

The image features a laptop in the foreground displaying the WinCC Unified Logging & Trending software interface. The interface includes a navigation tree on the left, a main display area with a circular gauge showing the value '30', and various data tables and charts. In the background, a 3D isometric rendering of a factory production line is visible, with various machines and conveyor belts. Overlaid on this background are several semi-transparent blue panels containing text such as 'WinCC Unified project', 'Production', 'Operator User Name', and 'Version 1.1'. A circular gauge in the background also displays the value '2.4'.

WinCC Unified Logging & Trending

SIMATIC WinCC Unified Hands On: Logging of tags

HANDS ON



1. Activate Tag logging in Runtime settings
2. Create a Tag and Log it
3. Create a simulator slider for the new tag
4. Create a trend and tie it to the log

SIMATIC WinCC Unified

Hands On: Logging and Trending of tags

The screenshot shows the SIMATIC WinCC Unified interface. On the left, the Project tree is expanded to 'Runtime settings' (marked with a red circle '1'). The central pane shows the 'Storage system' menu item highlighted (marked with a red circle '2'). The right pane displays the 'Storage system' configuration page with the following settings:

- Database type:** SQLite
- Database location for tag persistency:** Storage medium: Off
- Main database location for tag logging:** Storage medium: USB-X61, Folder: /TagLogging (marked with a red circle '3')
- Main database location for alarm logging:** Storage medium: Off

1. Open Runtime settings from Project Tree
2. Highlight Storage system
3. Change settings as shown

SIMATIC WinCC Unified

Hands On: Logging and Trending of tags

The screenshot shows the SIMATIC WinCC Unified interface. On the left, the Project Tree is visible, with the 'Logs' folder under 'HMI_1 [MTP700 Unified Basic]' selected, indicated by a red circle with the number '1'. The main window displays the 'Logs' configuration for 'Workshop_Logging2 > HMI_1 [MTP700 Unified Basic]'. The 'Data logs' tab is active, showing a table with columns: Name, Storage medium, Storage directory, Log time period, Maximum log size (MB), Segment time period, Maximum segment size (..), and Segment s... A red circle with the number '2' highlights the 'Data log_1' entry in the table. Below the table, the 'Logging tags' tab is visible, showing a table with columns: Name, Process tag, Logging mode, Trigger mode, Trigger tag, Limit scope, High limit, and Low limit.

Name	Storage medium	Storage directory	Log time period	Maximum log size (MB)	Segment time period	Maximum segment size (..)	Segment s...
Data log_1	USB-X61		7.00:00:00	1000	1.00:00:00	100	Thursday , F
<Add new>							

Name	Process tag	Logging mode	Trigger mode	Trigger tag	Limit scope	High limit	Low limit
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1. Open Logs from Project Tree
2. Add a new Data Log as shown, leave default settings

SIMATIC WinCC Unified

Hands On: Logging and Trending of tags

1. Open the New HMI Tags table from the Project Tree
2. Add the new tag as shown – Data Type = Int
3. Add a new Logging Tag – Assign to Data_log_1 & Change Mode to Cyclic
4. With the Logging Tag highlighted, Assign Logging Cycle = 1s

The screenshot displays the SIMATIC WinCC Unified software interface. The Project Tree on the left shows the 'New HMI Tags [11]' folder selected, indicated by a red circle with the number '1'. The 'New HMI Tags' table in the center shows a new tag 'LoggingData' with a data type of 'Int', highlighted by a red circle with the number '2'. Below this, the 'Logging tags' table shows the 'LoggingTag_1' tag assigned to 'Data log_1' with a 'Cyclic' logging mode, highlighted by a red circle with the number '3'. The 'Properties' window at the bottom right shows the 'Cycle' property set to '1s', highlighted by a red circle with the number '4'.

Name	Data type	Process tag	Data log	Logging mode	Trigger mode	Trigger tag	Limit scope	High limit
LoggingTag_1	LoggingData		Data log_1	Cyclic	None		No limits	

Name	Data type	Address
AlarmAnalog	Int	

SIMATIC WinCC Unified Hands On: Logging and Trending of tags

1 Open Trend screen

2 Drag Slider Bar from Elements Toolbox

3 Change Properties as shown

4 Resize Slider as shown

Name	Static value	Dynamization (1)
General		
Label		
Process value		Tag
Scale		
Alignment	Horizontal	None
Division count	5	None
Graduation mark - color	64, 64, 68	None
Label - color	0, 0, 0	None
Label - font		None
Output format	{}	None
Scale mode	None	None
Scale value - maximum	32767	None
Scale value - minimum	0	None
Scaling - automatic		<input checked="" type="checkbox"/>
Scaling type	Linear	None
Subdivision count	5	None
Miscellaneous		
Connection quality - show		<input checked="" type="checkbox"/>
Connection status	None	
Layer	Layer_0	
Name	Slider_1	
Origin value	0	None
Origin value - percentage calculation		<input type="checkbox"/>
Peak indicator	None	None
Process value - write immediately		<input checked="" type="checkbox"/>

SIMATIC WinCC Unified

Hands On: Logging and Trending of tags

The screenshot displays the SIMATIC WinCC Unified interface. At the top, a window titled 'Trend' shows a line graph with a data point at 2/8/2024 2:24:36 PM. Below the graph is the 'Trend control_1 [Trend control]' window, which is currently in the 'Properties' tab. The 'Properties' window shows a tree view of the trend area's configuration. A green arrow points from the 'Controls' section of the 'Basic objects' toolbox to the 'Trend' control in the 'Properties' window. A green circle with the number '1' is placed over the arrow's path. Another green circle with the number '2' is placed over the 'Source' property field in the 'Properties' window, which is currently set to 'HMI_Tag' and has a dropdown menu open showing 'Logging tag' as an option.

Name	Static value	Dynamization (0)
General		
Trend areas		
[0] Trend area		
TrendArea_1		
Auxiliary line color	217, 217, 217	None
Background - color	255, 255, 255	None
Grid lines	Vertical major grid lines, ...	None
Main line color	217, 217, 217	None
Name	TrendArea_1	
Range proportion	1	None
Ruler		
Selected trend	Trends[0]	None
Statistics ruler		
Time axes - bottom	1 items	
Time axes - top	0 items	
Trends		
[0] Trend		
Y:		
Aggregation mode	Time average stepped	None
Background - alternati...	197, 232, 118	None
Background - color	147, 192, 31	None
Background - fill patte...	Transparent	None
Connection quality ap...		
Data source Y		
Connection quality...		<input checked="" type="checkbox"/> None
Source		<input type="text" value="HMI_Tag"/>
Display name		HMI_Tag
Line - color	149, 193, 34	Logging tag

1. Drag a Trend View from the Controls Toolbox

2. From the Source property, change to 'Logging tag' as shown

SIMATIC WinCC Unified

Hands On: Logging and Trending of tags

Trend control_1 [Trend control] Properties

Properties Events Texts Expressions

Name Static value Dynamization (0)

General

Trend areas

[0] Trend area

TrendArea_1

Auxiliary line color 217, 217, 217 None

Background - color 255, 255, 255 None

Grid lines

Main line color

Name

Range proportion

Ruler

Selected trend

Statistics ruler

Time axes - bottom

Time axes - top

Trends

[0] Trend

Aggregation mode

Background - alternati...

Background - color

Background - fill patte...

Connection quality ap...

Data source Y

Connection quality...

Source

Display name

Line - color 149, 193, 34 None

HMI_1 [MTP700 Unified B...]

HMI tags

Logs

Data log_1

Name

None

LoggingData :LoggingTag_1

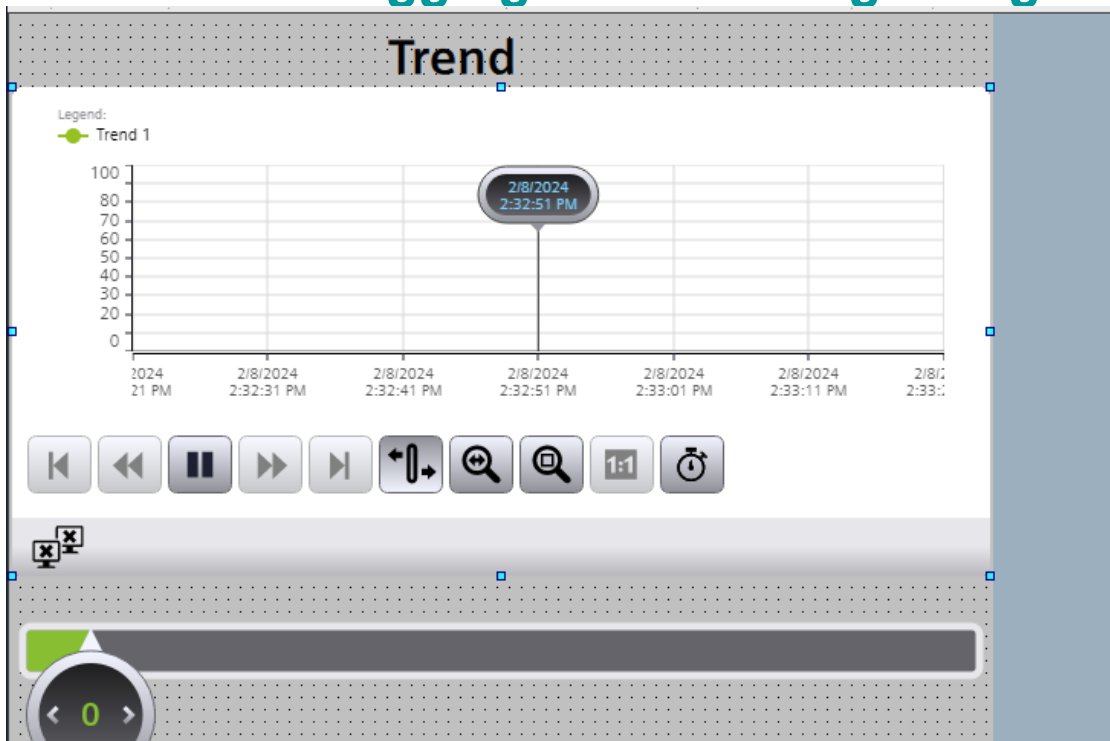
1

2

1. Click the '...' button to select a tag
2. Select 'LoggingTag_1'

SIMATIC WinCC Unified

Hands On: Logging and Trending of tags



Trend control_1 [Trend control]

Properties Events Texts Expressions

Name	Static value	Dynamization (0)
General		
Appearance		
Appearance - style item	HmiTrendControl	
Area spacing	10	None
Background - color	255, 255, 255	None
Focus - show visual		<input checked="" type="checkbox"/> None
Ruler - extend		<input type="checkbox"/> None
Title row - color	145, 147, 154	None
Window settings	None	None
Miscellaneous		

1. Make property changes as shown

SIMATIC WinCC Unified

Hands On: Logging and Trending of tags

1. Save the project
2. Select HMI device in the Project Tree
3. Press Start Simulation, Portal will open the default browser
4. Test your work
5. When finished close the browser

The screenshot displays the SIMATIC WinCC Unified interface. On the left, the Project Tree shows the hierarchy for 'Workshop_Logging2' > 'HMI_1 [MTP700 Unified Basic]'. The 'HMI tags' folder is expanded, showing 'New HMI Tags [11]'. A green circle with the number '2' highlights the 'HMI_1' folder. The main area shows a browser window titled 'WinCC Unified RT' with the URL 'desktop-5kkm6am/WebRH'. The browser displays a 'Trend' chart for the tag 'HMI_RT_1::LoggingData:LoggingTag_1'. The chart shows a value that starts at approximately 30,000, drops sharply to around -3,000, and then fluctuates between 10,000 and 25,000. A tooltip on the chart indicates the time '2/8/2024 2:45:13 PM'. Below the chart are playback controls (play, stop, fast forward, etc.) and a large digital display showing the current value '27998'. A green circle with the number '4' is positioned over the playback controls. A green circle with the number '5' is in the top right corner of the browser window. A green circle with the number '1' is over the 'Save project' button in the top toolbar. A green circle with the number '3' is over the 'Start Simulation' button in the top toolbar.

WinCC Unified Workshop



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