zenon manual

Styles

v.7.60
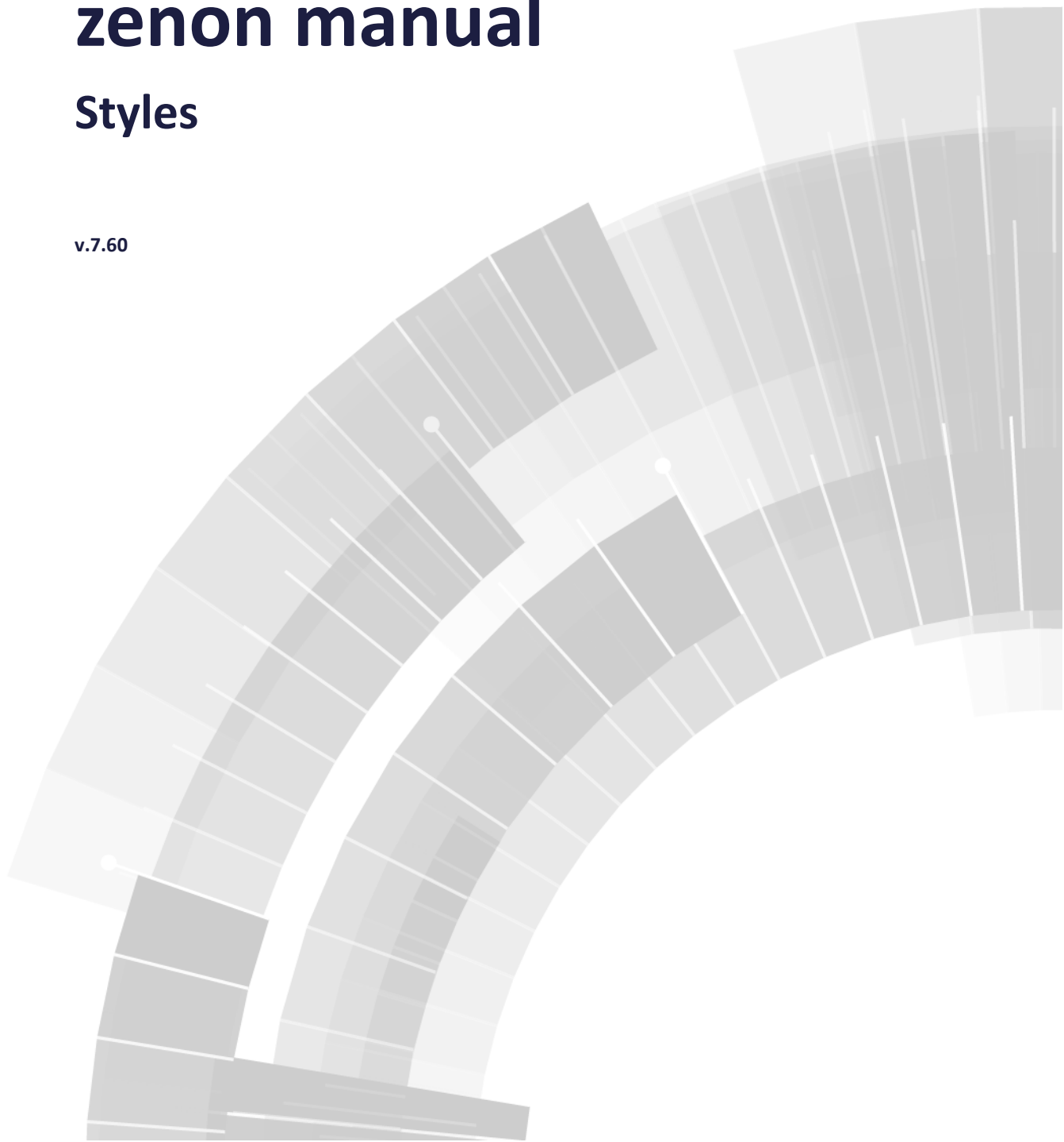
Contents

1. Welcome to COPA-DATA help

ZENON VIDEO-TUTORIALS

You can find practical examples for project configuration with zenon in our YouTube channel (https://www.copadata.com/tutorial_menu). The tutorials are grouped according to topics and give an initial insight into working with different zenon modules. All tutorials are available in English.

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. Styles

Styles make it possible to do the following with graphic properties of screen elements:

- ▶ Extract in frames of style groups

▶ Administer in style groups

▶ To assign them to other elements

Styles are administered in the local project and the global object. When extracting a style group from an element, it is possible to select whether the style is to be saved in the local project or the global project.

License information

Part of the standard license of the Editor and Runtime.

STYLE GROUPS

When extracting styles, all supported design properties of an element are extracted and saved in a style group.

PROJECT MANAGER CONTEXT MENU

The **Styles** node in the project manager has a context menu.
This contains the following commands:

▶ **Editor profile:** Allows the assignment of editor profiles.

▶ **Help:** Opens online-help

Also, for multi-user projects:

▶ **Update local version:** Updates the local version.

▶ **Enable changes:** Enables changes.

▶ **Accept changes** Accepts changes made.

▶ **Undo changes:** Rejects changes made.

3. Style types

You can create the following styles and link them to `Static elements` *as well as* `Dynamic elements`. *Not every property is available for every element:*

Property	Static elements	Dynamic elements
Truncations (on page 6)	**X**	**Button** only
Element border	--	**X**
Fill (on page 7)	**X**	**X** - except **Switch**
Glow (on page 8)	**X**	**X**
Padding	**X**	**Universal slider** only
Line (on page 9)	**X** - except **static text**	**Trend element** only
Borders and shadows (on page 10)	**X**	**X**
Scale	--	**X**
Text (on page 11)	**X**	**X**
Value display	--	**X**
Time representation	--	**Clock** only

Key:

- ▶ **X**: available
- ▶ **--**: Not available

3.1 Rounded corners

The Rounded corners style type is available for all elements that support rounding.

The Rounded corners style type covers the following properties:

- ▶ **Proportional**
- ▶ **All x [%]**
- ▶ **All y [%]**
- ▶ **Left/top x [%]**
- ▶ **Left/top y [%]**
- ▶ **Right/top x [%]**
- ▶ **Right/top y [%]**
- ▶ **Right/bottom x [%]**
- ▶ **Right/bottom y [%]**
- ▶ **Left/bottom x [%]**
- ▶ **Left/bottom y [%]**

3.2 Element border

The `element border` style type is available for all elements that support element borders.

The `Element border` style type covers the following properties:

- ▶ **Element border**
- ▶ **Border color**
- ▶ **Transparency border color [%]**

3.3 Fill

The `Fill` style type is available for all elements that support fill.

The `Fill` style type covers the following properties:

- ▶ Property group **Fill**
  - • **Fill pattern**
  - • **Fill color**
  - • **Transparency of the fill color [%]**
  - • **Gradient color**
  - • **Transparency gradient color [%]**
- ▶ Property group **Color gradient**
  - • **Color gradient**
  - • **Invert color gradient**
  - • **Offset [%]**
  - • **Angle [°]**
- ▶ Property group **Grafikdatei**
  - • **Predefined graphics**
  - • **Grafikdatei**
  - • **Graphic size**
  - • **GIF animation always**
- ▶ Property group **Bar fill**
  - • **Explicit**

If a color gradient is configured in the filling style, the fill color is used for coloring with elements that do not support color gradient.

LIMITATIONS

For a project with the **Windows CE project** property activated or the `Windows basic` setting for the **Graphics quality** property, the following is applicable:

▶ Only corners, circles and segments of a circle and have a gradient color.

▶ The gradient color can only be defined using the properties for brightness values.

▶ The properties of the **Color gradient** group are deactivated for all elements.

▶ Transparencies are deactivated.

COLOR SETTINGS

The following is applicable for color properties:

▶ Static colors: These are always saved in the style directly.

▶ Color palettes: Either colors from color palettes from the local project or the global project can be used; in doing so:

• The color palettes should be in the same project as the one in which the style is created

• If there are color palettes in both projects, the colors of the global projects are overwritten by the colors of the local project

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👍 **Hint**

Use color palettes either from the local project only or from the global project only and create the styles in the corresponding project.

3.4   Glow

The `Glow` style type is available for all elements.

The `Glow` style type covers the following properties:

▶ **Activate**

▶ **Transparency [%]**

▶ **Spread [pixel]**

▶ **Coloring**

▶ **Color**

3.5 Padding

The `Padding` style type is available for all elements that support padding.

The `Padding` style type covers the following properties:

- ▶ **Left [pixels]**
- ▶ **Right [pixels]**
- ▶ **Top [pixels]**
- ▶ **Bottom [pixels]**

3.6 Line

The `Line` style type is available for all static elements that support lines.
Exception: **Static text**.

The `Line` style type covers the following properties:

- ▶ Subgroup **Representation**
  - • **Line width [Pixel]**
  - • **Line type**
- ▶ Subgroup **Fill**
  - • **Line color**
  - • **Transparency line color [%]**
- ▶ Subgroup **End of line**
  - • **Start type**
  - • **End type**
  - • **Size**

COLOR SETTINGS

The following is applicable for color properties:

- ▶ Static colors: These are always saved in the style directly.
- ▶ Color palettes: Either colors from color palettes from the local project or the global project can be used; in doing so:
  - • The color palettes should be in the same project as the one in which the style is created
  - • If there are color palettes in both projects, the colors of the global projects are overwritten by the colors of the local project

> 👍 **Hint**
>
> *Use color palettes either from the local project only or from the global project only and create the styles in the corresponding project.*

3.6.1　Trend element

Behavior of the **trend element** when linking line styles:

- ▶ Each curve can be linked to a line style.
- ▶ If a style group is linked, the following is applicable:
  - • The line styles are linked in the same order as they are arranged in the list view.
  - • If there are less styles than curves present, the other curves are not linked to any styles.
- ▶ Individual styles can also be linked to individual curves.
  Individual styles can replace group styles.
- ▶ If a curve is deleted, the following is applicable:
  - • With group styles, the next curve adopts the style of the deleted curve.
    Example: Curve 1 is deleted. Curve 2 becomes Curve 1 and takes on the group style of Curve 1.
  - • With individual styles, the line style is retained by the curve.
    Example: Curve 1 is deleted. Curve 2 has an individual style. Curve 2 becomes Curve 1, the linked line style is retained.
- ▶ With multiple linking (on page 20) by means of **Drag&Drop**, the line styles are linked in the order of selection.

3.7　Borders and shadows

The `borders and shadows` style type is available for all elements.

It includes the following properties:

- ▶ **Border type**
- ▶ **Border/shadow color**
- ▶ **Transparency [%]**
- ▶ **Line width [Pixel]**
- ▶ **Blur**

▸ **Distance [pixels]**

▸ **Angle [°]**

▸ **Shadow size [%]**

3.8 Scale

The `Scale` style type is available for all elements that support scales.

The `Scale` style type covers the following properties:

▸ Property group **Scale**

- **Show scale**
- **Logarithmic**
- **Distance [pixels]**
- **Height [pixels]**
- **Main ticks**
- **Sub ticks**
- **Main tick color**
- **Sub tick color**

▸ Property group **Label**

- **Show label**
- **Distance [pixels]**
- **Label color**

3.9 Text

The `text` style type is available for the **static text** element, as well as for most dynamic elements.

It includes the following properties:

▸ Property group **Text**

- **Font**

▸ Property group **Fill**

- **Text color**
  ▶ Property group **Text format**
    - **Alignment horizontal**
    - **Alignment vertical**
    - **Automatic word wrap**
  ▶ **Properties for the Dynamic Text Element**Property group, only available for the **dynamic text** element
    - **Hidden input**
    - **Masking character**

FONTS

For styles, fonts from the local project or the global project can be used.

The linked text style can be overwritten by settings in the local project if:

▶ The project has a different setting for **Font list in the Editor** than the global project

▶ The font list of the global project is overwritten by the local project

👍 **Hint**

Use font lists either from the local project only or from the global project only and create the styles in the corresponding project.

3.10   Universal slider

The `Universal slider` style type is available for the **Universal slider** element.

It includes the following properties:

▶ Property group **Shaping**
  - **Shape**
  - **Alignment**
  - **Style**
  - **Pointer type**
  - **Reverse direction**
▶ Property group **Title**
  - **Show title**

- **Distance [pixels]**
  ▶ Property group **Knob**
    - **Show knob**
    - **Knob color**
    - **Knob type**
  ▶ Property group **Drag indicator**
    - **Show drag indicator**
    - **Type of display**
    - **Color minimum value**
    - **Color maximum value**
    - **Reset automatically**
    - **Reset after [min]**

3.11 Value display

The `Value display` style type is available for all elements that support value display.

The `Value display` style type covers the following properties:

  ▶ Property group **Value display**
    - **Show value in percent**
    - **Absolute amount**
    - **Unit position [%]**
    - **Show value**
    - **Base for display**
    - **Show base**
    - **Show leading zeros**
    - **Show measuring unit**
  ▶ Property group **Instrument display**
    - **Display type**
    - **Start angle**
    - **End angle**

3.12 Time representation

The `Time representation` style type is available for all elements that support time representation.
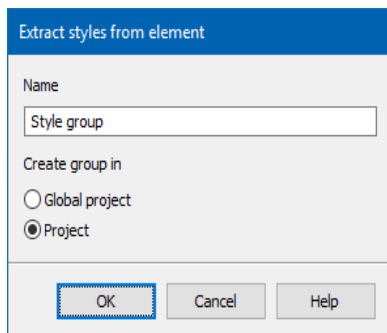
The `Time representation` style type covers the following properties:

▶ **Display type**

▶ **Formating**

▶ **Separator**

4. Create styles

To create a style, extract it from an existing element. The option is not available if several elements are highlighted at the same time.

EXTRACT STYLES

To extract a style:

1. In the Editor, highlight the element whose style you want to extract.

2. Select the **Create style group from element** command from the context menu.

   The **Extract styles from element** dialog is opened.

3. Supported properties of the element are extracted and created as a new style group with the given name in the local project or global project in the **Styles** node. The entry is validated and a balloon is shown in the event of an invalid name.

   For this, the following applies:

   • The style group contains all supported properties as individual styles.

   • Properties that are not available in the source object are created with the corresponding default values.

- The properties that are supported depend on the Style type (on page 5) and original element.

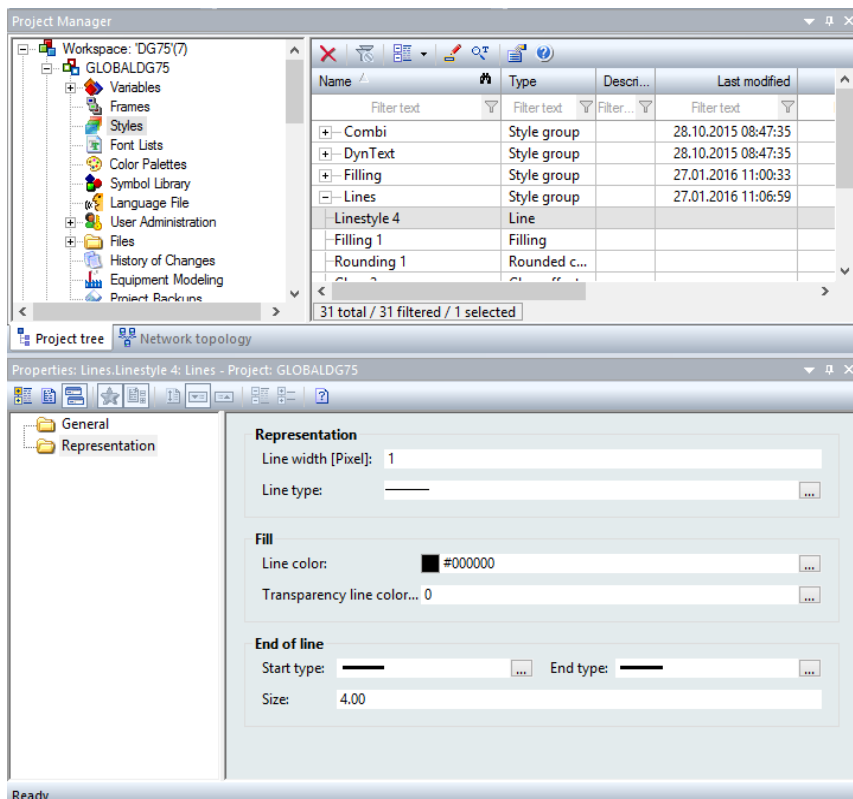**INCORRECT VALIDATION**
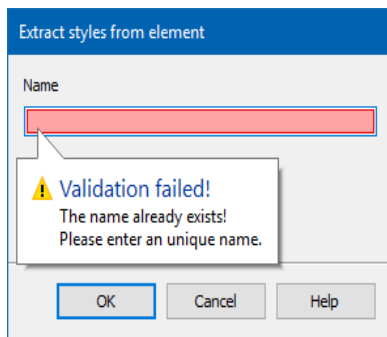
💡 **Information**

Names:

▸ Must be unique for style groups and styles within a style group,

▸ must not be empty

▸ must not consist of spaces only

▸ Must not contain one of the following characters: / \ . : * ? < > | " ' # % @

5. Administer styles

You administer zenon styles in the local project and global project in the **Styles** node.

All style groups are displayed in the detail view of the **styles** node. These contain the individual styles in a tree view.
The elements can be sorted and filtered according to each column.
Note: The time shown in the **last changed** column does not relate to the change of the style but the time at which the file in which the style is contained was saved.

The properties of the selected style are shown in the properties window. These can be edited there.

EDITING STYLES AND STYLE GROUPS

For each style, the corresponding properties can be edited in the properties window.
To edit a style or a style group:

1. Highlight the desired element.

   Multiple selection is possible. With multiple selection, only properties that can be changed jointly for all highlighted elements are offered. Fields that are currently configured differently are emphasized with content in red font.

2. Configure the desired properties.

Changes are saved as soon as the field is left or after confirmation with the `Enter` key. Each change has an effect on all elements that are linked to this style.

Properties for style groups and styles:

▶ **General** group:

- **Name**: Name of the style or the style group

- **Typ**: Type of the style.

- **Beschreibung**: Individual description of the style or the style group.

- **Category**: Free text to categorize the style or the style group.

  Hint: Issue a meaningful text here and use this property to sort or to group according to the column in the detail view.

- **ID**: ID of the style or the style group

- **External reference**: Unique identification of zenon components.

▶ Corresponding property groups are offered depending on the style: You can find detailed information on this in chapter Style types (on page 5).

> 💡 **Information**
>
> Names:
>
> ▶ Must be unique for style groups and styles within a style group,
>
> ▶ must not be empty
>
> ▶ must not consist of spaces only
>
> ▶ Must not contain one of the following characters: `/ \ . : * ? < > | " ' # % @`

COPYING AND ADDING STYLE GROUPS AND STYLES

In the detail view, you can copy and paste style groups and styles to the tool bar or the context menu (on page 18) by means of keyboard shortcuts (`Ctrl + C, Ctrl + V`).

In doing so:

▶ The cross-project copying and pasting of style groups and styles is supported

▶ The copying and pasting of styles from style groups to other style groups is supported

▶ Multiple selection is supported

EXPORT AND IMPORT STYLES AND STYLE GROUPS AS XML

Styles can be exported as XML files and imported from XML. You can find detailed information on this in chapter XML export and XML import.

DELETING STYLE GROUPS OR STYLES

To delete a style or style group:

1. Highlight the desired elements.
   Multiple selection is possible.

2. Select the **Delete** command in the toolbar or context menu.

   The selected elements are deleted after confirmation is requested. When style groups are deleted, all styles contained are also deleted.

Note: If styles are deleted, the previously-set values are restored for the properties with which they were linked. The property of the style shows `No style linked`.

5.1   Toolbar and context menu detail view

Symbols and a context menu are available for styles. The commands in the context menu correspond to the symbols.

Symbol/Command	Description
Copy	Copies the selected entries to the clipboard.
Paste	Pastes the contents of the clipboard. If an entry with the same name already exists, the content is pasted as "**Copy of...**".
Delete	Deletes selected entries after a confirmation from list.
Export selected XML ...	Exports all selected entries as an XML file.
Import XML ...	Imports entries from an XML file.
Remove all filters	Removes all filter settings.
Expand all	Allows all or selected nodes to be expanded or collapsed. Selection: ▸ **Expand all** ▸ **Collapse all** ▸ **Expand selected** ▸ **Reduce selected**
Edit selected cell	Opens the selected cell for editing. The binocular symbol in the header shows which cell has been selected in a highlighted line. Only cells that can be edited can be selected.
Replace text in selected column...	Opens the dialog for searching and replacing texts.
Properties	Opens the **Properties** window.
Help	Opens online help.

5.2   XML export and XML import

Styles are always exported as XML or imported from XML as complete style groups. Export and import of individual styles is not possible.

Styles can be exported by means of:

▸ The **Export all as XML** context menu in the project tree

▸ The **Export selected as XML...** symbol in the detail view

▸ The **Export selected as XML...** context menu in the list of the detail view

Styles can be imported using:

▸ The **Import XML...** context menu in the project tree

▸ The **Import XML...** symbol in the tool bar of the detail view

▸ The **Import XML...** context menu in the list of the detail view

<u>Action in the event of ID and naming conflicts</u>

▶ If there is already a style group in the project that has the same ID as the style group to be imported, a dialog is shown with the possibility of replacing the existing style group or canceling the import.

▶ If there is already a style group in the project that has the same name as the style group to be imported, the style group is imported and given a consecutive postfix (for example `Style Group 2`).

▶ If there is already a style in the project that has the same ID as a style to be imported and is an element of another style group, no import is carried out and a corresponding warning is shown.

6. Linking styles and style groups

Styles and style groups can be assigned **Static elements** and **Dynamic elements**. In doing so, the style or style group is linked to the element. Changes to the style or the style group in the **Styles** module in the global project are applied to all linked elements.

Note: Not all elements support all properties of a style. Only supported properties are ever assigned.

To assign an element a style or a style group, use:

▶ **Drag&Drop**

▶ The dialog in the corresponding property

▶ The context menu of the corresponding element via the properties window

Note: Linked styles are shown in the respective property with the following syntax: **StyleGroupName.StyleName**.

LINK RULES

The following is applicable for the linking of styles or style groups:

▶ Only styles that correspond to the target property are linked.

▶ When linking style groups, only styles that are supported by the properties of the element are linked.

DRAG&DROP ONTO THE ELEMENT

To link a style group or a style by means of **Drag&Drop**:

1. Go to the **Styles** node in the project.

2. Select the desired style or style group.

3. Drag the style group or the style to the element in the main window with the mouse.

   The properties of the style or the style group are applied to the element.

   > 👍 **Hint**
   >
   > *Select several styles from the same style group in order to carry out multiple linking with an element.*

DRAG&DROP ONTO THE PROPERTY

To link a style group or a style to an element property by means of **Drag&Drop**:

1. Go to the **Styles** node in the project.

2. Highlight the element.

3. Go to the desired properties group

4. Drag the style group or the style to the corresponding property with the mouse.

   The properties of the style or the style group are applied to the element.

DIALOG FOR PROPERTY

To link a style group or a style to an element using the **style selection** (on page 26) dialog:

1. Highlight the element.

2. Go to the **Styles** node in the project.

3. Go to the desired properties group

4. Configure the desired style group or the style type (on page 5), such as **Line style, Fill style, Glow effect style** etc. for example..

   If a style is already linked to the property, this is displayed.
   If several elements with different styles have been selected, the style of the last-selected element is shown in red font. If the style is changed, it is applied to all selected elements.

5. Clicking on the ... button opens the dialog (on page 26) to select a style or a style group.
   A style that has already been linked can also be removed again in this dialog.

CONTEXT MENU

1. Highlight the element.

   A style group must already be linked for the element.

2. Navigate to the desired group in the properties.

3. Right-click on the property

4. Select **Derive all properties from style group**:
   For this element, all properties that are available in the style group are linked.

> 👍 **Hint**
>
> *Multiple selection is supported for linking styles and and style groups using the **style selection** (on page 26) dialog or the context menu (on page 23) of the property.*

If you link a style or style group from the global project, it is shown with the prefix `g_`.

As an example, the style `StyleGroup.LineStyle` in the global project is shown for the element in the local project with the name `g_StyleGroup.LineStyle`.

As soon as the linking via text input is amended in the properties field, this prefix is removed.

Hint: Link styles from the global project using

6.1   Styles and style groups from the global project

If you link a style or style group from the global project, it is shown with the prefix `g_`.

As an example, the style `StyleGroup.LineStyle` in the global project is shown for the element properties in the local project with the name `g_StyleGroup.LineStyle`.

As soon as there is a manual text amendment in the properties field of the linking, this prefix is removed and the linking is amended or is lost.

In doing so:

- ▸ if a style or a style group with the name entered is found in the local project, this is used
- ▸ if no style or style group with the name entered is found, the text `<No style linked>` is shown

> 👍 **Hint**
>
> Link styles from the global project by means of Drag&Drop (on page 20) or the dialog for style selection (on page 26).

> ⚠ **Attention**
>
> If there are styles or style groups with the same name or the same GUID in the local project and in the global project, (created by copy&paste, XML export/import, API), the local styles or style groups are always used.

6.2 Context menu Elements

Elements in zenon that a style or a style group can be linked to receive the style-group-related commands in the context menu of the properties window.
To link styles or style groups using the context menu or linking:

1. Mark the desired element.

2. Right-click on the description of the desired property or the **...** button.

3. Select the desired command from the context menu.

Available commands:

Command	Action	Remark
Derive [style] from style group	The style of the style group linked to the element is linked for the selected property. An arrow symbol on the right next to the input field of the property shows that there is a linking.	If no style group is linked to the element, the original configuration of the element is used.
Detach [style] from style group	Detaches the linking of this property to a certain style of a style group. All other properties retain their linking. The arrow symbol, which shows the linking, is removed.	The property is deleted from the style group. A different style can be linked to this property. If no other style is linked, the values configured in the original style group are used. All other properties retain the linking to the original style group.
Derive all properties from style group	For this element, all properties that are available in the style group for this are linked. An arrow symbol on the right next to the input field of the property shows that there is a linking.	All properties that are linked overwrite pre-existing values. If these are amended in the style group, they are also amended here.
Detach all properties from style group	All linkings that are derived from this style group are detached. The arrow symbol that shows the linking is removed.	The configured values remain. If the values is the style group are amended, the change is not accepted for these elements. All linked properties of this element are detached. The properties can be linked to another style group or to other styles. If no other style is linked, the values configured in the original style group are used.

6.3   Replacing or deleting links

If a style group is linked to an element, individual properties for the element can be replaced with other values or deleted.

REPLACE VALUES

You have several possibilities for replacing a value:

▶   Detach the style from the style group using the context menu of the property.
    Assign a new style to the property.

▶   Link a new individual style to the property by means of Drag&Drop.

▶   Select a different style for the property using the selection dialog (on page 26).

REMOVING A STYLE OR STYLE GROUP FROM THE ELEMENT

To remove the linking of a style or style group from the element:

▶   Delete the style or the style group from the property.
    No style linked is displayed. The attendant properties contain the value that they had before linking again.

6.4   Limitations

Styles are administered in the local project or global project and use settings of this project. In doing so, the following should be noted:

COLOR SETTINGS

The following is applicable for color properties:

▶   Static colors: These are always saved in the style directly.

▶   Color palettes: Either colors from color palettes from the local project or the global project can be used; in doing so:

  •   The color palettes should be in the same project as the one in which the style is created

  •   If there are color palettes in both projects, the colors of the global projects are overwritten by the colors of the local project

> 👍 **Hint**
>
> *Use color palettes either from the local project only or from the global project only and create the styles in the corresponding project.*

FONTS

For styles, fonts from the local project or the global project can be used.

The linked text style can be overwritten by settings in the local project if:

▶ The project has a different setting for **Font list in the Editor** than the global project

▶ The font list of the global project is overwritten by the local project
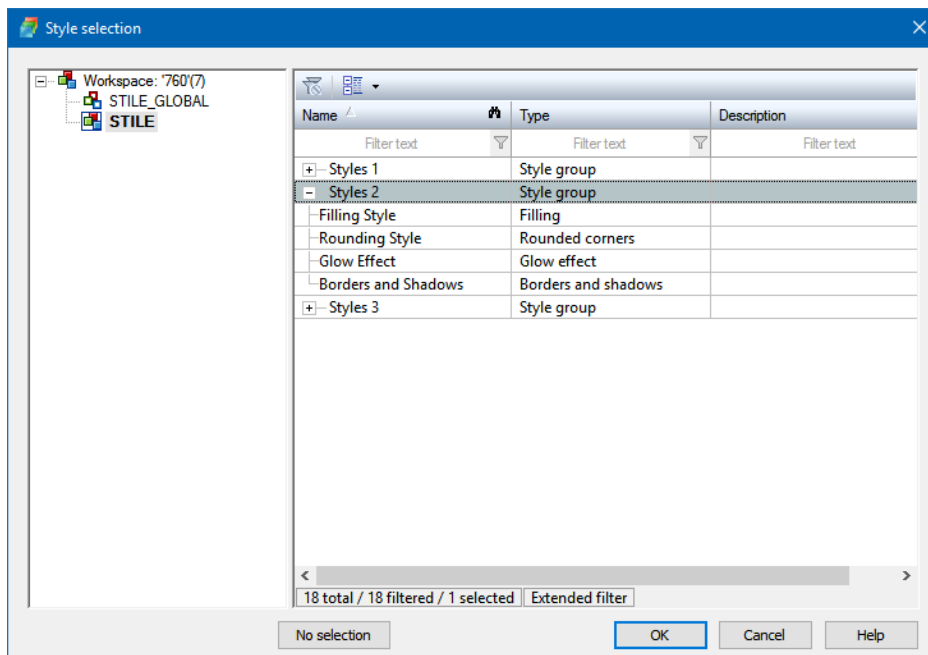
> 👍 **Hint**

Use font lists either from the local project only or from the global project only and create the styles in the corresponding project.

7. Style selection dialog

Clicking on the ⋯ button of the property to link a style or a style group opens the dialog to select a style or style group. Here, you can assign a style or style group and detach the linking of style and style groups.

> 💡 **Information**
>
> *Only style groups and styles that can be linked to the element from which the dialog was opened are offered.*

Parameter	Description
List of projects	Display of the global project and the local project.

List of styles	List of styles and style groups available.
	Clicking on a style selects it.
	
	The list can be sorted and filtered.
	
	Toolbar and context menu:
	
	▸ **Remove all filters**:
	   Clicking removes the filter settings
	
	▸ **Expand all:**
	   Allows all or selected nodes to be expanded or collapsed.

No selection	Removes the currently-linked style from the property.

CLOSE DIALOG

Options	Description
OK	Applies settings and closes the dialog.
Cancel	Discards all changes and closes the dialog.
Help	Opens online help.

LINK STYLE OR STYLE GROUP

To link a style or style group:

1. Open the dialog.

2. Click on the desired style or style group.

3. Click on **OK**.

   The style or style group with all its styles is transferred to the property and applied to all selected elements.

LINK RULES

The following is applicable for the linking of styles or style groups:

▶ Only styles that correspond to the target property are linked.

▶ When linking style groups, only styles that are supported by the properties of the element are linked.

DETACH LINKING

To detach the linking of a style or style group:

1. Open the dialog.

2. Click on **No selection**.

   The style or the style group is removed from the property and the dialog is closed. The selected elements contain the properties of the last style that was linked.