TechTip: PLC data exchange with device-specific configuration values

Device-specific configuration values are parameters that can be set individually at a device. These can, for example, be switch levels for pressure switches or basic conditions of safety-relevant devices after switching on. Device-specific configuration values can be exchanged during the PLC data exchange in AutomationML AR APC format (as of AR APC Version 1.2.0).

Usability of device-specific configuration values

You have two possibilities in Eplan to use such device-specific configuration values: In the **PLC device: TemplateIdentifier** or **PLC station: TemplateIdentifier** property you can reference a template in a PLC configuration program or you can create User-defined part reference properties in Eplan.
For further information please refer to the online help system in the section "Device-specific configuration values".

Creating user-defined part reference properties

In the following cases it is necessary to create user-defined part reference properties:

- You are working without a template (**PLC device: TemplateIdentifier** or **PLC station: TemplateIdentifier** property).

- In addition to the configuration values defined in the template you also want to exchange other configuration values.

- You want to overwrite specific configuration values from the template.

1. Select the following commands: Tab **Master data** > Command group **Part** > **Management**.

2. Mark a part or a part group in the parts management in the left-hand area.

3. Click the **[Extras]** button on the tab User-defined properties and select the menu item **Configure properties**.

4. Click ⊞ (New) in the left-hand area of the dialog.

5. Enter an identifying name. This name is specified by the device manufacturer.

⇨ The identifying name cannot be changed later on.
(No difference is made between upper- and lower-case characters at the identifying name during data exchange.)

Notes:

- The identifying name specifies the attribute which is to be exchanged with the PLC configuration program. This attribute name is identified by the device manufacturer in a device description file (e.g. GSDML file) and determined from it by the PLC configuration program.
Whether an attribute can be exchanged depends on the respective PLC configuration program.
As a rule, different devices also have different attributes. Therefore please ask the device manufacturer for the identifying names of the attributes which you want to exchange for the device.

- The identifying name may contain upper-case and lower-case letters, numbers and the special characters ".-_&". At least one point must be used in the name; however, the point must not be at the beginning or end of the name. The string "Eplan" at the beginning is not permitted either. Points within the name are treated as substructures and create a sub-level in the tree.

6. The **Displayed name** can be assigned randomly.

7. The following settings are required for the PLC data exchange in AutomationML AR APC format:

Field	Value
Category	PLC data
Assignment	Part
Also validate for part references	☑

Assigning user-defined part reference properties to the part / part group

1. Mark a part or a part group in the parts management in the left-hand area.

2. Click the ⊞ (New) button in the tab <u>User-defined properties</u> and select the required properties from the available user-defined part reference properties.

3. In the **Value** column you can enter a standard value for these properties.

> **Note:**
>
> A user-defined property in the identifying name always consists of at least one prefix, a point and the actual name (see note above).
>
> Within a part the name of the property must also be unique in case of a deviating prefix.

In addition you can also select an already defined scheme and assign it to the part (also as supplement for the already selected properties).

Using device-specific configuration values in the project

Through a device selection, the device-specific configuration values which are assigned as *user-defined part reference properties* to the part, are transferred to the device in the project.

The properties can be changed on the **Parts** tab of the property dialog (category **Part reference data**).

The properties **PLC device: TemplateIdentifier** or **PLC station: TemplateIdentifier** are changed on the first tab of the property dialog in the property table.

The specified **Displayed name** is always displayed in all cases.

The user-defined part reference properties assigned to a part used in a project are saved in the project. If the user-defined part reference properties used in the project are not available in the parts management, they can be added to the parts management via the project comparison (Tab **Master data** > Command group **Synchronization** > **Synchronize project**).

Export device-specific configuration values

Device-specific configuration values can be exchanged during the PLC data exchange in AutomationML AR APC format (as of AR APC Version 1.2.0).

1. Select the following commands: **File** > **Export** > Command group **Project data** > **Project data** > Command group **PLC** > **PLC data**.

2. In the opened dialog click the **[Options]** button.

3. In the opened dialog activate the **Export device-specific configuration values** check box.

⇨ **Export device-specific configuration values** is a user-specific setting.

> **Note:**
>
> The device-specific configuration values are output in the export file with their identifying name. In the process the name is shortened by the first prefix.
>
> During the import of device-specific configuration values the first matching user-defined property of the part to be imported is assigned.