

CODESYS VISUALIZATION

CODESYS Feature Briefing, March 2024
Stefan Ambros, Product Owner Visualization

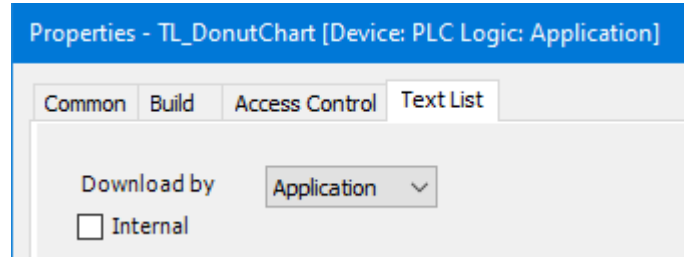
CODESYS Recipe Scripting

- All parts from the Recipe Manager and from a Recipe Definition can be created with scripting.
- The interface can be found in the Online Help.
- https://content.helpme-codesys.com/en/ScriptingEngine/idx-codesys_recipes.html
- Example code:

```
proj = projects.primary
app = findApplication(proj)
recipeMan = app.get_recipemanager()
recipeDef =
recipeMan.create_recipedefinition("RecipeDef1")
varList = recipeDef.variables;
recipeVar = varList.add("PLC_PRG.iVar");
```

Text lists only for the application

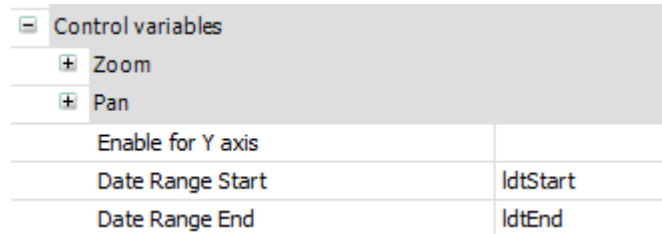
- **New option in the text list object properties**



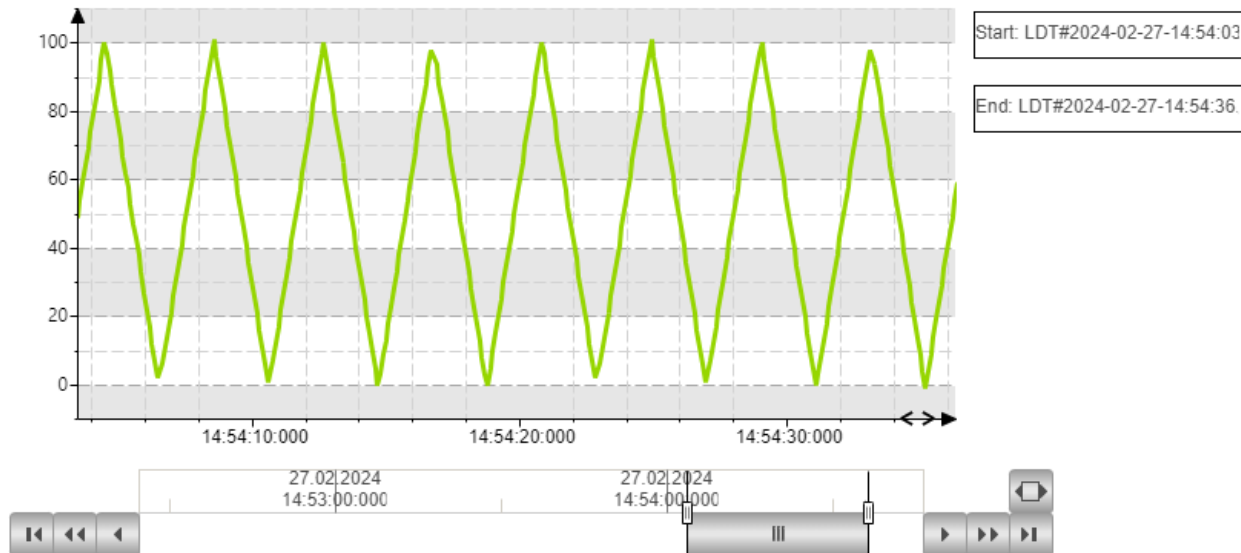
- **New default: downloaded by application**
- **Use cases:**
 - Language-specific alarm message texts in a runtime without visualization
 - Language-specific texts used only in the application

Possibility in Trend to set the timestamps for the range to display

- Configurable LDATE_AND_TIME variables for the date range



- Date range picker and date range variables can be operated in parallel



Visualization Tags View

- Detailed overview of counted tags
- Lists variables/tags used in specific visualization
- Shows the visualization call tree

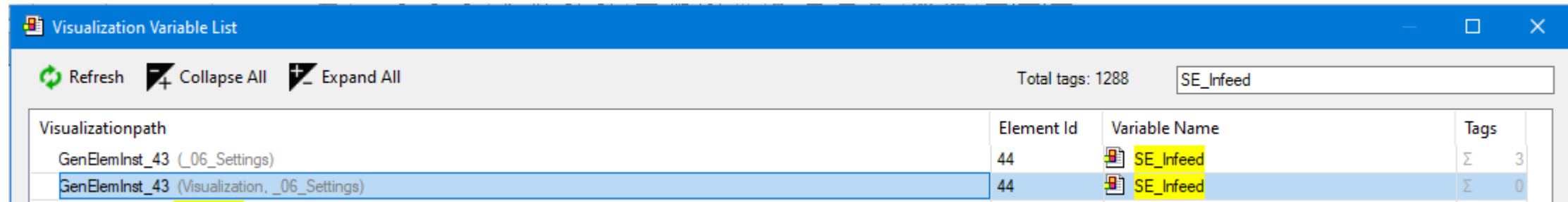
Visualization Tags View

Refresh Collapse All Expand All Total tags: 1288 Filtering by full or partial name

Visualizationpath	Element Id	Variable Name	Tags
+ _01_Operation			Σ 639
+ _02_Alarms			Σ 48
+ _03_Trend			Σ 400
- _04_Cockpit			Σ 5
+ GenElemInst_33	33	Infeed	Σ 1
+ GenElemInst_35	35	GradingSensors	0
+ GenElemInst_37	37	Packing	Σ 1
+ GenElemInst_7	6	Cockpit.iPacking	1
+ GenElemInst_39	39	Warning	Σ 1
+ Hotkey		AlarmInfo	Σ 1
+ Hotkey		AlarmInfo	Σ 1
+ _05_Maintenance			Σ 137
+ _06_Settings			Σ 17
+ _07_Manual			Σ 1
+ AlarmInfo			Σ 1

Visualization Tags View – Filter Option

- Where does a visualization object (template) occur?

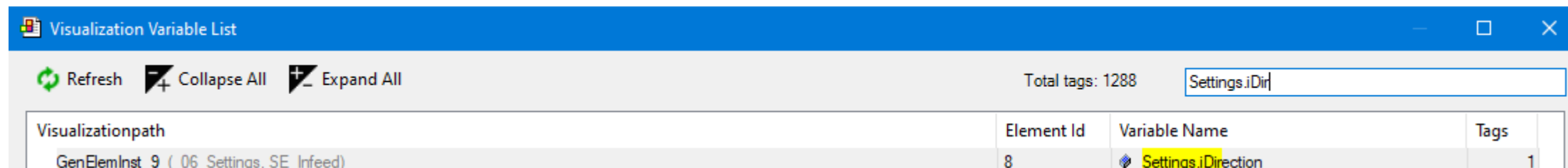


Visualization Variable List

Refresh Collapse All Expand All Total tags: 1288 SE_Infeed

Visualizationpath	Element Id	Variable Name	Tags
GenElemInst_43 (_06_Settings)	44	SE_Infeed	Σ 3
GenElemInst_43 (Visualization, _06_Settings)	44	SE_Infeed	Σ 0

- Where does a tag (variable) occur?



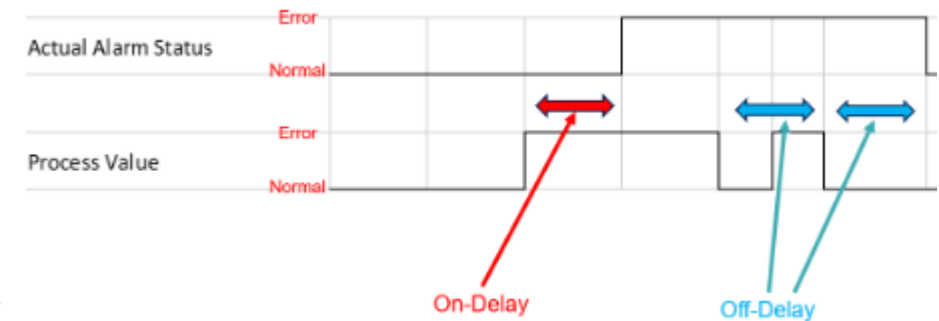
Visualization Variable List

Refresh Collapse All Expand All Total tags: 1288 Settings.iDir

Visualizationpath	Element Id	Variable Name	Tags
GenElemInst_9 (_06_Settings, SE_Infeed)	8	Settings.iDirection	1

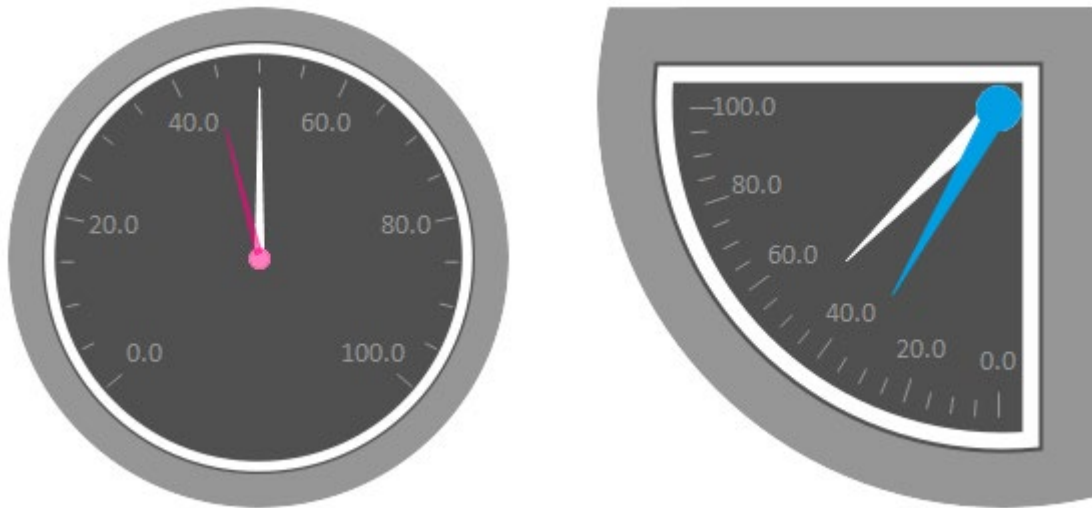
New alarm features


- **Acknowledge comment as option for alarm table (OPC UA Compliant)**
 - Comment is stored in alarm history
 - User ID responsible for acknowledge is also stored
- **Re-alarm after specific time**
 - ISA 18.2: alarm state changes from “Acknowledged” to “Active” if this has not become “Inactive” after a configurable time
- **Off-delay**
 - On-delay (min. pend. time) already exists
- **Auto reset of digital alarms after acknowledgement**
- **Separation of alarm detection and alarm processing**
 - The alarm detection is very fast and can be done at the end of an application task.



Second arrow option for meter element

- Optional second arrow if a value is configured
- Color of arrow can be semitransparent



Second arrow	
Value	PLC_PRG.rSecondArrow
Arrow type	Thin 3D arrow
Color	 Element-Meter-SecondArrowColor
Transparency	255
Arrow length	From style



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