December 2012

Features and Improvements V3.5 SP2

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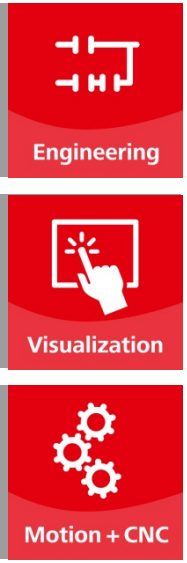
Agenda

1. Engineering
2. Visualization
3. Motion+CNC



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Engineering: Usability

Engineering

- Overview Usability Improvements
  - Improved usage of available screen space
  - Various window handling improvements
  - Improvements in ST editor
  - Improvements in graphical editors

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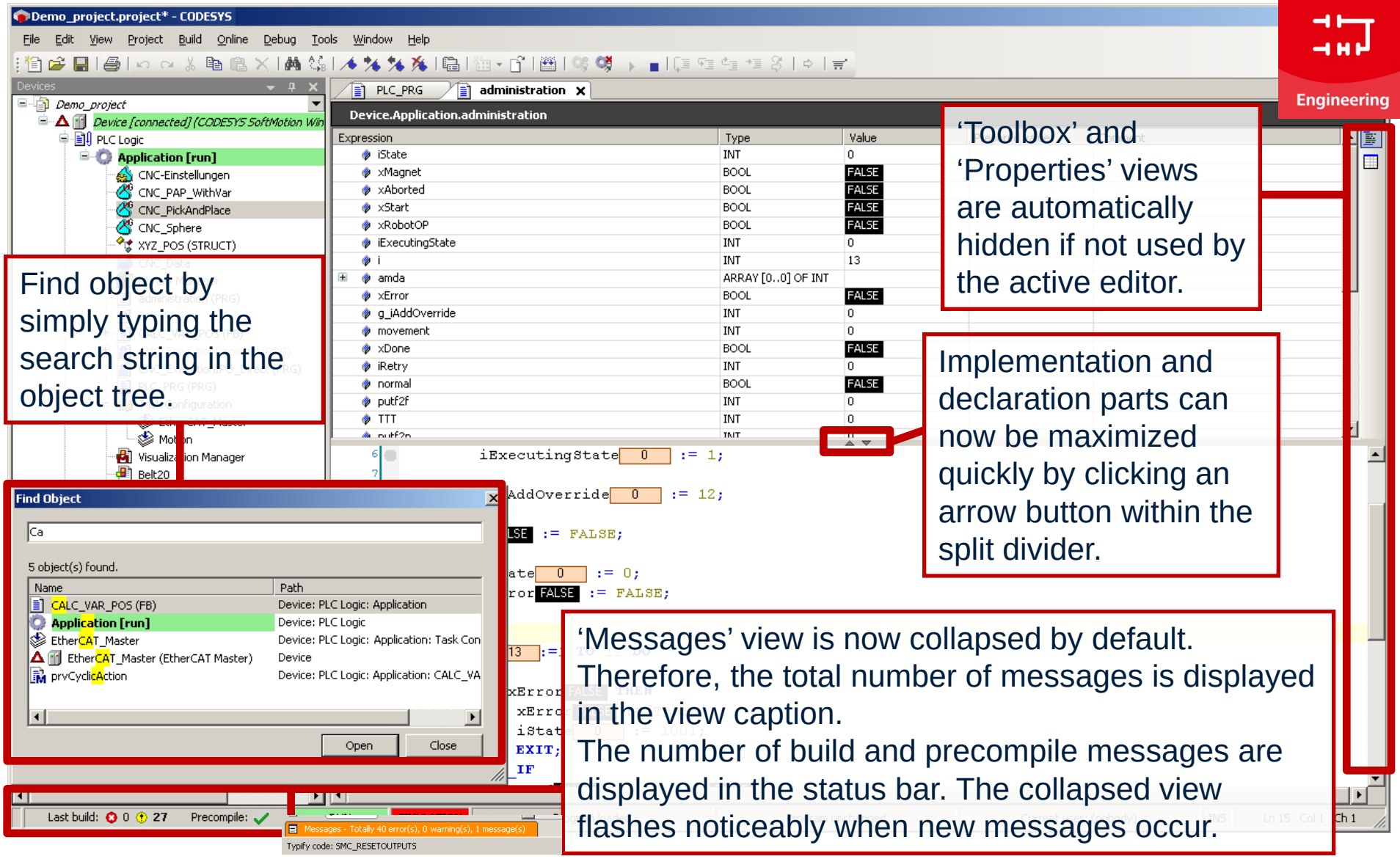
Engineering: Usability

Engineering



Find object by simply typing the search string in the object tree.

‘Toolbox’ and ‘Properties’ views are automatically hidden if not used by the active editor.

Implementation and declaration parts can now be maximized quickly by clicking an arrow button within the split divider.

‘Messages’ view is now collapsed by default. Therefore, the total number of messages is displayed in the view caption.
The number of build and precompile messages are displayed in the status bar. The collapsed view flashes noticeably when new messages occur.

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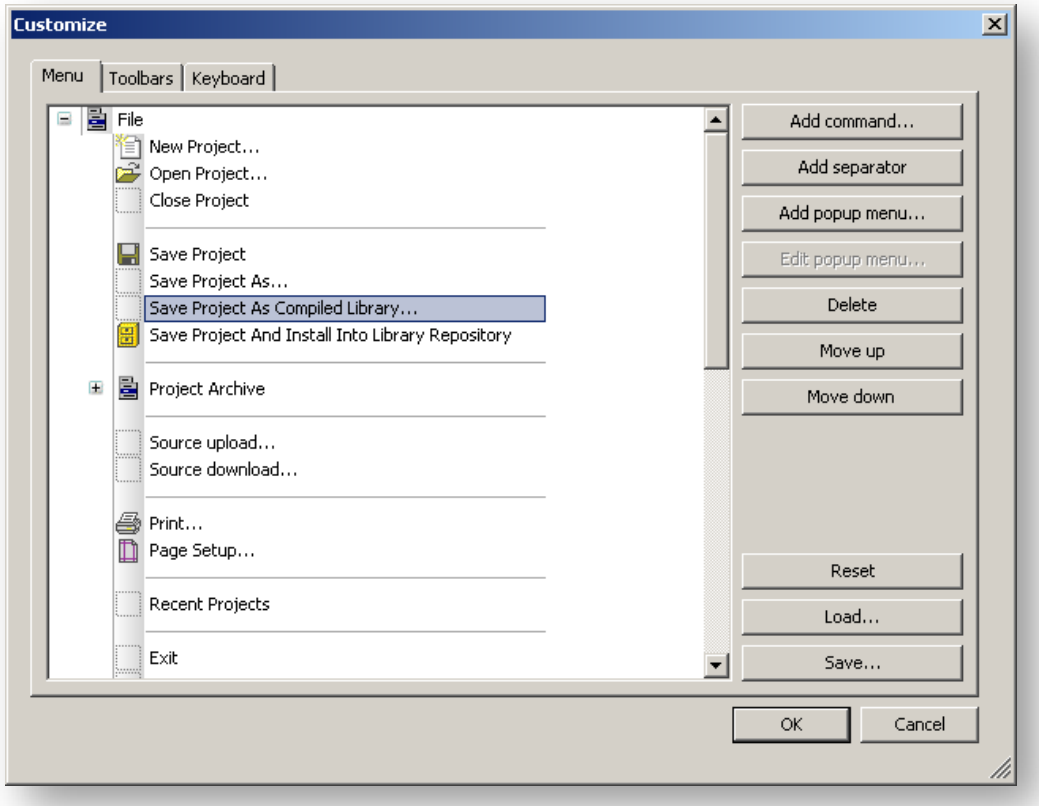
Engineering: Usability

Engineering

- Various window handling improvements
  - Editors can be undocked and moved to a secondary screen.
  - Reworked ‘Customize’ dialog for user-defined menu, toolbar, and shortcut configuration.



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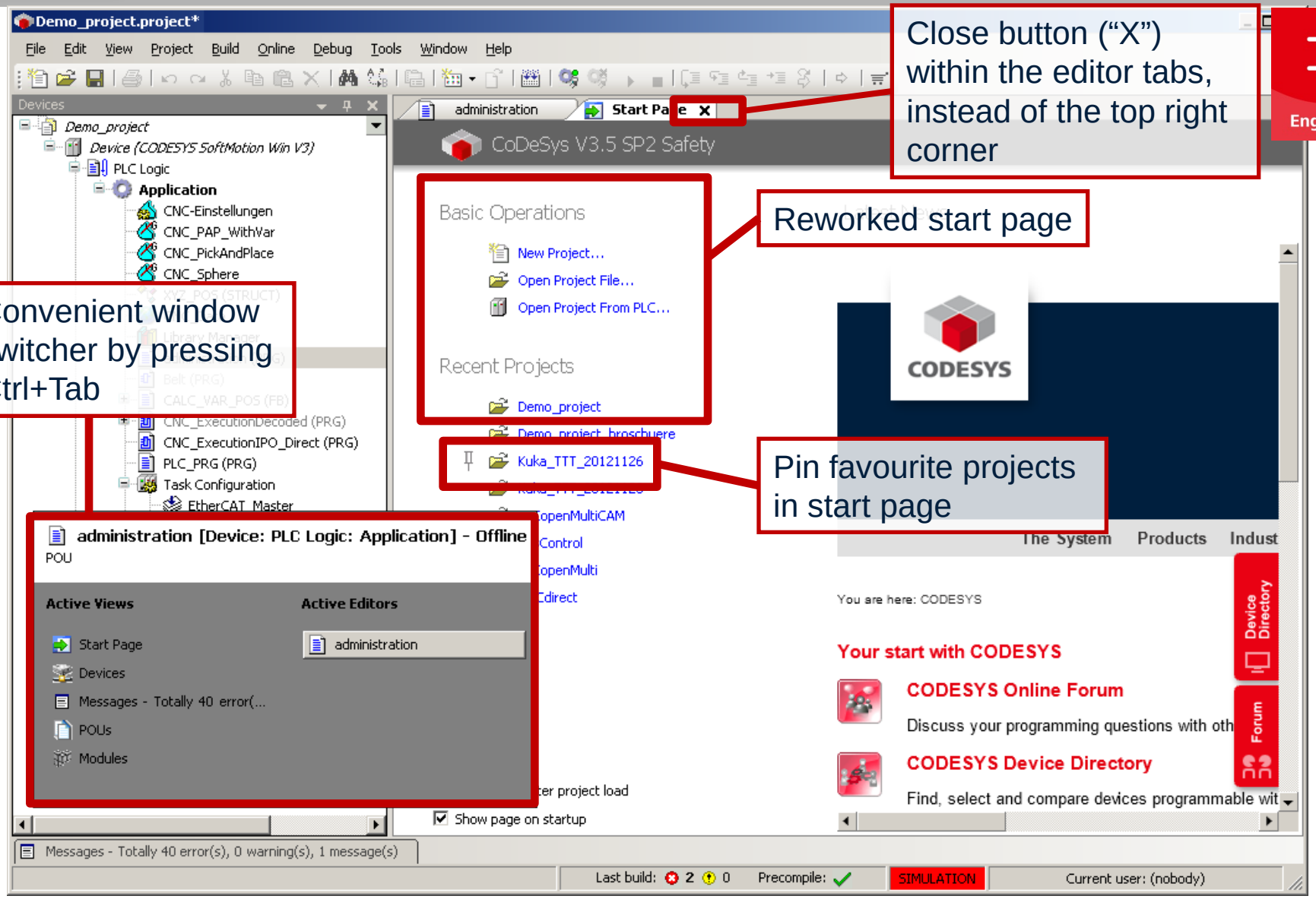
Engineering: Usability



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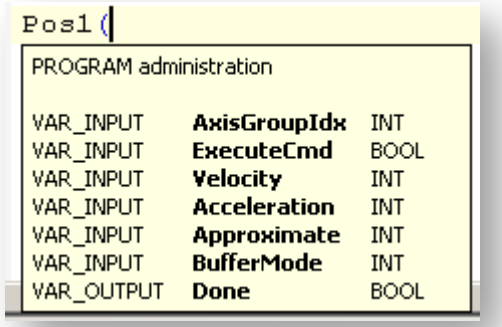
Engineering: Usability

Engineering

- ST editor
  - Parameter help in a tooltip when entering an opening parenthesis



  - Truncated monitoring values now shown in a tooltip

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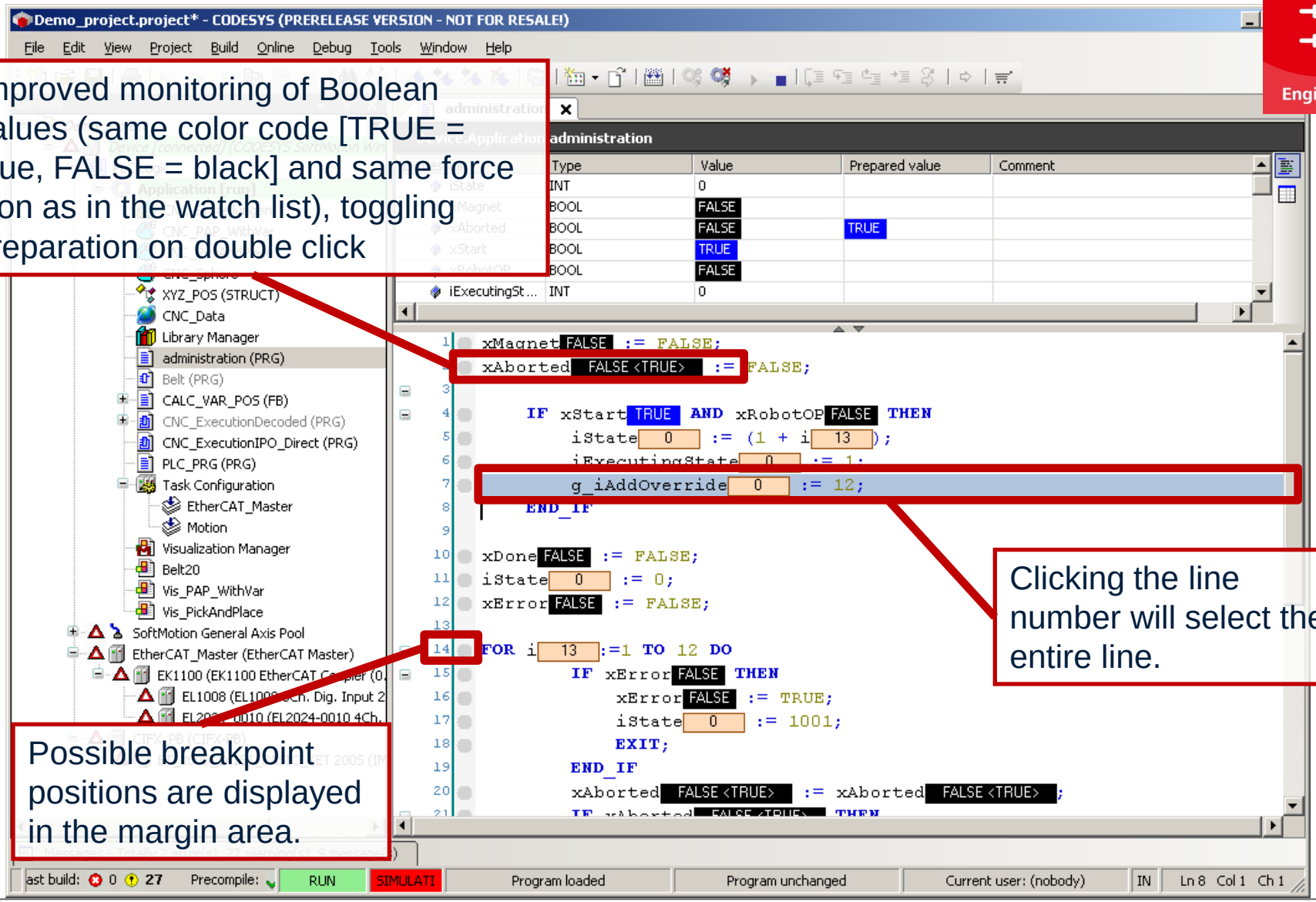
Engineering: Usability

Engineering



Improved monitoring of Boolean values (same color code [TRUE = blue, FALSE = black] and same force icon as in the watch list), toggling preparation on double click

Clicking the line number will select the entire line.

Possible breakpoint positions are displayed in the margin area.

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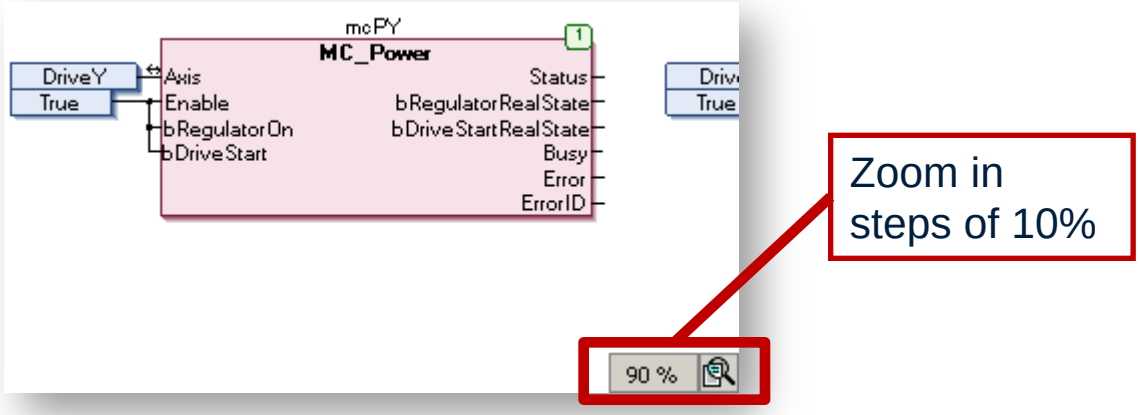
Engineering: Usability

Engineering

- Graphical editors
  - Improved scrolling capabilities
  - Zooming is now possible by using **Ctrl** + **mouse wheel**.



- Various other usability improvement

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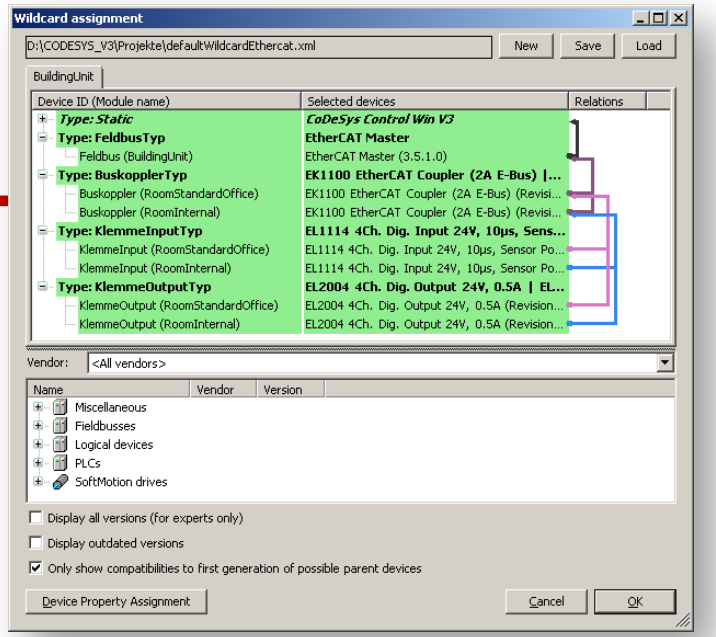
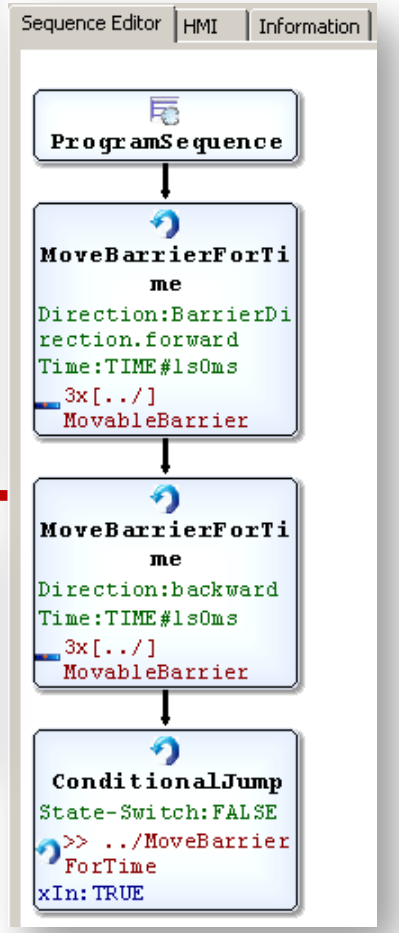
Engineering: CODESYS Application Composer

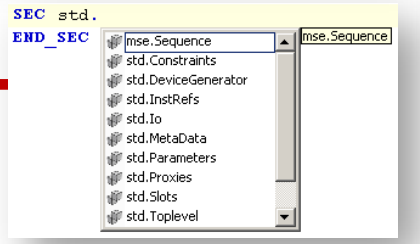
- New features
  - Device Generator



  - Sequence editor



  - IntelliSense in module declaration



  - Print I/O connection dialog
  - Automatic Proxy mirroring
  - Python script driver
  - Minima and maxima for parameters
  - Import/Export of modules

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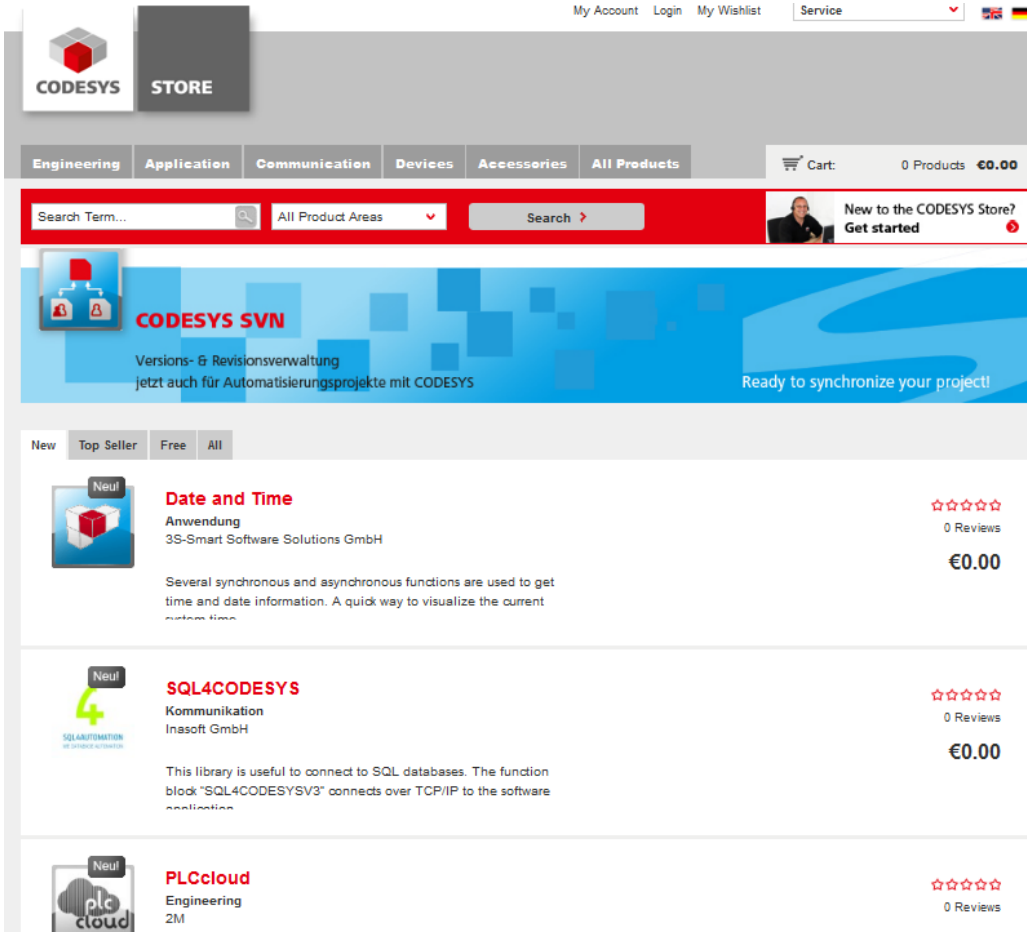
Engineering: CODESYS Store - Introduction

- Online shop for the distribution of commercial and free CODESYS related products
- Content provided by 3S-Smart Software Solutions as well as by third-party-suppliers such as OEM customers or independent companies/users



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Engineering: CODESYS Store Content

Commercial content	Free of charge content
▪ Application libraries ▪ Visualization elements ▪ Libs for specific device support, i.e. IO-Link gateway ▪ Plug-Ins, i.e. integration to version control system	▪ Example projects ▪ Device description files ▪ Utility libs

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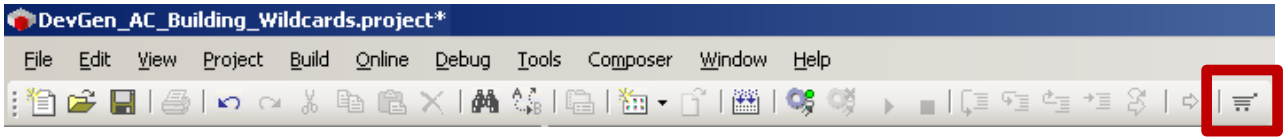
Engineering: CODESYS Store - Usage

- As standard online platform under http://store.codesys.com
- Fully integrated in CODESYS as of version V3.5 SP2 including
  - product selection (in the integrated browser)
  - download and installation of products as package directly in the existing CODESYS installation
  - update information on installed products
  - licensing / purchase / rating of products



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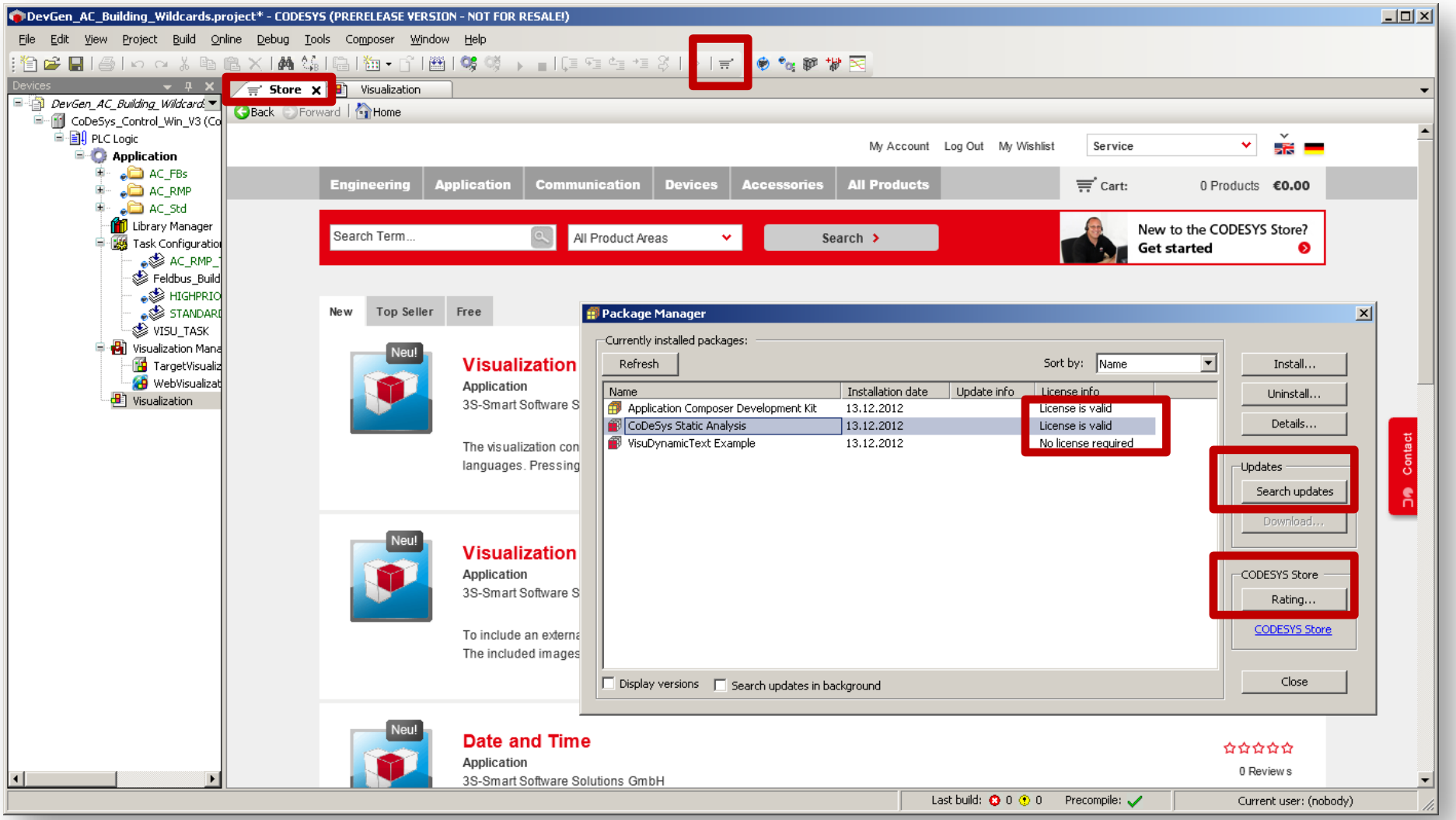
Engineering: CODESYS Store - Usage



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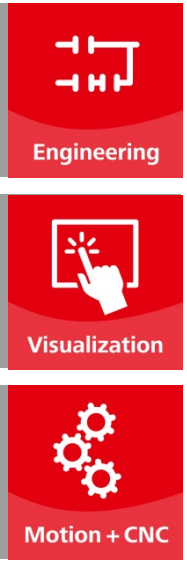

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Visualization: Overview

Visualization

- Preview of the user administration in the visualization
- Usability – frame selection improvements
- Multiline messages in the alarm table
- WebVisu JavaScript – for all smartphones and tablets
- Revised TraceElement
- Licensing VisuElement Toolkit

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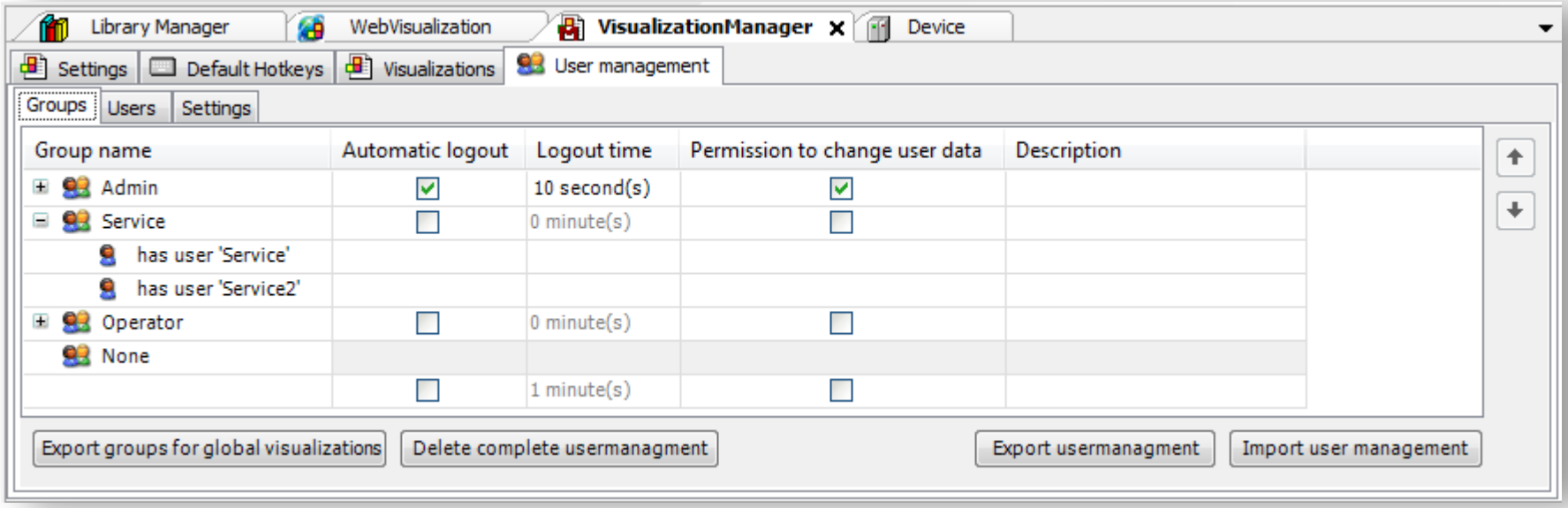
Visualization: Preview of User Administration (1)

Visualization

- User administration in the visualization – Usage can be restricted for certain user groups.



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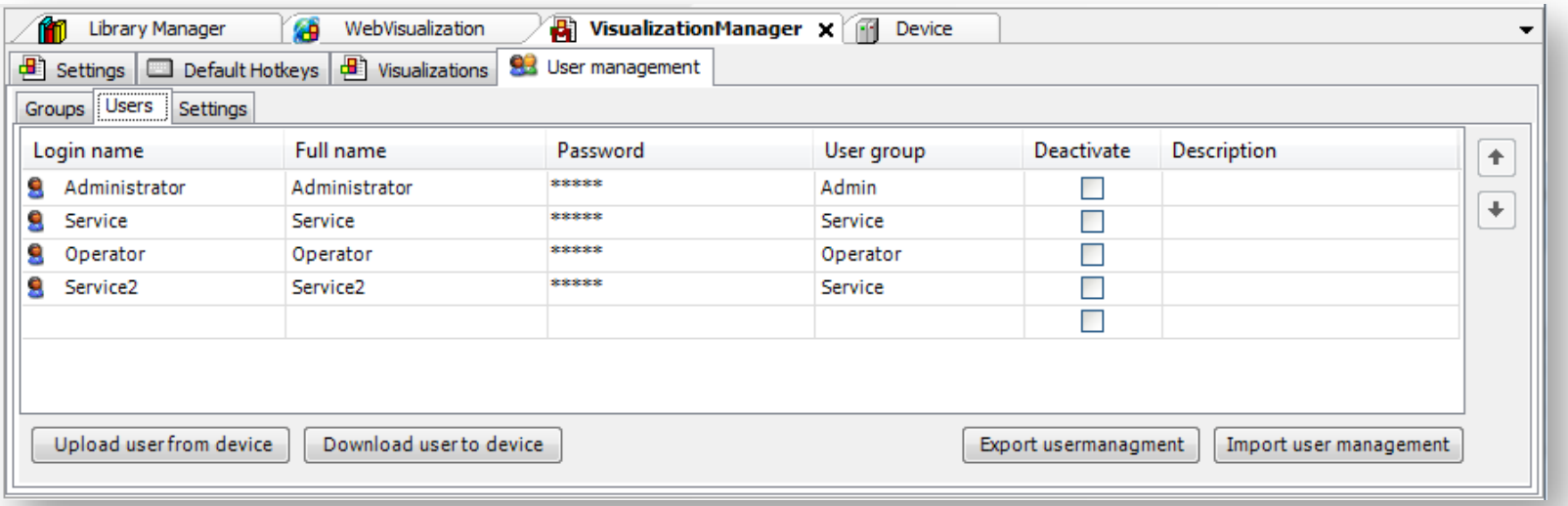
Visualization: Preview of User Administration (2)

Visualization

- Users can be created and assigned to certain user groups.
- The restriction of rights can be done individually or with a group hierarchy.



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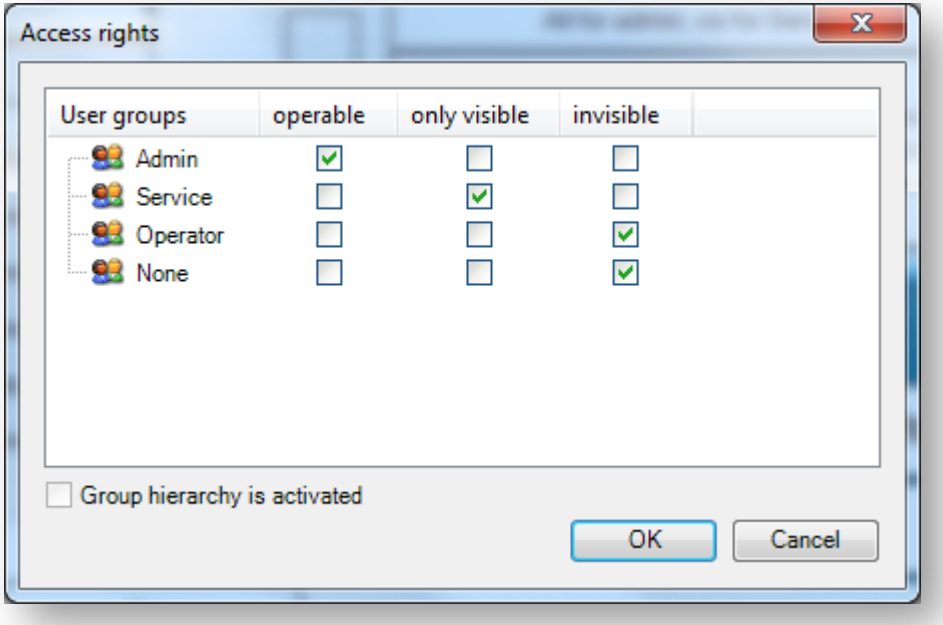
Visualization: Preview of User Administration (3)

Visualization

- It can be individually defined for every single visualization element whether a certain user group can see and/or operate it.



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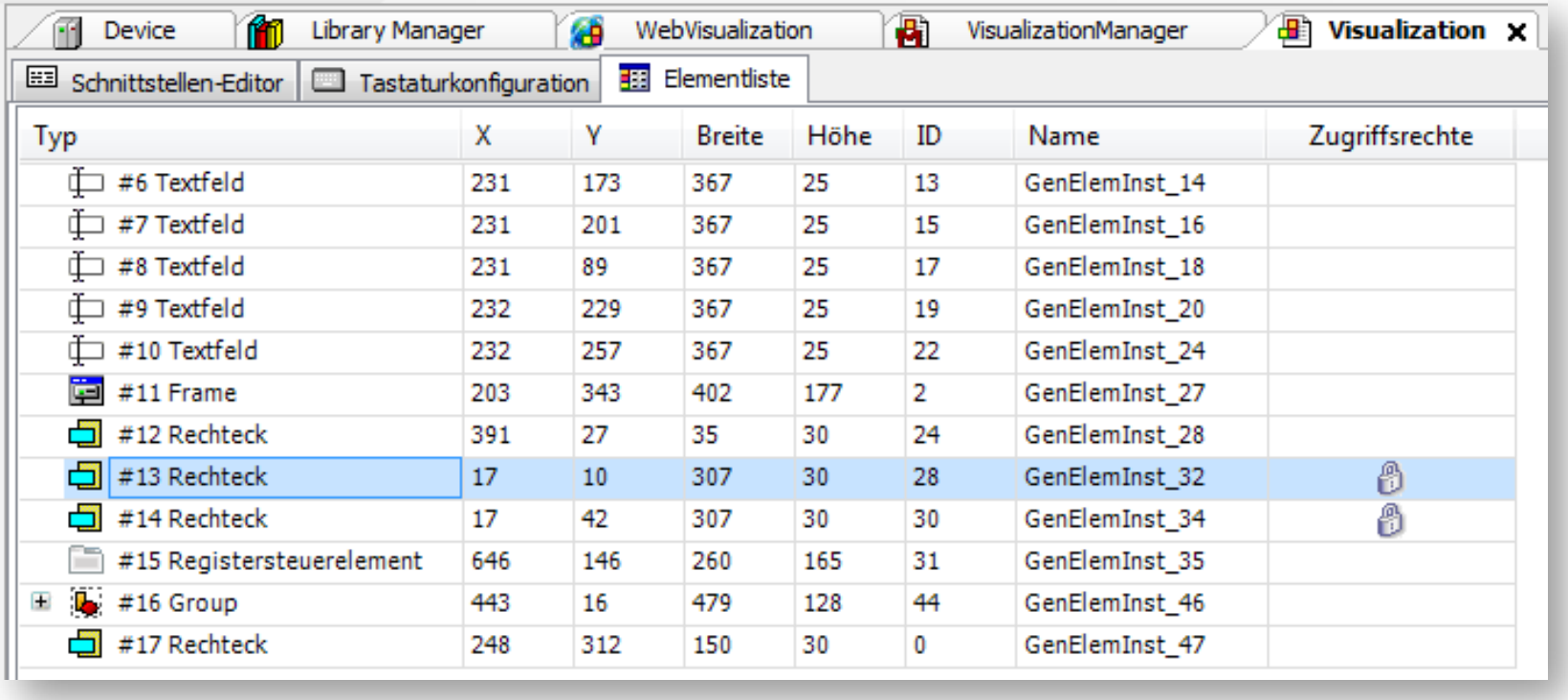
Visualization: Preview of User Administration (4)

Visualization

- The restricted elements are displayed in the element list in the column access rights.



Typ	X	Y	Breite	Höhe	ID	Name	Zugriffsrechte
#6 Textfeld	231	173	367	25	13	GenElemInst_14	
#7 Textfeld	231	201	367	25	15	GenElemInst_16	
#8 Textfeld	231	89	367	25	17	GenElemInst_18	
#9 Textfeld	232	229	367	25	19	GenElemInst_20	
#10 Textfeld	232	257	367	25	22	GenElemInst_24	
#11 Frame	203	343	402	177	2	GenElemInst_27	
#12 Rechteck	391	27	35	30	24	GenElemInst_28	
#13 Rechteck	17	10	307	30	28	GenElemInst_32	
#14 Rechteck	17	42	307	30	30	GenElemInst_34	
#15 Registersteuerelement	646	146	260	165	31	GenElemInst_35	
#16 Group	443	16	479	128	44	GenElemInst_46	
#17 Rechteck	248	312	150	30	0	GenElemInst_47	

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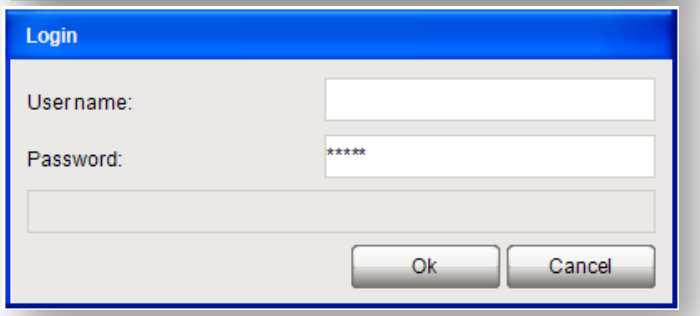
Visualization: Preview of User Administration (5)

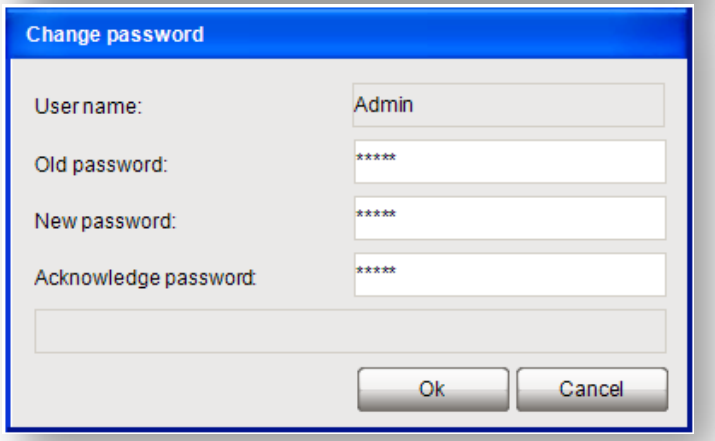
Visualization

- User administration online

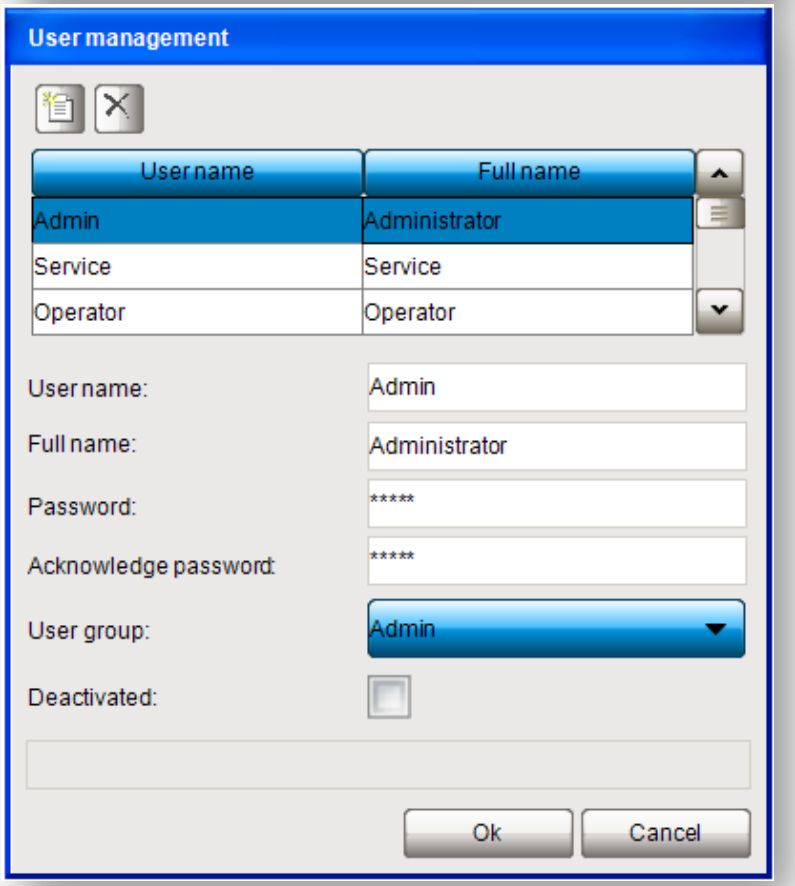
Login



New password



Create, edit or delete users



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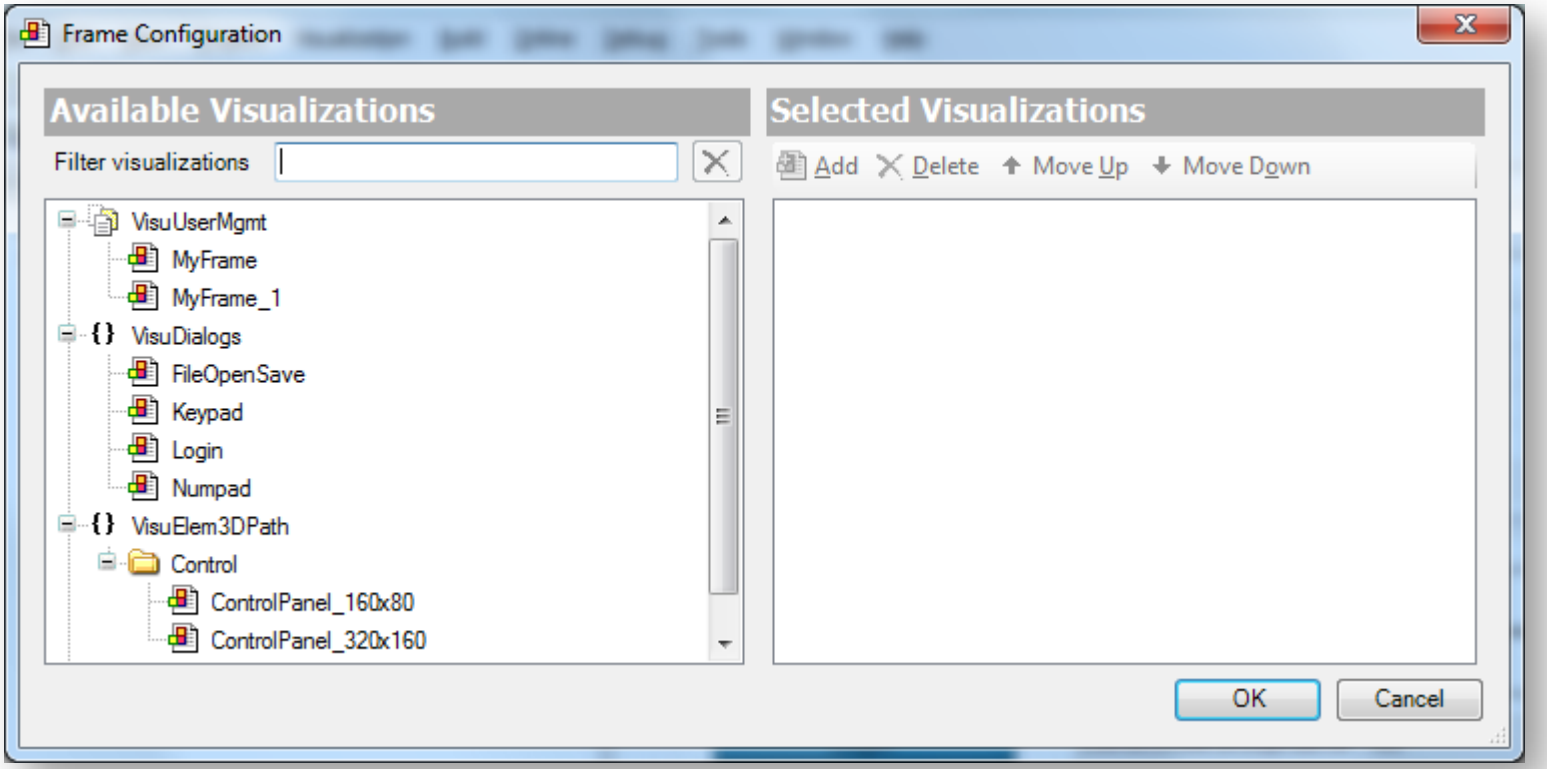
Visualization: Frame Selection

Visualization

- Improved frame selection
  - Hierarchical display – filter for visualization names
  - Dialog appears automatically when frame element is inserted



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Visualization: Alarms

Visualization

- Multiline messages in the alarm table
  - Automatic line break if message text cannot be fully displayed
  - Configurable line break

		Timestamp	Message	Timestamp active	Timestamp acknowledge	State
1		19.11.2012 10:11:55	Alarm 19 aktiv	19.11.2012 10:11:55		Active
2		19.11.2012 10:11:52	Alarm 17 aktiv	19.11.2012 10:11:52		Active
3		19.11.2012 10:11:47	Alarm 32 aktiv mit 3 Zeilen	19.11.2012 10:11:47		Active
4		19.11.2012 10:11:45	Alarm 23 aktiv	19.11.2012 10:11:45		Active
5		19.11.2012 10:11:29	Alarm 11 aktiv mit sehr langem Text, der automatisch umgebrochen werden soll und jetzt noch ein wenig länger ist	19.11.2012 10:11:29		Active

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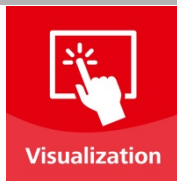
Visualization: Misc



- Licensing VisuElement Toolkit – Dongle required from CODESYS V3.5 SP2

- Revised TraceElement
  - From CODESYS V3.5 SP2: connection to CmpTraceManager from the runtime system
  - New PlotLib:
    - ➔ Better looking scales
    - ➔ More functionality – Display of the metering points
    - ➔ Separate configuration – the trace element is no longer tied to the trace object

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Visualization: HTML5 WebVisu

Visualization

- WebVisu HTML5 + JavaScript – Executable on all standard browsers => on smartphones and tablets, too

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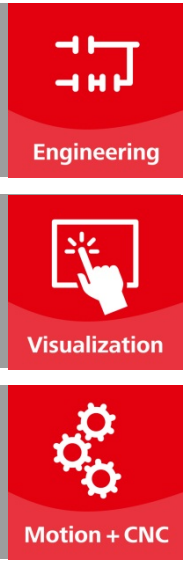

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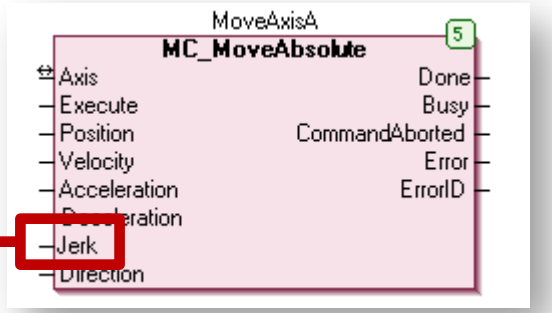
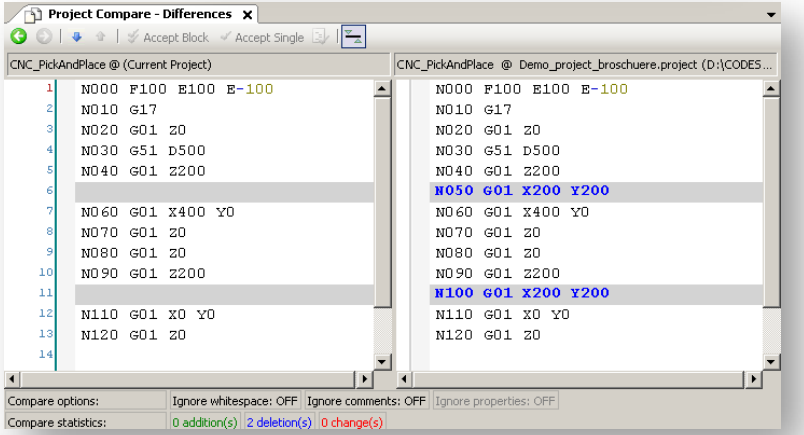
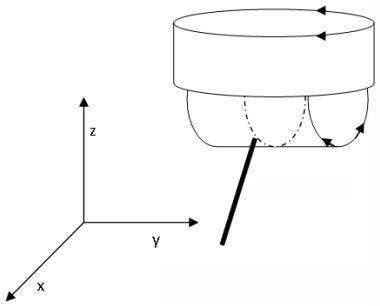
Motion

- Jerk support in the PLCopen POUs
- New drivers for the following drives:
  - Stöber SD6
  - Parker SBC
- CNC editor: Project Compare
- CNC: Block search
- Transformation: 5-axis transformation







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