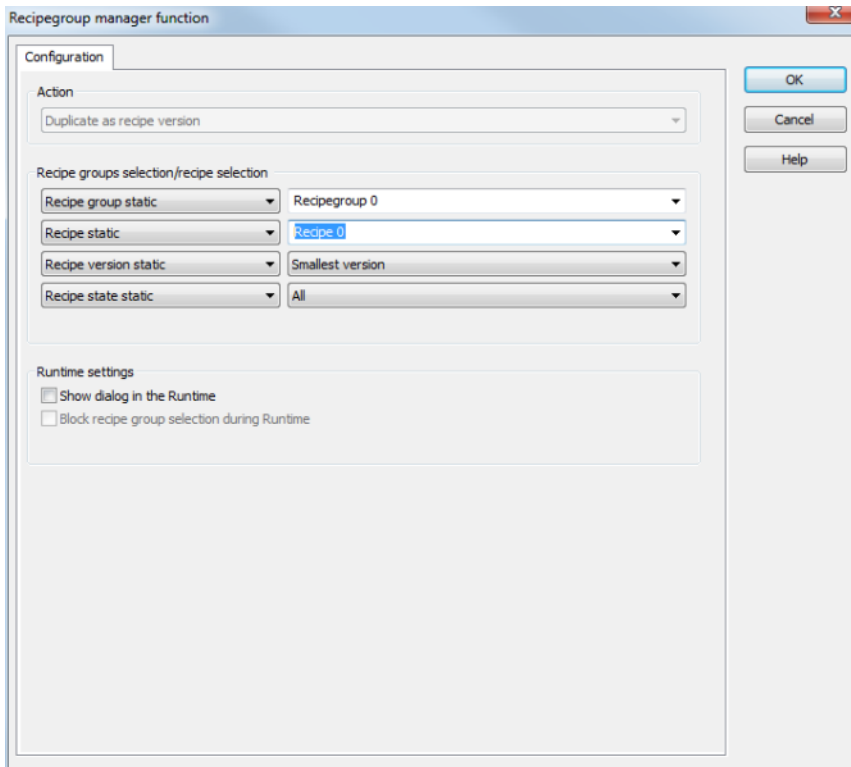
Parameter	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/` `Recipe selection`	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
`Recipe number from variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection: ▸ Pre-existing recipe version (on page 37) ▸ `Smallest version;` additional selection of a recipe status possible ▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
Runtime settings	Settings for operation in Runtime.
`Show dialog in the`	`Active`: The dialog is shown in Runtime so that changes can be

Runtime	made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Duplicate as new recipe version

This function creates a new recipe version for the selected recipe. The recipe values are filled with the values of the selected recipe.
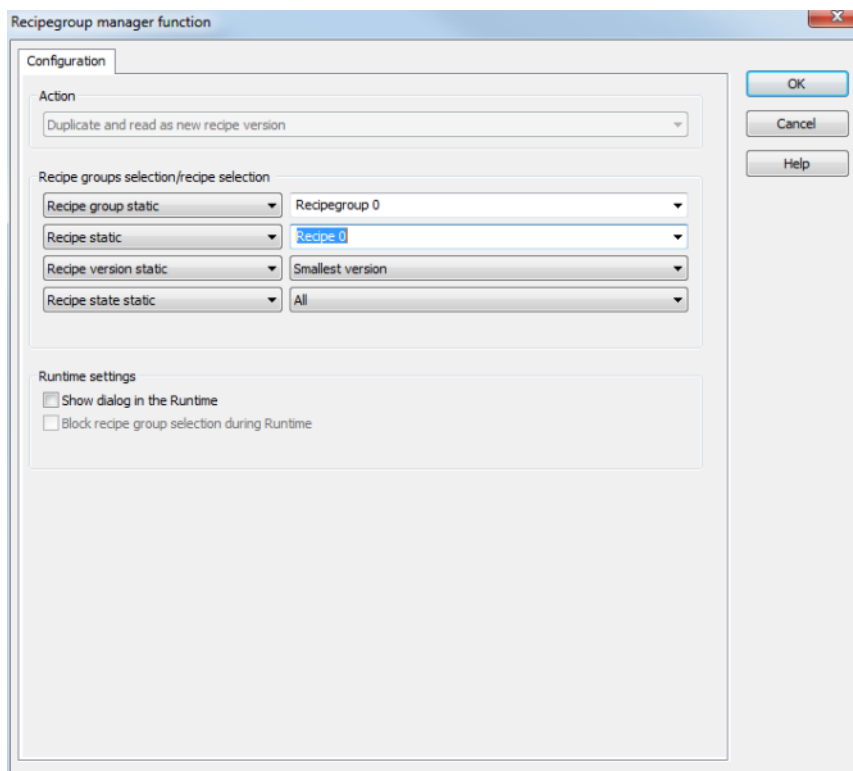
Parameter	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened .
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection: ▸ Pre-existing recipe version (on page 37) ▸ `Smallest version;` additional selection of a recipe status possible ▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
`Runtime settings`	Settings for operation in Runtime.
`Show dialog in the`	`Active:` The dialog is shown in Runtime so that changes can be

Runtime	made.
Block recipe group selection in Runtime	Active: Selection of recipe group is blocked in Runtime. Only available if Offer dialog in Runtime is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Duplicating and reading as a new recipe version

This function creates a new recipe version for the selected recipe. The recipe values are filled with the values of the selected recipe. The values from the PLC are then read in. If the values cannot be read in, then the values of the duplicate no no longer come from the PLC, but are only copied from the original recipe.
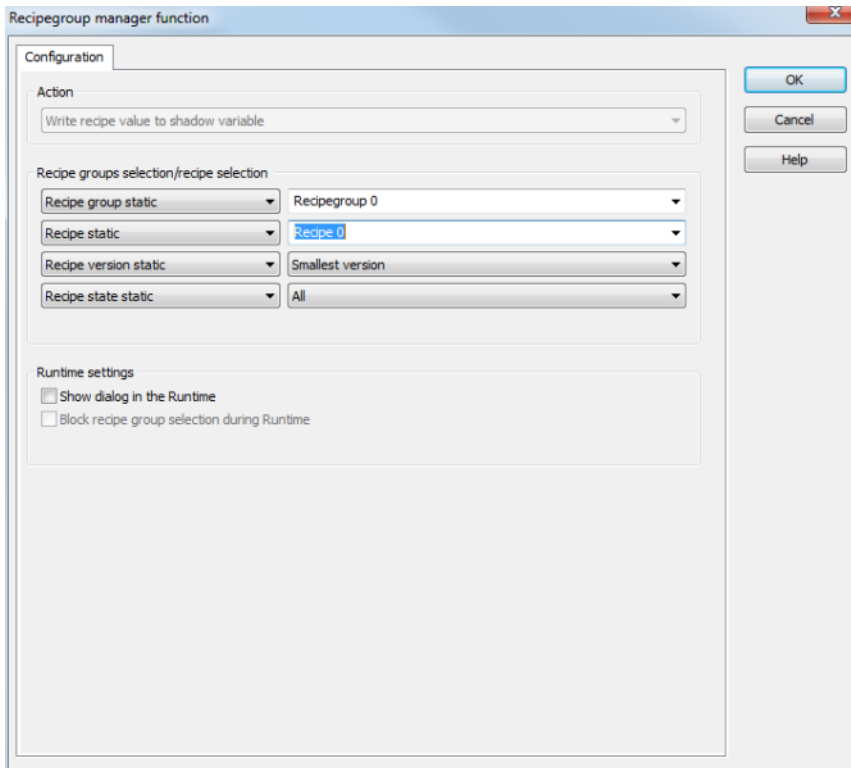
Parameter	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection:
	▸ Pre-existing recipe version (on page 37)
	▸ `Smallest version;` additional selection of a recipe status possible
	▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	Note: If the recipe version is obtained from a numerical variable, the following applies:
	▸ Value 90000 matches the statistical `smallest version`
	▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`.
	Selection of a recipe status from drop-down list:
	▸ Existing status (on page 37)
	▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables.
	Note: If the recipe status is obtained from a numerical variable, the following applies:
	▸ Value `0` is valued as `all`
	▸ The action is cancelled if the status cannot be found in the recipe
`Runtime settings`	Settings for operation in Runtime.
`Show dialog in the`	`Active:` The dialog is shown in Runtime so that changes can be

Runtime	made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Write recipe values to shadow variables

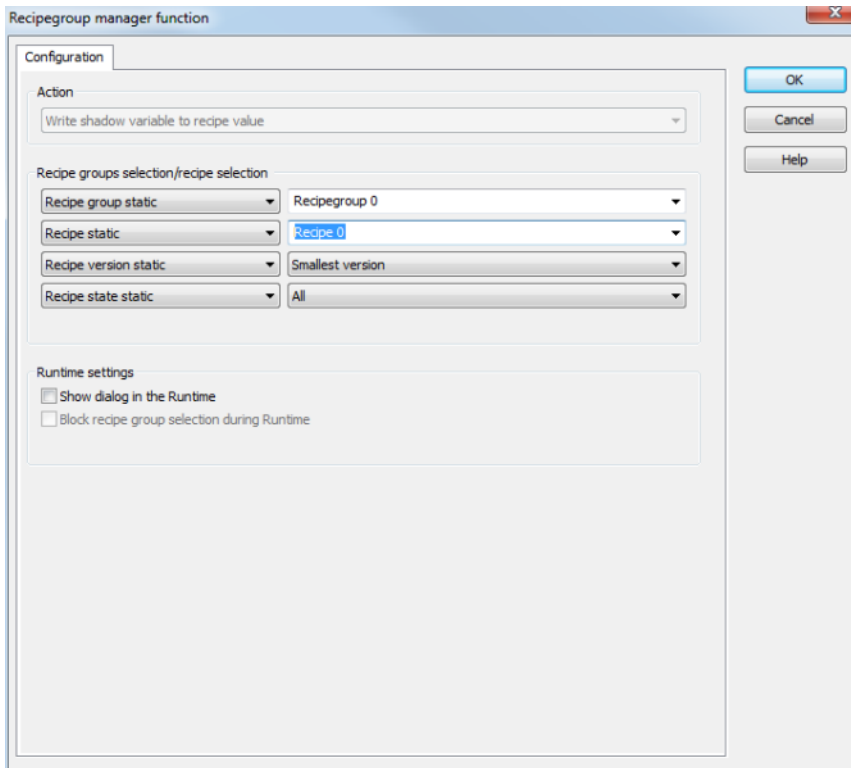This function writes recipe values to a shadow variable (on page 139).

Parameter	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▶ Statically from pre-defined entries ▶ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▶ Recipe group static ▶ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▶ Recipe static ▶ Recipe name from variable name ▶ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened.
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened.
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection: ▸ Pre-existing recipe version (on page 37) ▸ `Smallest version;` additional selection of a recipe status possible ▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
`Runtime settings`	Settings for operation in Runtime.
`Show dialog in the`	`Active:` The dialog is shown in Runtime so that changes can be

Runtime	made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Write shadow variables to recipe values

This function writes shadow variable (on page 139) values to recipe values.
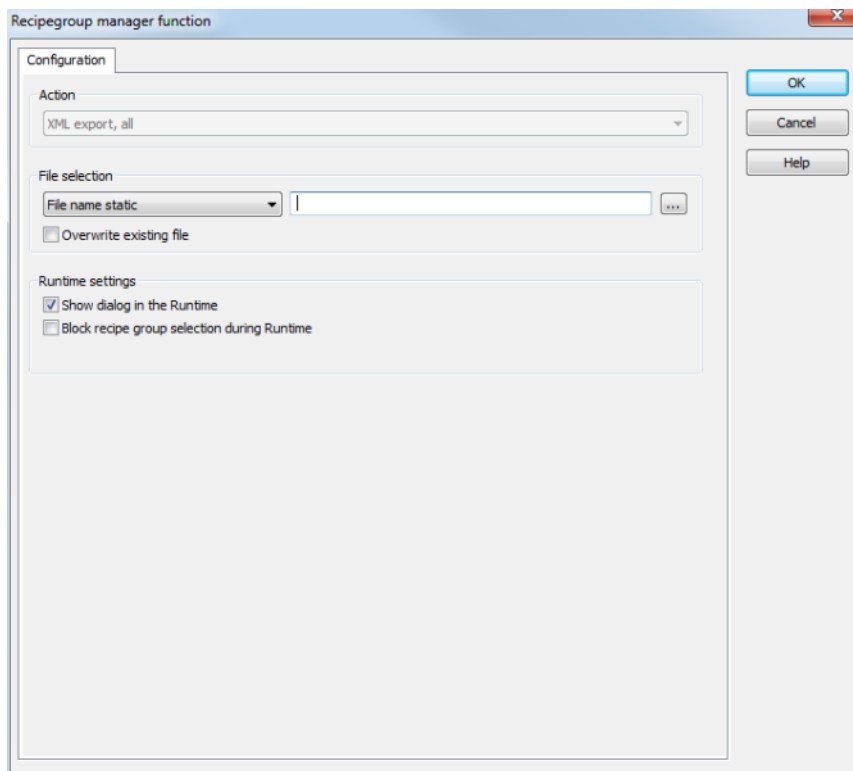
Parameter	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables. If the variable values are invalid, no recipes are opened .
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first. If the variable values are invalid, no recipes are opened .
Recipe version	Selection of recipe version (on page 37) from existing versions or

	using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible selection: ▸ Pre-existing recipe version (on page 37) ▸ `Smallest version;` additional selection of a recipe status possible ▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **`with status`** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
`Runtime settings`	Settings for operation in Runtime.
`Show dialog in the`	`Active:` The dialog is shown in Runtime so that changes can be

Runtime	made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Export XML all

The function exports the complete content of an RGM to an XML file.

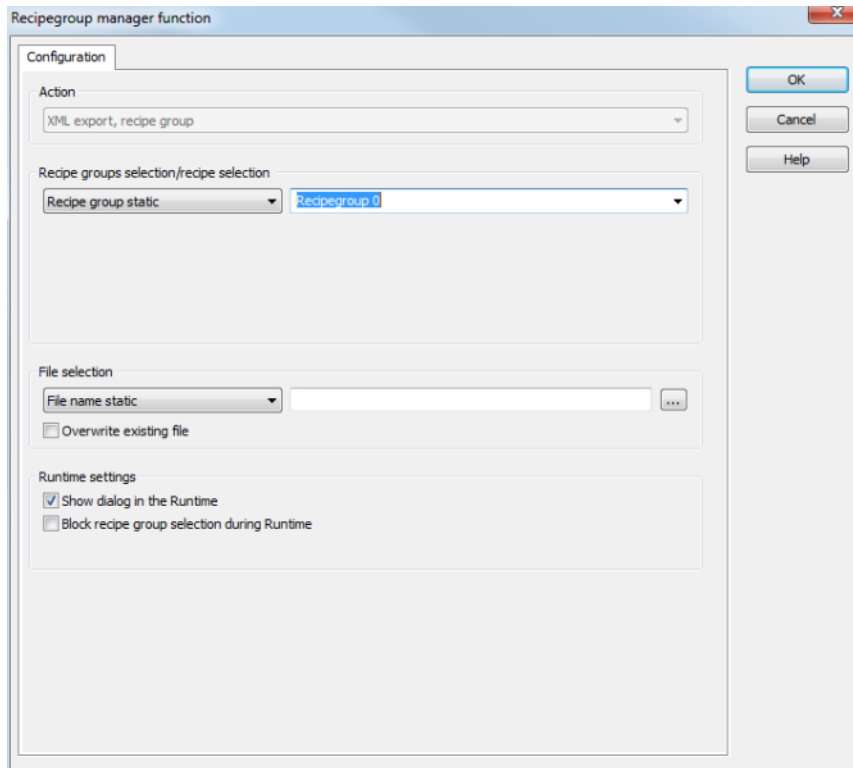| Parameter	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
File selection	Settings for issuing the filename of the export file. Click on the text to open a drop-down list for selection: ▸ File name static ▸ File name from variable ▸ Generate file name automatically If no other folder is stipulated, the export file is stored in the project's export folder: `%CD_USERDATA%\[Project]\Export`
Static filename:	The name of the export file is directly defined by the user. The file name can be given with the path stated or the export path that has been set can be used. In addition, there is the possibility to generate file names dynamically by means of placeholders (on page 113). Click on the `...` button to open the dialog to select a folder and give it a name. If name is given without a path, the export file in the Runtime folder is written to.
File name from variable:	The name of the export file is defined by the contents of a string variable. A click on the `...` button opens the selection dialog for variable. The variables can also issue the file names with absolute path, relative path and with placeholders (on page 113).
Generate file name automatically:	The name of the export file is created automatically. It comprises the prefix **RGM** plus theplaceholder (on page 113) **\<DateTime>**. **For example:** **RGM 10_11_2011 10_42_29.xml**
Overwrite existing data	Active: An file with the same name that already exists in the folder is overwritten. Inactive: The export is cancelled if a file with the same name is present. Default: inactive
Runtime settings	Settings for operation in Runtime.

`Show dialog in the Runtime`	`Active`: The dialog is shown in Runtime so that changes can be made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Placeholders for dynamic paths

fill-in	condition	Result
<ProjectName>	▶ Always	Project name
<DateTime>	▶ Always	Date and time in the format that corresponds to the system settings. All invalid and unwanted characters for file names are replaced by an underscore (_). For example, for German (Germany) the date, 24.12.2001, at 16:04 and 59 seconds, becomes: `24_12_2011 16_04_59`
<RGMGroupName>	▶ Exporting a group ▶ Exporting a recipe ▶ Importing with group selection	Name of the selected recipe group.
<RGMRecipeName>	▶ Exporting a recipe	Name of the selected recipe.
<RGMRecipeVersion>	▶ Exporting a recipe	Version number of the selected recipe.

Export recipe group XML

This function exports the selected recipe group including its contents to an XML file.

Parameters	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group. The selection can take place: ▶ Statically from pre-defined entries ▶ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▶ Recipe group static ▶ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables.
File selection	Settings for issuing the filename of the export file. Click on the text to open a drop-down list for selection: ▶ File name static ▶ File name from variable ▶ Generate file name automatically If no other folder is stipulated, the export file is stored in the project's export folder: %CD_USERDATA%\[Project]\Export
Static filename:	The name of the export file is directly defined by the user. The file name can be given with the path stated or the export path that has been set can be used. In addition, there is the possibility to generate file names dynamically by means of placeholders (on page 113). Click on the ... button to open the dialog to select a folder and give it a name. If name is given without a path, the export file in the Runtime folder is written to.

`File name from variable:`	The name of the export file is defined by the contents of a string variable. A click on the `...` button opens the selection dialog for variable. The variables can also issue the file names with absolute path, relative path and with placeholders (on page 113).
`Generate file name automatically:`	The name of the export file is created automatically. It comprises the prefix **RGM** plus the placeholder (on page 113) **<RGMGroupName>**. **For example:** **<RGM GroupName>.xml** results in, for `Group 1`: **Group 1.xml**.
`Overwrite existing file`	`Active:` An file with the same name that already exists in the folder is overwritten. `Inactive:` The export is cancelled if a file with the same name is present. Default: `inactive`
Runtime settings	Settings for operation in Runtime.
`Show dialog in the Runtime`	`Active:` The dialog is shown in Runtime so that changes can be made.
`Block recipe group selection in Runtime`	`Active:` Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

PLACEHOLDERS FOR DYNAMIC PATHS

fill-in	condition	Result
<ProjectName>	▸ Always	Project name
<DateTime>	▸ Always	Date and time in the format that corresponds to the system settings. All invalid and unwanted characters for file names are replaced by an underscore (_). For example, for German (Germany) the date, 24.12.2001, at 16:04 and 59 seconds, becomes: `24_12_2011 16_04_59`

`<RGMGroupName>`	▸ Exporting a group ▸ Exporting a recipe ▸ Importing with group selection	Name of the selected recipe group.
`<RGMRecipeName>`	▸ Exporting a recipe	Name of the selected recipe.
`<RGMRecipeVersion>`	▸ Exporting a recipe	Version number of the selected recipe.

Export recipe XML

This function exports the selected recipe to an XML file. The name of the recipe group is also exported with it. If recipe groups are renamed after export, this assignment is lost during import.

Parameter	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.

`Recipe groups-/`
`Recipe selection`
	Selection of the recipe group and the recipe. The selection can take place:
	
	  ▸ Statically from pre-defined entries
	
	  ▸ Dynamically using variables
	
	Clicking on Property opens a drop-down list to select the method.

Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection:
	
	  ▸ Recipe group static
	
	  ▸ Recipe group name from variable

`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from` `variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables.

Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection:
	
	  ▸ Recipe static
	
	  ▸ Recipe name from variable name
	
	  ▸ Recipe name from variable no.

`Static recipe:`	Selection of a recipe (on page 28) that has already been created.
`Recipe name from` `variable name:`	Recipe name is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
`Recipe number from` `variable no.:`	Recipe number is is taken from a variable. Click on button `...` opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first.
Recipe version	Selection of recipe version (on page 37) from existing versions or using a variable.
`Static recipe version:`	Selection of an existing recipe version from drop-down list. Possible

	selection:
	▸ Pre-existing recipe version (on page 37)
	▸ `Smallest version;` additional selection of a recipe status possible
	▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
File selection	Settings for issuing the filename of the export file. Click on the text to open a drop-down list for selection: ▸ File name static ▸ File name from variable

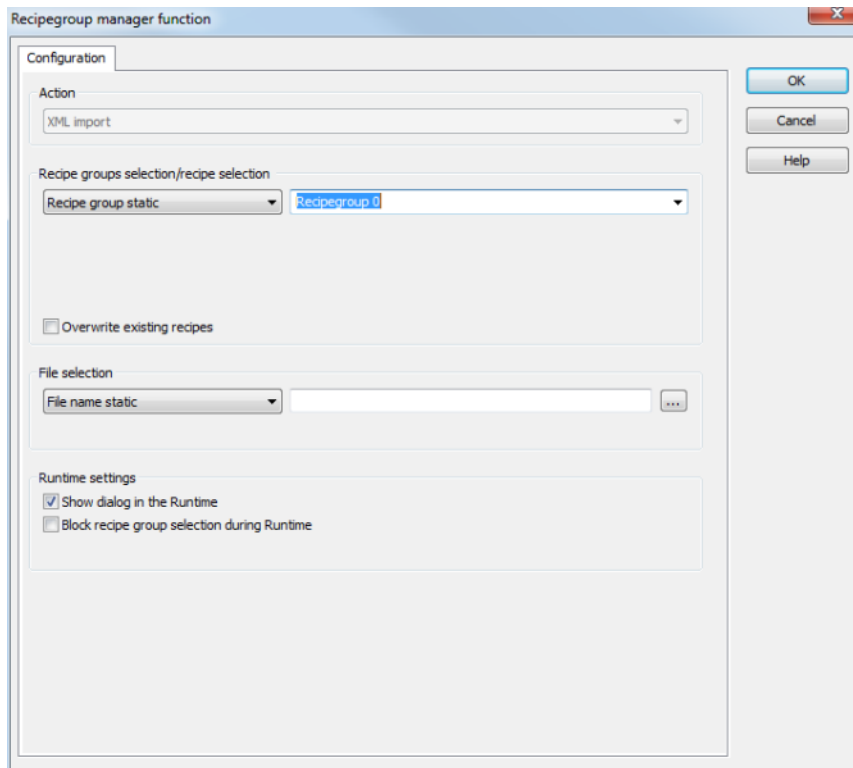|	
	▸ Generate file name automatically
	If no other folder is stipulated, the export file is stored in the project's export folder:
	`%CD_USERDATA%\[Project]\Export`

Static filename:	The name of the export file is directly defined by the user. The file name can be given with the path stated or the export path that has been set can be used. In addition, there is the possibility to generate file names dynamically by means of placeholders (on page 113). Click on the `...` button to open the dialog to select a folder and give it a name. If name is given without a path, the export file in the Runtime folder is written to.
File name from variable:	The name of the export file is defined by the contents of a string variable. A click on the `...` button opens the selection dialog for variable. The variables can also issue the file names with absolute path, relative path and with placeholders (on page 113).
Generate file name automatically:	The name of the export file is created automatically. It comprises the prefix **RGM** plus the placeholder (on page 113) **<RGMRecipeName>.<RGMRecipeVersion>**. **For example:** **<RGMRecipeName>.<RGMRecipeVersion>** results in, for the recipe `Recipe 1` with `version 3`: **Recipe 1.3.xml**.
Overwrite existing data	`Active`: An file with the same name that already exists in the folder is overwritten. `Inactive`: The export is cancelled if a file with the same name is present. Default: `inactive`
Runtime settings	Settings for operation in Runtime.
Show dialog in the Runtime	`Active`: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	`Active`: Selection of recipe group is blocked in Runtime. Only available if `Offer dialog in Runtime` is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Import XML

This function imports the content of the stated XML file. If there are individual groups therein that do not belong to a group, these recipes are imported into the selected group, otherwise the group selection is ignored:
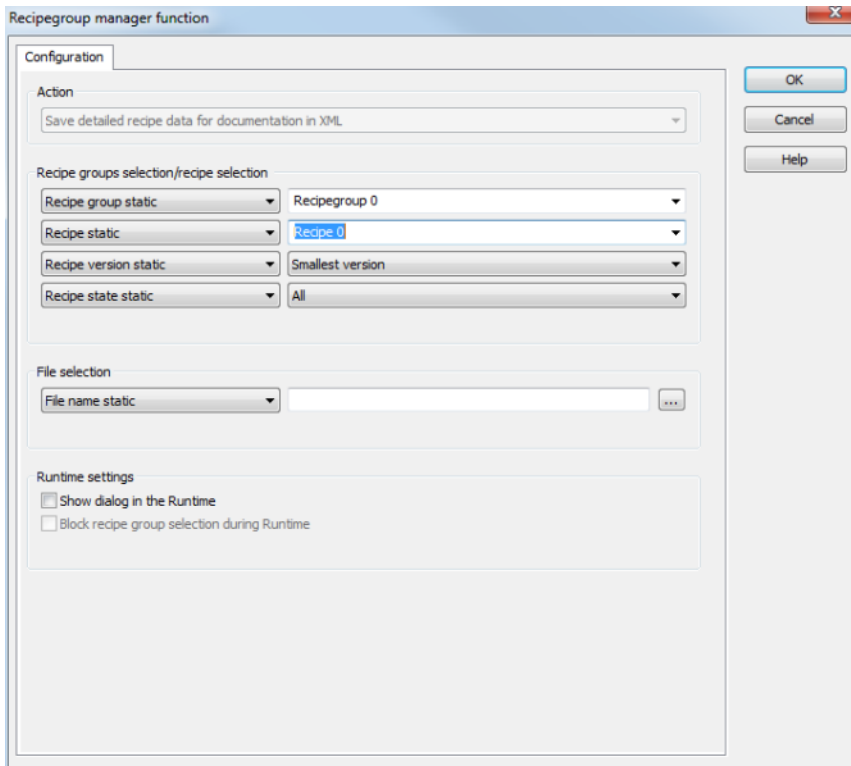
Parameters	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group into which unassigned recipes are to be imported. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables ▸ Using an import file Clicking on Property opens a drop-down list to select the method. This setting is ignored if there are already recipe groups in the XML file.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables.
Recipe group name from file.	The name of the recipe group is taken from the file to be imported.
File selection	Settings for the selection of the file from which importing is to take place. Click on the text to open a drop-down list for selection: ▸ File name static ▸ File name from variable The standard folder for exported data is the project's export folder: %CD_USERDATA%\[Project]\Export
Static filename:	The name of the import file is defined by the user. The file name can be given with the path stated or the export path that has been set can be used. In addition, there is the possibility to generate file names dynamically by means of placeholders (on page 113).

	Click on the . . . button to open the dialog to select a folder and a file.
File name from variable:	The name of the import file is defined by the contents of a string variable. A click on the . . . button opens the selection dialog for variable. The variables can also issue the file names with absolute path, relative path and with placeholders (on page 113).
Overwrite existing recipes	Active: Existing recipes with the same name are overwritten during import. Inactive: Existing recipes are not overwritten. Only new recipes are created. Default: inactive
Runtime settings	Settings for operation in Runtime.
Show dialog in the Runtime	Active: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	Active: Selection of recipe group is blocked in Runtime. Only available if Offer dialog in Runtime is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Detailed recipe data on saving documentation in XML

This function exports detailed recipe data to documentation in an XML file.

Note: This data can no longer be imported. It is intended as the basis for the exact documentation.
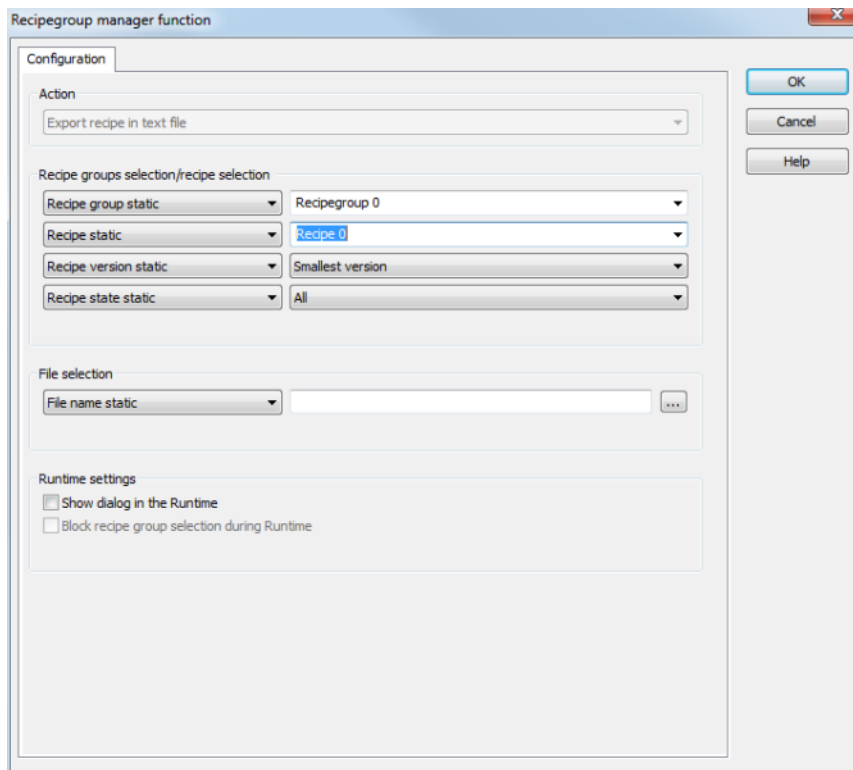
Parameter	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables.
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first.
Recipe version	Selection of recipe version (on page 37) from existing versions or using a variable.
Static recipe version:	Selection of an existing recipe version from drop-down list. Possible

	selection:
	▸ Pre-existing recipe version (on page 37)
	▸ `Smallest version;` additional selection of a recipe status possible
	▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **with status** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. **Note:** If the recipe status is obtained from a numerical variable, the following applies: ▸ Value 0 is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe

Export recipe to text file

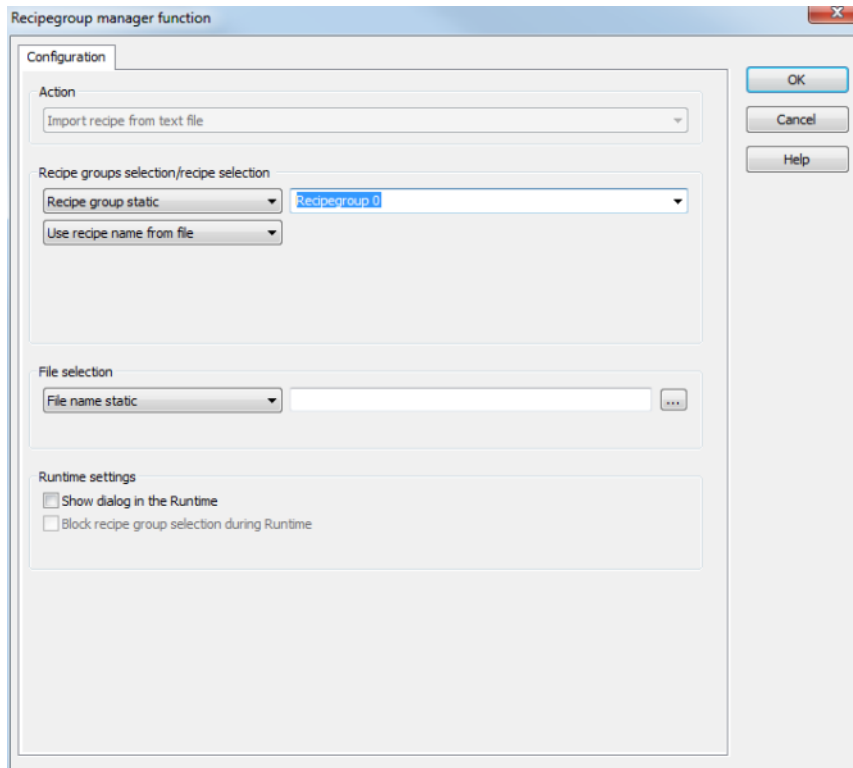This function exports the selected recipe to a text file.

Parameter	Description
Action	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
Recipe groups-/ Recipe selection	Selection of the recipe group and the recipe. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
Static recipe group:	Selection of a recipe group (on page 21) that has already been created.
Recipe group name from variable:	Recipe group name is is taken from a variable. Click on button ... opens the dialog for selecting variables.
Recipe	Settings for recipe selection. Click on the text to open a drop-down list for selection: ▸ Recipe static ▸ Recipe name from variable name ▸ Recipe name from variable no.
Static recipe:	Selection of a recipe (on page 28) that has already been created.
Recipe name from variable name:	Recipe name is is taken from a variable. Click on button ... opens the dialog for selecting variables.
Recipe number from variable no.:	Recipe number is is taken from a variable. Click on button ... opens the dialog for selecting variables. If several recipes with the same number exist, zenon use the recipe it finds first.
Recipe version	Selection of recipe version (on page 37) from existing versions or using a variable.
Static recipe version:	Selection of an existing recipe version from drop-down list. Possible

	selection:
	▸ Pre-existing recipe version (on page 37)
	▸ `Smallest version;` additional selection of a recipe status possible
	▸ `Largest version;` additional selection of a recipe status possible
`Recipe version from variable:`	Recipe version is is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe version is obtained from a numerical variable, the following applies: ▸ Value 90000 matches the statistical `smallest version` ▸ Value 90001 matches the statistical `largest version`
Recipe status	Selection of recipe status (on page 37) from existing status or using a variable.
`Recipe status:`	The recipe status is evaluated in combination with the version. Only available if the `recipe version` has the value `smallest version` or `largest version` or is taken from a variable. Example: `Largest version` **`with status`** `start`. Selection of a recipe status from drop-down list: ▸ Existing status (on page 37) ▸ `All`
`Recipe status from variable:`	Recipe status is taken from a variable. Click on button `...` opens the dialog for selecting variables. Note: If the recipe status is obtained from a numerical variable, the following applies: ▸ Value `0` is valued as `all` ▸ The action is cancelled if the status cannot be found in the recipe
File selection	Settings for issuing the filename of the export file. Click on the text to open a drop-down list for selection: ▸ File name static ▸ File name from variable

	▸ Generate file name automatically
	If no other folder is stipulated, the export file is stored in the project's export folder:
	`%CD_USERDATA%\[Project]\Export`
`Static filename:`	The name of the export file is directly defined by the user. Click on the `...` button to open the dialog to select a folder and give it a name.
	If name is given without a path, the export file in the Runtime folder is written to.
`File name from variable:`	The name of the export file is defined by the contents of a string variable. A click on the `...` button opens the selection dialog for variable.
`Generate file name automatically:`	The name of the export file is created automatically. It comprises the prefix **RGM** plus the **date** and **time**.
	For example: **RGM 10_11_2011 10_42_29.txt**
`Overwrite existing data`	`Active`: An file with the same name that already exists in the folder is overwritten.
Runtime settings	Settings for operation in Runtime.
`Show dialog in the Runtime`	`Active`: The dialog is shown in Runtime so that changes can be made.
`Block recipe group selection in Runtime`	`Active`: Selection of recipe group is blocked in Runtime.
	Only available if `Offer dialog in Runtime` is **active**.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

Import recipe of text file

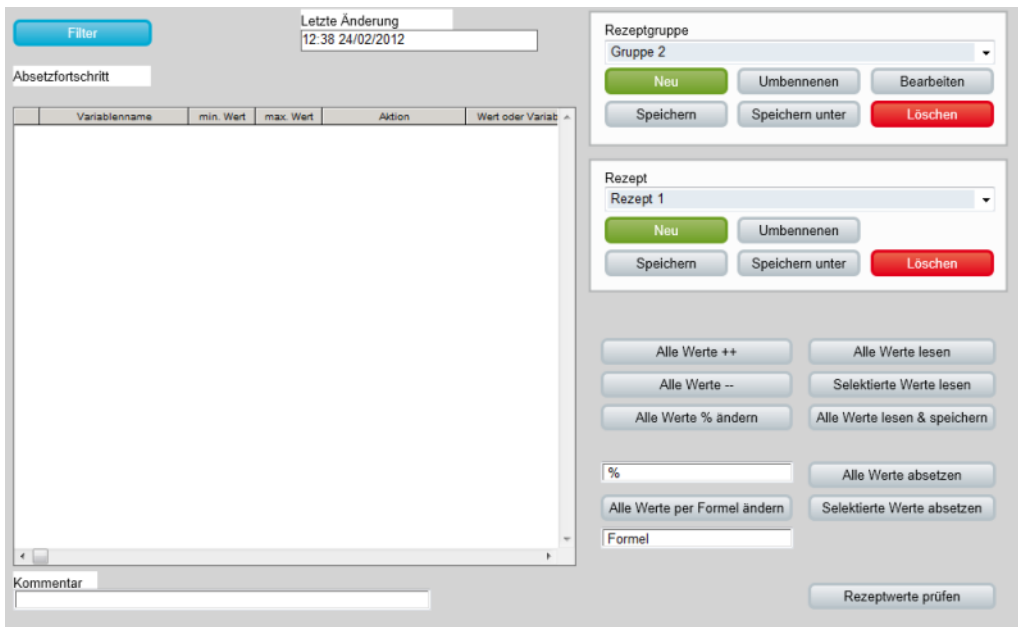This function imports data from a text file.

Parameters	Description
`Action`	Displays the action selected in the Recipe Group Manager function (on page 61) dialog. Display only, cannot be selected.
`Recipe groups-/` **`Recipe selection`**	Selection of the recipe group that is to be imported. The selection can take place: ▸ Statically from pre-defined entries ▸ Dynamically using variables ▸ Using an import file Clicking on Property opens a drop-down list to select the method.
Recipe group	Settings for recipe group selection. Click on the text to open a drop-down list for selection: ▸ Recipe group static ▸ Recipe group name from variable
`Static recipe group:`	Selection of a recipe group (on page 21) that has already been created.
`Recipe group name from` `variable:`	Recipe group name is is taken from a variable. Click on button `...` opens the dialog for selecting variables.
`Recipe group name from` **`file.`**	The name of the recipe group is taken from the file to be imported.
File selection	Settings for the selection of the file from which importing is to take place. Click on the text to open a drop-down list for selection: ▸ File name static ▸ File name from variable The standard folder for exported data is the project's export folder: `%CD_USERDATA%\[Project]\Export`
`Static filename:`	The name of the import file is defined by the user. Click on the `...` button to open the dialog to select a folder and a file.
`File name from variable:`	The name of the import file is defined by the contents of a string variable. A click on the `...` button opens the selection dialog for variable.
`Overwrite existing` `recipes`	`Active`: Existing recipes with the same name are overwritten during import.

Runtime settings	Settings for operation in Runtime.
Show dialog in the Runtime	Active: The dialog is shown in Runtime so that changes can be made.
Block recipe group selection in Runtime	Active: Selection of recipe group is blocked in Runtime. Only available if Offer dialog in Runtime is active.
OK	Applies settings and closes dialog.
Cancel	Discards settings and closes the dialog. The function is created, however without a target.
Help	Opens online help.

2.3   Operating during Runtime

The screen configured in the Editor (on page 11) is available in Runtime via screen switching.

Engineering: See Creating a Recipe Group Manager screen (on page 11) section.

RECIPE LIST

An individual entry in the list can be selected. The selected recipe is displayed in the recipe value table and can then be edited with the buttons (rename, delete, etc.).

If the list is used together with the `Recipe name` and/or `Recipe version` drop-down lists, the selection is synchronized. If the selection in the drop-down list is changed, the selection in the recipe list changes and vice versa. If the selected entry is not visible due to a filter criteria, nothing in the list is selected.

New recipes and recipe versions are added at the end of the list regardless of the filter criteria. Amended recipe data, for example the text of a comment or the status, are displayed after the recipe is saved. Texts (the language) of the comments and column headings are translated.

Design of the recipe list: See `Editing the recipe list` (on page 19) section.

CHANGE RECIPE NAME OR RECIPE NUMBER

The recipe name must be unique. The recipe number is not checked for uniqueness. It is only used in order to call a recipe via a variable with the help of function Recipegroup Manager (on page 45). If several recipes with the same number exist, zenon use the recipe it finds first.

RENAME OR DELETE RECIPES

In order for a user to rename or delete a recipe, they must have the operating authorization for all existing versions of the recipe.

CURRENTNESS OF THE DISPLAYED INFORMATION

The Recipe Group manager screen works with a copy of the Recipe Group Manager database in Runtime.

The current information from the database is displayed in Runtime when the RGM screen is displayed. This display is not updated automatically.

Changes are updated as follows:

▶ If the content is changed due to execution of a function (such as Recipe Group Manger - read all values) or editing the screen in a client, the change is not shown in the screen that is currently displayed. To display changes, the screen must be closed and reopened. The database is therefore read in again and the updated status is shown.

▶ New recipe groups are displayed immediately once the screen has been opened again; variables are only displayed after a reload.

▶ Recipes or recipe groups that are amended in the Editor are only displayed after a reload.

> ⚠ **Attention**
>
> *If the variable for visibility (`Visibility/Variable` property) changes its value whilst a Recipe Group Manager screen that contains this variable is opened, the Recipe Group Manager screen is reopened. Changes to the screen that are not saved are lost in the process.*

2.3.1   Show value as text

REQUIREMENT

If you want to display the meaning of a value within a recipe for a value in the Runtime, you must fulfill these prerequisites.

Create a reaction matrix of type numeric or string (the type of the reaction matrix must match the type of the used variable) for the variable which you use in the recipe. In the reaction matrix you define "equals" states and enter the desired meaning - the text to be displayed.
In order to display texts you can use limits or reaction matrices from type binary with different states than "equals". If you do it this way, you cannot use the functions from screen Keyboard.

DISPLAY IN THE RUNTIME

In the recipe list in column `Show value as text` in screen Recipegroup Manager shows the linked limit texts either from the reaction matrix or from the limit which was violated by the recipe value.

In selft-engineered Recipegroup Manager lists you can achieve the same functionality with the help of functions recipew and recipef with parameter `symbolic`.

If a recipe value is changed and a state of limit is violated, the displayed limit text is updated immediately.

ENTRIES INTO THE CHRONOLOGICAL EVENT LIST

With changes of recipe values and with writing a recipe (recipe value) not only the values but also the respective limit texts are written in the CEL entry. If no state or limit is violated, only the value is entered.

2.3.2   Status information for recipes and Recipegroup Manager

In the Runtime status information is provided at

 ▶   Read/write

 ▶   Export/Import

 ▶   and Save

If a recipe written, this variable contains the result of the writing operation.

VALUES

WRITE RECIPE

System driver variable: `Standard recipe/RGM recipe completely written`

Value	Result
0	Send initialization value before the recipe
1	Write completed successfully
2	Write not executed because of a parameter error
3	Write not completed successfully
4	Wait for ready
5	Write terminated because RT is being ended
6	Timeout occurred

Note: If the network functionality is active in the project, the system driver variable `Standar recipe/RGM recipe completely written (local)` is relevant for the function executed on the local computer.

> 💡 Info
>
> *Writing means writing to the driver. The driver then transfers the recipe to the control. That means:*
>
> ▸ Property `Write synchronously inactive`: Value `1` for **Standard recipe/RGM recipe written completely** does not mean that the values are available in the control. They are written on the driver.
>
> ▸ Property `Write synchronously aktiv`: The value change take place when all values on the control are topical.
>
> *Note: The progress display at writing is only display if property* `Write synchronously` *is active.*

RECIPE IN PROGRESS

System driver variable: `Standard recipe/RGM function in progress`

Value	Result
−1	is being executed
0	Initialization value read successfully
1	User has no authorization
2	no authorization in the network
3	chancel by user
4	Error - could not read everything successfully, e.g. ▸ Communication with the hardware is interrupted before read was started ▸ a data block is not available on the PLC ▸ Error during transmission
5	Error during save of the recipe file

SCREEN TYPE SPECIFIC FUNCTIONS

During

▶ reading (system driver variable: `Standard recipe/RGM recipe reading all values finished`

▶ Exporting/Importing and

▶ Saving

of a recipe via screen specific function - the following values are available:

Value	Result
0	Initialization value waits for response from driver
1	read successfully
2	Error during Read, Export/Import or Save: ▸ Communication with the hardware is interrupted before read was started ▸ a data block is not available on the PLC ▸ Error during transmission

2.3.3   Writing values to a recipe using a screen (shadow variables)

Values in recipes can be changed directly in Runtime using screens. To do this, shadow variables are used which can be read and written in the RGM using the `Recipegroup Manager` function.

DEFINING A SHADOW VARIABLE

A shadow variable can be defined for each variable in a recipe group. Each shadow variable can be only used once per recipe group. Not every variable of the recipe group must have a shadow variable. To define a shadow variable:

1. Highlight the variable of the recipe group

2. Navigate to the `General` group in properties

3. Click on the `Shadow variable` property

4. The dialog for selecting a variable is opened

5. Select the desired shadow variable

6. Confirm the dialog with OK.

CONFIGURATION PROCEDURE

1. Define a shadow variable for each variable that has values that can be changed in Runtime using a screen during configuration.
   You define these using the `General/Shadow variable` property.

2. Configure a screen that displays changeable recipe values, such as a tank.

3. Link the screen to the function (on page 61) `Recipegroup Manager` and select the `Write recipe value to shadow variables` (on page 105) action.

4. Configure a button in the screen.

5. Link the button to the `Recipegroup Manager` function and select the `Write shadow variables to recipe values` (on page 108) action.

PROCEDURE IN RUNTIME

1. The screen for setting the values for the RGM is called up.

2. In doing so, the variables are substituted by the shadow values.

3. When the screen is opened, the `Recipegroup Manager` function is called up with the `Write recipe values to shadow variables` (on page 105) action.

4. The recipe values are displayed in the screen and can be changed.

5. Changed values are written to the recipe in the RGM by means of the button with the `Recipegroup Manager/Write shadow variables to recipe values` (on page 108) function.

6. If an error should occur, this can be evaluated using the system driver variables (sysdrv.chm::/25964.htm) and the entries in the LOG files (on page 141).

2.4 Error treatment

Errors can be evaluated using system driver variables and error messages. You can find messages from system driver variables in the System driver variables manual, Recipe Group Manager section (sysdrv.chm::/25964.htm) chapter.

LOG FILES

Entry	Level	Meaning
COM events		
`COM Event "RecipeCreate" returned with "bCancel == TRUE"`	logLe_DEBUG	Message for COM events if the respective action is cancelled using the `bCancel` function parameter: ▸ RecipeCreate ▸ VersionCreate ▸ RecipeDuplicate ▸ VersionDuplicate ▸ VersionDuplicateRead ▸ RecipeRename ▸ RecipeDelete ▸ VersionDelete No special logging entry appears if the action is not cancelled in the event function.
Shadow variables		
`RGM: Teached value out of Minimum max range. Variable: "x1", Value: x2, FromShadow: x3`	FAILED	A value that was read in breaches the `minimum value` or the `max. value` of the target value limit of the recipe. ▸ x1: Name of the variable ▸ x2: Standardized value of the variable ▸ x3: Note on process value or value of a shadow variable
`Error while reading current value for CEL logging.`	INTERNAL	An error occurred when the current value for CEL logging (set recipe) was read in. Possible reasons: ▸ A value is outside the limits for `minimum value` and `max. value` -> additional entry `RGM: Teached value out of Minimum max range. Variable: "x1", Value: x2, FromShadow: x3` ▸ A value has the status INVALID ▸ Time-out was reached

POP-UP MESSAGES

Message	Meaning
`The name "Recipe\Test" contains invalid characters (\"'./*?<>!¦).`	The recipe group name or recipe name that was entered does not correspond to the guidelines for issuing names. Expression in brackets contains characters that are not approved.
`Delete version "7" of recipe "Recipe1"?`	Confirmation request before a recipe version in deleted in the RGM screen in Runtime.

2.5   Examples

Here you can find examples of configuration:

2.5.1   Writing the highest recipe version with the status released to the PLC

To write the highest recipe version with `released` status to the PLC in Runtime:

1. Creation of status texts for the recipe status:

    a) Open the `Identifier recipe state` property in the `Recipegroup Manager`

    b) Create, in the dialog, the status:

    - 1 draft

    - 2 checked

    - 3 unlocked

    - 4 blocked

    - 5 deleted

    Hint: Here, you can also define the status texts by a prefixed `@`, as well as the key words for language switching (for example: `@Released`

2. Creating several recipe versions:

    a) Create a new recipe group using the context menu

    b) Link variables to the recipe group

    c) Creating a new recipe

d) Create a new version for the recipe

e) Change the status in the second version of the recipe to `3 unlocked`

3. Creating the function:

a) Highlight the recipe and select `Create standard function` in the context menu or in the toolbar

b) The dialog for configuration is opened

c) Select `Write recipe`

d) Set `Recipe version` to >

e) Select, at `Static recipe`, the entry `3 unlocked`

If the function is executed in Runtime, then the highest existing version of the recipe with the status `3 – unlocked` is written to the PLC. If now, for example, a new recipe version is created and this contains the status `3 – unlocked`, then this new version is written to the PLC the next time the function is called up.

2.5.2   Switching the language of the display text in the dynamic text element

To use language switching for a dynamic text element, create this in the Editor and switch it in Runtime.

IN THE EDITOR

To create a dynamic element of dynamic text text type and configure it:
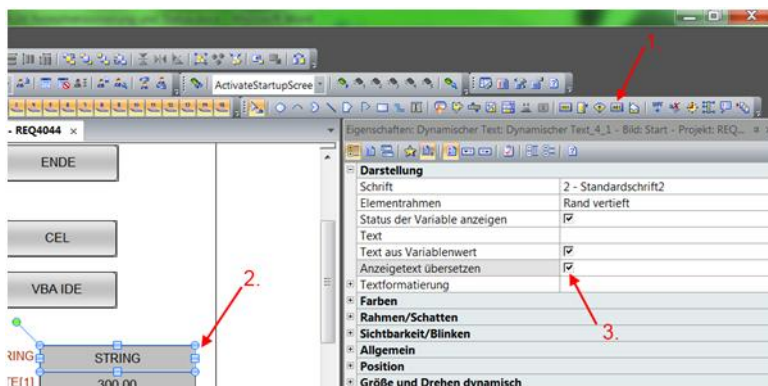
1. Click on the symbol for dynamic text in the toolbar for the element and drag the element onto the screen.

2. Select a string variable.

3. Activate the `Translate displayed text` property.

IN RUNTIME

The set point default displays the text as a raw value. The text can be edited:

STRING @Test

The text is modified by the language switching when displayed:

STRING Übersetzt