



FactoryTalk View Display Implementation Guidelines

Process Library 5.20

Process Library 5.30



Allen-Bradley

by ROCKWELL AUTOMATION

User Manual

Original Instructions

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.



WARNING: Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.



ATTENTION: Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard, and recognize the consequence.

IMPORTANT

Identifies information that is critical for successful application and understanding of the product.

These labels may also be on or inside the equipment to provide specific precautions.



SHOCK HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.



BURN HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.



ARC FLASH HAZARD: Labels may be on or inside the equipment, for example, a motor control center, to alert people to potential Arc Flash. Arc Flash will cause severe injury or death. Wear proper Personal Protective Equipment (PPE). Follow ALL Regulatory requirements for safe work practices and for Personal Protective Equipment (PPE).

The following icon may appear in the text of this document.



Identifies information that is useful and can help to make a process easier to do or easier to understand.

FactoryTalk View Display Guidelines

Preface	13
About This Publication	13
Download Firmware, AOP, EDS, and Other Files	13
Additional Resources	13

Chapter 1

Visualization Files	15
FactoryTalk View SE	15
Incorporating the Library HMI Files into your Project	17
Import Visualization Files for FactoryTalk View SE	17
Import HMI Tags	18
Basic Attributes and Indicators	18
State Indicators	19
Status Quality Indicators	19
Threshold Indicators	20
Deviation Indicators	21
Command Source Indicators	21
Maintenance Bypass Indicator	22
Basic Faceplate Attributes	23
Operator (Home) Tab	23
Maintenance Tab	24
Advanced Properties	25
Diagnostics Tab	25
Faults Tab	26
Trends Display	26
Alarms Tab	27
Help Button	28
Language Switching	29
Language Switching in a Controller Project	29
Bulk Edit Translated Content	31
Language Switching in a FactoryTalk View SE Project	32
FactoryTalk View SE Language Configuration	33
Help Files	34
Library Versions	37
Configure Runtime Security	37
Role-Based Security	38
Area-Based Security	43
Adding Users to Groups	48
Line of Sight Based Security	50

Chapter 2

Process Analog Input (PAI)

Graphic Symbols	55
FactoryTalk View SE Faceplates	59
Operator Tab	59
Maintenance Tab	59
Advanced Maintenance Tab	61

	Engineering Tab	62
	HMI Configuration Tab	65
Process Analog HART (PAH)	Chapter 3	
	Graphic Symbols	67
	FactoryTalk View SE Faceplates	67
	Smart Device Operator	67
	Smart Device Maintenance Tab	68
	Smart Device Engineering Tab	68
	Smart Device HMI Configuration Tab	69
	Smart Device Diagnostics	69
Process Dual Sensor Analog Input (PAID)	Chapter 4	
	Graphic Symbols	71
	FactoryTalk View SE Faceplates	72
	Operator Tab	72
	Maintenance Tab	72
	Advanced Maintenance Tab	73
	Engineering Tab	73
	HMI Configuration Tab	74
Process Multi Sensor Analog Input (PAIM)	Chapter 5	
	Graphic Symbols	75
	FactoryTalk View SE Faceplates	76
	Operator Tab	76
	Maintenance Tab	77
	Engineering Tab	77
	HMI Configuration Tab	79
Process Analog Output (PAO)	Chapter 6	
	Graphic Symbols	81
	FactoryTalk View SE Faceplates	82
	Operator Tab	82
	Maintenance Tab	82
	Advanced Maintenance Tab	83
	Engineering Tab	84
	HMI Configuration Tab	86
Process Boolean Logic (PBL)	Chapter 7	
	Graphic Symbols	89
	FactoryTalk View SE Faceplates	90
	Operator Tab	90
	Maintenance Tab	91
	Engineering Tab	91
	HMI Configuration Tab	92
	Logic Gate Configuration	93
	View Snapshot	94

Chapter 8	
Process Command Source (PCMSRC)	Command Source Hierarchy Bar 96
	Operator Buttons..... 96
	External Control..... 96
	Maintenance Buttons 97
	Advanced Properties 97
Chapter 9	
Discrete 2, 3, 4-state Device (PD4SD)	Graphic Symbols..... 99
	FactoryTalk View SE Faceplates..... 103
	Operator Tab 103
	Maintenance Tab..... 103
	Advanced Maintenance Tab..... 104
	Engineering Tab 104
	HMI Configuration Tab 106
Chapter 10	
Process Deadband Controller (PDBC)	Graphic Symbols..... 109
	FactoryTalk View SE Faceplates..... 109
	Operator Tab 109
	Maintenance Tab..... 110
	Advanced Maintenance Tab..... 111
	Engineering Tab 111
	HMI Configuration Tab 112
Chapter 11	
Process Discrete Input (PDI)	Graphic Symbols..... 115
	FactoryTalk View SE Faceplates..... 116
	Operator Tab 116
	Maintenance Tab..... 116
	Advanced Maintenance Tab..... 117
	Engineering Tab 117
	HMI Configuration Tab 118
Chapter 12	
Process Discrete Output (PDO)	Graphic Symbols..... 119
	FactoryTalk View SE Faceplates..... 119
	Operator Tab 119
	Maintenance Tab..... 120
	Advanced Maintenance 120
	Engineering Tab 121
	HMI Configuration Tab 122
Chapter 13	
Process Dosing (PDOSE)	Graphic Symbols..... 125
	FactoryTalk View SE Faceplates..... 126
	Operator Tab 126

	Maintenance Tab.....	127
	Advanced Maintenance	127
	Engineering Tab	128
	HMI Configuration Tab	130
	Chapter 14	
Process Analog Fanout (PF0)	Graphic Symbols	133
	FactoryTalk View SE Faceplates	133
	Operator Tab	133
	Maintenance Tab.....	134
	Engineering Tab	134
	HMI Configuration Tab	135
	Chapter 15	
Process High or Low Selector (PHLS)	Graphic Symbols	137
	FactoryTalk View SE Faceplates	137
	Operator Tab	137
	Maintenance Tab.....	138
	Engineering Tab	138
	HMI Configuration Tab	139
	Chapter 16	
Process Interlock (PINTLK)	Graphic Symbols	141
	Interlock States	141
	FactoryTalk View SE Faceplates	142
	Operator Tab	142
	Maintenance Tab.....	142
	Engineering Tab	143
	HMI Configuration Tab	143
	Chapter 17	
Process Lead/Lag/Standby Motor Group (PLLS)	Graphic Symbols	145
	FactoryTalk View SE Faceplates	146
	Operator Tab	146
	Manual Mode Tab.....	146
	Maintenance Tab.....	147
	Advanced Maintenance Tab.....	147
	Engineering Tab	148
	HMI Configuration Tab	149
	Chapter 18	
Process Motor (Power Discrete) (PMTR)	Graphic Symbols	151
	FactoryTalk View SE Faceplates	154
	Operator Tab	154
	Maintenance Tab.....	154
	Advanced Maintenance Tab.....	155
	Engineering Tab	155

	HMI Configuration Tab	157
n-Position Device (PNPOS)	Chapter 19	
	Graphic Symbols	159
	FactoryTalk View SE Faceplates	160
	Operator Tab	160
	Maintenance Tab	161
	Advanced Maintenance Tab	161
	Engineering Tabs	162
	HMI Configuration Tab	165
Process Proportional + Integral + Derivative (PPID)	Chapter 20	
	Graphic Symbols	167
	FactoryTalk View SE Faceplates	173
	Operator Tab	173
	Ramp Wizard Display	173
	Maintenance Tab	173
	Advanced Maintenance Tab	174
	Tuning Tab	177
	Engineering Tabs	177
	HMI Configuration Tab	181
Process Permissive (PPERM)	Chapter 21	
	Graphic Symbols	183
	Permissive States	183
	FactoryTalk View SE Faceplates	184
	Operator Tab	184
	Maintenance Tab	184
	Engineering Tabs	185
	HMI Configuration Tab	185
Process Pressure/Temperature Compensated Flow (PPTC)	Chapter 22	
	Graphic Symbols	187
	FactoryTalk View SE Faceplates	187
	Operator Tab	187
	Advanced Maintenance Tab	188
	Engineering Tab	188
	HMI Configuration Tab	189
Process Restart Inhibit (PRI)	Chapter 23	
	Graphic Symbols	191
	FactoryTalk View SE Faceplates	191
	Operator Tab	191
Process Run Time (PRT)	Chapter 24	
	Graphic Symbols	193
	FactoryTalk View SE Faceplates	193

	Operator Tab	193
	Advanced Tab	193
Process Tank Strapping Table (PTST)	Chapter 25	
	Graphic Symbols	195
	FactoryTalk View SE Faceplates	195
	Operator Tab	195
	Engineering Tab	196
	HMI Configuration Tab	197
Process Valve (PVLV)	Chapter 26	
	Graphic Symbols (Configured as Hand Operated Valve)	199
	FactoryTalk View SE Faceplates (Configured as Hand Operated Valve)	200
	Operator Tab	200
	Maintenance Tab	200
	Advanced Maintenance Tab	201
	Engineering Tab	201
	HMI Configuration Tab	203
	Graphic Symbols (Configured as Motorized Valve)	204
	FactoryTalk View SE Faceplates (Configured as Motorized Valve)	205
	Operator Tab	205
	Maintenance Tab	205
	Advanced Maintenance Tab	206
	Engineering Tab	206
	HMI Configuration Tab	209
	Graphic Symbols (Configured as Solenoid Operated Valve)	210
	FactoryTalk View SE Faceplates (Configured as Solenoid Operated Valve)	211
	Operator Tab	211
	Maintenance Tab	211
	Advanced Maintenance Tab	212
	Engineering Tab	212
	HMI Configuration Tab	215
Mix-proof Valve (PVLVMP)	Chapter 27	
	Graphic Symbols	217
	FactoryTalk View SE Faceplates	218
	Operator Tab	218
	Maintenance Tab	218
	Advanced Maintenance Tab	219
	Engineering Tab	220
	HMI Configuration Tab	222
Process Valve Statistics (PVLVS)	Chapter 28	
	Graphic Symbols	223
	FactoryTalk View SE Faceplates	223
	Operator	223
	Advanced Engineering	224
	Advanced HMI	224

Variable Speed Drive (PVSD)	Chapter 29	
	Graphic Symbols	225
	FactoryTalk View SE Faceplates	229
	Operator Tab	229
	Maintenance Tab	229
	Advanced Maintenance Tab	230
	Engineering Tab	230
	HMI Configuration Tab	233
Process Area Module (raP_Opr_Area)	Chapter 30	
	Graphic Symbols	235
	FactoryTalk View SE Faceplates	235
	Operator Tab	235
	Maintenance Tab	236
	Advanced Maintenance Tab	236
	Engineering Tab	237
	HMI Configuration Tab	238
Process Unit (raP_Opr_Unit)	Chapter 31	
	Graphic Symbols	239
	FactoryTalk View SE Faceplates	239
	Operator Tab	239
	Maintenance Tab	240
	Advanced Maintenance Tab	240
	Engineering Tab	241
	HMI Configuration Tab	243
Generic Equipment Module (raP_Opr_EMGen)	Chapter 32	
	Graphic Symbols	245
	FactoryTalk View SE Faceplates	246
	Operator Tab	246
	Pre-defined State Detail Displays	247
	Maintenance Tab	250
	Advanced Maintenance Tab	251
	Engineering Tab	251
	HMI Configuration Tab	254
	Faults Tab	256
Variable State Machine (raP_Opr_VSM)	Chapter 33	
	Graphic Symbols	257
	FactoryTalk View SE Faceplates	258
	Configuration Page 1	258
	Configuration Page 2	258
	Configuration Page 3	259
	Command Configuration	259
	Select State	260

Generic Equipment Phase (raP_Opr_EPGen)

Chapter 34

Graphic Symbols	261
FactoryTalk View SE Faceplates	261
Operator Tab	261
Manual Control	262
Maintenance Tab	262
Advanced Maintenance	263
Engineering Tab	263
HMI Configuration Tab	266
Faults Tab	267

Parameter and Reports (raP_Tec_ParRpt)

Chapter 35

FactoryTalk View SE Faceplates	269
Parameter Display	269
Report Display	271
Parameter Configuration	273
Report Configuration	274

Operator Prompt (raP_Opr_Prompt)

Chapter 36

Graphic Symbols	275
FactoryTalk View SE Faceplates	276
Operator Tab	276
Engineering Tab	276
HMI Tab	277
Selection	277
Configuration	278
Response	280

Logix Diagnostic Objects

Chapter 37

Logix Change Detector (raP_Dvc_LgxChangeDet)	281
Graphic Symbols	281
FactoryTalk View SE Faceplates	281
Logix Controller CPU Utilization (raP_Dvc_LgxCPU_5x80)	282
Graphic Symbols	282
FactoryTalk View SE Faceplates	283
Logix Redundant Controller Monitor (raP_Dvc_LgxRedun)	287
Graphic Symbols	287
FactoryTalk View SE Faceplates	287
Logix Module Status (raP_Dvc_LgxModuleSts)	289
Graphic Symbols	289
FactoryTalk View SE Faceplates	289
Logix Task Monitor (raP_Dvc_LgxTaskMon)	291
Graphic Symbols	291
FactoryTalk View SE Faceplates	291
Logix Event (raP_Tec_LgxEvent)	293
Graphic Symbols	293
Faceplates	293

Ownership (raP_Opr_Owner)	Chapter 38	
	Graphic Symbols	295
	FactoryTalk View SE Faceplates	295
Arbitration (raP_Opr_ArbitrationQ)	Chapter 39	
	Graphic Symbols	297
	FactoryTalk View SE Faceplates	297
Organizational Scan (raP_Opr_OrgScan)	Chapter 40	
	Graphic Symbols	299
	FactoryTalk View SE Faceplates	299
Organizational View (raP_Opr_OrgView)	Chapter 41	
	Graphic Symbols	301
	FactoryTalk View SE Faceplates	301
FactoryTalk View Customization Tool	Appendix A	
	Overview	303
	Install Tool File	303
	Use the Tool with Library Objects	304
	Modifying the Color Palette	306
	Use the Tool with Other FactoryTalk View Software Files	306
HMI Navigation	Appendix B	
	Tag Naming Conventions	309
Security Policies	Appendix C	
	System Policies	315
	Product Policies	315
	Computers and Groups	319
	Network and Devices	319
	Users and Groups	322
	Connections	322

Notes:

About This Publication

This publication Describes the PlantPax® Add-On Instructions, and associated faceplates that are available in FactoryTalk View SE to develop applications.

Download Firmware, AOP, EDS, and Other Files

Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes from the Product Compatibility and Download Center (PCDC) at rok.auto/pcdc.

When you update software or firmware revisions, we recommend that you verify the impact on performance and memory utilization before implementing the upgrade on the production system. For FactoryTalk® View or ControlLogix® platforms, we recommend that you review the release notes and verify the impact of the upgrade on performance and memory utilization.

You can also verify the compatibility of the upgrade with the installed software and operating systems in use on your PlantPax system. See the [Product Compatibility and Download Center](http://rok.auto/pcdc).

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at rok.auto/literature.

Resource	Description
Selection Guide, publication PROCES-SG001	Helps you understand the elements of the PlantPax system to make sure that you buy the proper components.
Template User Manual, publication 9528-UM001	Provides direction on how to install and deploy PlantPax virtual templates.
Configuration and Implementation User Manual, publication PROCES-UM100	Provides system guidelines and instructions to assist with the development of your PlantPax system.
Rockwell Automation Sequencer Object, Publication PROCES-RM202	Provides an overview of how to use the Rockwell Automation Sequencer Object. The manual includes a Sequencer programming demonstration, example, and configuration instructions.
PlantPax Faceplates for Process Controller Instructions, publication PROCES-RM203	Describes the PlantPax Process instructions, and associated faceplates that are available to develop applications.
PlantPax Process Control Instructions, publication PROCES-RM215	This manual provides a programmer with details about the available Process instruction set for a Logix-based Process controller.
Process Object parameters Spreadsheet, publication, PROCES-RD200	Describes the PlantPax Process object parameters.
PlantPax Visualization Files, publication, PROCES-RD201	Describes the visualization files that are required for the Library of Process Objects.
EtherNet/IP Network Devices User Manual, publication ENET-UM006	Describes how to configure and use EtherNet/IP™ devices to communicate on the EtherNet/IP network.
Ethernet Reference Manual, publication ENET-RM002	Describes basic Ethernet concepts, infrastructure components, and infrastructure features.
System Security Design Guidelines Reference Manual, publication SECURE-RM001	Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment.
UL Standards Listing for Industrial Control Products, publication CMPNTS-SR002	Assists original equipment manufacturers (OEMs) with construction of panels, to help ensure that they conform to the requirements of Underwriters Laboratories.
American Standards, Configurations, and Ratings: Introduction to Motor Circuit Design, publication IC-AT001	Provides an overview of American motor circuit design based on methods that are outlined in the NEC.
Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication IC-TD002	Provides a quick reference tool for Allen-Bradley® industrial automation controls and assemblies.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication SGI-1.1	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
ProposalWorks™ configuration software, rok.auto/systemtools	Helps configure complete, valid catalog numbers and build complete quotes based on detailed product information.
Rockwell Automation Global SCCR tool, rok.auto/sccr	Provides coordinated high-fault branch circuit solutions for motor starters, soft starters, and component drives.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.

Notes:

FactoryTalk View Display Guidelines

Visualization Files

FactoryTalk View SE

Each Add-On Instruction has associated FactoryTalk View SE visualization files that provide a common user interface. You must import these files in the following order:

- Images (.png files)
- Global Objects (.ggfx file type)
- HMI faceplates (.gfx file type)
- Tags (.csv file type)
- Macros (FactoryTalk View SE software only) (.mcr file type)
- Local Message files (.loc file type)

File Type Abbreviations	FactoryTalk View SE	Description
Images (.png)	All .png files in the images folder. IMPORTANT: FactoryTalk View application renames PNG files when they are imported with a .bmp file extension, but the files retain a .png format.	Common icons that are used in the Global Objects and standard displays for all Process Objects.
Global objects (.ggfx)	(raP-5_30-SE) precedes name of the Global Objects.	Examples: (raP-5_30-SE) Common Objects
Standard displays (.gfx)	(raP-5_30-SE) precedes name of the display.	Examples: (raP-5_30-SE) PAI-Faceplate
HMI tags (.csv)	FTViewSE_ProcessLibrary_Tags_5_0_XX.csv where XX = the service release number.	HMI tags are created in a FactoryTalk View SE application to support security and other features on Process Library faceplates. HMI tags can be imported via the comma-separated values file (.csv file type).
Macros (.mcr file)	Macros used for the general library: <ul style="list-style-type: none"> • NavToDisplay • ToggleWithRemark Macro that is used for the PLLS object displays: <ul style="list-style-type: none"> • NavToPLLS_Motor Macros that are used for the Organization TreeView and navigation: <ul style="list-style-type: none"> • DefineShowHWTTreeCmd.mcr • DefineShowTreeCmd.mcr • NavToBusDevice • NavToBusDeviceWithSC • NavToBusDisplay • ShowTreeForObject • NavToDisplay with line of sight • NavToDisplay_with_4_x • NavToDisplayIndirect • NavToFaceplate_with_ETP • NavToVSM 	In a FactoryTalk View SE application, a macro is a series of commands that are stored in a text file.
Local Message Files	<ul style="list-style-type: none"> • SystemMaterialNames • SystemStepDescriptions • SystemSummary 	Local message files used by raP_Opr_EMGen, raP_Opr_EPGen, and raP_Opr_Unit.

Images are external graphic files that can be used in displays. They must be downloaded from PCDC to be used by FactoryTalk View software.

Global object files contain Graphic Symbols that are created once and referenced multiple times on multiple displays in an application. When changes are made to a global object, all instances in the application are automatically updated.

Global objects serve two purposes:

- Toolbox files contain common elements that are used to build faceplate displays.
- Graphic Symbols files contain device symbols that you can use to build your application displays. Select the symbol to open the corresponding faceplate display.

Standard display files, commonly called faceplates, provide a common user interface.

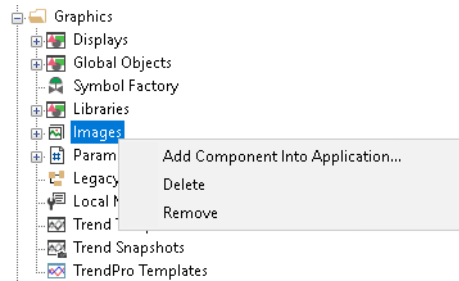
Incorporating the Library HMI Files into your Project

This section describes how to import visualization files for FactoryTalk View SE.

For the latest compatible software information and to download the Rockwell Automation Library, see the Product Compatibility and Download Center.

Import Visualization Files for FactoryTalk View SE

There are several components to import for the visualization files. You import files from the downloaded Rockwell Automation library files via FactoryTalk® View SE.



Import files in this order:

1. Import HMI Images files.
Select all images and Open.
2. Import Global Object files
Select the global object (.ggfx) files.
3. Import HMI Faceplates
Select the faceplate (.gfx) files.
4. Import Macros
Right-click Macro and select Add Component Into Application.
Select all macros and Open.
5. Import Local Message Files (.loc). These files are used with raP_Opr_EMGen, raP_Opr_EPGen, and raP_Opr_Unit.

Import HMI Tags

From the Tools dropdown menu, select Tag Import and Export Wizard. Use the following table to complete the wizard.

On this Dialog Box	Action
Select the operation that you would like to perform	Select 'Import FactoryTalk View tag CSV files'
Choose the FactoryTalk view project that you want to import into	Browse to the .sed project file that you want the HMI tags imported into
Choose the FactoryTalk View CSV files that you want to import	Select the .csv file that is contained within the downloaded Library zipped file
Choose the import options that you want	Select 'Skip existing (fastest)'

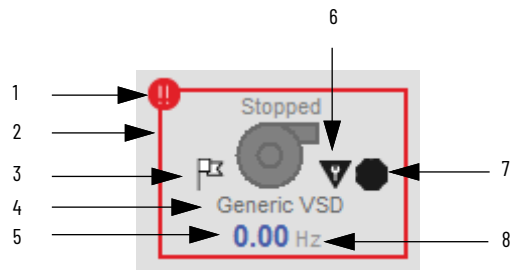
When you finish the wizard the FactoryTalk View - Database Import dialog box appears with the information that the import is complete.

Basic Attributes and Indicators

This section shows examples of visual indicators that are common for graphic symbols in the Rockwell Automation Library of Process Objects. Visual indicators are critical to the daily operation of a plant.

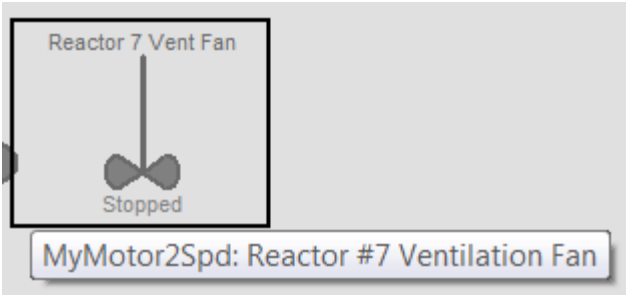
Common attributes of graphic symbols typically include:

- Status/quality/threshold indicator
- Maintenance bypass indicator
- Engineering units
- Label
- Command Source indicator (only for non-analog inputs)
- Alarm border that changes color and blinks on unacknowledged alarm
- Alarm indicator symbol that changes with the severity of an alarm

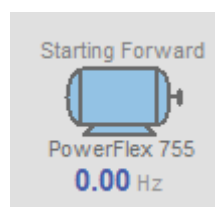


Item	Description
1	Alarm Indicator
2	Alarm Border
3	Command source indicator (In the example the flag indicates not in normal command source)
4	Label
5	Process Variable
6	Maintenance bypass indicator
7	Not Ready indicator
8	Engineering units

Each graphic object includes a touch field over it that opens the faceplate. In addition, there is a tooltip (for FactoryTalk View SE only) on the graphic symbol that displays the configured tag and description.



State Indicators






The State Indicator text and the color change depending on the state of the drive. The indicators and colors are common across all Add-On Instructions.

Color	State
Dark Gray	Stopped, De-energized, Closed
Light Blue	Transitioning, examples: Starting, Jogging, Stopping, Opening, Closing, Moving
Light Blue	Horn
White	Running, Energized, Open

Status Quality Indicators

One of these images appears on the graphic symbol when the described condition is true.

Image	Description	Image	Description
No symbol displayed	I/O communication and quality good, configuration valid		Accelerating
	Invalid Configuration		Decelerating
	Data quality bad / failure		Value is being initialized
	Data Quality degraded: uncertain, test, virtual, substitution, or out of specification		Value has not changed (stuck)
	Device not ready to operate		Value is being replaced
	The input or device has been disabled		Input matches target
	Alarm Inhibit (Suppressed or Bypassed)		input does not match target
	Device in loopback test		Auto loop mode
	At target speed		Manual loop mode
	Speed ref limited to the minimum / maximum		Cascade loop mode
	Value infinite or not a number		Motor not controllable





Image	Description	Image	Description
	value is being held at last good value		Process Variable within setpoint deadband (no control action occurs)
	Input Controlled Variable that is clamped to minimum / maximum		Raise Process Variable output that is energized
	Output Controlled Variable that is clamped to minimum / maximum		Lower Process Variable output that is energized



When the Invalid Configuration indicator appears, you can find what configuration setting is invalid by following the indicators. Select the graphic symbol to open the faceplate. The Invalid Configuration indicator appears next to the appropriate tab at the top of the faceplate to guide you to the configuration error. Once you navigate to the tab, the misconfiguration is flagged with this indicator.





Threshold Indicators

These indicators show that the process variable has exceeded a threshold.

Image	Description
	High-high threshold exceeded
	High threshold exceeded
	Low threshold exceeded
	Low-low threshold exceeded

Deviation Indicators

These indicators warn of exceeding the deviation limits.

Image	Description
	High-high deviation exceeded
	High deviation exceeded
	Low deviation exceeded
	Low-low deviation exceeded

Command Source Indicators

The command source indicator displays by exception only. For example, if the device is operating normally, there is not an indicator. If the device is out of service (OoS), then the OoS indicator is displayed.

Command source indicators are not used for analog inputs.












Image	Description
No symbol displayed	Device is in normal command source operation
	Device is out of service
	Device is not in normal command source operation
	Device is in program command source operation
	Device is in program locked command source
	Device is in maintenance command source operation
	Device is in operator command source operation
	Device is in external command source operation

Image	Description
	Device is in operator locked command source operation
	Device is in override command source operation
	Device is in hand command source operation

Maintenance Bypass Indicator

The maintenance bypass indicator appears to the right of the label to indicate that a maintenance bypass has been activated. The Maintenance bypass indicator also appears when the Substitute PV function is enabled. A Maintenance-entered value supersedes the 'live' process variable.

Image	Description
	A maintenance bypass is active
No symbol displayed	No maintenance bypass is active

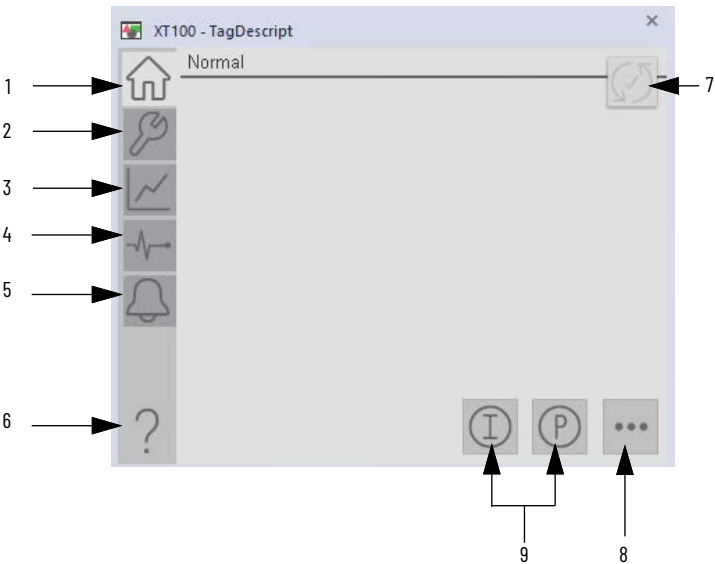


When the Maintenance bypass indicator appears, you can find what condition was bypassed by following the indicators. Select the graphic symbol to open the faceplate. The Maintenance bypass indicator appears next to the appropriate tab at the top of the faceplate to guide you to the bypass. Once you navigate to the tab, the bypassed item is flagged with this indicator.

Basic Faceplate Attributes

Faceplates consist of tabs, and each tab consists of one or more pages. The Operator (Home) tab is displayed when the faceplate is initially opened. The faceplate provides the means for operators, maintenance personnel, engineers, and others to interact with an instruction instance, which includes a view of its status and values. Faceplates also manipulate an instruction through its commands and settings. Select the appropriate icon on the left of the faceplate to access a specific tab. This section provides an overview of the faceplate attributes that are common across the objects. More details are supplied in the individual section for each object.

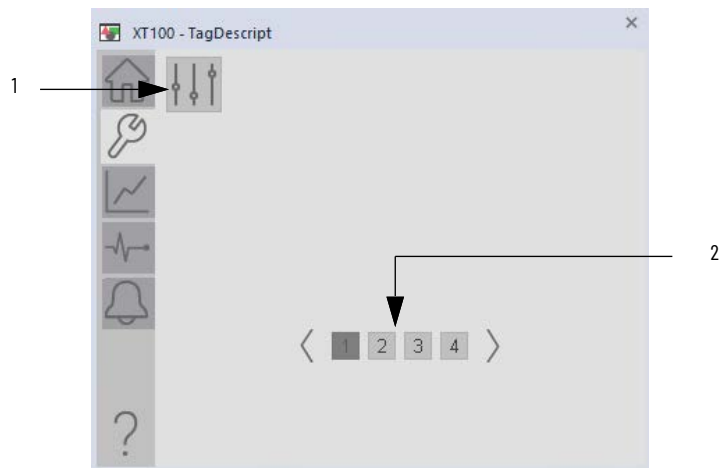
Operator (Home) Tab



Item	Action
1	Select to open the operator tab.
2	Select to open the maintenance tab.
3	Select to open the trends tab.
4	Select to open the diagnostics tab.
5	Select to open the alarm tab.
6	Select to open the help file.
7	Select to reset and acknowledge all alarms.
8	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.)
9	You configure the tag name of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the object's faceplate.
9	If the object is configured to have permissive and interlock objects (for example, Cfg_HasPermObj (Fast or Slow) or Cfg_HasIntlkObj is true), the permissive and interlock indication become buttons. These buttons open the faceplates of the source objects that are used as a permissive or interlock. Often this is a PPERM or PINTLK instruction. If the object is not configured in this way, the permissive or interlock symbols are indicators only.

Maintenance Tab

In the maintenance tab, there is a button for Advanced properties. There are also page identifiers at the bottom if there are multiple configuration pages. See the following diagram for common attributes of the maintenance tab.

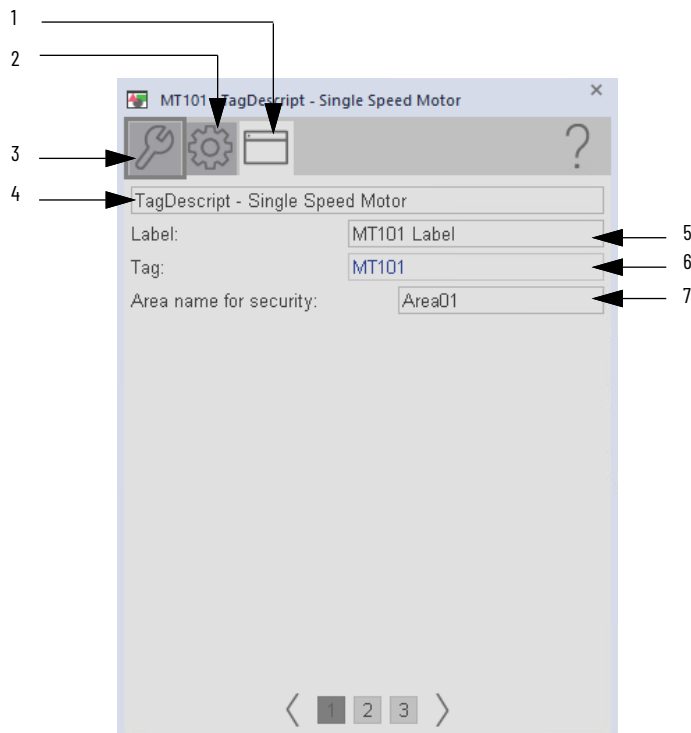


Item	Action
1	Select to open the Advanced Properties.
2	Page identifiers


Advanced Properties

The advanced maintenance, engineering, HMI configuration, Diagnostics, and Faults tabs for the objects are available in the advanced properties faceplate. The advanced maintenance and engineering tabs have object-specific configurations that are detailed for each object.

The HMI configuration tab has settings that are common to the objects. See the following diagram for common attributes of the HMI configuration tab.



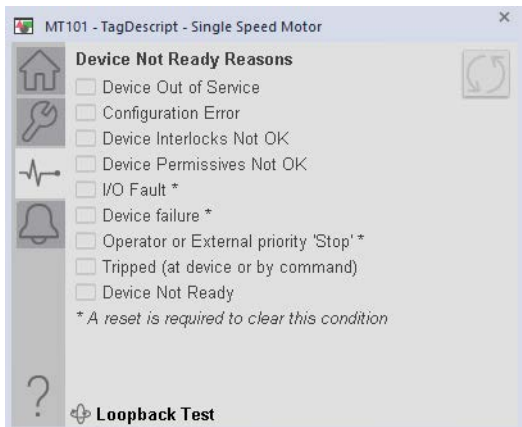
Item	Action
1	Select to open the HMI Configuration tab.
2	Select to open the engineering tab.
3	Select to open the Advanced Maintenance tab.
4	Device description that shows on the faceplate title bar.
5	Label to show on the graphic symbol.
6	Tag name that shows on the faceplate and on the tooltip for graphic symbols.
7	Area name for security.

 Hover the cursor over the tag name to see the actual network path and tag name that is associated with the object.

Diagnostics Tab

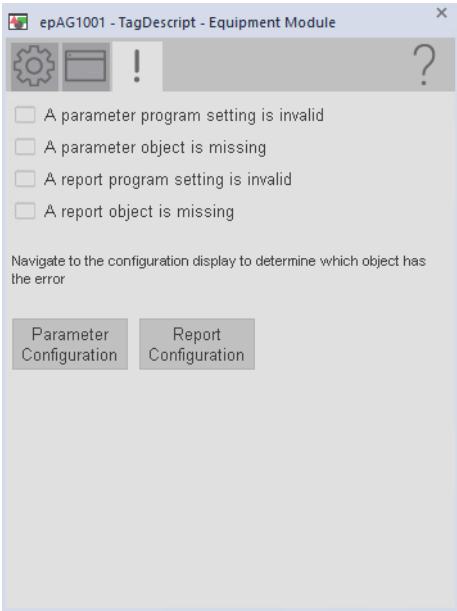
The Diagnostic tab provides indications that are helpful to diagnose or help prevent device problems. These problems can include specific reasons a device is 'Not Ready', device warnings and faults, warning and fault history, and predictive/preventive maintenance data.

The Diagnostics tab displays possible reasons for the device not being ready.



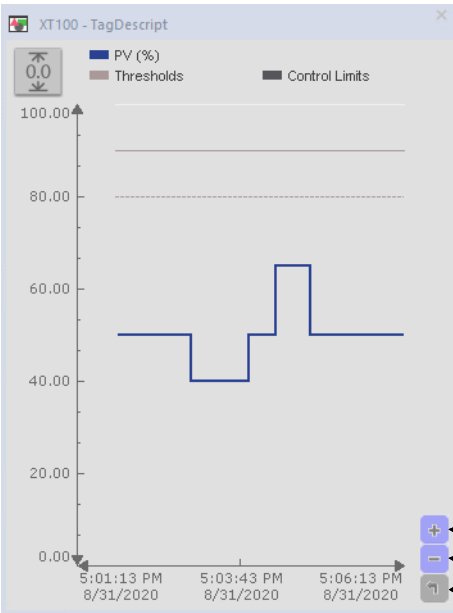
Faults Tab

The faults tab contains specific reasons that the device is not ready.



Trends Display

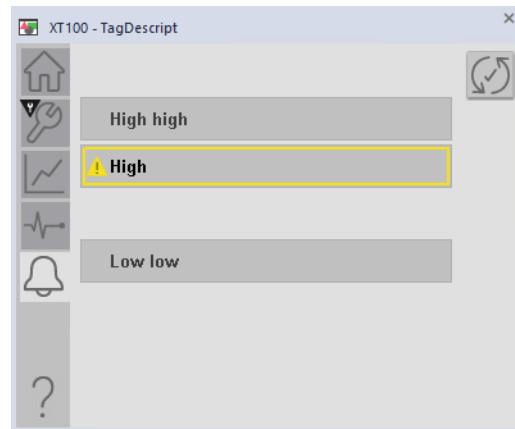
The Trends display shows trend charts of key device data over time. These faceplate trends provide a quick view of current device performance to supplement, but not replace, dedicated historical or live trend displays.



Item	Action
1	Select to zoom in
2	Select to zoom out
3	Select to reset view

Alarms Tab

The Alarms tab displays each configured alarm. The icon on the tab for the alarms page has an outline that changes color to show the current active alarm status.



Help Button

Press the help button on the faceplates to access help specific to that faceplate. The help button can be used to access help files provided with the library download in a .pdf format (See [Help Files on page 34](#)) or any specified URL configured in the object.

See the following example:

Variable Speed Drive Faceplate Help

Status Indicators

Invalid configuration

Data quality bad / failure

Data quality degraded / uncertain

Device not ready to operate

At target Speed

Speed reference limited

Alarm Inhibit (Shelved or Disabled)

Maintenance Bypass active

Virtual (Simulation or Test)

Accelerating

Decelerating

Command Source Indicators

Program

Operator

External

Maintenance

Hand (Local)

Program Locked

Operator Locked

Override

Out of Service

Source other than the normal Command Source selected

Interlocks and Permissives

One or more conditions not OK

Non-Bypassed conditions OK

All conditions OK, Bypass Active

All conditions OK

Alarm Commands

Acknowledge Alarm. This command acknowledges an alarm that has been configured with "Ack Required".

Acknowledge and Reset all alarms for an object. This acknowledges all active alarms and resets all alarms that have been configured with "Reset Required".

Alarm States

Alarm Suppressed (inhibited by logic)

Alarm Disabled (by user)

Alarm Shelved (logged but not annunciated)

Commands

Start Drive Forward. Available in Operator or Maintenance Command Source

Start Drive Reverse. Available in Operator or Maintenance Command Source

Jog Drive Reverse. Available in Operator or Maintenance Command Source

Stop Drive. Available in Operator or Maintenance Command Source

Jog Drive Forward. Available in Operator or Maintenance Command Source

Navigation

Show more information for this object

Restart inhibit display

Motor runtime display

Show device specific information

Alarms

I/O Fault Alarm

The I/O Fault Alarm is triggered when a controller hardware or communication fault is detected.

Interlock Trip Alarm

The Interlock Trip Alarm is triggered when an interlock condition causes the drive to stop.

Fail to Start and Fail to Stop Alarm

These alarms trigger when the drive fails to Start or Stop within the time specified on the Maintenance Configuration Tab.

Drive Fault Alarm

The Drive Fault Alarm occurs when a drive fault is received from the drive.

Alarm Icons

Urgent

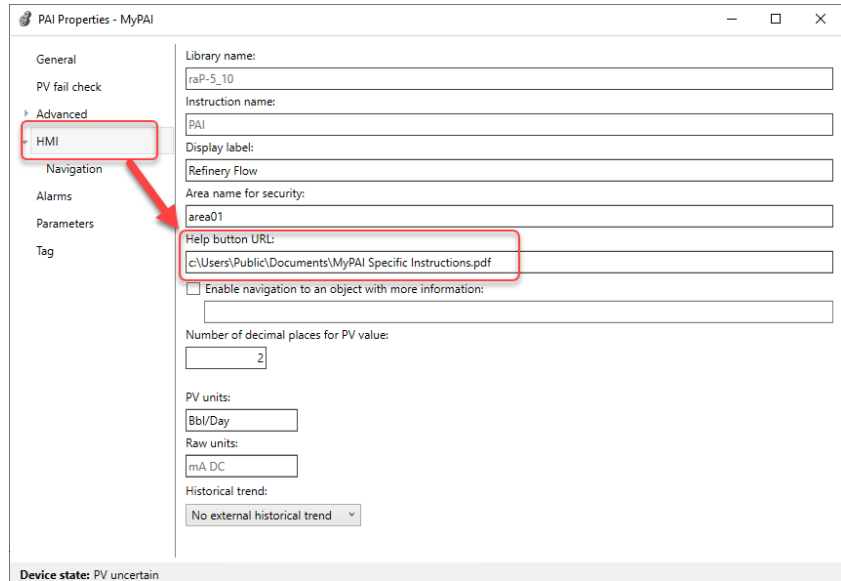
High

Medium

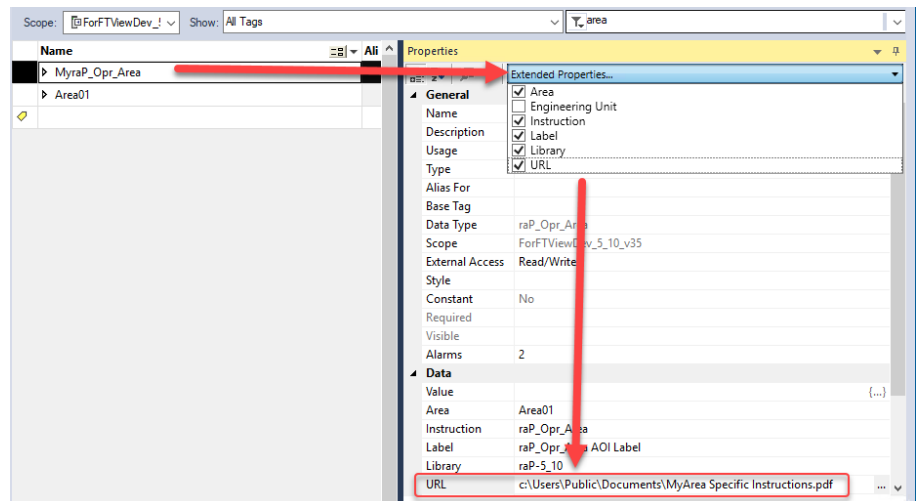
Low

Out of Alarm Ack Required

To use a specific URL with the help button for an object, open the object's dialog box in Logix Designer. Select the "HMI" tab and input the URL under "Help button URL:"



For a library object that is an AOI, find the object base tag in the controller tags. Select the tag and look at the properties panel. The extended tag property "URL" can be updated here.



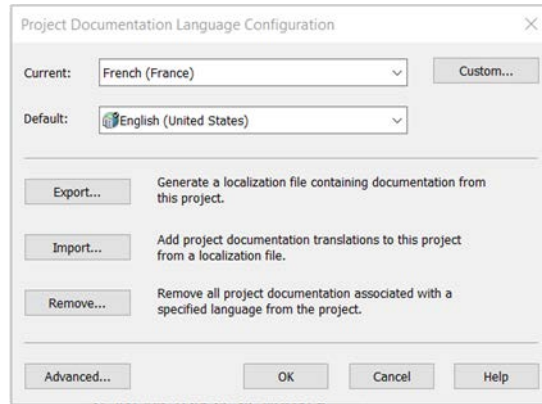
The URL can be any file path or web URL. If the Help button URL is left blank, the button will default to using the Help files provided with the library download.

Language Switching

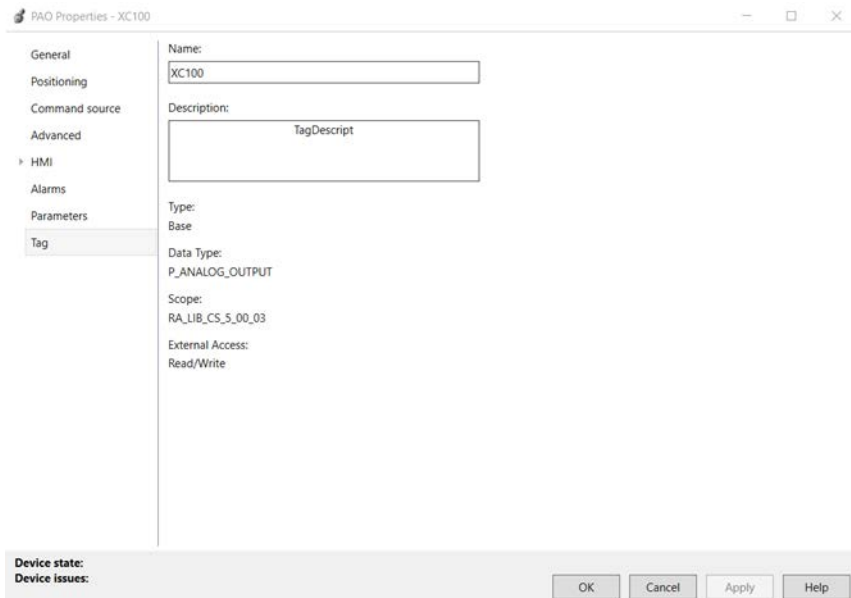
Language Switching in a Controller Project

In the Logix Designer application, to display project content in languages other than English, do the following:

1. Go to Tools > Documentation Languages and select a language in the Current dropdown menu.

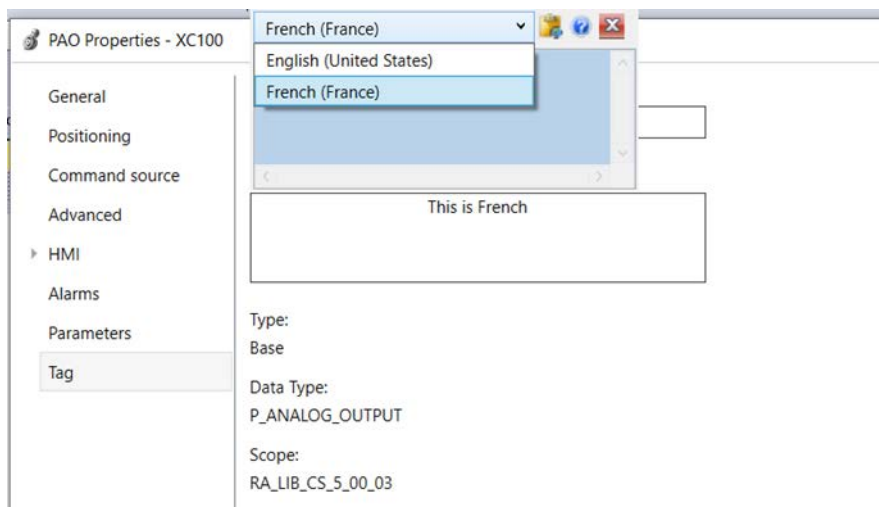


2. Click OK
3. Open a Control Strategy and open the parameters for the main object.
This example shows the Tag properties for a PAO Control Strategy.



4. In the Description box, enter the description text.

- With your cursor in the Description box, you can switch between French and English so that you can enter the text for each language.

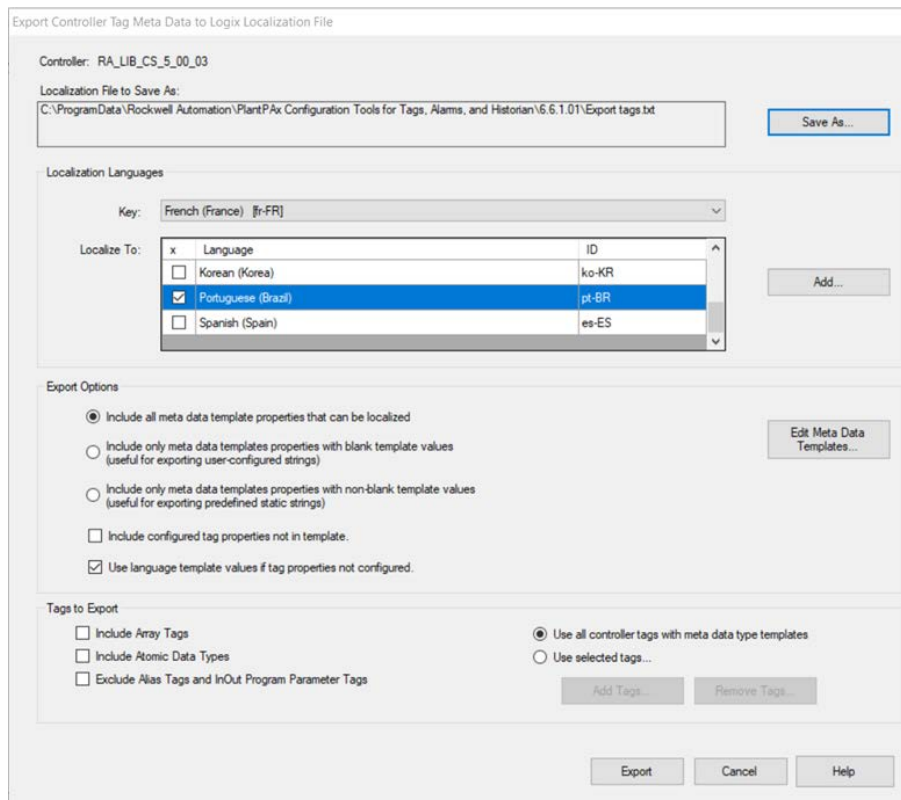


Bulk Edit Translated Content

To edit multiple text strings (rather than opening the properties for each object in your program), use the PlantPAx Configuration Tool.

- Open the PlantPAx Configuration Tool, and if necessary, add the controller for your project.
- Select the controller and select Export Tag Meta Data to Logix Localization File.
- Name the export file and select the files that you want to export.
- Select Use language template values if tag properties not configured.

There are default values in the tag properties for tags in the Control Strategies. These are typical text strings to translate.



5. Select Export

The exported data opens in an Excel® spreadsheet. Adjust the columns widths to see the data. There is one column for each language that you selected. Enter the translated content for each tag property and language.

To import the translated content, open the controller project in the Logix Designer application and select Tools > Documentation Languages > Import and select the spreadsheet file with the translated strings.

Language Switching in a FactoryTalk View SE Project

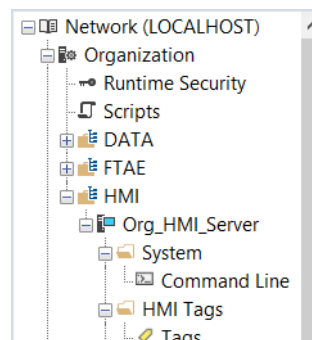
In the library Tools & Utilities > Language Translations > HMI folder, there are already translated strings for the faceplates in the .txt files. The Excel file contains all languages.

Name	Date modified	Type	Size
FTView SE Process Library 5_00 Language Import File.xls	5/11/2021 6:59 AM	Microsoft Excel 97...	3,669 KB
FTViewSE_ProcessLibraryLanguage_CHINESE_zh-CN.txt	5/11/2021 6:59 AM	Text Document	2,244 KB
FTViewSE_ProcessLibraryLanguage_FRENCH_fr-FR.txt	5/11/2021 6:59 AM	Text Document	2,448 KB
FTViewSE_ProcessLibraryLanguage_GERMAN_de-DE.txt	5/11/2021 6:59 AM	Text Document	2,441 KB
FTViewSE_ProcessLibraryLanguage_KOREAN_ko-KR.txt	5/11/2021 6:59 AM	Text Document	2,292 KB
FTViewSE_ProcessLibraryLanguage_PORTUGUESE_pt-BR.txt	5/11/2021 6:59 AM	Text Document	2,436 KB
FTViewSE_ProcessLibraryLanguage_SPANISH_es-ES.txt	5/11/2021 6:59 AM	Text Document	2,440 KB

Import All Languages

If you want to import all of the languages, you can use the Excel spreadsheet.

Open the spreadsheet and adjust the columns as needed. For example, with this project:



Replace (do a Find and Replace All):

/Server:Server with / Organization/HMI:Org_HMI_Server

Save your changes.

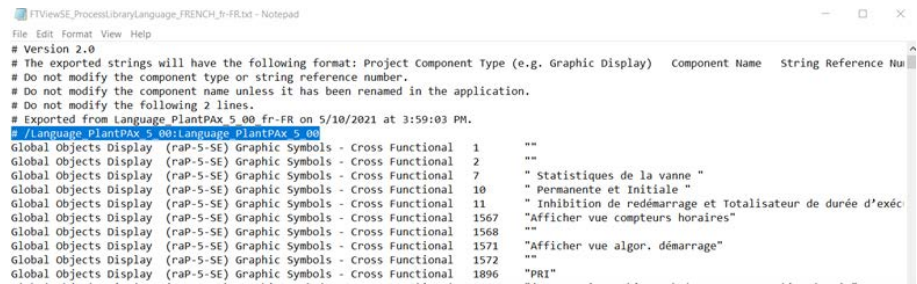
In FactoryTalk® View Studio, to import the updated translation, go to Tools > Languages.

1. Click Add to add languages.
2. Select each language and click Apply.
3. Click Import.
 - Select Import strings from an Excel spreadsheet into all application languages defined in the spreadsheet.
 - Click Next to select the updated file from the library.

It takes a few minutes to import the translated text.

Import a Single Language

Before you can import these files into an HMI project, you must edit the path to the project. To work with a single language, open the file in a text editor.



```

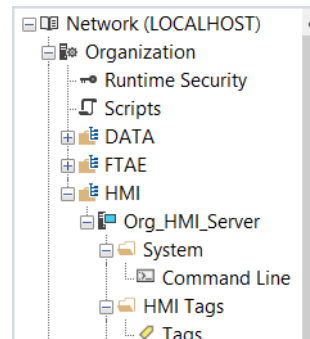
FTViewSE_ProcessLibraryLanguage_FRENCH_fr-FR.txt - Notepad
File Edit Format View Help
# Version 2.0
# The exported strings will have the following format: Project Component Type (e.g. Graphic Display) Component Name String Reference Number
# Do not modify the component type or string reference number.
# Do not modify the component name unless it has been renamed in the application.
# Do not modify the following 2 lines.
# Exported from Language PlantPax 5.00 fr-FR on 5/10/2021 at 3:59:03 PM.
# /Language PlantPax 5.00 /Language PlantPax 5.00
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 1 ""
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 2 ""
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 7 "Statistiques de la vanne"
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 10 "Permanente et Initiale"
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 11 "Inhibition de redémarrage et Totalisateur de durée d'exécution"
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 1567 "Afficher vue compteurs horaires"
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 1568 ""
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 1571 "Afficher vue algor. démarrage"
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 1572 ""
Global Objects Display (rap-5-SE) Graphic Symbols - Cross Functional 1896 "PRI"

```

Edit the highlighted line to the correct path:

/HMI project name/HMI folder:server name

For example, with this project:



Enter:

/Organization/HMI:Org_HMI_Server

Save your changes.

In FactoryTalk View Studio, to import the updated translation, go to Tools > Languages.

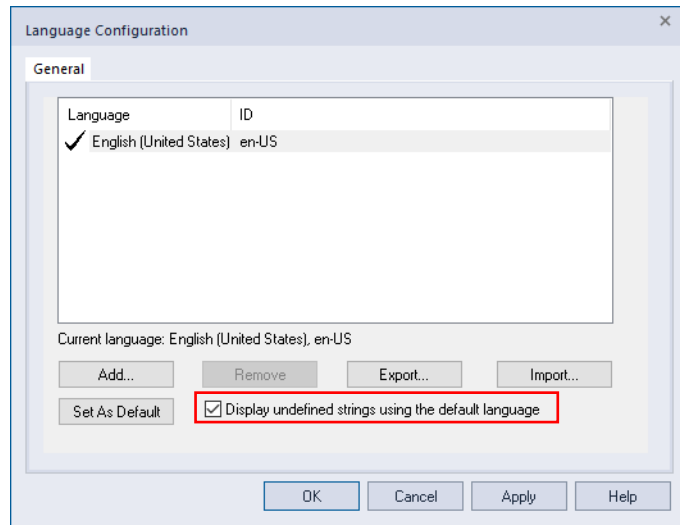
1. Click Add to add a language.
2. Select the language and click Apply
3. Click Import
 - Keep the default selection of Import strings from Unicode text files into en-US.
 - Click Next to select the updated file from the library.

It takes a few minutes to import the translated text.

FactoryTalk View SE Language Configuration

The Library of Process Objects 5.0 utilizes the feature Extended Tag Properties inside Studio 5000 Logix Designer. This allows localization of strings in the controller in the HMI Faceplates provided. When configuring languages (FactoryTalk View Studio - View Site Edition > Tools > Language Configuration) confirm the following checkbox is selected:

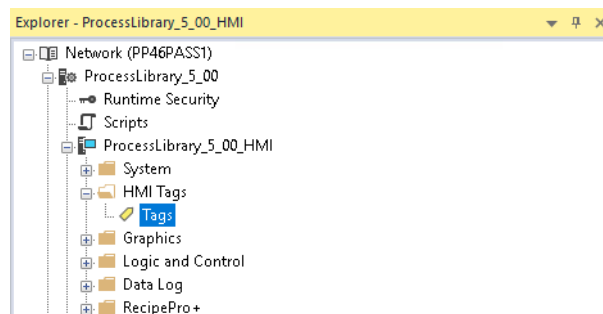
- Display undefined strings using the default language.



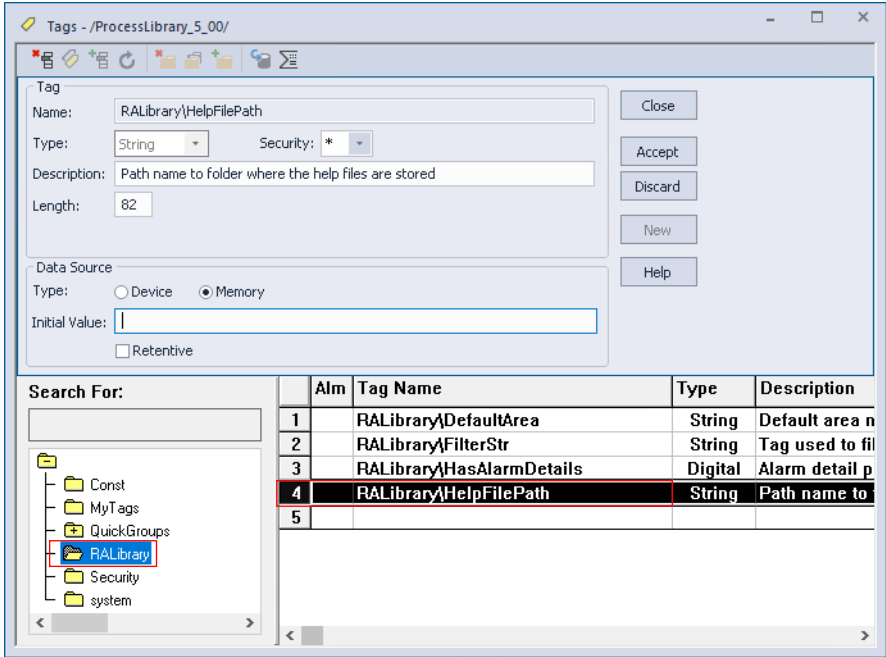
Help Files

The help displays for the Library of Process Objects have been converted to PDF documents. The PDF documents can be displayed from the FactoryTalk View displays by clicking the Help button. The help files are downloaded as part of the Library of Process Objects and are contained in the Documents folder.

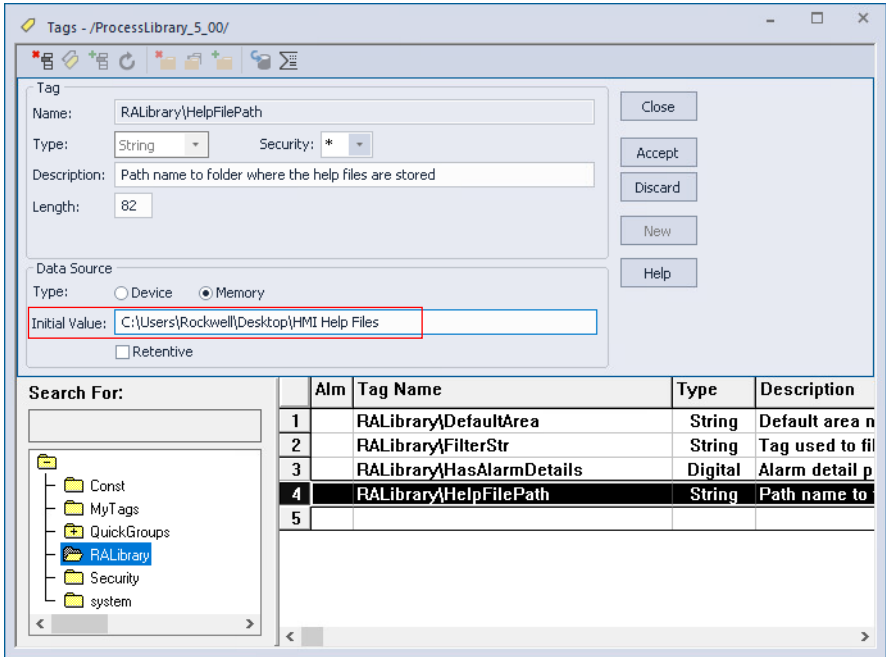
1. Copy the Help files to a folder accessible by the FactoryTalk View clients.
In this example we have copied the files to C:\Users\Rockwell\Desktop\HMI Help Files.
2. Open your project in FactoryTalk View Studio.
3. Open the Tags setting in the Folder Tree.



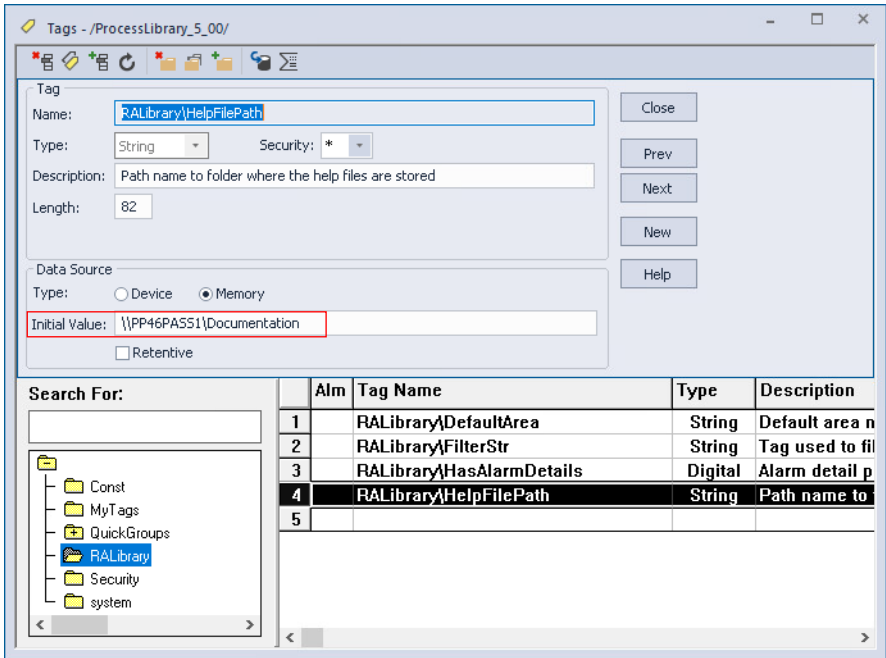
4. Select the RALibrary Folder and then Select RALibrary\HelpFilePath to access the settings for the Help Files.



5. Enter the path to the Help Files into the Initial Data Source Field and Select Accept.
Local Station:

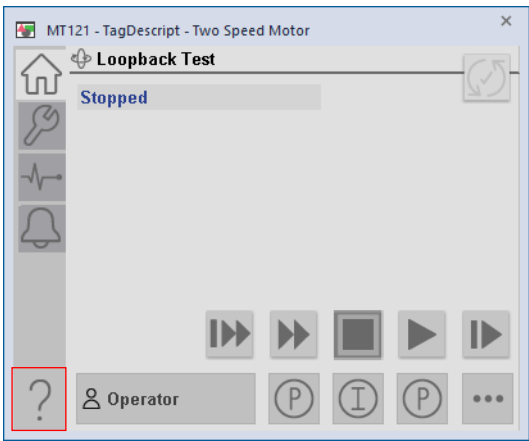


Distributed System Server:



6. Close the settings display.
7. Restart FactoryTalk View Studio for the settings to take effect.

8. The Help Files can now be accessed using the Help button on the HMI Display.



Library Versions

Each library object has a revision x.yy.zz where: x is the Major Revision number, yy is the Minor Revision number, and zz is the Maintenance Release. Each release of the Process Library comes with release notes that describe the changes that were made since the last release.

Component	Example																				
The Add-On Instruction in Logix Designer application has revision information visible when the instruction is selected in the Controller Organizer.	<div><div><div>Assets</div><div>Add-On Instructions</div><div>raP_Dvc_LgxCPU_5x80</div></div><table><tr><td>Description</td><td>Processor Utilization (5380/5580, V33 and la...</td></tr><tr><td>Revision</td><td>v5.0.00 Release</td></tr><tr><td>Revision Note</td><td>See Instruction Help for a summary of cha...</td></tr><tr><td>Vendor</td><td>Rockwell Automation</td></tr><tr><td>Data Type Size</td><td>108 bytes</td></tr><tr><td>Created</td><td>10/20/2008 12:28:26 PM</td></tr><tr><td>Created By</td><td>Not Available</td></tr><tr><td>Edited</td><td>9/17/2020 10:53:43 AM</td></tr><tr><td>Edited By</td><td>PLANTPAXEWS\Rockwell</td></tr><tr><td>Signature ID</td><td><none></td></tr></table></div>	Description	Processor Utilization (5380/5580, V33 and la...	Revision	v5.0.00 Release	Revision Note	See Instruction Help for a summary of cha...	Vendor	Rockwell Automation	Data Type Size	108 bytes	Created	10/20/2008 12:28:26 PM	Created By	Not Available	Edited	9/17/2020 10:53:43 AM	Edited By	PLANTPAXEWS\Rockwell	Signature ID	<none>
Description	Processor Utilization (5380/5580, V33 and la...																				
Revision	v5.0.00 Release																				
Revision Note	See Instruction Help for a summary of cha...																				
Vendor	Rockwell Automation																				
Data Type Size	108 bytes																				
Created	10/20/2008 12:28:26 PM																				
Created By	Not Available																				
Edited	9/17/2020 10:53:43 AM																				
Edited By	PLANTPAXEWS\Rockwell																				
Signature ID	<none>																				
The faceplate in FactoryTalk View software has revision information visible when the pointer is paused just inside the lower left corner of the faceplate.	<div><div><div>raP_Dvc_D4SD - D4SD Description</div><div>Ready</div><div>State 0</div></div><div><div>State 3</div><div>State 2</div><div>State 1</div><div>State 0</div><div>Operator</div></div><div><div>Process Library Digital Four State Device Faceplate</div><div>Revision 5.0-00 BETA C</div><div>(raP-5_00-SE) raP_Dvc_D4SD-Faceplate.gfx</div><div>Copyright © Rockwell Automation, Inc. All Rights Reserved</div></div></div>																				

Configure Runtime Security

Runtime security can be configured for three different capabilities or a blending of those capabilities when deploying the HMI content provided in the Process Library.

- User role (that is, Operator, Engineer, and so on)

- Area
- Line-of-sight

Security by user role restricts users to the actions their role allows. The addition of area security can further restrict those allowed actions to specific areas of the plant. Finally, with the addition of line-of-sight security, the user can be further restricted from performing identified actions to the specific computer they are using. Not all these capabilities are required, you can deploy each security option individually or in any combination.

Refer to [Security Example with Concurrent Implementation of all Three Security Methods on page 53](#) for an example implementation.

Role-Based Security

See [Appendix C](#) for the security policies.



The images in this section depict a single application with both FactoryTalk User Groups and Domain User Groups together. However, it isn't recommended to use both types of user groups in a single application.

Runtime security must be configured to provide each account or user group with the correct FactoryTalk View security codes. The security codes verify that operators, maintenance personnel, and engineers have permission to run secured commands, open secured graphic displays, or write to secured tags at runtime.

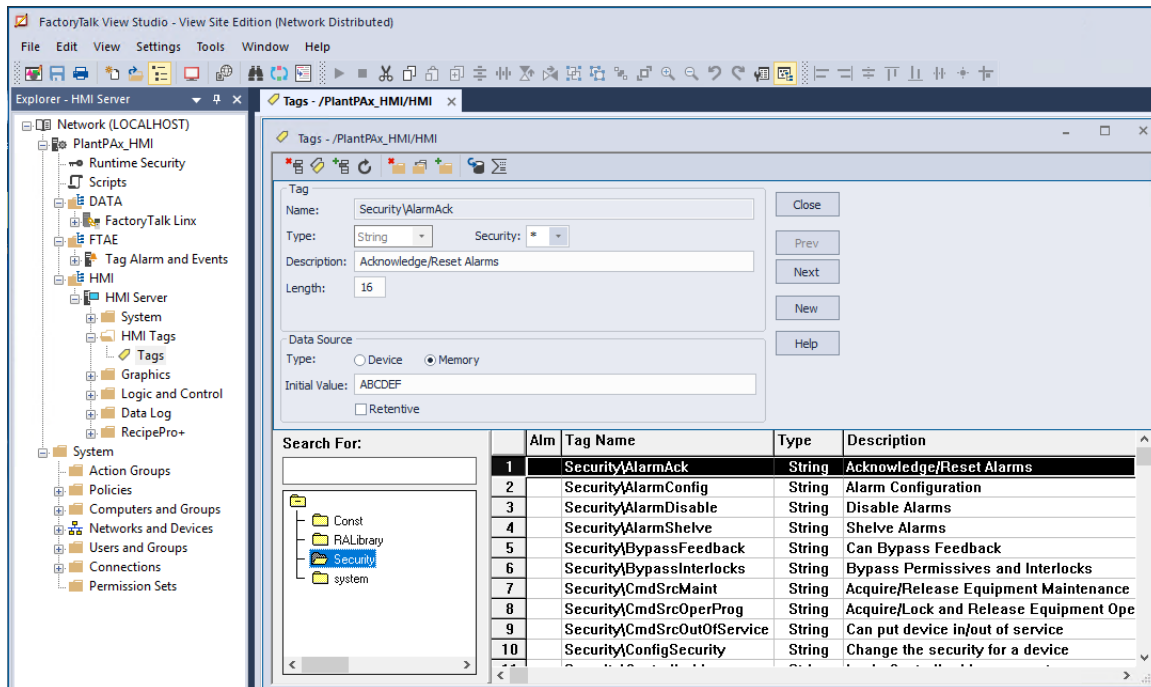
1. On the PASS, go to Rockwell Software > FactoryTalk View > Tools > Tag Import and Export Wizard.

Page	Action
Tag Import and Export Wizard Operations field	From the Operation pull-down menu, select Import FactoryTalk View tag CSV files and click Next.
	From the pull-down menu, select Site Edition and click Browse (ellipsis '...').
	Select the path of SE > HMI Projects > HMI Server.
	Select HMI Server.sed and click Open.
	Click Next and Browse (ellipsis '...') for the FTViewSE_ProcessLibrary_Tags_5_00_xx.CSV file; where xx = the service release number. This file is distributed with the PlantPax Library of Process Objects Library.
	Click Open, click Next twice, and then Finish.
	The import results appear on the Database Import window.

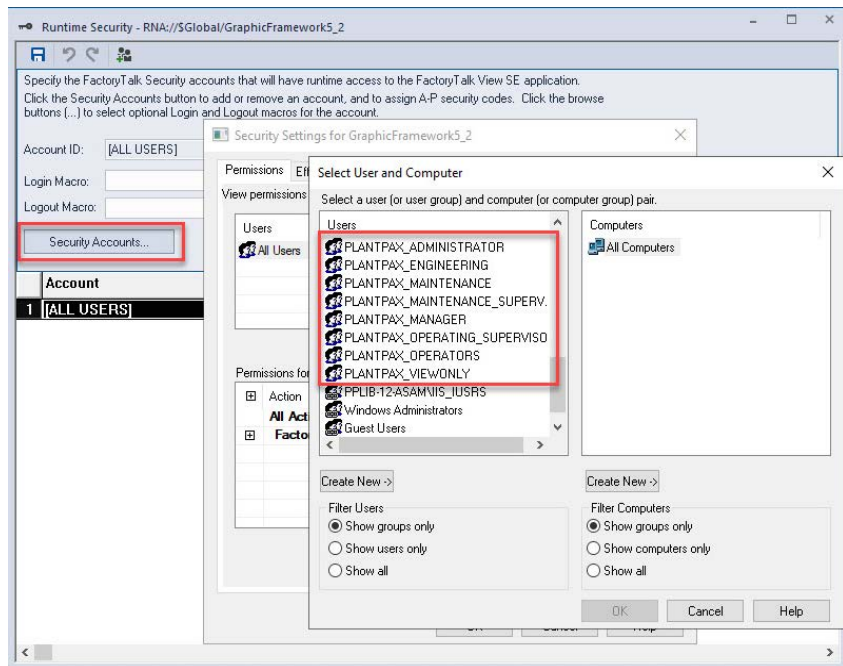
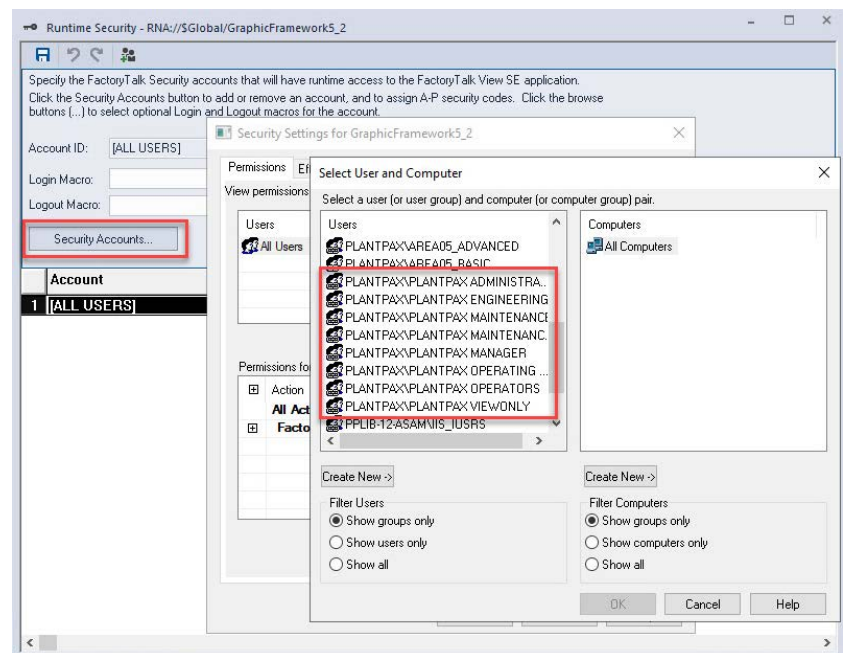
To set security permissions to groups on the workstation, complete these steps.

1. Open the HMI application with FactoryTalk View Studio software.

- Verify that the security tags have been imported by expanding the HMI Area and viewing HMI Tags folders. (Const, RALibrary, and Security)



- Select Runtime Security from the Explorer window or top menu bar under Settings.
- Within Runtime Security, click the Security Accounts button.
- From the Security Settings dialog box, select 'All Users' and click Remove.
- Click Add.
- From the Select Users and Computer dialog box, select a PlantPax group and click OK.

For **FactoryTalk** user groups:For **Domain** user groups:

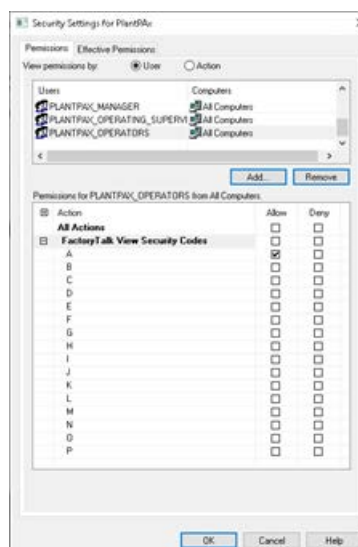
8. Repeat adding users until all PlantPax groups are selected.
9. You can assign security to each PlantPax group based on letters (A...G, P).
10. If you're using e-signature with approval, add the group HMI_Approver. A-P codes aren't required for HMI_Approver.
11. Select a group from the Users list.
The default is that all FactoryTalk View Security Codes are checked Allow.
12. Click the Allow box beside each FactoryTalk View Security Code that you want to allow permission for the selected account.

For example, allow security of 'A' for an Operator.

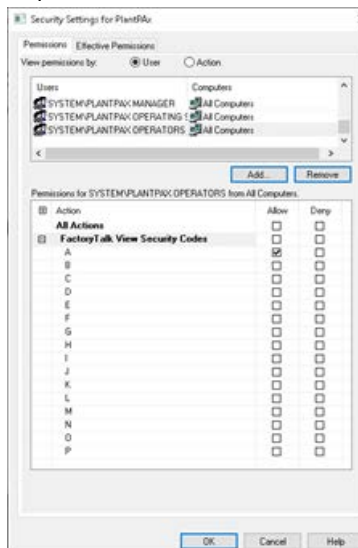
Table 1 - Recommended Group Security Codes

Group	Security Code
Operators	A
Operating Supervisor	B
Maintenance	C
Maintenance Supervisor	D
Engineering	E
Manager	F
Administrator	G
View Only	P

For **FactoryTalk** user groups:

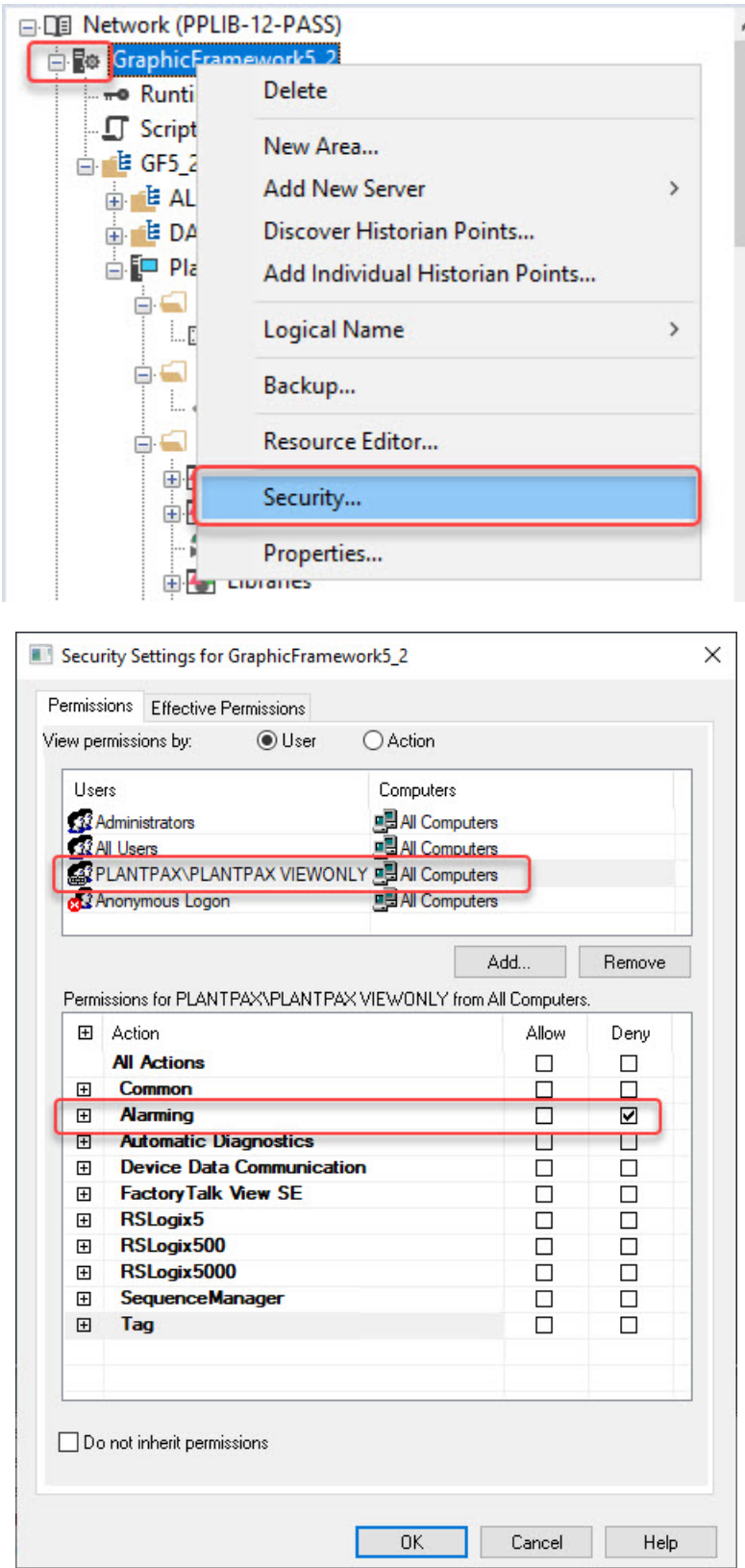


For **Domain** user groups:



- Repeat the steps for each user or group account that you want to configure with runtime security.

For the View Only user group, it is recommended to “Deny” certain security privileges for the application. Right-click your application, select “Security...”. Add the View Only user group and select “Deny” for applicable permissions.



Area-Based Security

Complete these steps to create area **FactoryTalk** user groups for each secure area of a production facility.

1. From the FactoryTalk Administration Console, click '+' to expand System and then click '+' to expand Users and Groups.



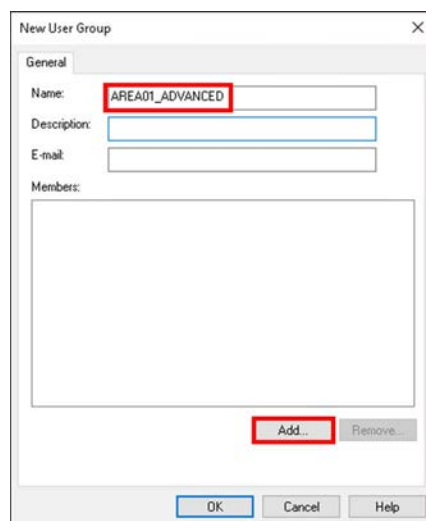
2. Right-click User Groups and choose New>User Group.

On the New User Group dialog box, you must add two groups: 'area01_Advanced,' 'area01_Basic'. These groups define which Area01 Users have basic functions on the faceplate or advanced functions (engineering, maintenance).

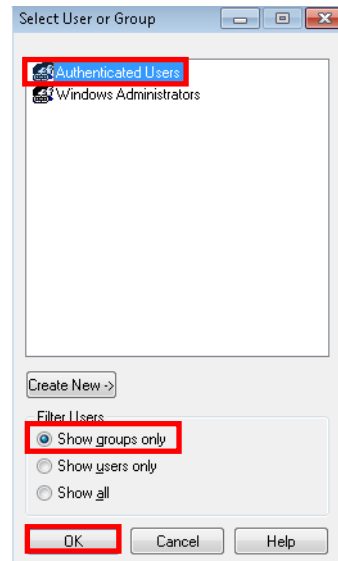


The instructions default to Area01. You may modify the area name in the instruction and group names to meet your needs.

3. To add groups, type the name (example, AREA01_ADVANCED) and click Add.

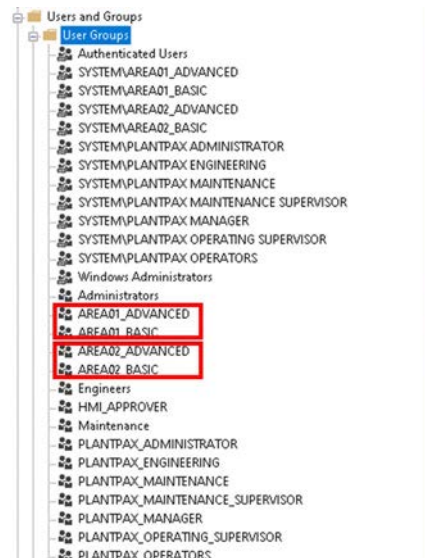


4. Select Authenticated Users and use the default 'Show groups only' and click OK.



5. Click OK again.

Your two groups for AREA01 look like the example.



6. Repeat [step 3](#) and [step 4](#) to add groups for additional areas.

Complete these steps to import area **Domain** user groups for each secure area of a production facility.

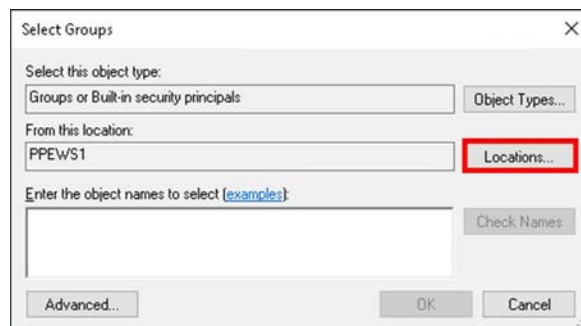
1. From the FactoryTalk Administration Console, click '+' to expand System and then click '+' to expand Users and Groups.
2. Right-click User Groups and choose New>Windows-Linked Group.



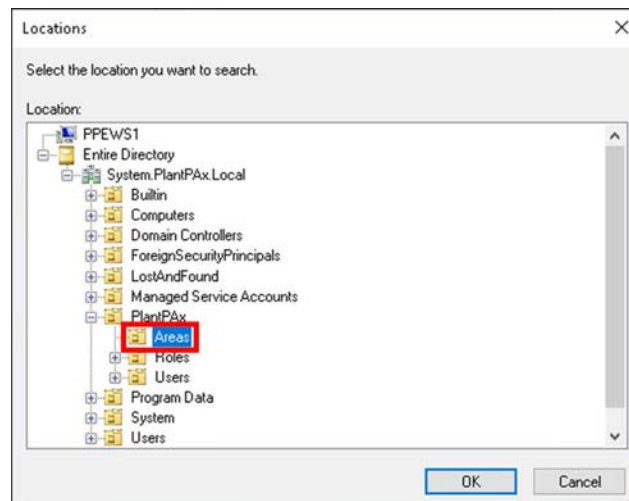
3. Select Add.



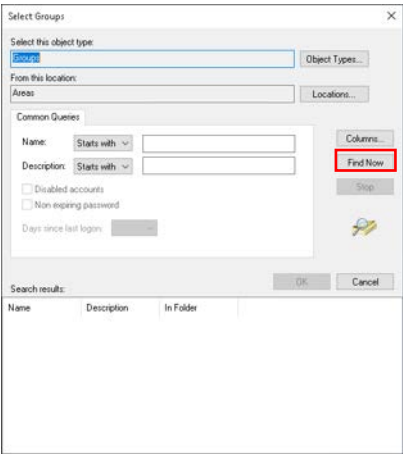
4. Select Locations.



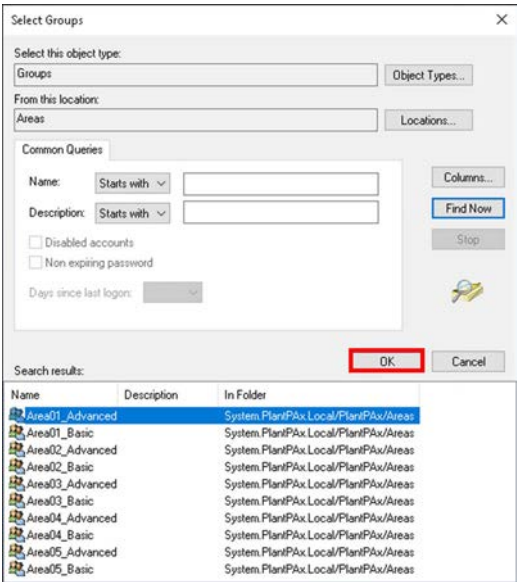
5. Browse to your domain directory where you created areas. For this example System.PlantPax.Local\PlantPax\Areas



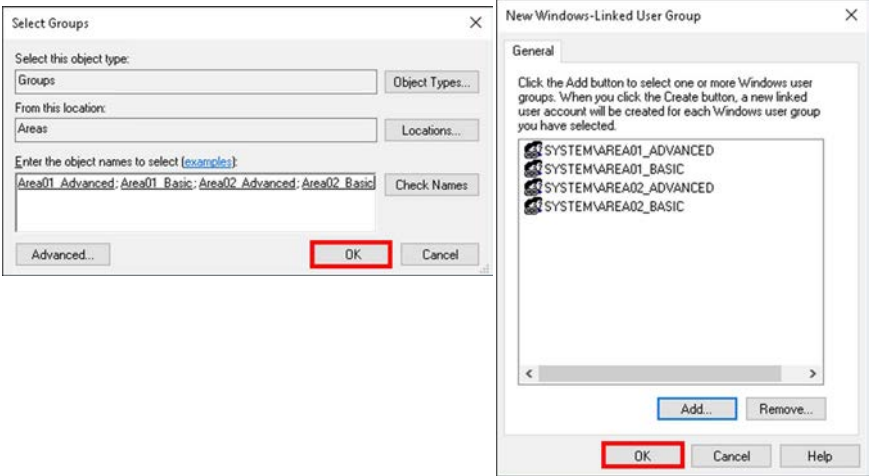
6. Select Find Now.



7. Select all areas from the search results that you want to import.
For this example Area01_Basic, Area01_Advanced, Area02_Basic, Area02_Advanced. Click OK.



8. Select OK on the next two displays.



The domain areas are added to User Groups and look as follows:



Configure an Area

For each object instance in controller code, it's required to configure an area using the instruction dialog box (PlantPax instructions) or extended tag property area (Add-On Instructions). Configuring each instruction with the specified area name will grant or deny permissions on the faceplates for these objects. The following displays use the default value "Area01".



To grant permission on faceplates, the Area name in the controller must match the area that is created within the HMI application (without _Basic \ _Advanced).

For **FactoryTalk** user groups:

Figure 1 - PlantPax Instruction Dialog Box

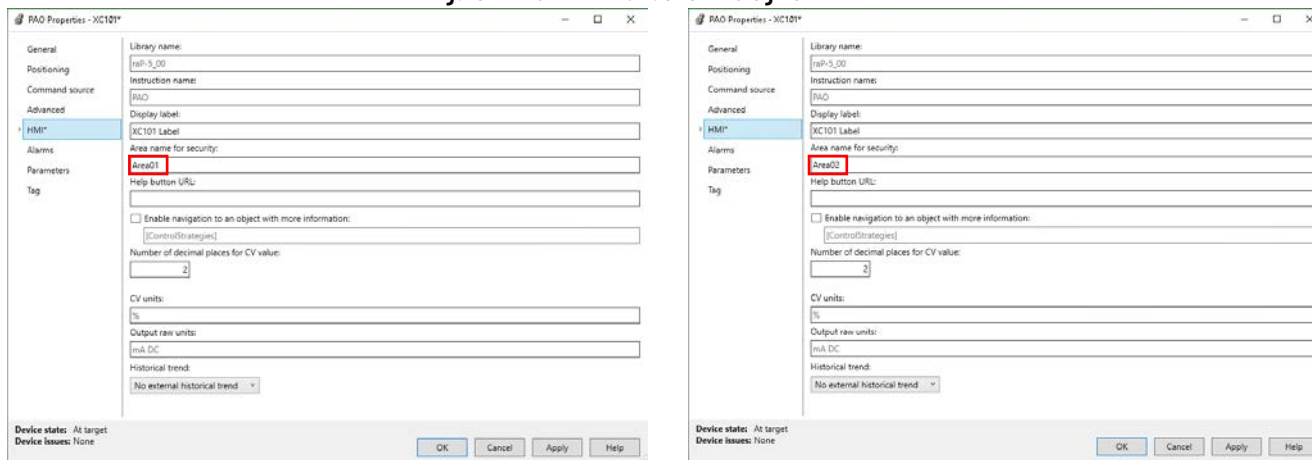
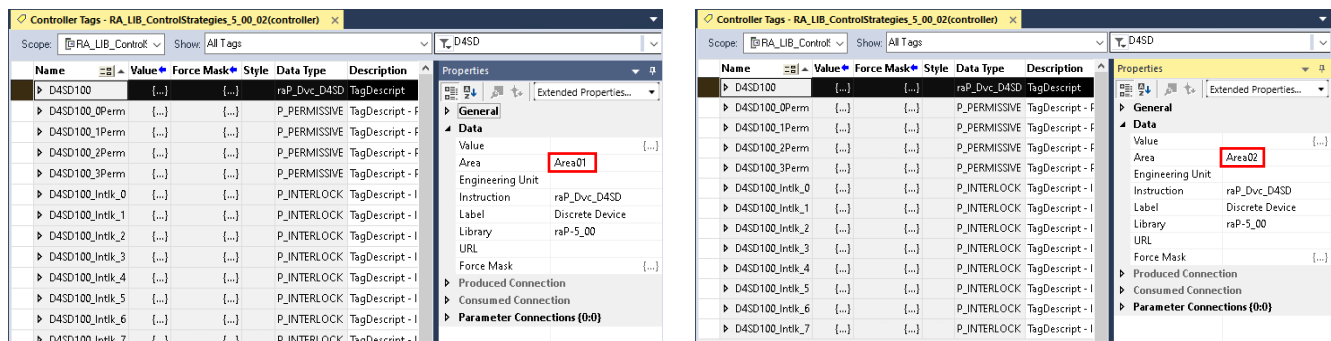


Figure 2 - Add-On Instruction Extended Tag Property



For Domain user groups:

Figure 3 - PlantPax Instruction Dialog Box

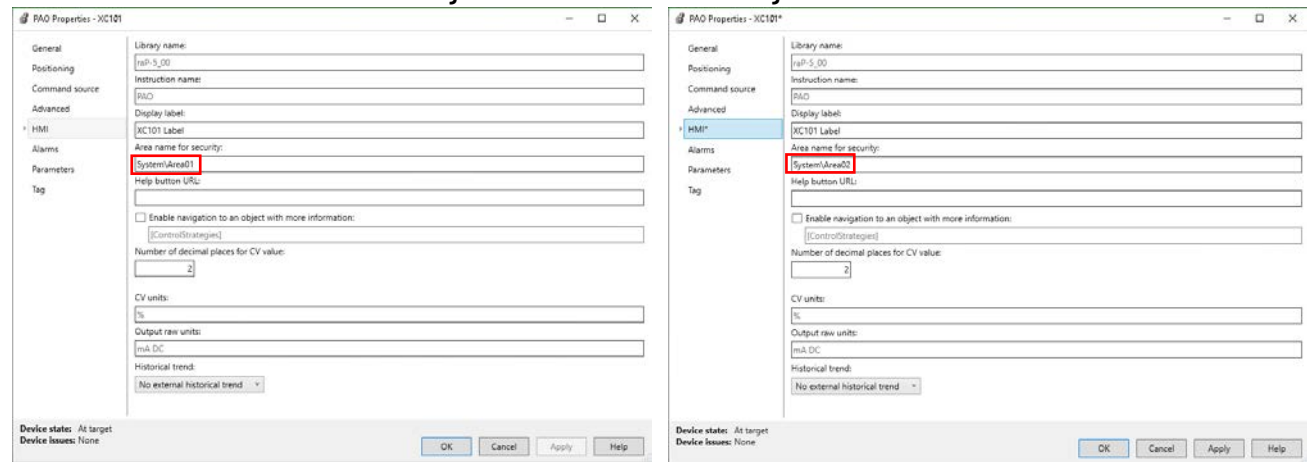
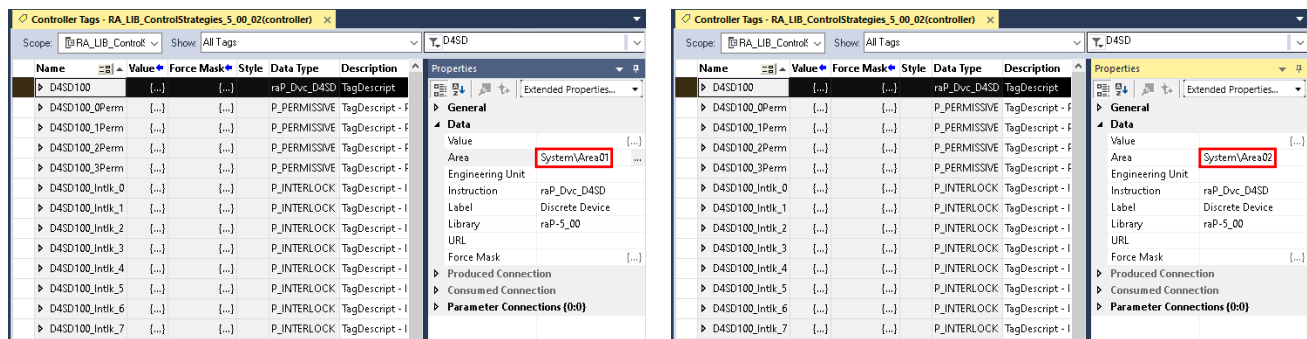


Figure 4 - Add-On Instruction Extended Tag Property



Adding Users to Groups

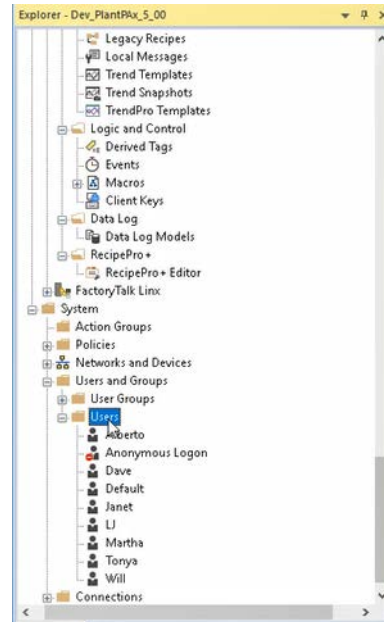
Assign each user to the appropriate user group. Only FactoryTalk users need to be added to Users. Windows-Linked Users are automatically added when Windows-Linked User Groups are added.

With multiple process areas defined (example Area01, Area02), note that each user needs to be assigned not only to the HMI_{group} (example HMI_Operator) but also the “area” group. Operators are assigned to the HMI_Operator group and then also to the Area01_Basic group. This limits operator access to only the faceplate operator controls for devices that are assigned to Area01. Engineers are assigned to the HMI_Engineering group and also to the

Area01_Advanced and Area01_Basic groups. This allows the engineer access to also the advanced engineering features on the faceplates for devices that are assigned to Area_01.

IMPORTANT Users assigned to “Advanced” groups must also be assigned to the corresponding “Basic” groups

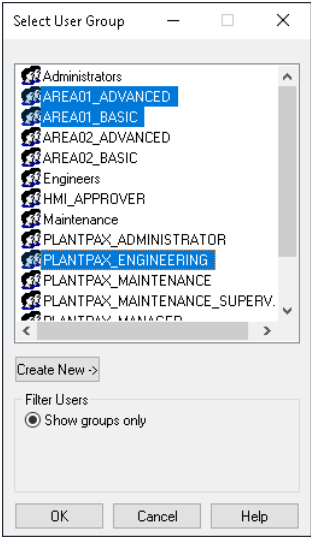
1. Open the HMI application with FactoryTalk View Studio software.
2. Select Users from the menu.



3. Right-click on a user to select that user's properties.
4. Select the Group Membership tab and select Add.

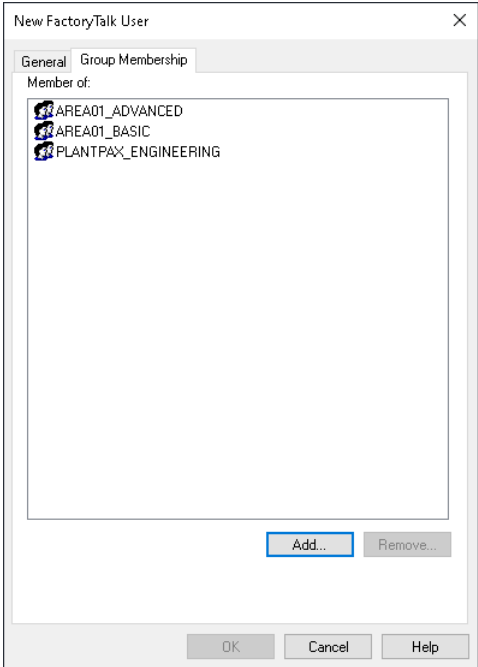


5. Select the groups to assign to the user. (Multiple groups can be selected by holding down the Ctrl key.)



It's recommended that users that belong to the HMI_Engineer and HMI_Maintenance_Supervisor group also be added to both the area01_Basic and area01_Advanced groups.

6. Once added, the groups appear assigned to the user.



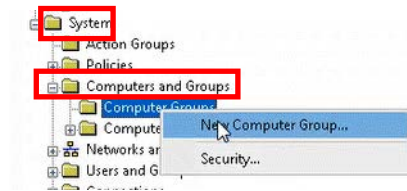
Line of Sight Based Security

The procedures for this functionality require a distributed system. This section describes how to add a desired computer to a group ('Computer Group') and to an area of the plant.

IMPORTANT

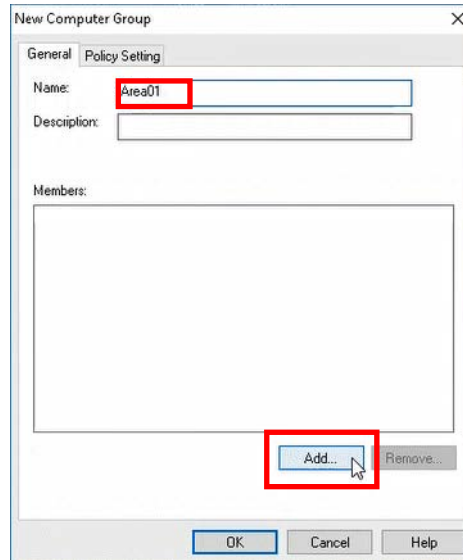
The macro 'NavToDisplay with line of sight' must be added to the project and renamed 'NavToDisplay' to replace the existing 'NavToDisplay'.

1. From the FactoryTalk View Distributed application, click '+' to expand System and then click '+' to expand Computers and Groups.

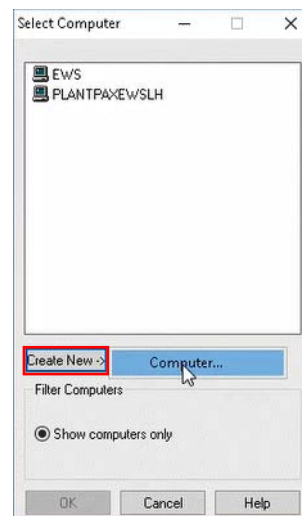


2. Right-click Computer Groups and choose New Computer Group.
3. Enter the area name and click Add.

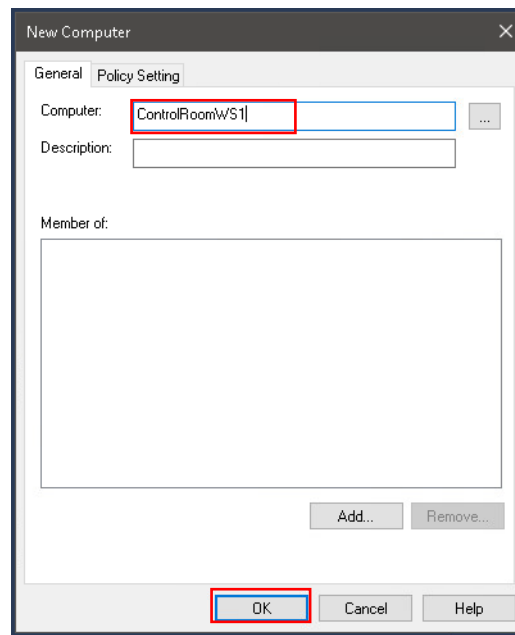
The area name is the same name as the area name configured in the controller. The computer area name does not have the 'Basic' or 'Advanced' suffix.



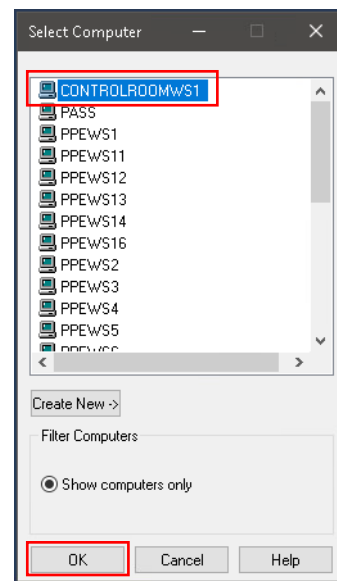
4. On the Select Computer window, select Create New and choose Computer.



5. Enter a desired computer name.



6. Select the name of the desired computer.



7. To add the computer group to the area, click OK.

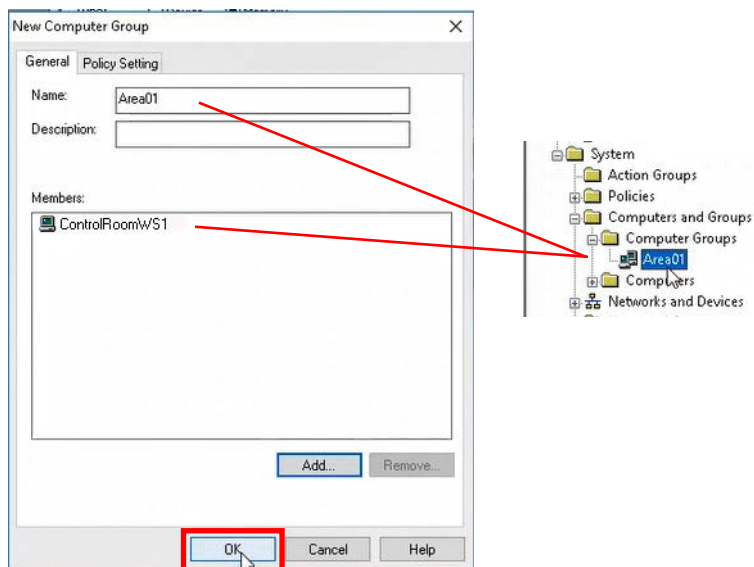
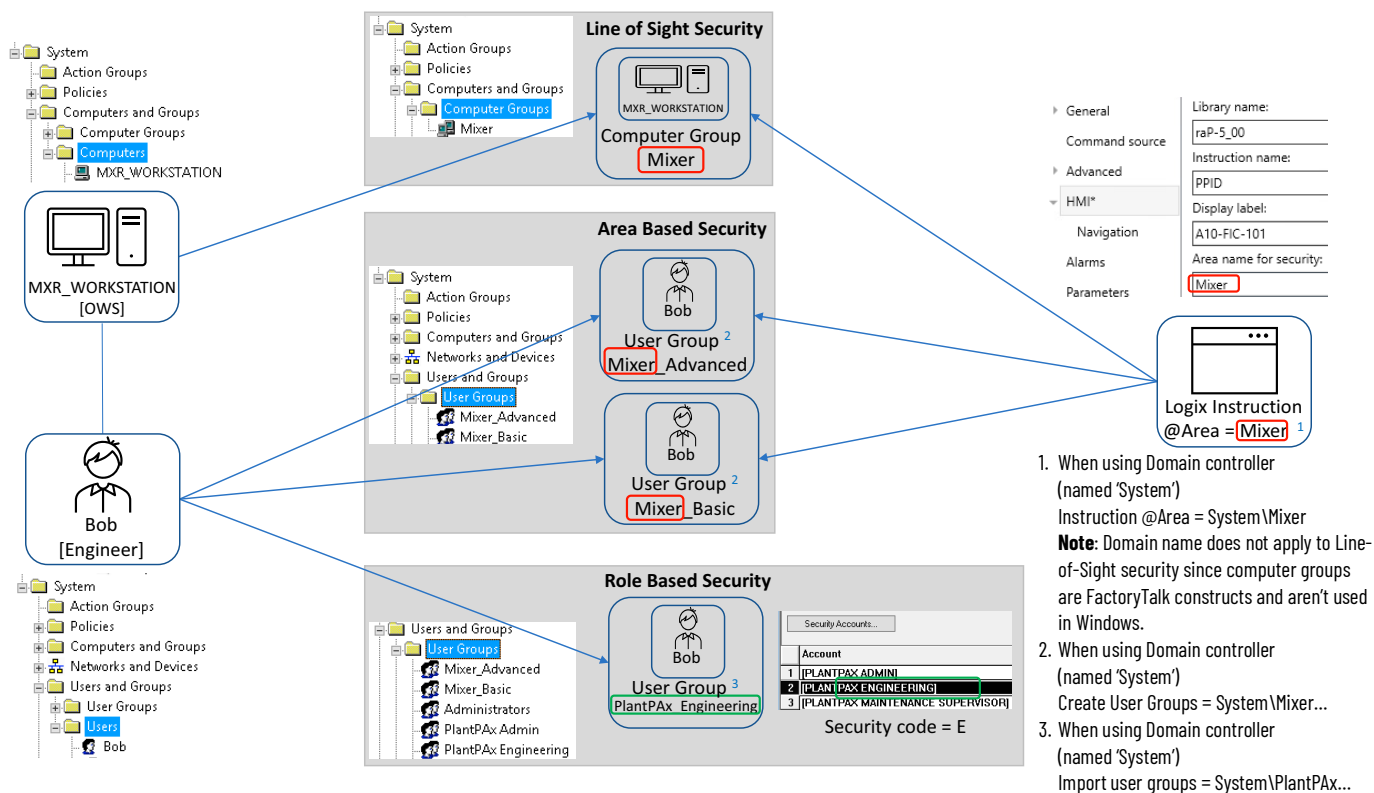




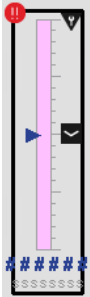
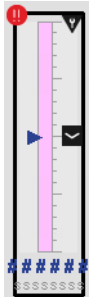

Figure 5 - Security Example with Concurrent Implementation of all Three Security Methods


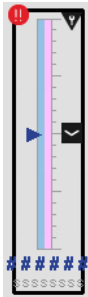
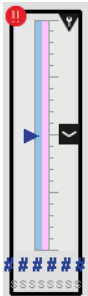



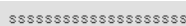
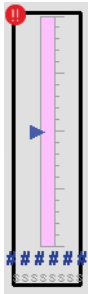


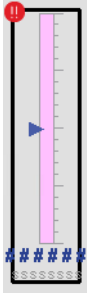
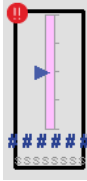
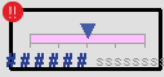
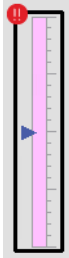
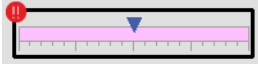
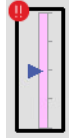

Notes:

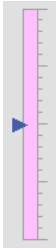
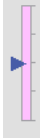


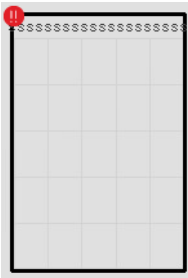
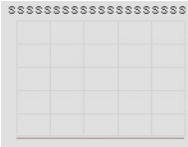
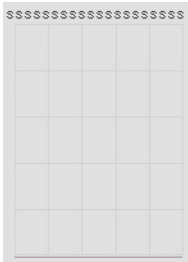
Process Analog Input (PAI)

Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PAI</div> 	Standard analog-input graphic symbol
<div>GO_PAI_Trend</div> 	Analog input with a trend of the Process Variable and limits (high-high, high, low, and low-low).
<div>GO_PAI_Indicator</div> 	Process Variable indicated by a moving triangle. The graphic display includes limits that are displayed with filled bars.
<div>GO_PAI_IndicatorWCCapture</div> 	This object is the same as GO_PAI_Indicator plus a light gray minimum/maximum capture area.
<div>GO_PAI_TrendWCCapture</div> 	Analog Input with Trend of Process Variable and limits (high-high, high, low, and low-low) plus a light gray capture area.

FactoryTalk View SE Graphic Symbol	Description
GO_PAI_Adv_Trend 	This graphic symbol includes a trend with target lines.
GO_PAI_AdvIndicator 	A moving triangle indicates the process variable. The graphic display includes limits that are displayed with filled bars plus a cyan target range (for deviations).
GO_PAI_AdvIndicatorWCCapture 	A moving triangle indicates the process variable. The graphic display includes limits that are displayed with filled bars plus a cyan target range (for deviations) and a light gray minimum/maximum capture area.
GO_PAI_L1 	Displays the process variable value with alarm indication.
GO_PAI_L1_PV 	Displays the process variable value.
GO_PAI_L1_PV1 	Displays the process variable value.
GO_PAI_L1_Label 	Label only. This excludes the process variable value.
GO_PAI_L1_Indicator 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. Includes alarm indication.

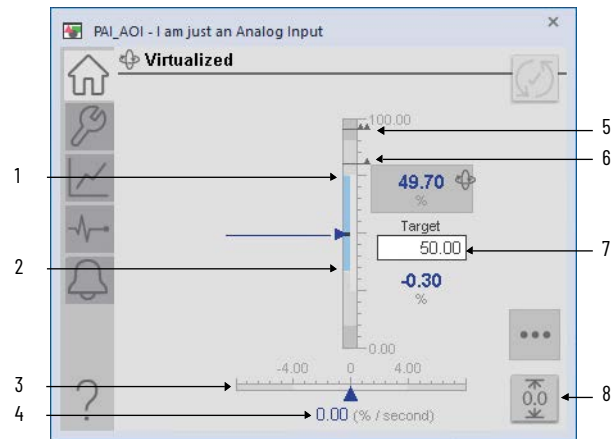
FactoryTalk View SE Graphic Symbol	Description
GO_PAI_L1_HIndicator 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. Includes alarm indication.
GO_PAI_L1_IndicatorS 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. Includes alarm indication.
GO_PAI_L1_HIndicatorS 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. Includes alarm indication.
GO_PAI_L1_BarWAlm 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip. Includes alarm indication.
GO_PAI_L1_HBarWAlm 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip. Includes alarm indication.
GO_PAI_L1_BarWAlmS 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip. Includes alarm indication.
GO_PAI_L1_HBarWAlmS 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip. Includes alarm indication.

FactoryTalk View SE Graphic Symbol	Description
GO_PAI_L1_Bar 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip.
GO_PAI_L1_BarS 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip.
GO_PAI_L1_HBar 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip.
GO_PAI_L1_HBarS 	Process variable that is indicated by a moving triangle. The graphic display includes limits that are displayed with filled bar. The process variable value or EU are not displayed, but can be found in the tooltip.
GO_PAI_Trend1 	Trend of process variable that includes limits (high-high, high, low, and low-low) plus a light gray capture area. Includes alarm indication.
GO_PAI_HistTrend 	Trend of historical process variable values. Analog limits are not included.
GO_PAI_HistTrend1 	Trend of historical process variable values. Analog limits are not included.

FactoryTalk View SE Faceplates

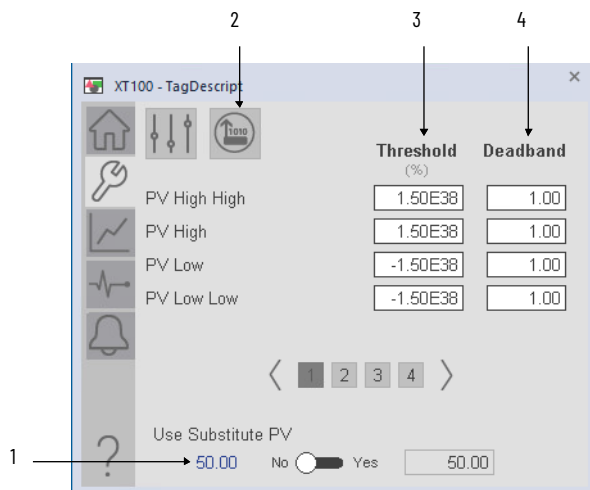
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

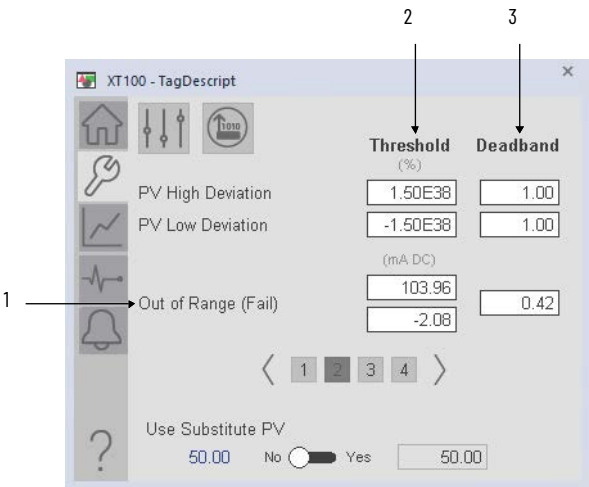


Item	Description
1	High Deviation limit: the label background that changes color based on alarm severity when exceeded.
2	Low Deviation limit: the label background that changes color based on alarm severity when exceeded.
3	The rate of change bar graph (visible if Rate of Change calculations is enabled on the engineering tab).
4	The rate of change value (visible if Rate of Change calculations is enabled on the engineering tab).
5	Control High-High limit
6	Control High limit
7	Process Variable target
8	Reset Rate of Change value to zero

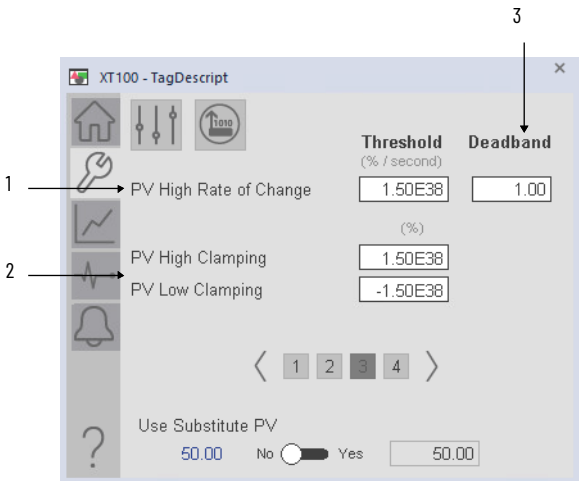
Maintenance Tab



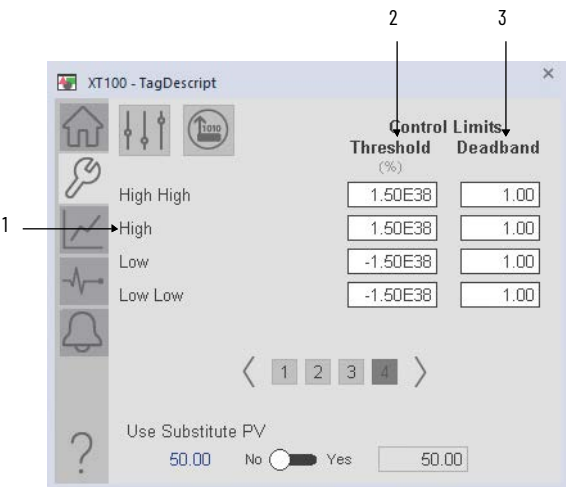
Item	Description
1	Use Substitute PV: Select to input a substitute process variable.
2	Select to display smart device object. See Process Analog HART (PAH) on page 67 .
3	Enter the threshold (trip point) for analog input alarms.
4	Enter the deadband (hysteresis) that applies to each alarm limit. Deadband helps prevent a noisy signal from generating numerous spurious alarms. Example: If the High alarm limit is 90.0 and the High alarm deadband is 5, once the signal rises above 90.0 and generates a High alarm. The signal must fall below 85.0 (90.0 minus 5.0) for the alarm to clear.



Item	Description
1	Out of Range (Fail) low and high threshold values.
2	Process variable deviation low and high threshold values.
3	Deadband associated with each threshold. Enter the deadband (hysteresis) that is applied to each limit.



Item	Description
1	Process variable high rate of change threshold value. There is an alarm that is associated with this configuration. The deadband can be configured in the advanced maintenance settings.
2	Process variable clamping low and high threshold values. Any process variable below the low value or above the high value will be held at the low or high value respectively.
3	Deadband associated with each threshold. Enter the deadband (hysteresis) that is applied to each limit.



Item	Description
1	Process variable control condition high high, high, low, and low low threshold values.
2	Process variable deviation low and high threshold values.
3	Deadband associated with each threshold. Enter the deadband (hysteresis) that is applied to each limit.

Advanced Maintenance Tab

1 → Minimum time Out of Range to raise Status (sec) 0.000

2 → Minimum time In Range to clear Out of Range Status (sec) 0.000

3 → Time with no change in Input to raise Stuck Status (sec) 60.000

Clamp Limits

PV High Clamping (%) 1.50E38

PV Low Clamping (%) -1.50E38

When the difference between the PV and the clamp limits (in %) is less than this value, the PV will snap to the nearest clamp limit (0 disables this feature) 0.00

0.00 100.00

Item	Description
1	Enter the amount of time the input must stay within the range thresholds (with deadband) to clear the Out of Range (fail) condition. The off-delay time is used to help prevent a chattering fail detection on a noisy signal near a range threshold.
2	Enter the amount of time the input must stay beyond a range threshold to cause an Out of Range (fail) condition. The on-delay time is used to avoid an unnecessary fail detection when the input only momentarily exceeds the threshold.
3	Enter the amount of time the input must remain unchanged to trigger a stuck input condition. A value of zero means that the input must change every instruction scan to avoid a stuck input condition. Enter a large value to disable stuck input detection.
4	Process variable clamping configuration. This includes the clamping low and high threshold values and the clamping deadband.

Threshold gate delay (seconds)

PV High High 0.000

PV High 0.000

PV Low 0.000

PV Low Low 0.000

PV High Deviation 0.000

PV Low Deviation 0.000

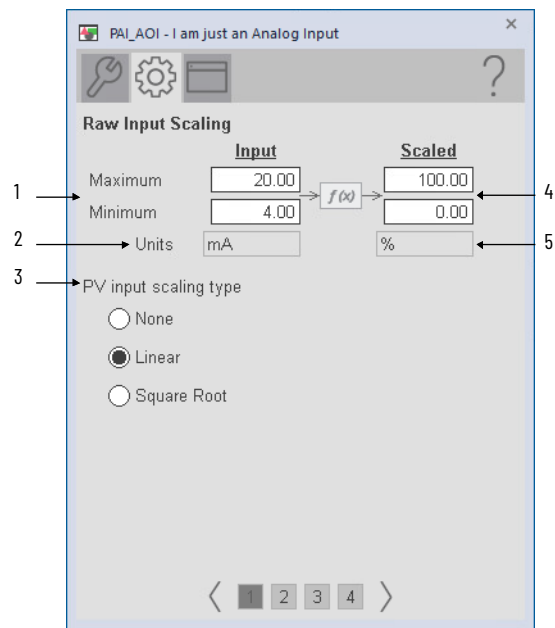
PV High Rate of Change 0.000

PV Out Of Range 0.000

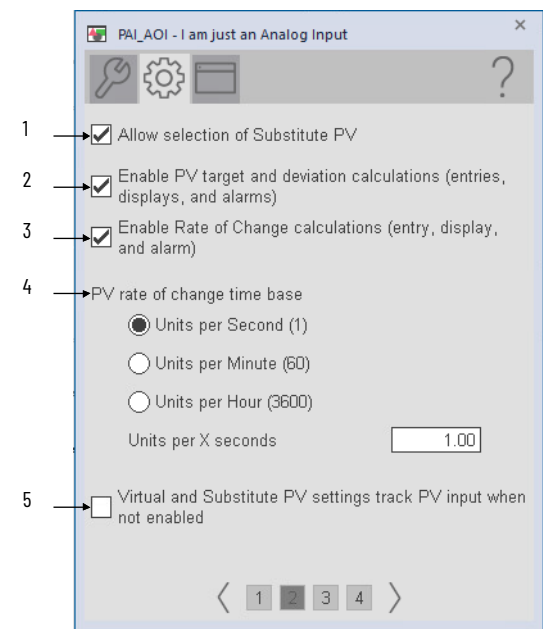
1 2

Item	Description
1	Process variable high high, high, low, and low low threshold gate delay (seconds).
2	Process variable high and low deviation threshold gate delay (seconds).
3	Process variable high rate of change threshold gate delay (seconds).
4	Process variable out of range threshold gate delay (seconds).

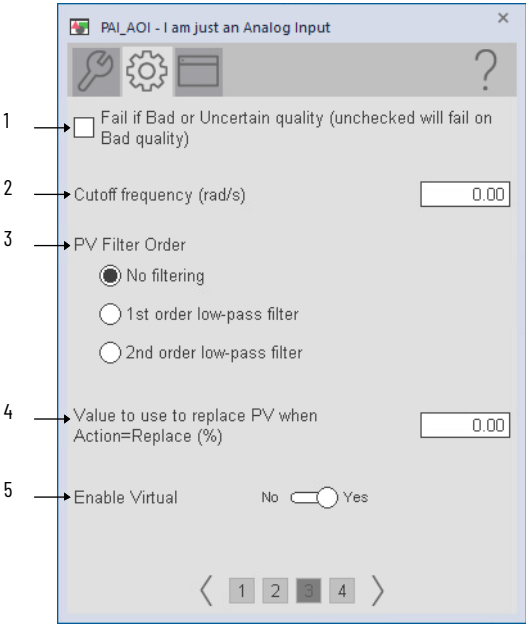
Engineering Tab



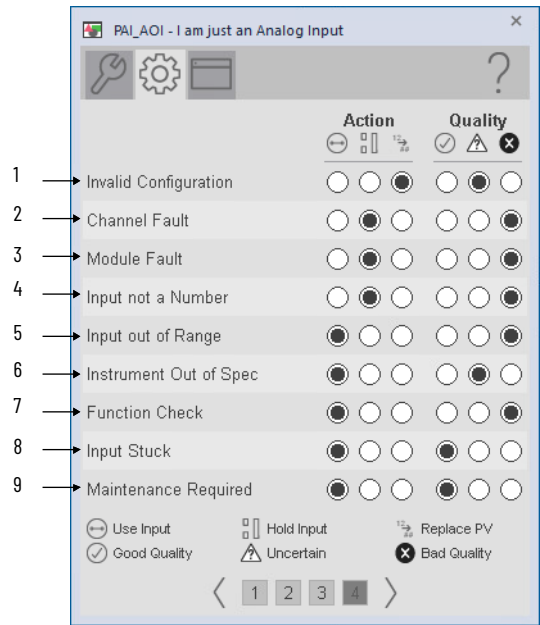
Item	Description
1	Input (unscaled) minimum and maximum These parameters must be set to the range of the signal that is connected to the Inp_Process Variable Input. The raw minimum default is 0.0 and the raw maximum default is 100.0. Example: If your input card provides a signal from 4.0...20.0mA, set Cfg_InpRawMin to 4.0 and Cfg_InpRawMax to 20.0. The raw minimum/maximum and engineering units minimum/maximum are used for scaling to engineering units.
2	Enter the Raw Input units to display on the HMI.
3	PV scaling type selection. Square root can be configured for differential pressure applications.
4	EU minimum and maximum for scaling These parameters must be set to match the Process Variable range of the input signal that is connected to Inp_PV. The Process Variable engineering units minimum default is 0.0 and the Process Variable engineering units maximum is 100.0. Example: If your input card provides a signal from 4...20 mA that represents - 50...+250 °C, set Cfg_PVEUMIN to -50.0 and Cfg_PVEU maximum to 250.0. The raw minimum/maximum and Process Variable engineering units minimum/maximum are used for scaling to engineering units.
5	Enter engineering units for display on the HMI. Percent (%) is the default.



Item	Description
1	Process variable substitution is allowed or not allowed. The substitute PV allows for an entry of the PV from the HMI, which overrides the read PV.
2	Select to enable process variable target calculations, display, and alarms.
3	Select to enable Rate of Change target calculations, display, and alarms.
4	Process variable rate of change configuration.
5	Configure if the virtual and substitute process variables track the active process variable.



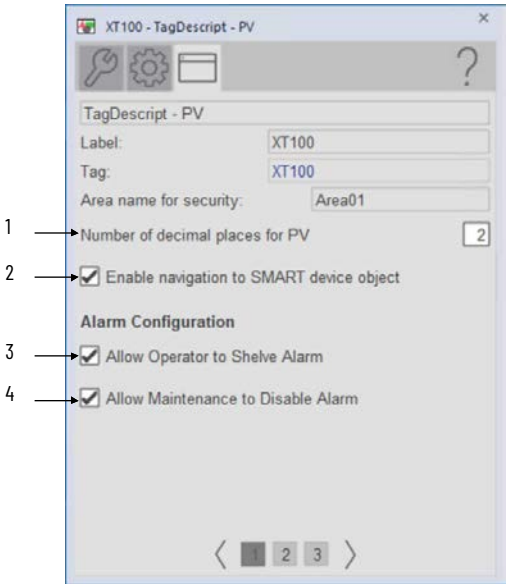
Item	Description
1	Configure if object fails on uncertain signal quality
2	Filter cutoff frequency. rad/s
3	Filter configuration: no filter, 1st order, 2nd order
4	Process variable replacement value for when the action is "Replace". There are multiple action configurations. For example, if the Channel Fault action is configured to "Replace", this replace value is used in the event of a channel fault.
5	Enable or disable virtual mode



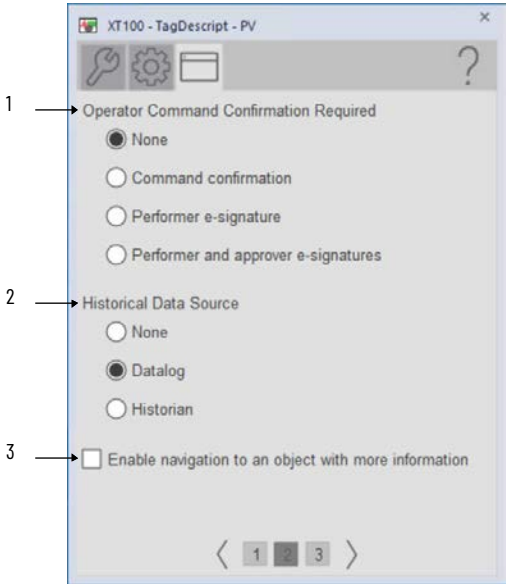
Item	Description	Item	Description
1	<p>Action: When the P_InChan configuration is not valid: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal</p> <p>Quality: When the P_ configuration is not valid: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad</p>	5	<p>Action: When the input is out of range: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal</p> <p>Quality: When the input is out of range: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad</p>
2	<p>Action: When there is a channel fault: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal</p> <p>Quality: When there is a channel fault: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad</p>	6	<p>Action: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal</p> <p>Quality: When the input is out of spec: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad</p>
3	<p>Action: When there is a module fault: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal</p> <p>Quality: When there is a module fault: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad</p>	7	<p>Action: When Inp_FuncCheck is set: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal</p> <p>Quality: When Inp_FuncCheck is set: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad</p>

Item	Description	Item	Description
4	Action: When the input is not a number: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal Quality: When the input is not a number: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad	8	Action: When the input is stuck (no change): Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal Quality: When the input is stuck (no change): Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad
9	Action: When Inp_MaintReqd is set: Use the input to determine value Hold value at its last good value Set value by using Cfg_PVReplaceVal Quality: When Inp_MaintReqd is set: Set Sts_PVGood Set Sts_PVUncertain Set Sts_PVBad	N/A	N/A

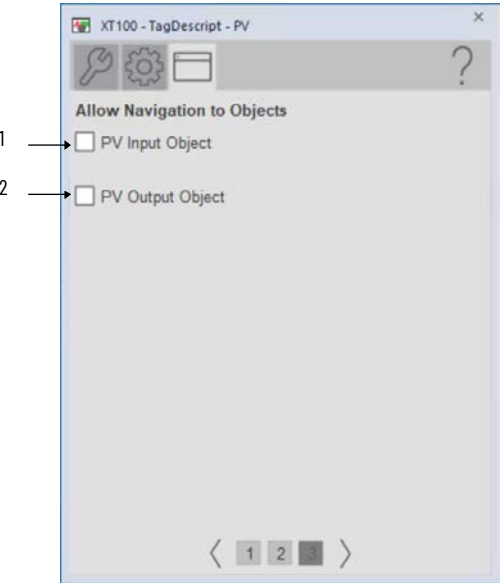
HMI Configuration Tab



Item	Description
1	Set the number of decimal places for the Process Variable.
2	Select to allow navigation to SMART device object.
3	Select to allow Operator to shelve alarm.
4	Select to allow Maintenance to disable alarm.




Item	Description
1	Select to configure operator command confirmation. This action would take place after an operator resets the captured minimum and maximum values.
2	Select to configure if a Historical data source will be used or not.
3	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.



Item	Description
1	Select to enable navigation to an upstream analog input object.
2	Select to enable navigation to a downstream analog input object.

Process Analog HART (PAH)

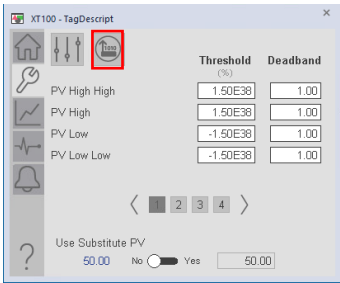
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PAH 	

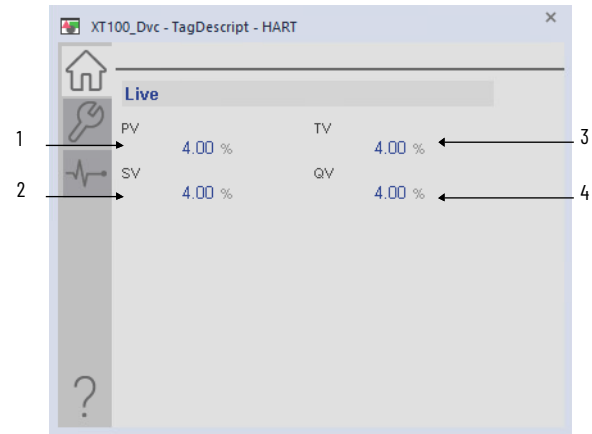
FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

PAH faceplates are accessed via the smart device button on the maintenance page of the PAI instruction.

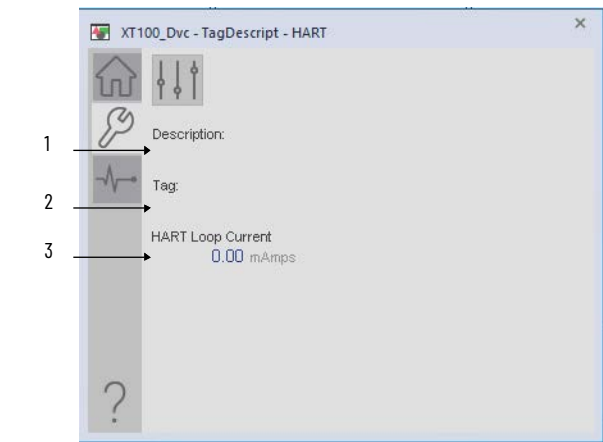


Smart Device Operator



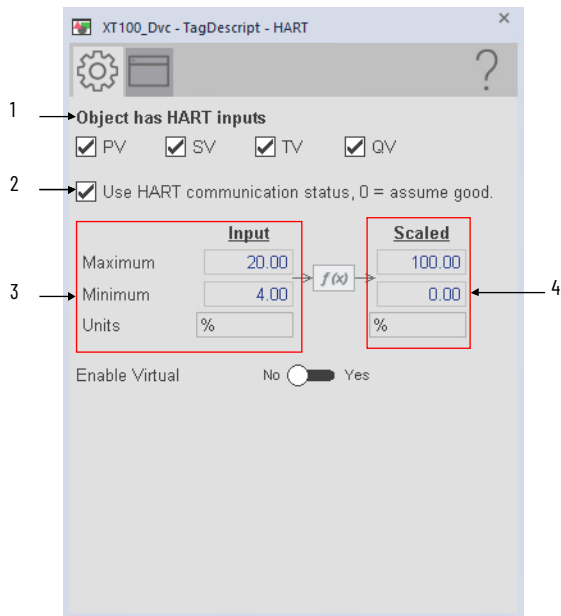
Item	Description
1	Show Process Variable for the HART PV.
2	Show Process Variable for the HART SV
3	Show Process Variable for the HART TV.
4	Show Process Variable for the HART QV.

Smart Device Maintenance Tab



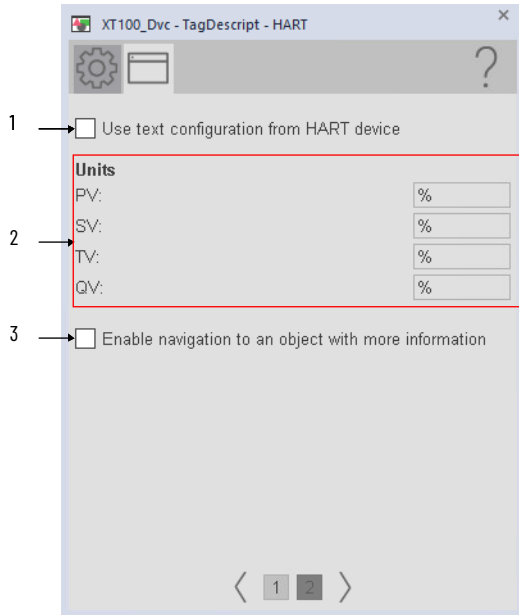
Item	Description
1	Display the description for the device.
2	Display the tag name for the device.
3	Display digital HART value for loop current in milliamps.

Smart Device Engineering Tab



Item	Description
1	Select to display the digital variables' (PV, SV, TV, FV) status as received via HART. Clear this checkbox to disable automatic updating of HART device information.
2	Select to use HART communication status to generate SrcQ, 0 - assume good.
3	Display analog input unscaled signal maximum, minimum, and units from HART module (in module units).
4	Display analog input scaled signal maximum, minimum, and units from HART module (in module units).

Smart Device HMI Configuration Tab

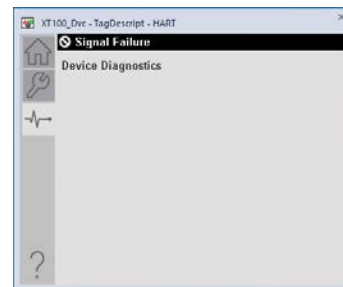


Item	Description
1	Select to display text received from HART device, 0 = use extended properties for text.
2	Display the text to display the units of measure for variable HART PV, SV, TV, and QV.
3	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.

Smart Device Diagnostics

The Diagnostic tab provides indications that are helpful to diagnose or help prevent device problems. These problems can include specific reasons a device is 'Not Ready', device warnings and faults, warning and fault history, and predictive/preventive maintenance data.


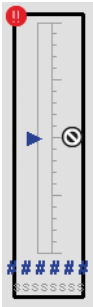

The Diagnostics tab displays possible reasons for the device not being ready.



Notes:

Process Dual Sensor Analog Input (PAID)

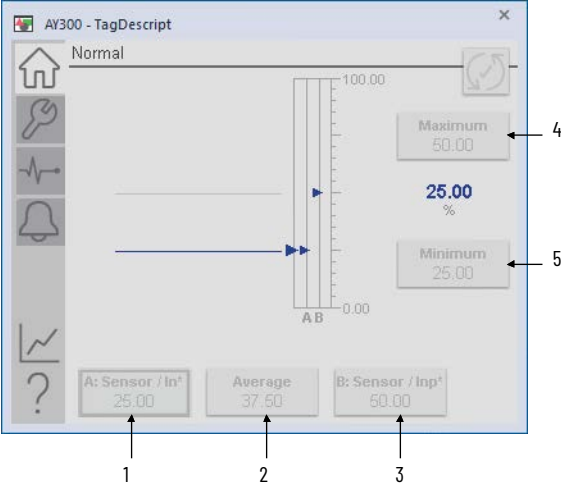
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PAID</div> <div></div>	Standard analog-input graphic symbol
<div>GO_PAID_Indicator</div> <div></div>	Process Variable indicated by a moving triangle. The graphic display includes limits that are displayed with filled bars.
<div>GO_PAID_Trend</div> <div></div>	Analog input with a trend of the Process Variable and limits (highhigh, high, low, and low-low).

FactoryTalk View SE Faceplates

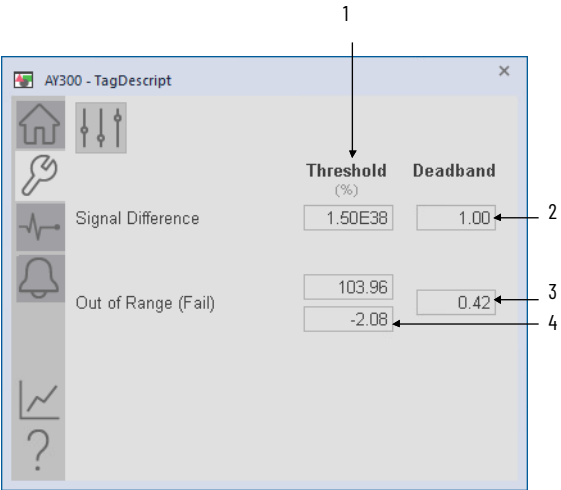
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



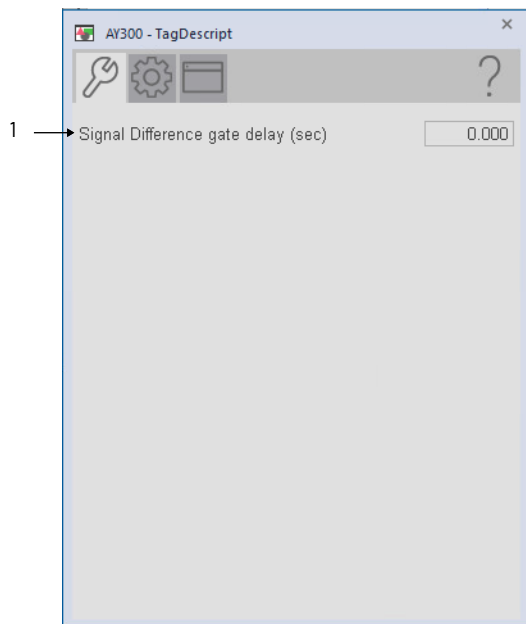
Item	Description
1	Select Sensor A Input Process Variable.
2	Select the average of Sensor A and Sensor B input Process Variables.
3	Select Sensor B Input Process Variable.
4	Select the maximum of Sensor A and Sensor B Input Process Variable.
5	Select the minimum of Sensor A and Sensor B Input Process Variable.

Maintenance Tab



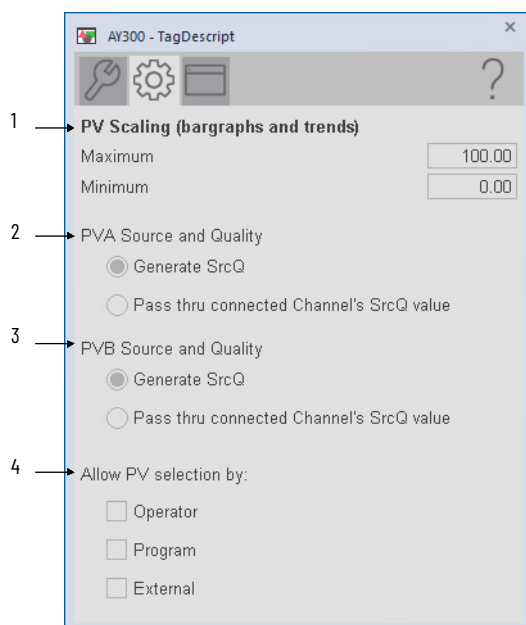
Item	Description
1	Process variable high/low signal difference threshold. Enter the threshold (trip point) for analog input alarms.
2	Process variable deadband. Enter the deadband (hysteresis) that is applied to the alarm limit. Deadband helps prevent a noisy signal from generating numerous spurious alarms. Example: If the High alarm limit is 90.0 and the High alarm deadband is 5, once the signal rises above 90.0 and generates a High alarm. The signal must fall below 85.0 (90.0 minus 5.0) for the alarm to clear.
3	Process variable fail deadband. Enter the deadband (hysteresis) that is applied to each alarm limit. Deadband helps prevent a noisy signal from generating numerous spurious alarms. Example: If the High alarm limit is 90.0 and the High alarm deadband is 5, once the signal rises above 90.0 and generates a High alarm. The signal must fall below 85.0 (90.0 minus 5.0) for the alarm to clear.
4	Process variable fail threshold in raw units.

Advanced Maintenance Tab



Item	Description
1	Configure the signal difference gate delay (seconds), which is the time after the gate input activates before the threshold detection is enabled

Engineering Tab



Item	Description
1	Minimum and maximum scale for the process variable on the trend.
2	PV Source and Quality Input A Generate SrcQ: This instruction determines the Process Variable quality using Inp_PVBad, Inp_PVUncertain, and the PV value (out of range, infinite or not a number) Pass thru connected Channel's SrcQ value: This instruction uses the Source and Quality (SrcQ) value that is provided by an upstream object (such as P_AIChan) via Inp_PVSrcQ to determine the PV source and quality.
3	PV Source and Quality Input B Generate SrcQ: This instruction determines the Process Variable quality using Inp_PVBad, Inp_PVUncertain, and the PV value (out of range, infinite or not a number) Pass thru connected Channel's SrcQ value: This instruction uses the Source and Quality (SrcQ) value that is provided by an upstream object (such as P_AIChan) via Inp_PVSrcQ to determine the PV source and quality.
4	Allows any combination of the operator, program, or external sources to select the active process variable.

HMI Configuration Tab

1 → Input PV A Sensor / Input A

2 → Input PV B Sensor / Input B

3 → Number of decimal places for PV 2

Alarm Configuration

4 → ☒ Allow Operator to Shelve Alarm

5 → ☒ Allow Maintenance to Disable Alarm

6 → ☒ Enable navigation to an object with more information
[MyClix]MorePAIDInfo

Item	Description
1	Enter the name for Input Tag A to show on the faceplate and Tooltip. IMPORTANT: Hover the pointing device over the field to display a tool tip with the configured Logix tag/path.
2	Enter the name for Input Tag B to show on the faceplate and Tooltip. IMPORTANT: Hover the pointing device over the field to display a tool tip with the configured Logix tag/path.
3	Set the number of decimal places for the Process Variable.
4	Select to allow Operator to shelve alarm.
5	Select to allow Maintenance to disable alarm.
6	Select to enable navigation to an object with more information (Cfg.HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.

1 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

☐ Performer e-signature

☐ Performer and approver e-signatures

Enable Navigation to PV Objects

2 → ☒ Input PV A
[NGL_BETA_2]PAID_PAIA_AOI


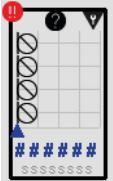
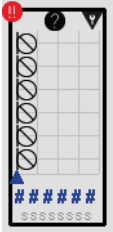
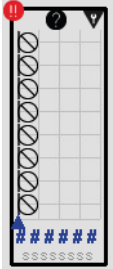
3 → ☒ Input PV B
[NGL_BETA_2]PAID_PAIB_AOI

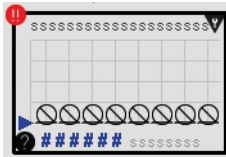
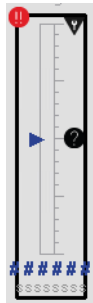

4 → ☒ Output PV
[NGL_BETA_2]PVSD_AOI

Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to enable navigation to an upstream analog input object. The tagname to navigate to is shown in the box under the checkbox label.
3	Select to enable navigation to an upstream analog input object. The tagname to navigate to is shown in the box under the checkbox label.
4	Select to enable to a downstream analog input object. The tagname to navigate to is shown in the box under the checkbox label.

Process Multi Sensor Analog Input (PAIM)

Graphic Symbols

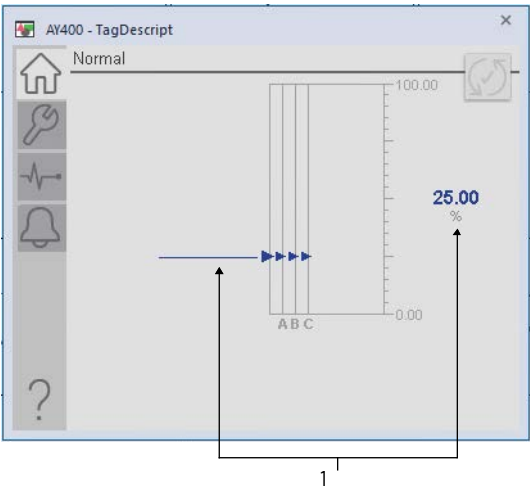
FactoryTalk View SE Graphic Symbol	Description
<div>GO_PAIM</div> 	Standard analog-input graphic symbol.
<div>GO_PAIM_4V</div> 	The object displays four inputs (A-D), with each input a moving line on a horizontal axis. The graphic display includes indicators for disabled and rejected inputs.
<div>GO_PAIM_6V</div> 	The object displays six inputs (A-F), with each input a moving line on a horizontal axis. The graphic display includes indicators for disabled and rejected inputs.
<div>GO_PAIM_8V</div> 	The object displays eight inputs (A-H), with each input a moving line on a horizontal axis. The graphic display includes indicators for disabled and rejected inputs.

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PAIM_8H</div> 	The object displays eight inputs (A-H), with each input a moving line on a vertical axis. The graphic display includes indicators for disabled and rejected inputs.
<div>GO_PAIM_Indicator</div> 	Process Variable indicated by a moving triangle. The graphic display includes limits that are displayed with filled bars.
<div>GO_PAIM_Trend</div> 	Analog input with a trend of the Process Variable and limits (highhigh, high, low, and low-low).

FactoryTalk View SE Faceplates

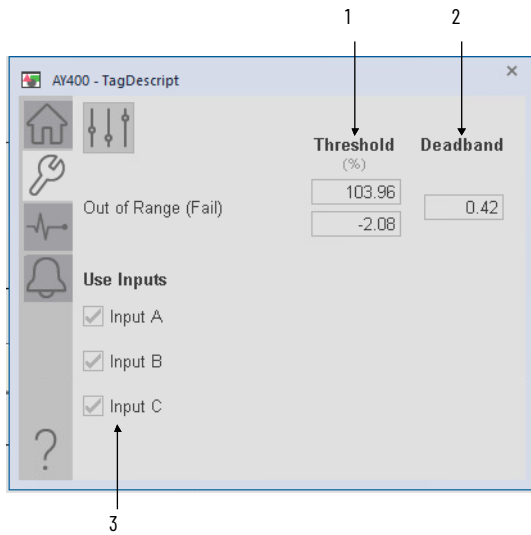
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



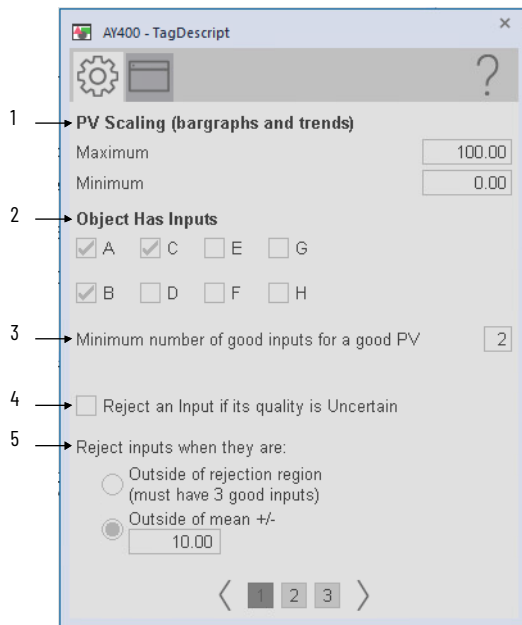
Item	Description
1	Process Variable

Maintenance Tab

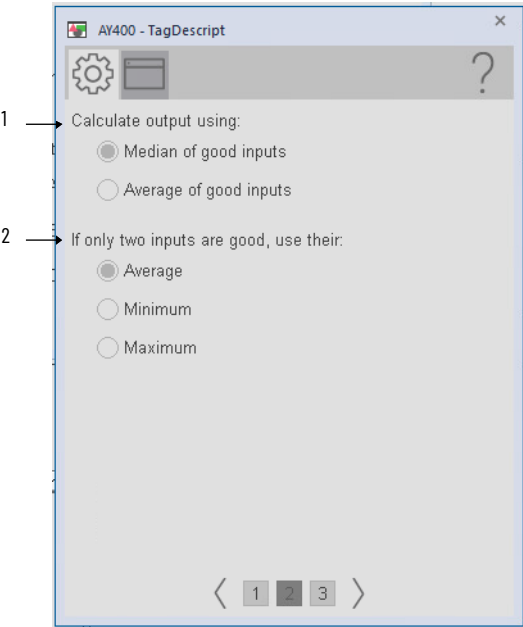


Item	Description
1	Failure status high/low threshold.
2	Failure status high/low threshold.
3	Sensor Inputs. Select: <ul style="list-style-type: none"> • ON if the corresponding input is to be used to calculate the final Process Variable (average or median). • OFF to exclude the corresponding input from the Process Variable calculation. This configuration is typically used to exclude a particular input when it is taken out of service for maintenance. If the P_AlnMulti instruction has a Process Variable but is not using it, the Maintenance Bypass Indicator is displayed.

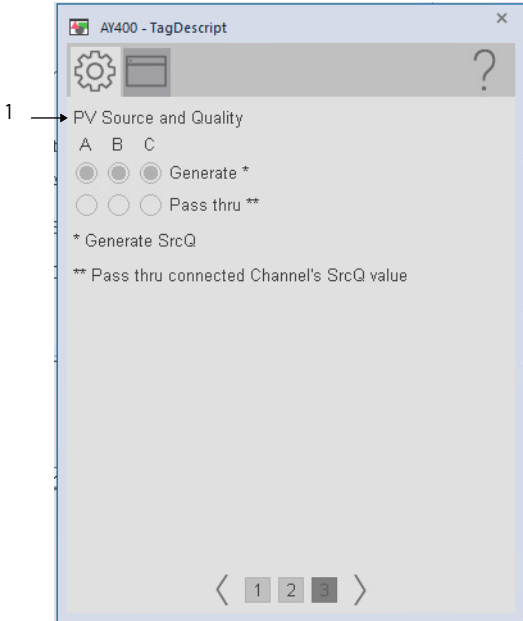
Engineering Tab



Item	Description
1	Minimum and maximum scale for the process variable on the trend.
2	Select to set this parameter: <ul style="list-style-type: none"> • ON, if the corresponding Process Variable Input is to be used to calculate final Process Variable (average or median) • OFF, to exclude the corresponding Process Variable Input from the Process Variable calculation TIP: This configuration determines whether a particular input is intended to be wired and used. See the Maintenance tab for functions to take an input out of service for maintenance temporarily.
3	Enter the number of selected inputs that must have a good source quality to result in a good Process Variable.
4	Select to set this parameter to one of the following: <ul style="list-style-type: none"> • ON, an input that is flagged as uncertain is rejected and not used to calculate the final Process Variable. • OFF, an input that is flagged as uncertain is not rejected and is still used to calculate the final Process Variable. The flag causes the final Process Variable to be flagged as uncertain (default).
5	Select: <ul style="list-style-type: none"> • 'Outside of rejection region' to reject an input that is more than two standard deviations from the mean. • 'Outside of mean +/-' to reject an input that deviates from the mean by more than the value entered. Value is in PV engineering units. IMPORTANT: At least four inputs must be used for the 'Outside of rejection region' selection to be meaningful.



Item	Description
1	Select: <ul style="list-style-type: none">'Average of good inputs' - the calculated final Process Variable is the average (arithmetic mean) of the good (non-rejected) Process Variable inputs.'Median of good inputs' - the calculated final Process Variable is the median (central value) of the good (non-rejected) Process Variable inputs (default). The average is the sum of values that are divided by the number of values. The median is the value of the item in the middle. If there are an even number of items, the median is the average of the two central values.
2	Select one of the options to determine the output calculation when there are only two unrejected inputs.



Item	Description
1	Select either generate or pass thru source quality for each channel. If the channel is configured to pass thru, the PV source quality will not be impacted by that channel source quality.

HMI Configuration Tab

AY400 - TagDescript

TagDescript

Label: AY400 Label

Tag: AY400

Area name for security: Area01

1 → Units: %

2 → Input PV A: Input A

Input PV B: Input B

Input PV C: Input C

3 → Number of decimal places for PV: 2

< 1 2 3 >

Item	Description
1	Enter the unit measurements.
2	Enter the Input tag names.
3	Enter the number of decimal places for the Process Variable.

AY400 - TagDescript

Alarm Configuration

1 → ☒ Allow Operator to Shelve Alarm

2 → ☒ Allow Maintenance to Disable Alarm

3 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

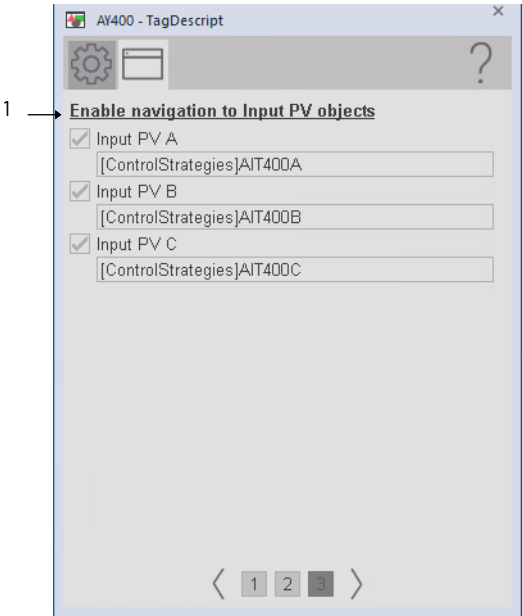
☐ Performer e-signature

☐ Performer and approver e-signatures

4 → ☐ Enable navigation to an object with more information

< 1 2 3 >


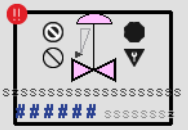
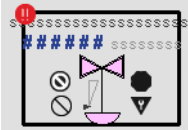


Item	Description
1	Select to allow Operator to shelve alarm.
2	Select to allow Maintenance to disable alarm.
3	Select to configure operator command confirmation. This action would take place after any operator command.
4	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.



Item	Description
1	Enter the object to navigate to for each input.

Process Analog Output (PAO)

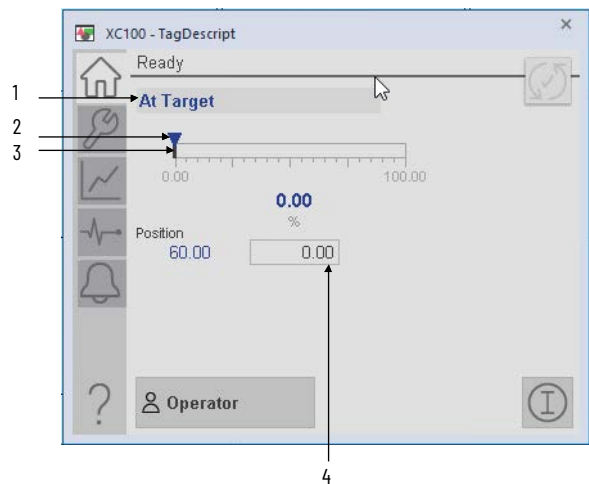
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PAO</div> 	Standard analog-output graphic symbol.
<div>GO_PAO_ControlValve</div> 	Normal controlled valve symbol for horizontal pipe.
<div>GO_PAO_ControlValve1</div> 	Inverted controlled valve symbol for horizontal pipe.
<div>GO_PAO_ControlValve2</div> 	Controlled valve symbol for vertical pipe (pipe to the left.)
<div>GO_PAO_ControlValve3</div> 	Controlled valve symbol for vertical pipe (pipe to the right).

FactoryTalk View SE Faceplates

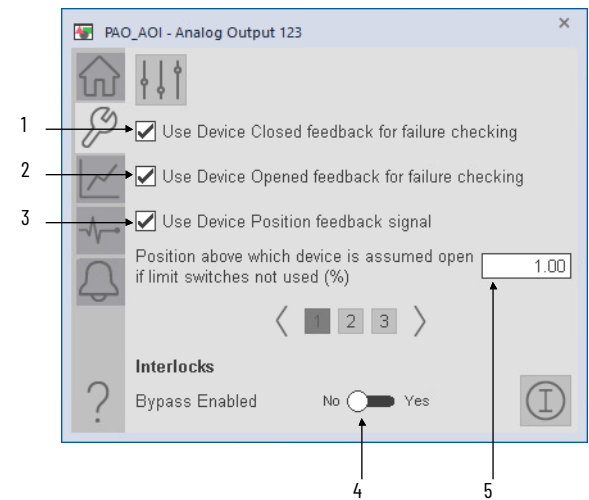
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



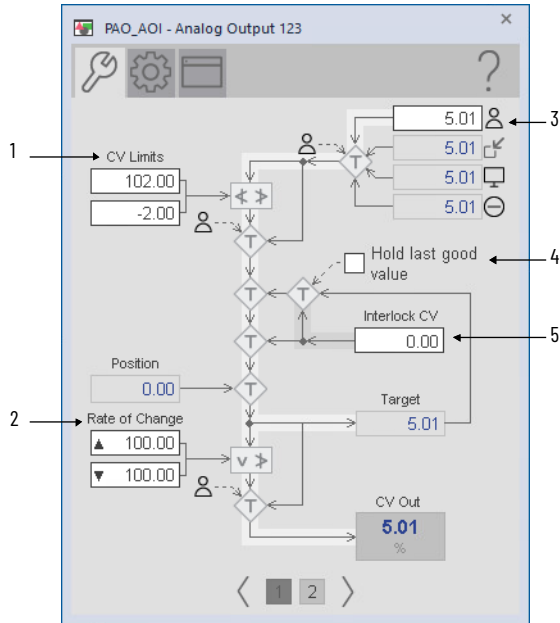
Item	Description
1	Analog Output State (At Target, Ramping Down, Ramping Up, Clamped at Min, Clamped at Max, or Disabled).
2	Control Variable.
3	Control Variable target.
4	Enter to change the Controlled Variable output value.

Maintenance Tab

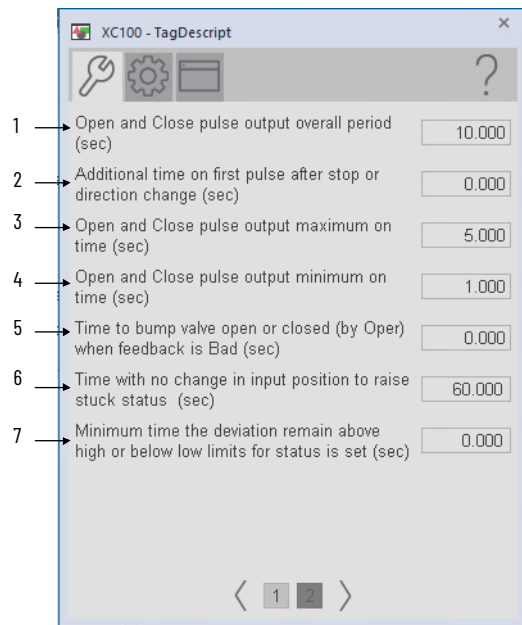


Item	Description
1	Select box to indicate that there is a closed limit switch feedback reference. Uncheck if a reference does not exist.
2	Select box to indicate that there is an opened limit switch feedback reference. Uncheck if a reference does not exist.
3	Select box to indicate that there is a feedback reference. Uncheck if a reference does not exist.
4	Select Yes to bypass checking of bypassable interlocks and permissives. Select No to enable checking of all interlocks and permissives.
5	Enter the position (PV value) above which the device (valve) is assumed to be open if the feedback from Opened limit switch is not used.

Advanced Maintenance Tab

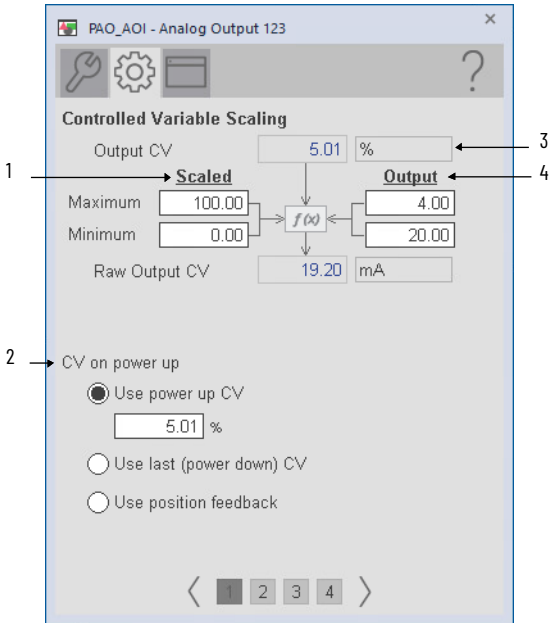


Item	Description
1	Controlled Variable clamp limits. Enter the clamping limits for the Controlled Variable in engineering units. Clamp limits are enforced in Operator and Program command sources only.
2	Enter the maximum allowed value for the Rate of Change Limit in engineering units per second. A value of zero allows any rate of change to be input by the Program or Operator.
3	Enter the Operator command source Controlled Variable Target in engineering units. This entry is available in Operator command source and Maintenance command source.
4	Select and the Controlled Variable holds at the last good value when an Interlock trips or an I/O Fault occurs. Clear this checkbox and the Controlled Variable goes to the Interlock Controlled Variable value when an Interlock trips or an I/O Fault occurs.
5	Enter the interlock target Controlled Variable in engineering units. This value is used for the Controlled Variable when interlocked or on an I/O Fault, but only if Hold Last Good Value is not selected.

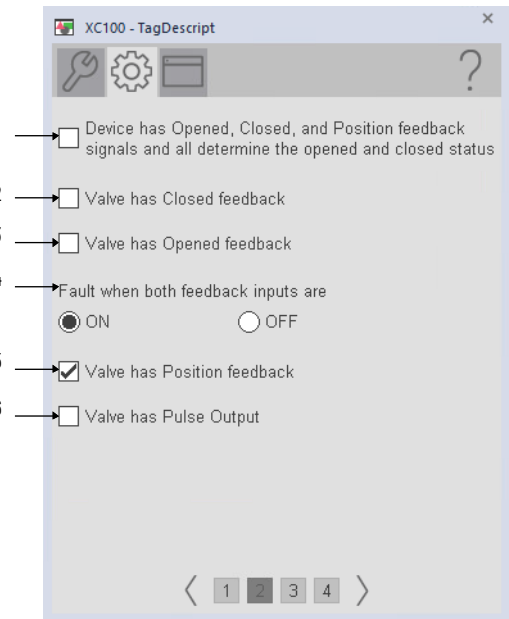


Item	Description
1	Enter the overall period for the open and close cycles. The open and close cycles consist of a pulsed output and an idle time. If the total cycle time is 10 seconds and the maximum output time is 5 seconds, the cycle is 5 seconds of pulsed output and 5 seconds of idle. The pulse cycles are only used if pulse outputs are enabled.
2	Enter the additional time to be added to the first pulse of an open or close action.
3	Maximum time the open or close pulse output is enabled during each cycle.
4	Minimum time the open or close pulse output is enabled during each cycle.
5	Enter the value for time the output is bumped for open or closed bump command by the operator. When enabled, this is a one-time bump of the requested output.
6	Enter the value for the stuck alarm. When this time is reached without position change, the status changes to stuck.
7	Enter value for the gate of the deviation alarm. If deviation is above the high limit or below the low limit for this time, the deviation status is raised.

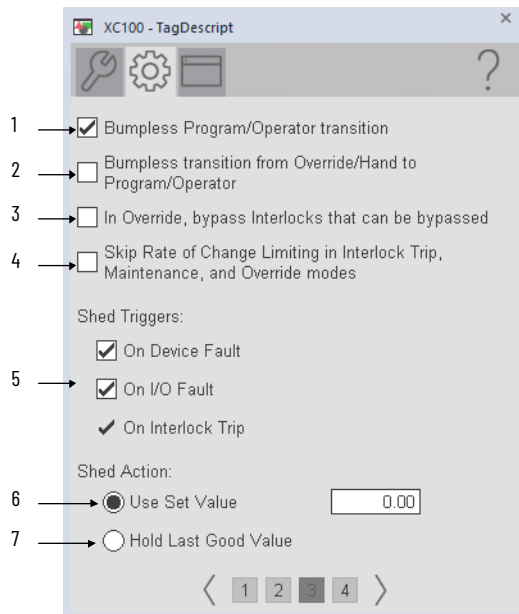
Engineering Tab



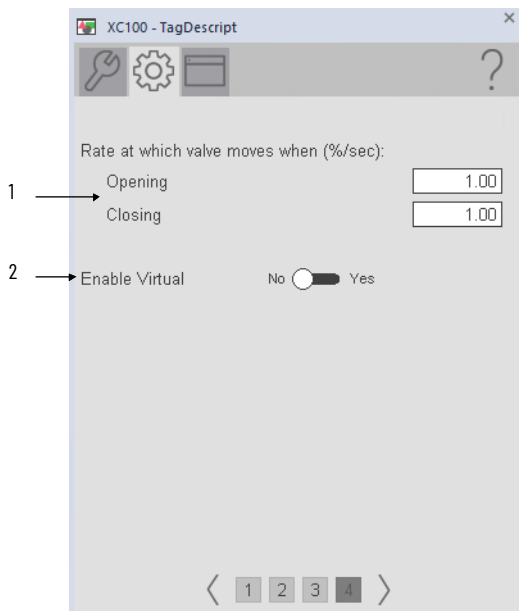
Item	Description
1	Enter values for the maximum and minimum scaled (engineering units) scaling ranges.
2	Select what method is used to determine the CV on power-up. If use power-up DV is selected, enter the value for the initial CV used on power-up. Position feedback must be enabled to use the position feedback power-up method.
3	Engineering Units label.
4	Enter values for the maximum and minimum output (Raw) scaling ranges.



Item	Description
1	Select whether this method is used for opened and closed status. This is a cross-check between the position and the opened/closed feedback.
2	Select whether the valve has closed feedback or not.
3	Select whether the valve has opened feedback or not.
4	Select whether the valve will fault when the opened and closed feedback inputs are both ON or when they are both off.
5	Select whether the valve has position feedback (%) or not.
6	Select whether the valve has a pulsed output for opening and closing.

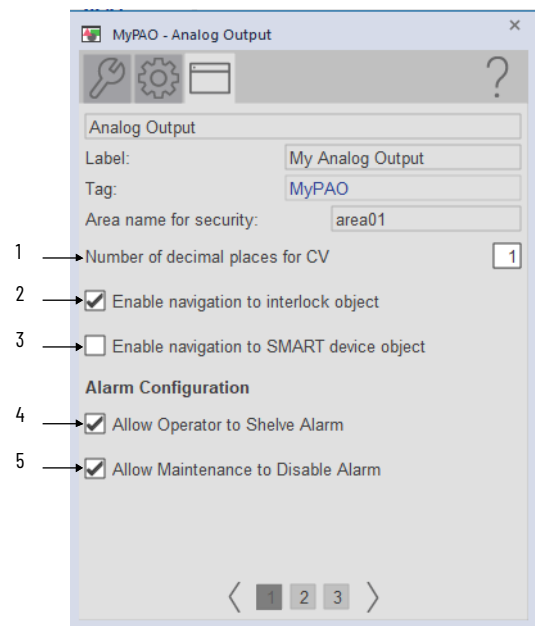


Item	Description
1	When selected, the operator settings track the program settings when the command source is Program, and program settings track the operator settings when the command source is Operator. Transition between command sources is bumpless. When not selected, the operator settings and program settings retain their values regardless of command source. When the command source is changed, the value of a limit can change, such as from the Program-set value to the Operator-set value.
2	When selected, the Program and Operator Settings of the CV track the output CV when the command source is Hand or Override.
3	Select while in Override command source to bypass Interlocks that can be bypassed.
4	Select to have the CV immediately go to its target value or configured Interlock CV value when an Interlock trips or the instruction is placed in Maintenance or Override command source. Clear this checkbox to have the CV always use rate of change limiting (ramping) of the CV output.
5	Select so that an I/O Fault triggers a shed of the output, to the configured shed set value or to hold last good output. The shed condition is latched internal to the Add-On Instruction. When the I/O Fault condition clears, a Reset command is required to return to normal operation. Clear this checkbox so that the I/O Fault condition does not affect operation (but can still generate an alarm). The configured shed action always takes place on an interlock trip. This selection cannot be changed.
6	Select this option to set the analog output to the configured shed set value when a condition configured as a shed trigger occurs.
7	Select this option to hold the analog output at its last good value when a condition configured as a shed trigger occurs.

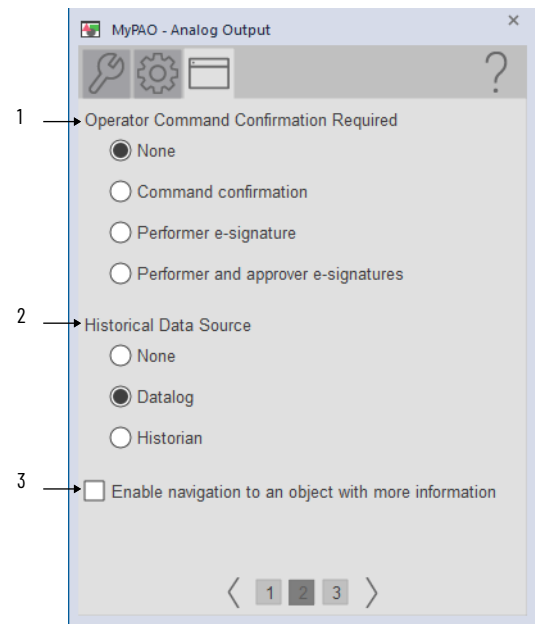


Item	Description
1	Enter the rate (%/sec) at which the the valve moves during opening and closing.
2	Select yes to enable Virtual.

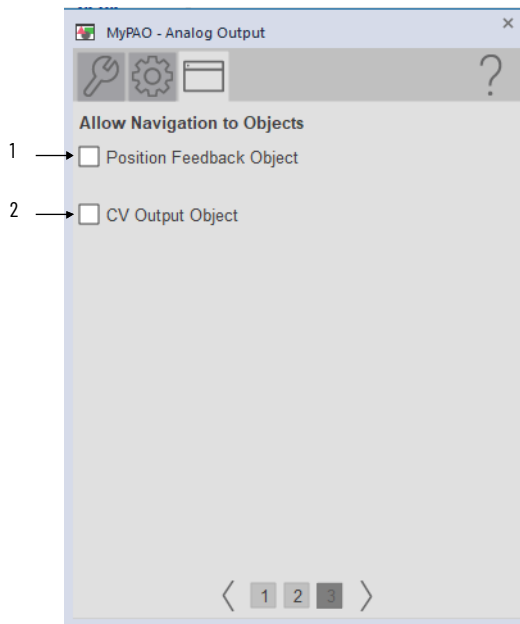
HMI Configuration Tab



Item	Description
1	Set the number of decimal places for the Control Variable.
2	Select if an interlock object is connected to Inp_IntlkOK. The Interlock indicator becomes a button that opens the P_Intlk faceplate. IMPORTANT: The name of the Interlock object in the controller must be the name of the object with the suffix '_Intlk_0'. For example, if your P_AOut object has the name 'AOut123', then its Interlock object must be named 'AOut123_Intlk_0'.
3	Select to enable navigation to a SMART device object.
4	Select to allow Operator to shelve the alarm.
5	Select to allow Maintenance to disable the alarm.



Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to configure if a Historical data source will be used or not.
3	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.





Item	Description
1	Select to enable navigation to the faceplate for the PlantPAx® object that is providing the position feedback for this object. Inp_PosFdbk
2	Select to enable navigation to the faceplate for the PlantPAx object that is providing the CV for this object (PSet_CV).

Notes:

Process Boolean Logic (PBL)

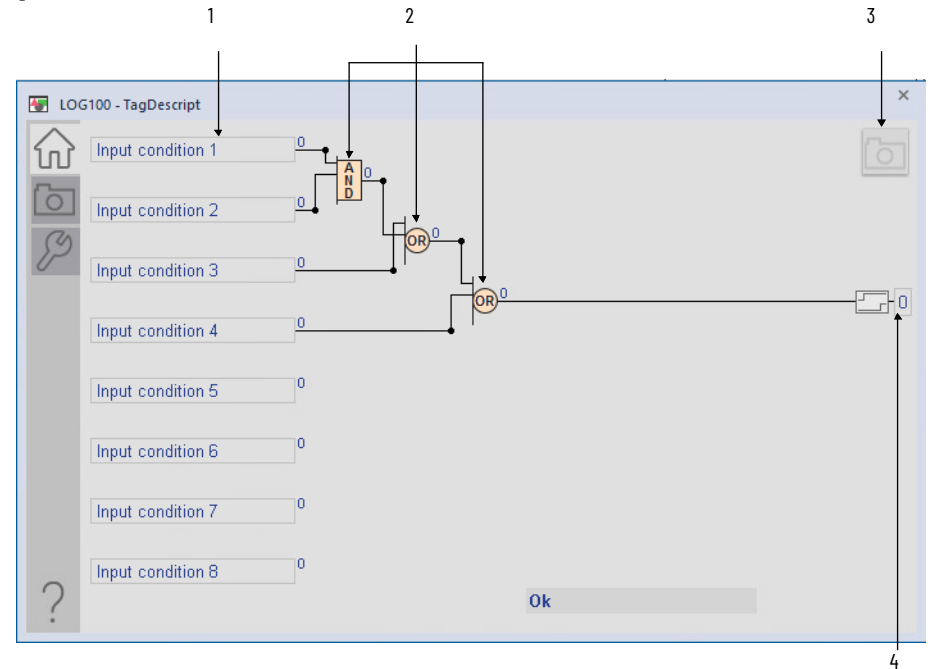
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PBL</div> <div></div>	Standard PBL object. Displays Boolean output status and alarming. Opens faceplate.
<div>GO_PBL1</div> <div></div>	Standard PBL object. Displays Boolean output status and alarming.

FactoryTalk View SE Faceplates

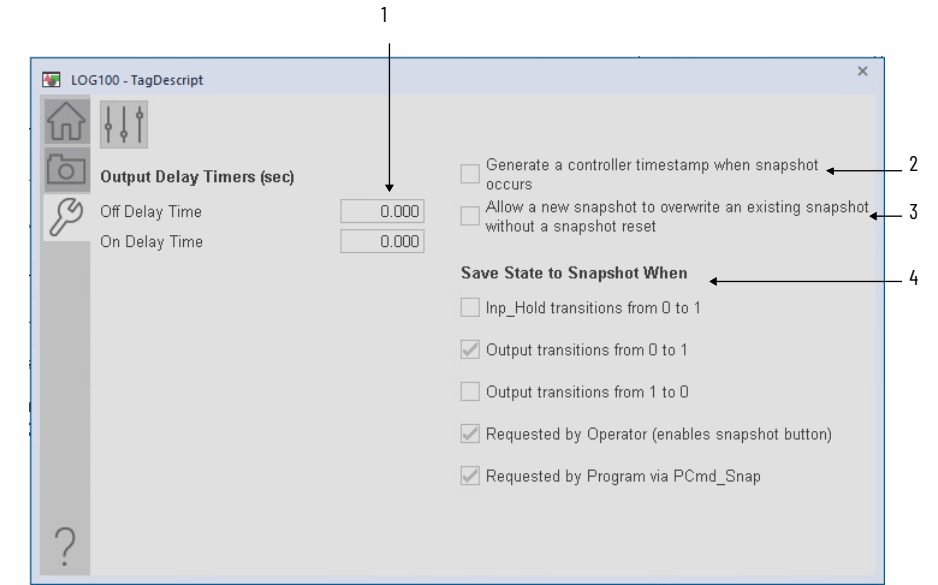
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



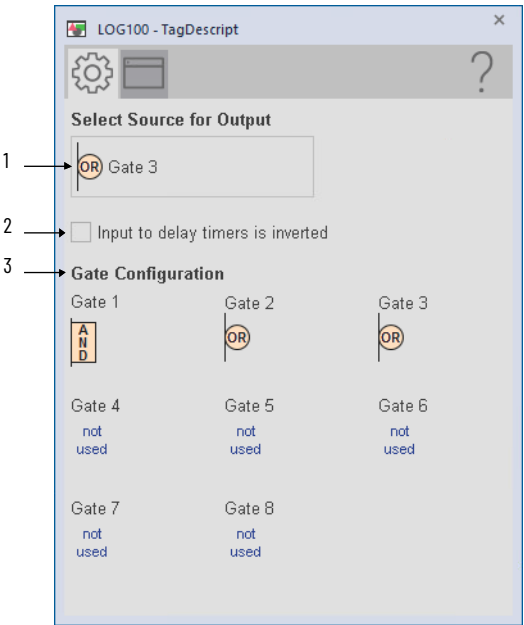
Item	Description
1	Input Name: Select to navigate to the Input object faceplate.
2	Gates: Select one of the gates to access the Gate Configuration display for that gate.
3	Select to take a snapshot of the current state. IMPORTANT: When you take a snapshot, the View Snapshot tab is automatically displayed.
4	Boolean value that displays the final output of the PBL object.

Maintenance Tab



Item	Description
1	Enter a value for the off-delay time and the on-delay time.
2	Select to generate a time stamp whenever a snapshot triggers.
3	Select to allow a new snapshot to be triggered without a reset of the previous snapshot.
4	Select to trigger a snapshot when the designated condition is met.

Engineering Tab



Item	Description
1	Select to open the faceplate to select the output source.
2	Select to invert the selected output before it is passed to the output delay timers
3	Select to open the Gate Configuration faceplate.

HMI Configuration Tab

LOG100 - TagDescript

TagDescript

Label: LOG100 Label

Tag: LOG100

Area name for security: Area01

1 → Text to Display when Output = 0: Ok

2 → Text to Display when Output = 1: Tripped

3 →

Input #1	Input condition 1
Input #2	Input condition 2
Input #3	Input condition 3
Input #4	Input condition 4
Input #5	Input condition 5
Input #6	Input condition 6
Input #7	Input condition 7
Input #8	Input condition 8

< 1 2 3 >

Item	Description
1	Enter the text to display on the faceplate when output = 0
2	Enter the text to display on the faceplate when output = 1
3	Enter a description for each input.

LOG100 - TagDescript

1 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

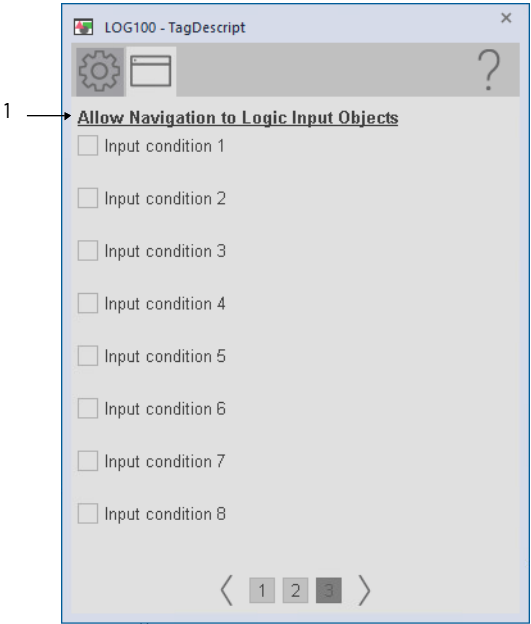
☐ Performer e-signature

☐ Performer and approver e-signatures

2 → ☐ Enable navigation to an object with more information

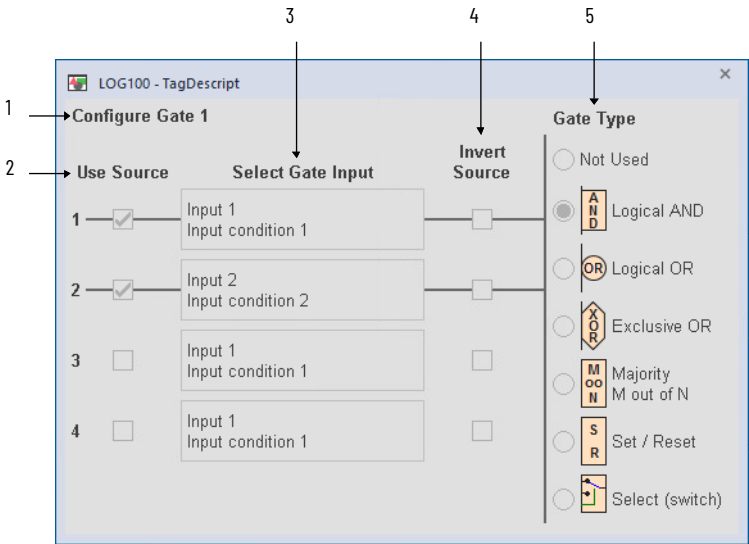
< 1 2 3 >

Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to enable navigation to an object with more information.



Item	Description
1	Select to enable navigation to input object.

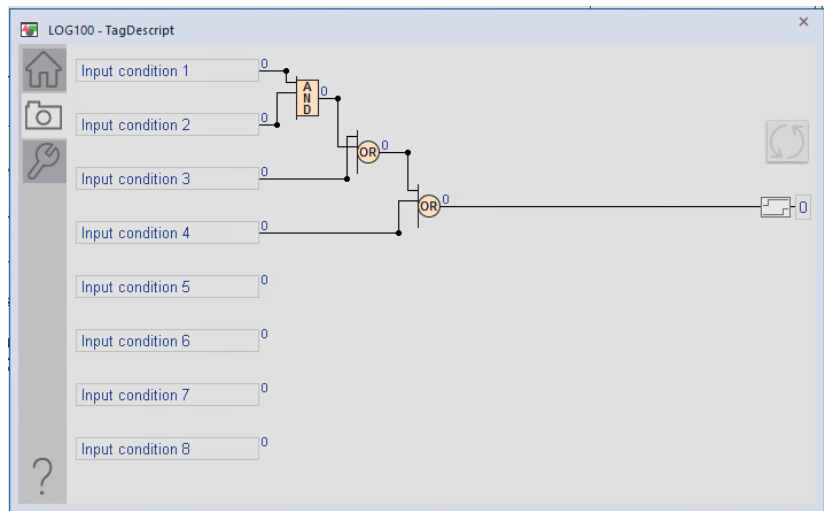
Logic Gate Configuration



Item	Description
1	Displays the gate being configured.
2	Select to select which inputs of the gate are enabled (1...4).
3	Select the inputs for the gate.
4	Select to invert the source that enters the gate.
5	Select to select a gate type.

View Snapshot

The View Snapshot tab shows an image of the Operator faceplate when the snapshot was taken. The background of the display turns from gray to white to indicate capture. The View Snapshot has the same functionality as the operator faceplate plus a Reset button.











Process Command Source (PCMDSRC)

The PCMDSRC (Command Source) Instruction is used to provide selection of the command source (owner) of an instruction or control strategy. This instruction excludes Graphic Symbols.

The command source indicator displays by exception only. For example, if the device is operating normally, there is not an indicator. If the device is out of service (OoS), then the OoS indicator is displayed.

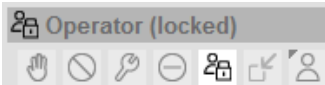
Command source indicators are not used for analog inputs.

Image	Description
	Device is out of service
	Device is not in normal command source operation
	Device is in program command source operation
	Device is in maintenance command source operation
	Device is in operator command source operation
	Device is in override command source operation
	Device is in local command source operation
	Device is in external command source operation

Command Source Hierarchy Bar

The Command Source Hierarchy Bar shows the sources that have been requested. These sources have a white background color. The leftmost source that is highlighted is the active command source.

In the example that follows, the current command source is Operator Locked. When Operator Locked is released, the default command source is Operator. The small black triangle, in the upper left corner of the operator indicator indicates the normal command source.



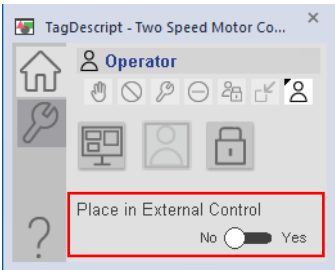
Operator Buttons

The Operator Lock buttons on device faceplates are used to lock and unlock Operator command source. The buttons also show the current command source status.

Image	Description
	Select to request Operator command source.
	Select to lock in Operator command source. The program cannot take control.
	Select to request Program command source.




External Control

There is a slider on the operator page that allows the operator to place the device in External Control.



Maintenance Buttons

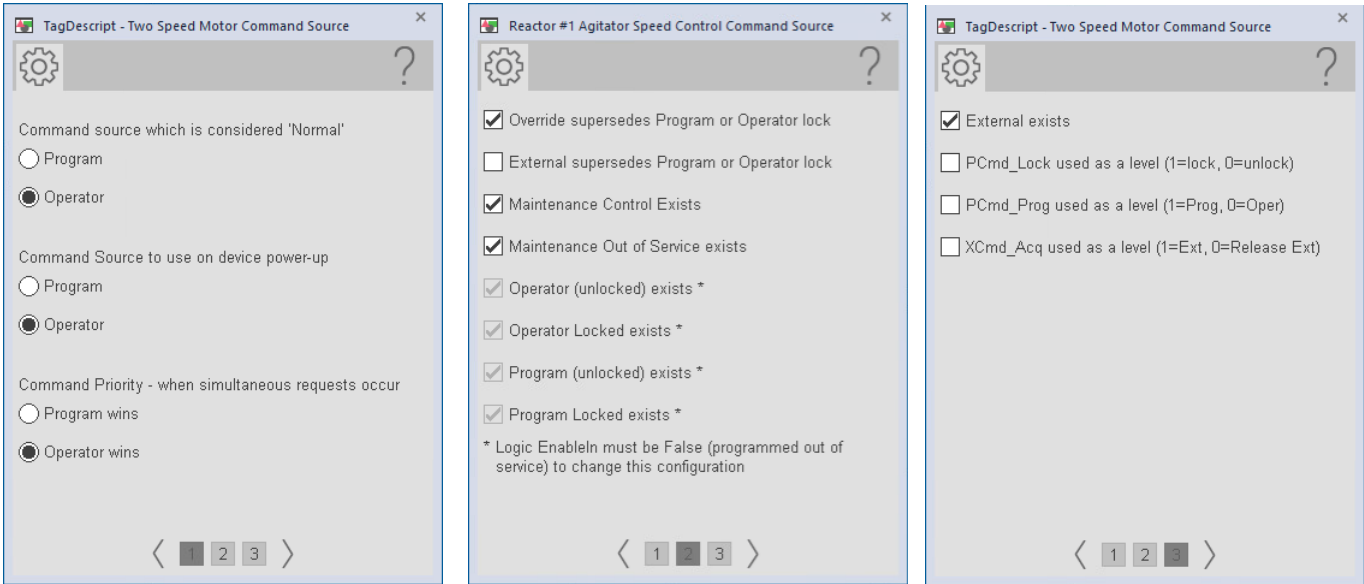
The maintenance buttons on device faceplates are used to request and release Maintenance command source.

Image	Description
	Select to acquire Maintenance command source.
	Select to release Maintenance command source.
	Select to display Advanced Properties command source.

Advanced Properties

Select the Advanced Properties button from the maintenance page to access the engineering tabs. There are three engineering tabs. The first page is the configuration for the Cfg_ProgDefault parameter for the object, which sets the default command source when no command source is being requested.

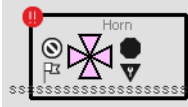






From the other pages, you can configure the settings for additional command sources.




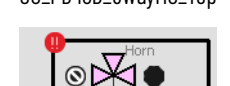

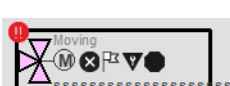
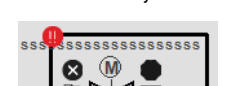
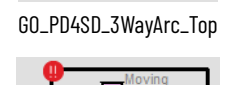









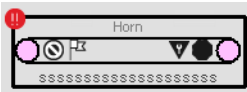
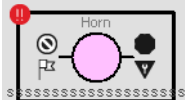

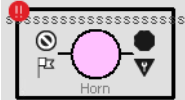
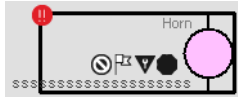
Notes:



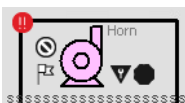

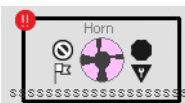
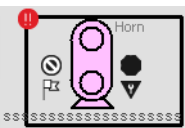
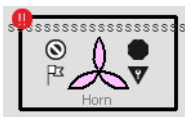
Discrete 2, 3, 4-state Device (PD4SD)

Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<p>GO_PD4SD_4Way</p> 	<p>Three/Four-Way Valve.</p> <p>The Three/Four-way Valve parameters define the inlet and output ports of the valve:</p> <ul style="list-style-type: none"> No. 110 - Top port open state No. 111 - Right port open state No. 112 - Bottom port open state No. 113 - Left port open state <ul style="list-style-type: none"> 0 = Inlet (always shown as open) 1 = Open when Val_Sts = 1 (state 0) 2 = Open when Val_Sts = 2 (state 1) 3 = Open when Val_Sts = 3 (state 2) 4 = Open when Val_Sts = 4 (state 3)
<p>GO_PD4SD_3Way_SORt</p>  <p>GO_PD4SD_3Way_SOLt</p>  <p>GO_PD4SD_3Way_SOBtm</p>  <p>GO_PD4SD_3Way_SOTop</p> 	<p>Two-Way Solenoid-operated Diverter Valve in different positions: right, left, bottom, and top.</p> <p>Parameters define the inlet and output ports of the Two-way Solenoid-operated Diverter Valve.</p>
<p>GO_PD4SD_Diverter</p>  <p>GO_PD4SD_Diverter1</p> 	<p>Two Way Diverter Valve in open top-left and open top-right positions.</p> <p>The Two-way Diverter Valve parameters define the state of the valve:</p> <ul style="list-style-type: none"> State 0: Open top-left State 1: Open top-right State 2: — State 3: —

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PD4SD_3WayM0_Rt</div>  <div>GO_PD4SD_3WayM0_Lt</div>  <div>GO_PD4SD_3WayM0_Btm</div>  <div>GO_PD4SD_3WayM0_Top</div> 	<p>Two-Way Motor-operated Diverter Valve in different positions: right, left, bottom, and top. Parameters define the inlet and output ports of the Two-way Motor-operated Diverter Valve.</p>
<div>GO_PD4SD_3WayArc_Rt</div>  <div>GO_PD4SD_3WayArc_Lt</div>  <div>GO_PD4SD_3WayArc_Btm</div>  <div>GO_PD4SD_3WayArc_Top</div> 	
<div>GO_PD4SD_R</div>  <div>GO_PD4SD_U</div>  <div>GO_PD4SD_D</div> 	

FactoryTalk View SE Graphic Symbol	Description
<p>GO_PD4SD_Blower_R</p>  <p>GO_PD4SD_Blower_L</p>  <p>GO_PD4SD_Blower_U</p>  <p>GO_PD4SD_Blower_D</p> 	<p>Blowers in different positions: right, left, up, and down.</p>
<p>GO_PD4SD_Conveyor_R</p> 	<p>Conveyor</p>
<p>GO_PD4SD_Inline_U</p>  <p>GO_PD4SD_Inline_L</p>  <p>GO_PD4SD_Inline_D</p>  <p>GO_PD4SD_Inline_R</p> 	<p>Inline Motors in different positions: up, left, down, and right.</p>

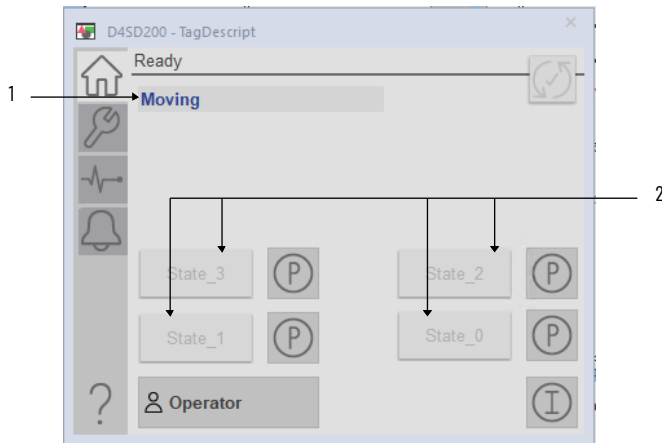
FactoryTalk View SE Graphic Symbol	Description
<div>GO_PD4SD_Pump_R</div>  <div>GO_PD4SD_Pump_L</div>  <div>GO_PD4SD_Pump_U</div> 	Pumps in different positions: right, left, and up.
<div>GO_PD4SD_Agitator_D</div> 	Agitator in down position.
<div>GO_PD4SD_Mixer_U</div> 	Mixer in up position.
<div>GO_PD4SD_RPump_U</div> 	Rotary Gear Pump in up position.
<div>GO_PD4SD_Fan_D</div> 	Fan in down position.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

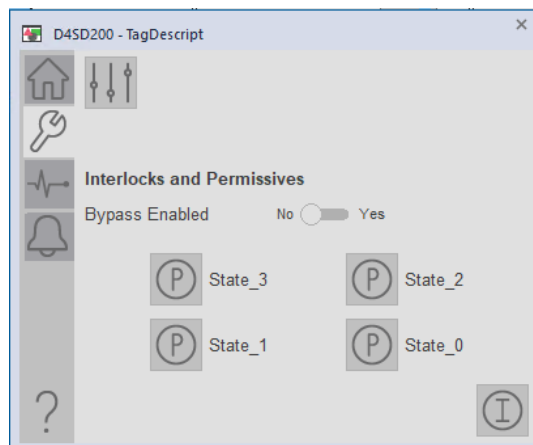
The Faceplate initially opens to the Operator (Home) tab. From here, an operator can monitor the device status and manually operate the device when it is in Operator command source.



Item	Description
1	Device state indicator
2	Move to state command buttons

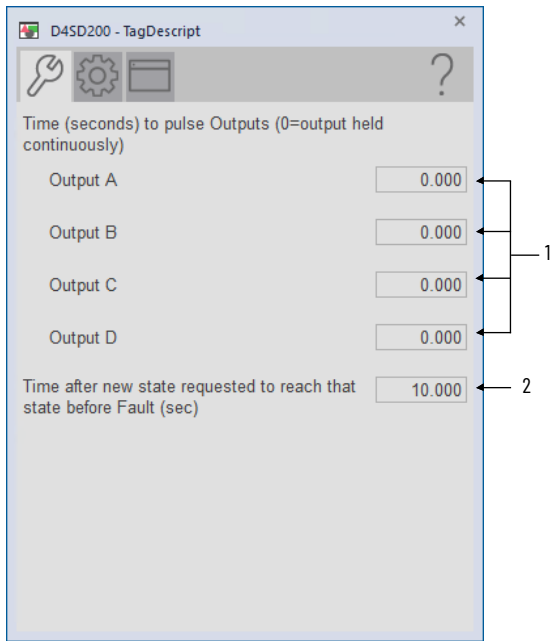
Maintenance Tab

Maintenance personnel use the information and controls on the Maintenance tab to adjust device parameters, troubleshoot, temporarily work around device problems, and disable the device for routine maintenance.



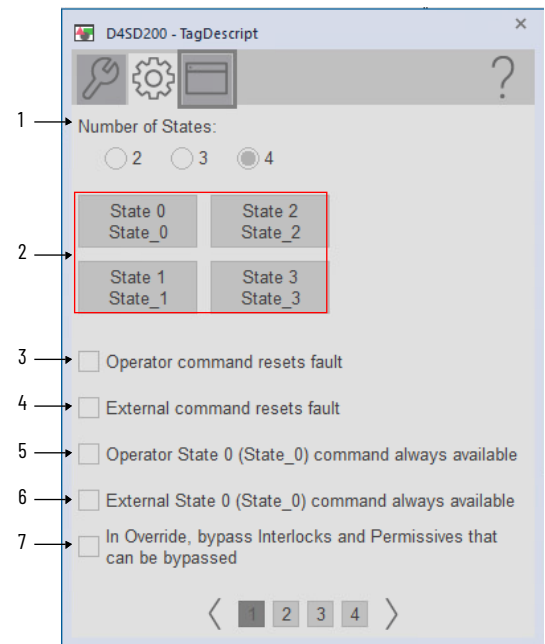
Advanced Maintenance Tab

The Advanced Properties Display opens to the advanced maintenance settings. The Advanced Properties Display provides access to device configuration parameters and ranges, and options for device and I/O setup. This tab is used for initial system commissioning or later system changes.

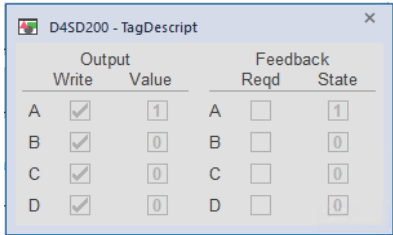


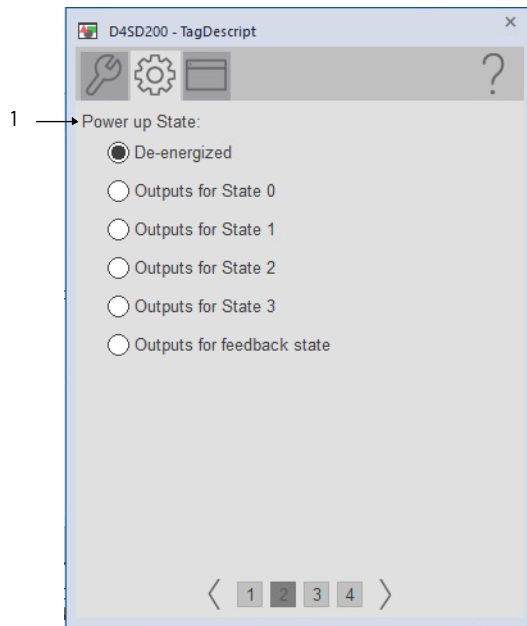
Item	Description
1	Enter a value (0...2,147,483.647) to indicate the time (seconds) to energize outputs to the device to be sure that they are latched in. (0 = output held continuously)
2	Enter a value (0...2,147,483.647) to indicate the time (seconds) to allow the device to reach the commanded state before issuing a fault.

Engineering Tab

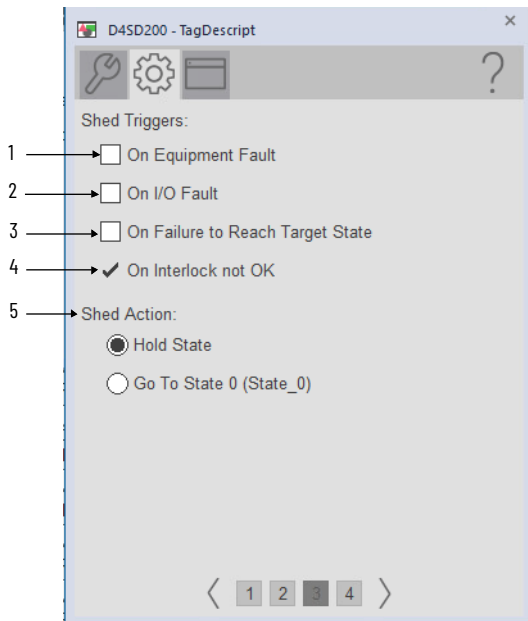


Item	Description
1	Select the number of states.
2	Select a state to open the PD4SD State Configuration display for that state.
3	Select to reset a fault upon a new operator command.
4	Select to reset a fault upon a new external command.
5	Select (= 1) to make Operator State 0 (OCmd_St0) available in any command source. Clear this checkbox (= 0) to make Operator State 0 (OCmd_St0) available only in Operator or Maintenance command source.
6	Select (= 1) to make External State 0 (XCmd_St0) available in any command source. Clear this checkbox (= 0) to make External State 0 (XCmd_St0) available only in External command source.
7	Select to bypass permissives and interlocks in Override command source.

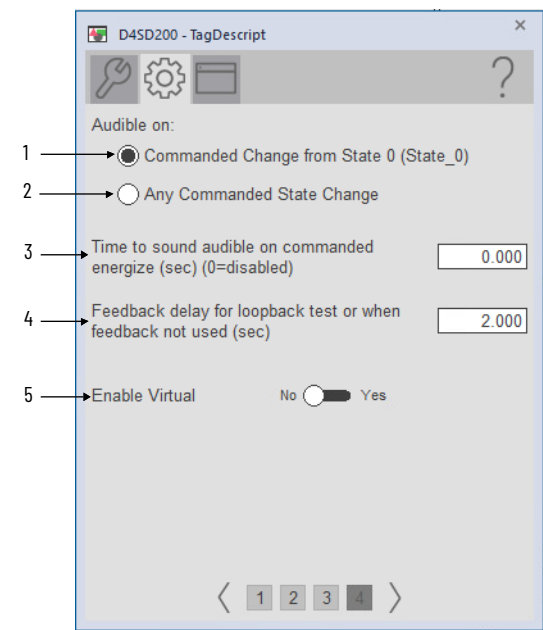




Item	Description
1	Select the state that the instruction goes to on power-up or on controller PROG -> RUN transition: <ul style="list-style-type: none"> • De-energized - Set all outputs off (de-energized); • Outputs for State 0 - Drive outputs to State 0 (as if a State 0 command had been issued); • Outputs for State 1 - Drive outputs to State 1 • Outputs for State 2 - Drive outputs to State 2 • Outputs for State 3 - Drive outputs to State 3 • Outputs for feedback state - Align the instruction state with the device feedbacks (as if the block were in Hand on first scan).

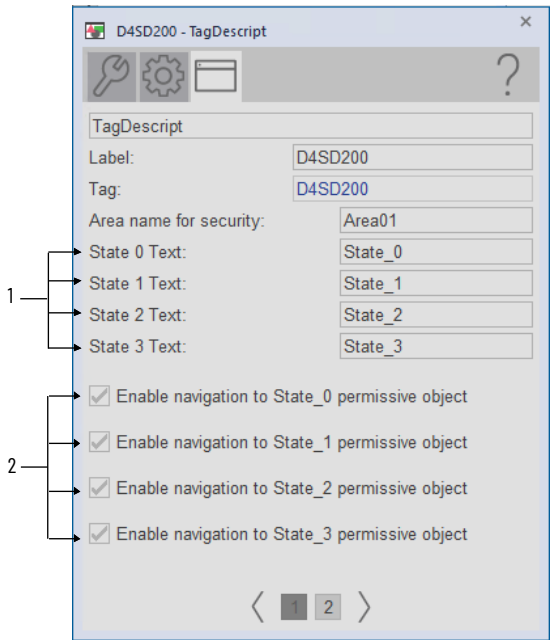


Item	Description
1	Select to shed if a Device Fault is detected.
2	Select to shed if an I/O Fault is detected.
3	Select to shed if target state is not reached.
4	The device always sheds on Interlock not OK. This item cannot be unchecked. It is displayed as a reminder that Interlock not OK always triggers a shed.
5	Select to determine whether you hold position or go to state 0 upon a shed condition.

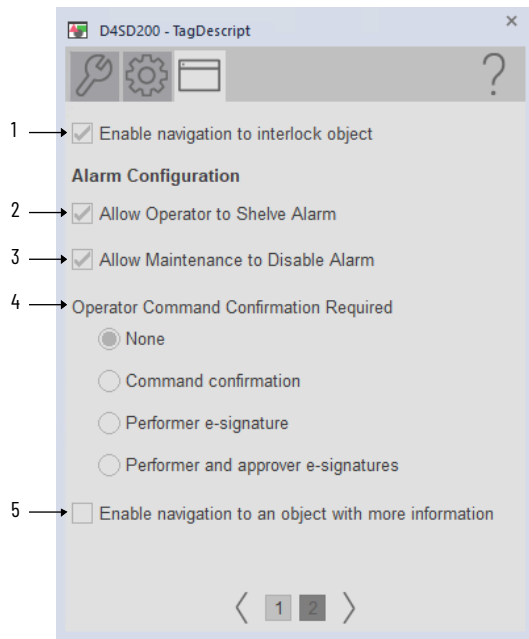


Item	Description
1	Select to sound an audible on a commanded stage from State 0.
2	Select to sound an audible on a commanded stage from any State.
3	Enter the time (in seconds) that the audible sounds when there is a commanded State change.
4	Enter a value (seconds) to indicate the delay to echo back reaching the state when in virtual
5	Select yes to enable virtual

HMI Configuration Tab



Item	Description
1	Enter text to describe the state.
2	Check if the corresponding State object is used with this device. This check changes the Permissive Indicator to a button that accesses the Permissive faceplate. IMPORTANT: The name of the Permissives object in the controller must be the name of the object with the suffix '_Perm#', where '#' is the permissive number (0...3) For example, if your PD4SD object has the name 'D4SD123', then its Permissives object must be named 'D4SD123_Perm0'.




Item	Description
1	Select if an interlock object is connected to Inp_Intlk. This check changes the interlock indicator on the Operator tab to a button that opens the interlocks faceplate. IMPORTANT: The name of the Interlock object in the controller must be the name of the object with the suffix '_Intlk'. For example, if your PD4SD object has the name 'D4SD123', then its Interlock object must be named 'D4SD123_Intlk'.
2	Select to allow Operator to shelve alarm.
3	Select to allow Maintenance to disable alarm.
4	Select to configure operator command confirmation. This action would take place after any operator command.
5	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) You configure the tagname of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.

Notes:

Process Deadband Controller (PDBC)

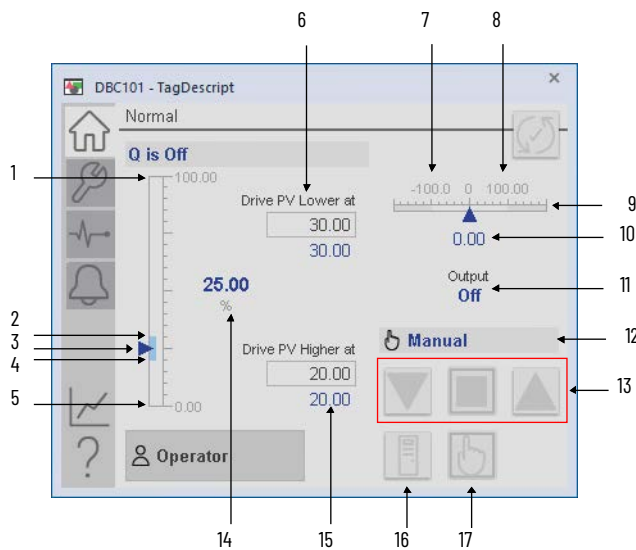
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PDBC 	Standard deadband controller graphic symbol.

FactoryTalk View SE Faceplates

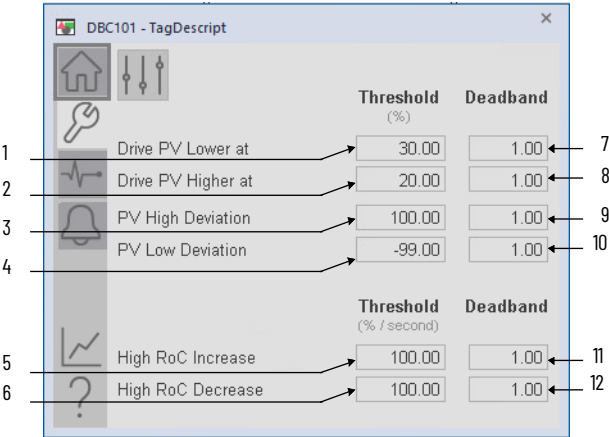
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



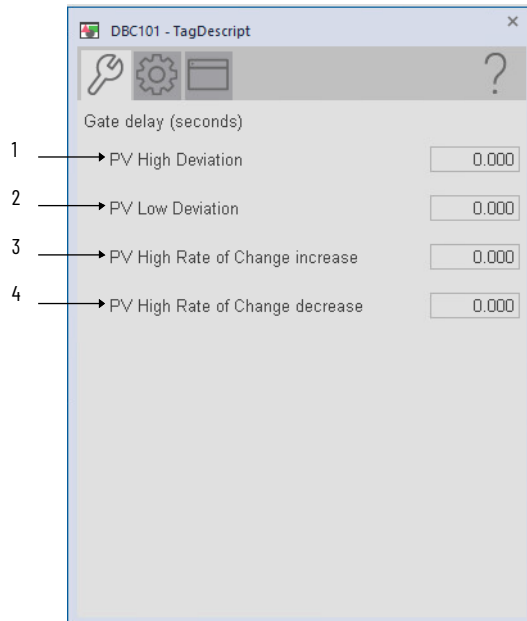
Item	Description
1	PV EU maximum
2	Drive PV Lower Value
3	Current PV Value
4	Drive PV Higher Value
5	PV EU minimum
6	Drive PV Lower Limit
7	High Rate of Change Decreasing Limit
8	High Rate of Change Increasing Limit
9	Rate of Change Indicator
10	Current Rate of Change
11	Controlled Variable Indicator
12	Auto/Manual Mode Indicator
13	Drive PV buttons. From left to right: drive PV lower, don't drive PV, drive PV higher
14	Current PV Value
15	Drive PV Higher Limit
16	Auto Mode Command Button
17	Manual Mode Command Button

Maintenance Tab



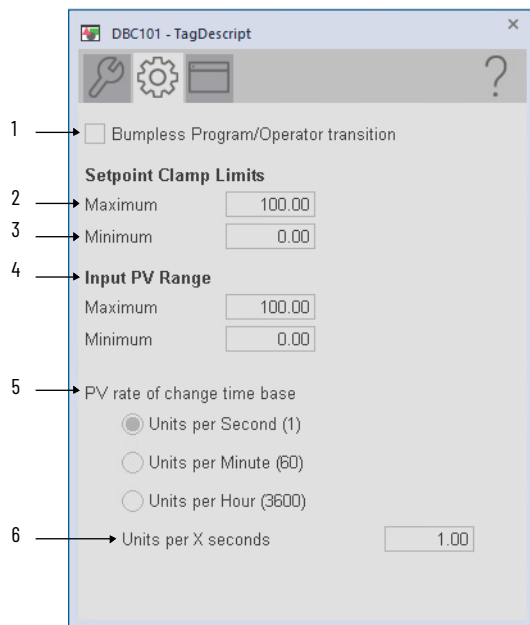
Item	Description
1	Enter the value of the PV at which the output turns off and PV starts to decrease.
2	Enter the value of the PV at which the output turns on and PV starts to increase.
3	Enter the number that is used to establish the high deviation limit. When the PV reaches this limit, a High Deviation alarm is generated. EXAMPLE: In the examples, the Lower setpoint is 67 and the PV Hi Dev Status is 5. We add 67 and 5 to get the high deviation limit of 72.
4	Enter the number that is used to establish the low deviation limit. When the PV reaches this limit, a Low Deviation alarm is generated. EXAMPLE: In the examples, the Raise setpoint is 30 and the PV Lo Dev Status is -5. We add 30 and -5 to get the low deviation limit of 25.
5	Enter the number to set the high Rate of Change (decrease) limit (83 in the example). When the Rate of Change reaches this level, a Hi Rate of Decrease alarm is generated.
6	Enter the number to set the high Rate of Change (increase) limit (17 in the example). When the Rate of Change reaches this level, a Hi Rate of Increase alarm is generated.
7	Enter a number that is the size of the deadband for the Lower output (below Lower limit)
8	Enter a number that is the size of the deadband for the Raise output (above Raise limit)
9	Enter the number that PV must decrease to reset a High Deviation alarm. EXAMPLE: The high deviation limit is 72 and the deadband is 1. The PV must decrease 1 unit to 71 to reset the High Deviation alarm. IMPORTANT: The deadband can be set so that the PV must decrease below the Lower setpoint before the High Deviation alarm is reset. For example, the deadband can be set to 10 so that the PV must decrease to 62 to reset the alarm.
10	Enter the number that PV must increase to reset a Low Deviation alarm. EXAMPLE: The low deviation limit is 30 and the deadband is 1. The PV must increase 1 unit to 26 to reset the Low Deviation alarm. IMPORTANT: The deadband can be set so that the PV must increase above the Raise setpoint before the Low Deviation alarm is reset. For example, the deadband can be set to 10 so that the PV must decrease to 35 to reset the alarm.
11	Enter the number that the Rate of Change must decrease to reset a Hi Rate of Decrease alarm.
12	Enter the number that the Rate of Change must increase to reset a Hi Rate of Increase alarm.

Advanced Maintenance Tab



Item	Description
1	Enter the Process Variable high deviation gate delay (seconds).
2	Enter the Process Variable low deviation gate delay (seconds).
3	Enter the Process Variable high rate of change increase gate delays (seconds).
4	Enter the Process Variable high rate of change decrease gate delays (seconds).

Engineering Tab



Item	Description
1	Select, the operator settings track the program settings when mode is Program, and program settings track the operator settings when the mode is Operator. Transition between modes is bumpless. Clear the checkbox, this instruction does not modify the operator settings and program settings. The operator settings and program settings retain their values regardless of mode. When the mode is changed, the value of a limit can change, such as from the Program-set value to the Operator-set value.
2	Enter the lower limit for the Loop PV Higher point.
3	Enter the upper limit for the loop PV Lower point.
4	Minimum and maximum values for PV input. These values are reflected on the PV bar graph on the Operator tab and the graph on the Trends tab.
5	Select the PV rate of change time base used.
6	Enter the number of units per x seconds, where x equals the number of seconds selected for the PV rate of change time base.

HMI Configuration Tab

DBC101 - TagDescript

TagDescript

Label: DBC101 Label

Tag: DBC101

Area name for security: Area01

Unit: %

Number of decimal places for PV: 2

Alarm Configuration

☒ Allow Operator to Shelve Alarm

☒ Allow Maintenance to Disable Alarm

< 1 2 3 >

Item	Description
1	Enter the text of the engineering units for the PV.
2	Enter the number of decimal places that are used for the PV.
3	Select to allow Operator to shelve alarm.
4	Select to allow Maintenance to disable alarm.

DBC101 - TagDescript

Operator Command Confirmation Required

☒ None

☐ Command confirmation

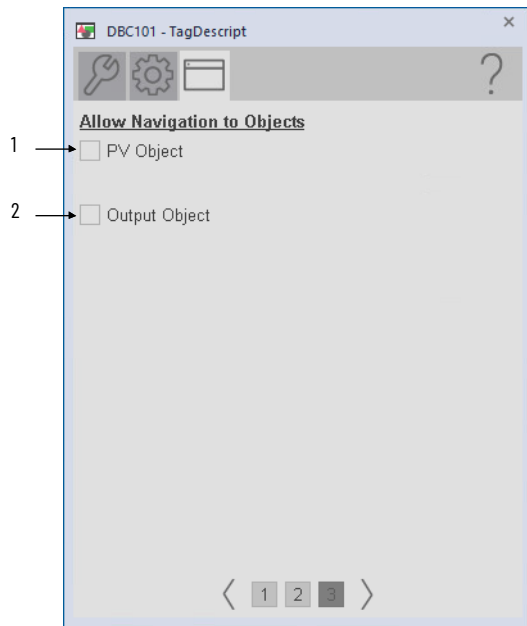
☐ Performer e-signature

☐ Performer and approver e-signatures

☐ Enable navigation to an object with more information

< 1 2 3 >

Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.




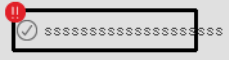

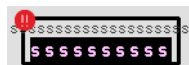

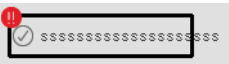


Item	Description
1	Select to enable navigation to the PV object.
2	Select to enable navigation to the output object.

Notes:

Process Discrete Input (PDI)

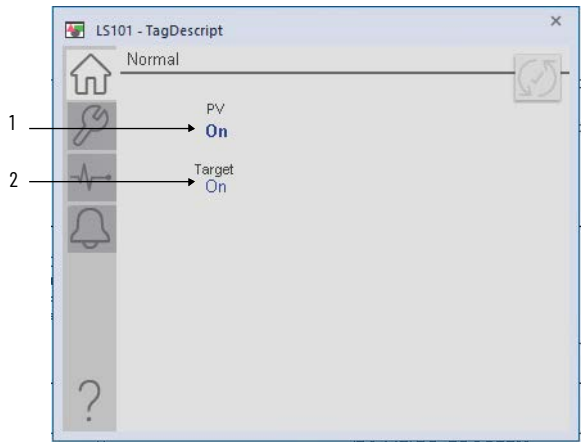
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PDI 	Global object with label.
GO_PDI1 	Global object without label.
GO_PDI_Circle 	Global object with only indicator.
GO_PDI_CircleWLabel 	Global object with indicator and label.
GO_PDI_L1_ 	Displays object status with label.
GO_PDI1_L1_ 	Displays object status without label.
GO_PDI_L1_Circle 	Displays object indicator.
GO_PDI_L1_CircleWLabel 	Displays object indicator with label.

FactoryTalk View SE Faceplates

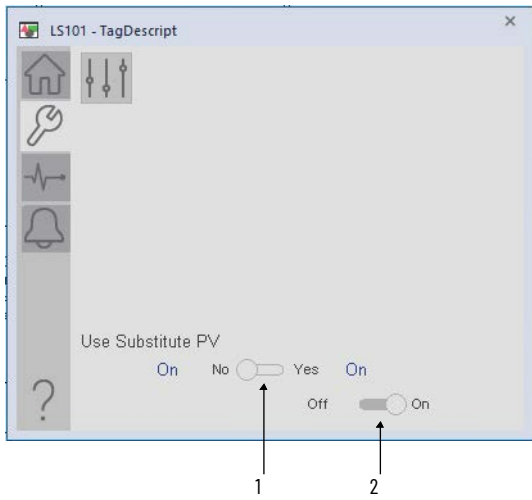
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



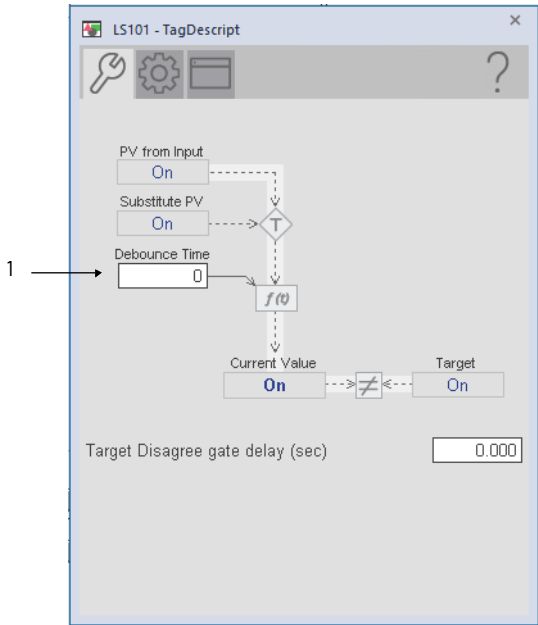
Item	Description
1	Current Process Variable
2	Target Process Variable

Maintenance Tab



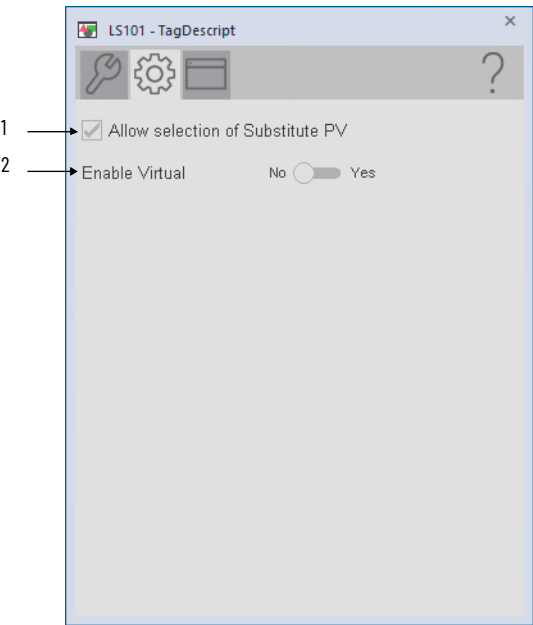
Item	Description
1	Select to enable the use of the Substitute Process Variable.
2	Select to choose Process Variable to be used.

Advanced Maintenance Tab



Item	Description
1	Minimum time the Process Variable must maintain the state, in seconds.

Engineering Tab



Item	Description
1	Select to enable the substitute Process Variable feature.
2	Select yes to enable Virtual.

HMI Configuration Tab

1 → Text to Display in PV = 0 State: Off

2 → Text to Display in PV = 1 State: On

3 → ☒ Display state text in "normal" state (= target)

Alarm Configuration

4 → ☒ Allow Operator to Shelve Alarm

5 → ☒ Allow Maintenance to Disable Alarm

Item	Description
1	Enter text to display in PV 0 State.
2	Enter text to display in PV 1 State.
3	Select to display state text in normal state
4	Select to allow Operator to shelve the alarm.
5	Select to allow Maintenance to disable the alarm.

1 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

☐ Performer e-signature

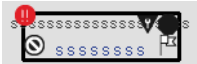
☐ Performer and approver e-signatures

2 → ☐ Enable navigation to an object with more information

Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.

Process Discrete Output (PDO)

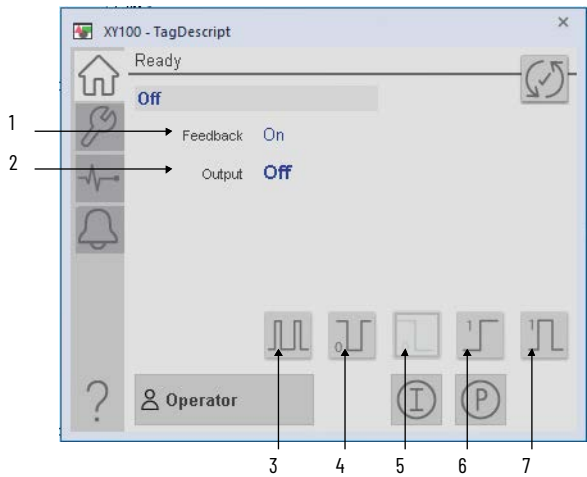
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PDO 	Digital (2-state) device Graphic Symbol for use on overview and detail displays.

FactoryTalk View SE Faceplates

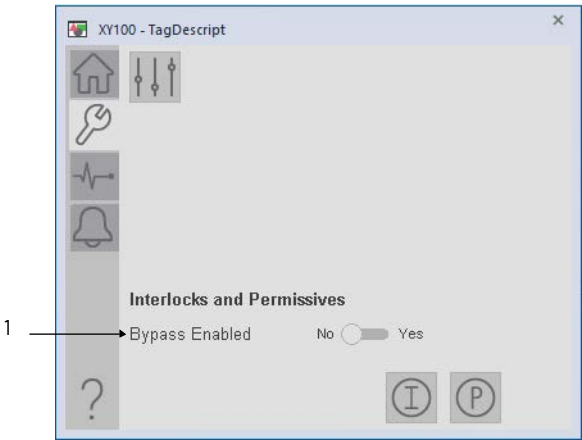
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



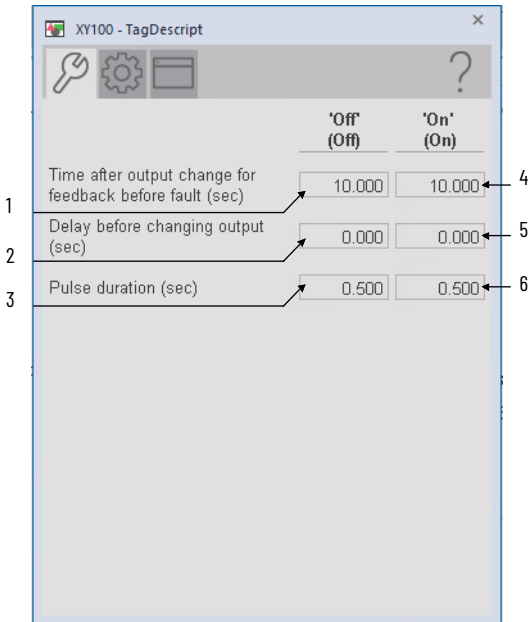
Item	Description
1	Feedback indicator
2	Discrete output indicator
3	Continuous Pulse Button
4	Single Pulse 'Off' Button
5	Output 'Off' Button
6	Output 'On' Button
7	Single Pulse 'On' Button

Maintenance Tab



Item	Description
1	Select if bypassable interlocks and permissives are bypassed.

Advanced Maintenance



Item	Description
1	Enter the amount of time to allow for the device to get feedback for the Off setting before setting a fault.
2	Enter the amount of time before the output deactivates.
3	Enter the amount of time to trigger a pulse when the device deactivates.
4	Enter the amount of time to allow for the device to get feedback for the On setting before setting a fault.
5	Enter the amount of time before the output activates.
6	Enter the amount of time to trigger a pulse when the device deactivates.

Engineering Tab

XY100 - TagDescribe

1 ☐ Device has 'Off' (Off) feedback

2 ☐ Device has 'On' (On) feedback

3 Fault when both feedback inputs are
☒ ON ☐ OFF

4 ☐ Operator command resets fault

5 ☐ External command resets fault

6 ☐ Enable pulsing functions

7 ☐ In Override, bypass Interlocks and Permissives that can be bypassed

8 ☐ Operator 'Off' (Turn off) command always available

9 ☐ External 'Off' (Turn off) command always available

< 1 2 >

Item	Description
1	Select to configure the instruction to use Off feedback signals from the device.
2	Select to configure the instruction to use On feedback signals from the device.
3	Select to Enable fault when both feedback inputs are either ON or OFF.
4	Select to reset a fault upon an operator command. Clear this checkbox to reset faults by using only the reset code.
5	Select to reset a fault upon an external command. Clear this checkbox to reset faults by using only the reset code.
6	Select to enable the pulsing functions.
7	Select if bypassable interlocks and permissives are bypassed in override command source.
8	Select to make the Operator Off command available in any command source. Clear this checkbox to make the Operator Off command available only in Operator or Maintenance command source.
9	Select to make the External Off command available in any command source. Clear this checkbox to make the External Off command available only in Operator or Maintenance command source.

XY100 - TagDescribe

1 ☐ Finish Pulse when commanded 'Off' (Off) or 'On' (On)

Deenergize Output:

2 ☒ On I/O Fault

3 ☒ On Failure to Reach Target State

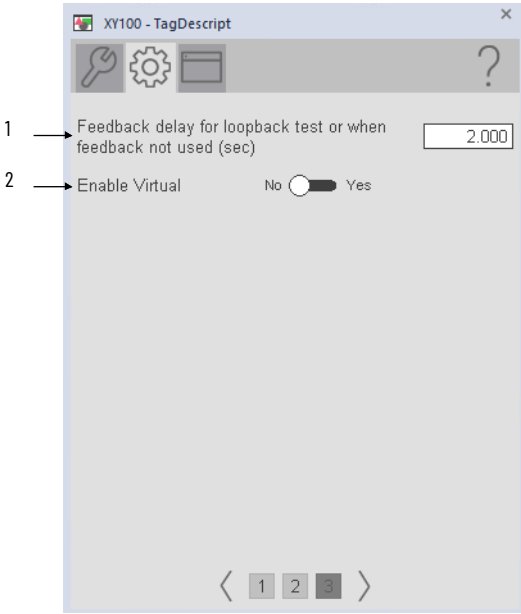
4 ☒ On Interlock Trip

5 Audible on:
☒ Device energize only
☐ Any Commanded State Change

6 Time to sound audible on commanded energize (sec) (0=disabled)

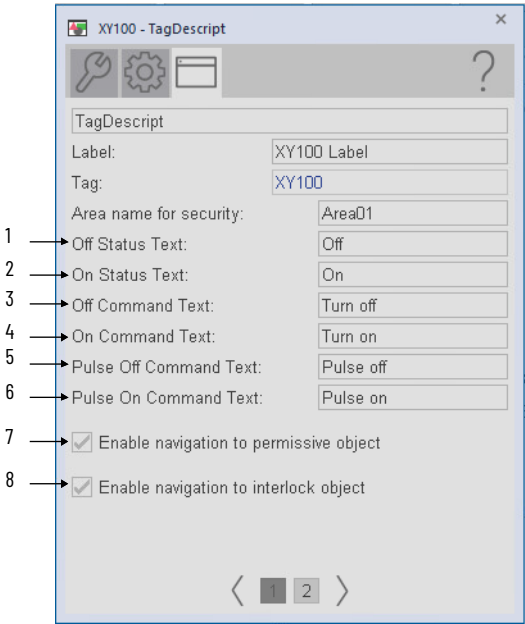
< 1 2 3 >

Item	Description
1	Select to finish pulse when commanded ON or OFF.
2	Select to de-energize the output to the device and return the device to its fail position, when an I/O Fault condition occurs. Clear this checkbox to keep the output to the device in its current stat on an I/O Fault condition. IMPORTANT: If a condition is configured to shed the device to the Off state on a fault, a reset is required to clear the shed fault. This reset commands the device to a state other than Off.
3	Select to de-energize the output to the device, return it to its fail position, when a Position Fail condition occurs. Clear this checkbox to keep the output to the device in its current state (keep trying) on a Position Fail condition. IMPORTANT: If a condition is configured to shed the device to the Off state on a fault, a reset is required to clear the shed fault. This reset commands the device to a state other than Off.
4	The device outputs are always de-energized on an Interlock Trip. This item cannot be unchecked. It is displayed as a reminder that the Interlock Trip function always de-energizes the device.
5	Select the setting for when the audible output of the object is on.
6	Enter the amount of time the audible output will be held on when enabled.



Item	Description
1	Sets the time delay (in seconds) for the On or Off status to be echoed back when Virtual is enabled or when On and Off feedback is not used.
2	Select yes to enable Virtual.

HMI Configuration Tab



Item	Description
1	Enter text to display when device is in Off (0) state.
2	Enter text to display when device is in On (1) state.
3	Enter text to display for the off command.
4	Enter text to display for the on command.
5	Enter text to display for the pulse off command.
6	Enter text to display for the pulse on command.
7	Select to enable navigation to the permissive object
8	Select to enable navigation to the interlock object

XY100 - TagDescript

Alarm Configuration

1 ☐ Allow Operator to Shelve Alarm

2 ☐ Allow Maintenance to Disable Alarm

3 ☐ Operator Command Confirmation Required

☒ None

☐ Command confirmation

☐ Performer e-signature

☐ Performer and approver e-signatures

4 ☒ Enable navigation to an object with more information

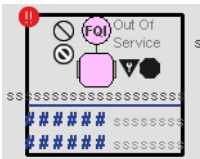
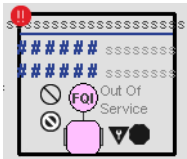

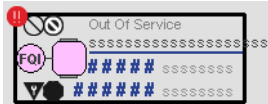
< 1 2 >

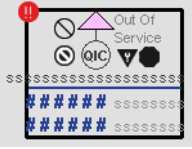


Item	Description
1	Select to allow Operator to shelve the alarm.
2	Select to allow Maintenance to disable the alarm.
3	Select to configure operator command confirmation. This action would take place after any operator command.
4	Select whether there is navigation to an additional object or not. If selected, enter the object name in the value.

Notes:

Process Dosing (PDOSE)

Graphic Symbols

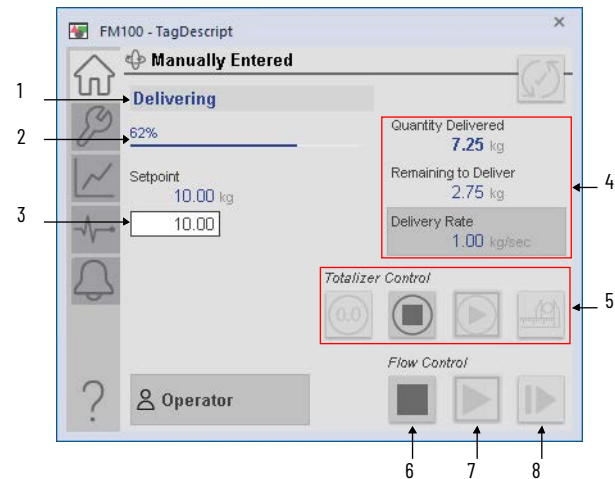
FactoryTalk View SE Graphic Symbol	Description
GO_PDOSE_FM 	Vertical Orientation Top
GO_PDOSE_FM1 	Vertical Orientation Bottom
GO_PDOSE_FM2 	Horizontal Orientation Right
GO_PDOSE_FM3 	Horizontal Orientation Left

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PDOSE_WS</div> 	Vertical orientation up.
<div>GO_PDOSE_WS1</div> 	Horizontal orientation right.
<div>GO_PDOSE_WS2</div> 	Horizontal orientation left.

FactoryTalk View SE
Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



Item	Description
1	Dosing Equipment Commanded State.
2	Delivery Progress Bar.
3	Configure the quantity to deliver.
4	Delivery progress.
5	Totalizer Control (from left to right) <ul style="list-style-type: none">• Select to clear the totalized quantity.• Select to stop the Totalizer.• Select to start the Totalizer.• Select to check tolerances.
6	Select to stop the Totalizer flow.
7	Select to start the Totalizer flow.
8	Select to bump the Totalizer flow.

Maintenance Tab

FM100 - TagDescript

1 → Dribble Quantity (kg) 0.05

2 → Preact Quantity (kg) 0.00

3 → Delivery Tolerance (kg) 0.00

4 → Over Setpoint 0.00

5 → Under Setpoint 0.00

☒ Use Equipment Feedback

Item	Description
1	Configure the quantity before the end of delivery, when a switch to a reduced flow rate (dribble) for finer control of the final quantity is made.
2	Configure the quantity before reaching the Setpoint Quantity when a command the delivery equipment to stop to allow equipment to react. The preact quantity helps prevent overshooting the delivery Setpoint.
3	Enter the quantity by which delivery can exceed the setpoint. If the delivered quantity is more than the setpoint plus this value, a tolerance check shows over tolerance.
4	Enter the quantity by which delivery can fall short of the setpoint. If the delivered quantity is less than the setpoint minus this value, a tolerance check shows under tolerance.
5	Select whether there is equipment feedback or not. The equipment provides run (dribble if used) and stop feedback.

Advanced Maintenance

FM100 - TagDescript

1 → Rate below which to report zero flow (kg/sec) 0.00

2 → Percentage of delivery error to auto-adjust Preact (%) 10.00

3 → Time to pulse Out_Clear to clear external totalizer (sec) 1.000

4 → Duration of flow when the Bump button is pressed (sec) (0 = maintained) 0.000

5 → Delay after flow stop before enabling tolerance check (sec) 1.000

6 → Time for Equipment Feedback before Fault (sec) 10.000

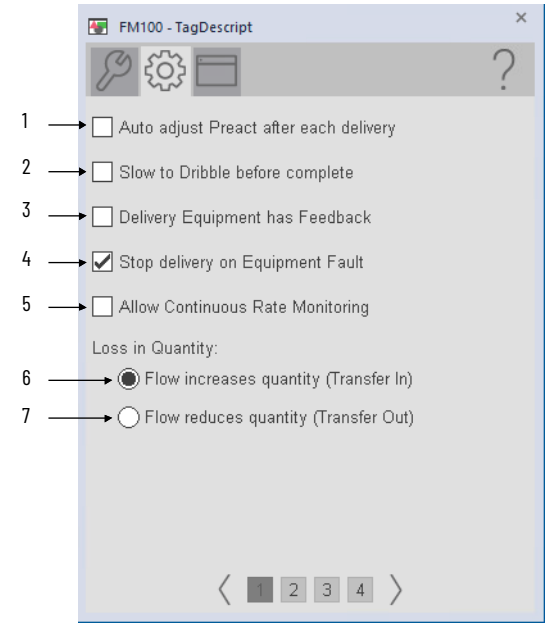
7 → Flow rate thresholds (kg/sec)

High threshold 3.40E38

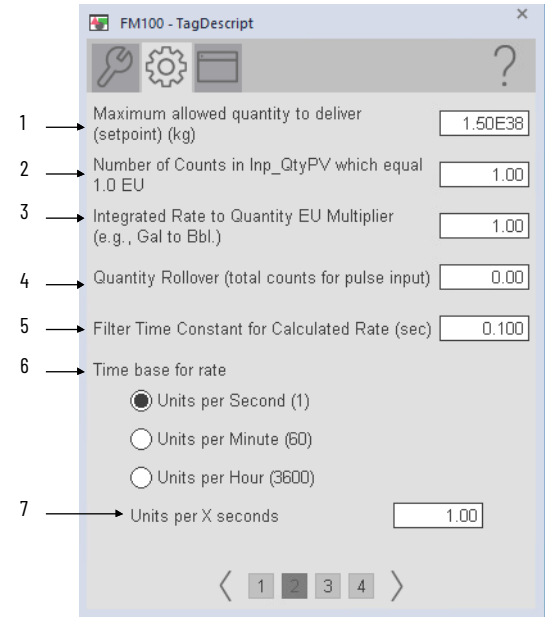
Low threshold 3.40E38

Item	Description
1	Enter a value so that when the flow rate is less than this value, it is treated as zero. This value helps prevent totalizing the transmitter error when flow is stopped.
2	Enter the percentage of delivery error. When the delivery tolerance is checked, if no bump has occurred and if the delivery is in tolerance, the error (difference between delivery setpoint and actual delivery) is multiplied by this percentage and applied to the preact. The preact self-tunes and learns the correct value of the preact over time.
3	Configure the Time (in seconds) to Pulse the Clear Output to clear an external totalizer, such as one in an intelligent flowmeter.
4	Enter the amount of time to command the controlled equipment to run flow when the bump command button is pressed. If this value is set to zero, Bump is treated like a Jog: flow starts when the button is pressed and stops when the button is released. If this value is greater than zero, flow is bumped for the configured time.
5	Enter the amount of time in seconds after flow is stopped for the scale reading to settle before a tolerance check can be commanded.
6	Enter the maximum allowed feedback time. If equipment feedback is being used, the instruction allows this much time after commanding the equipment for feedback to show the equipment in the commanded state before raising a fault status.
7	Enter the flow high threshold. This is the limit for flow alarming.
8	Enter the flow low threshold. This is the limit for flow alarming.

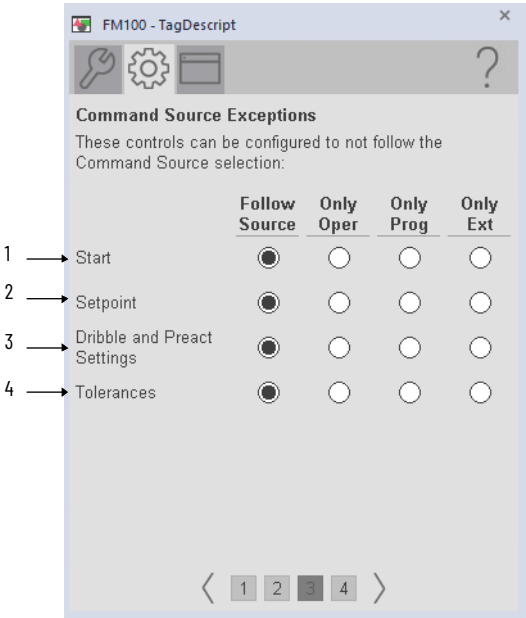
Engineering Tab



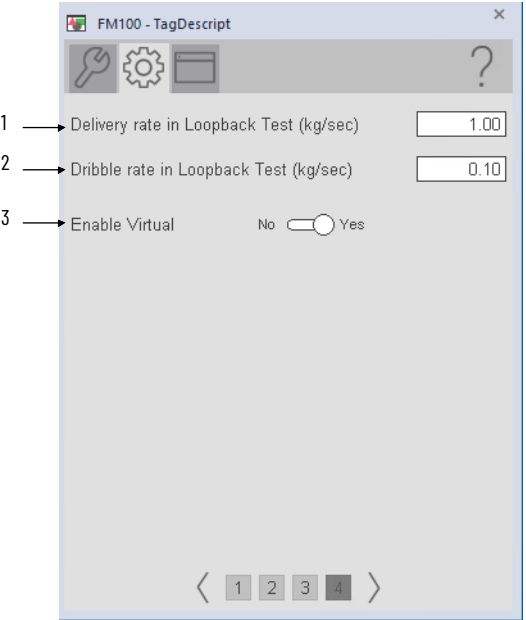
Item	Description
1	Select to adjust the Preact automatically based on the actual versus setpoint Quantity after each successful delivery. Clear this checkbox to leave the Preact as entered.
2	Select to command the equipment to a slower Dribble rate as delivery nears completion to improve the accuracy of Quantity delivered.
3	Select if the controlled equipment provides feedback of its running, dribbling, and stopped status to this instruction. This instruction checks that the equipment is performing the commanded function and provides a status (and optional alarm) if the equipment fails to respond as commanded within a configurable time. IMPORTANT: The feedback fault time is configured on the Advanced Maintenance tab. Clear this checkbox if the controlled equipment does not provide feedback of its status. The instruction assumes that the equipment is performing the commanded function and no equipment failure-to-respond checks occur.
4	Select if you want the dosing instruction to attempt to stop the controlled equipment if an equipment fault is reported (Inp_CtrldEqupFault) or detected (via feedbacks). Clear this checkbox if you want the dosing instruction to keep performing its current function, even if an equipment fault occurs.
5	Select to allow continuous rate monitoring.
6	Select to designate as a Transfer In instance.
7	Select to designate as a Transfer Out instance.



Item	Description
1	Enter the maximum allowed quantity to deliver. The quantity setpoint is clamped not to exceed this value.
2	Enter the number of counts in Inp_QtyPV that equal one engineering unit of quantity delivered. This value is used with pulse output flowmeters and a pulse input I/O card.
3	Enter the rate to quantity engineering units multiplier. This value is used if the input is in one unit of measure, such as gallons per minute, and the total is in another that requires conversion above and beyond time units, such as barrels.
4	Enter the quantity rollover. This value is used when a quantity or pulse count input rolls over to zero at some value, such as 999,999 counts.
5	Enter the filter time constant for calculated rate.
6	Select the time base for rate.
7	Enter the number of units per x seconds, where x equals the number of seconds selected for the time base for rate.



Item	Description
1	Select to keep control of dosing Start and Stop commands with the Operator, Program, External, or Follow the Source even if the instruction is in Program command source.
2	Select to keep control of the Setpoint quantity setting with the Operator, Program, External, or Follow the Source even if the instruction is in Program command source.
3	Select to keep control of the Dribble and Preact quantity settings with the Operator, Program, External, or Follow the Source even if the instruction is in Program command source.
4	Select to keep control of the high and low Tolerance settings with the Operator, Program, External, or Follow the Source even if the instruction is in Program command source.



Item	Description
1	Enter the normal running delivery rate that is used when the P_Dose instruction is in virtual (Inp_Sim = 1).
2	Enter the dribble (slow) delivery rate that is used when the P_Dose instruction is in virtual (Inp_Sim = 1).
3	Select yes to enable virtual.

HMI Configuration Tab

FM100 - TagDescript

?

TagDescript

Label: FM100 Label

Tag: FM100

Area name for security: Area01

1 → Quantity Unit: kg

2 → Rate Unit: kg/sec

3 → Number of decimal places for Quantity PV 2

4 → Number of decimal places for Rate PV 2

Alarm Configuration

5 → ☐ Allow Operator to Shelve Alarm

6 → ☐ Allow Maintenance to Disable Alarm

< 1 2 3 >

Item	Description
1	Enter the units of measure descriptor for the Quantity delivered.
2	Enter the units of measure descriptor for the Rate of delivery.
3	Enter in the number of decimal places that are displayed for the Quantity Process Variable
4	Enter in the number of decimal places that are displayed for the Rate Process Variable
5	Select to allow Operator to shelve the alarm.
6	Select to allow Maintenance to disable the alarm.

MyPDOSE_F - Dosing with Flowmeter

?

1 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

☐ Performer e-signature

☐ Performer and approver e-signatures

2 → Historical Data Source

☐ None

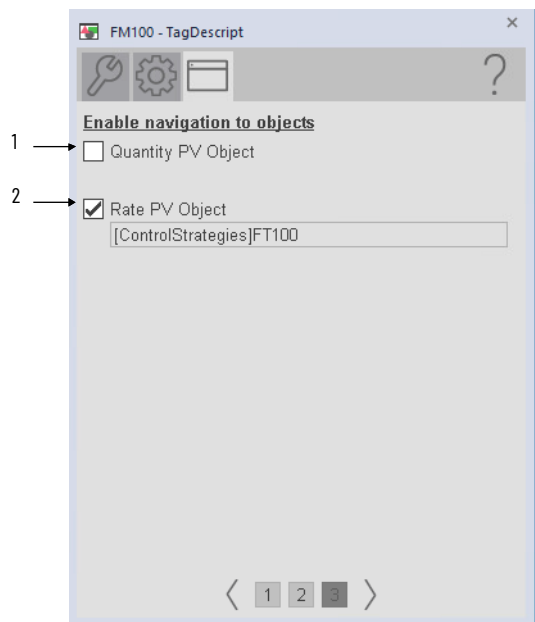
☒ Datalog

☐ Historian

3 → ☐ Enable navigation to an object with more information

< 1 2 3 >

Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to configure if a Historical data source will be used or not.
3	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.

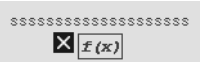
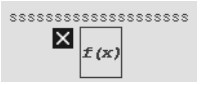


Item	Description
1	Select to enable navigation to a Quantity PV object
2	Select to enable navigation to a Rate PV object

Notes:

Process Analog Fanout (PFO)

Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PFO 	PFO graphic symbol
GO_PFO1 	PFO graphic symbol (Large)

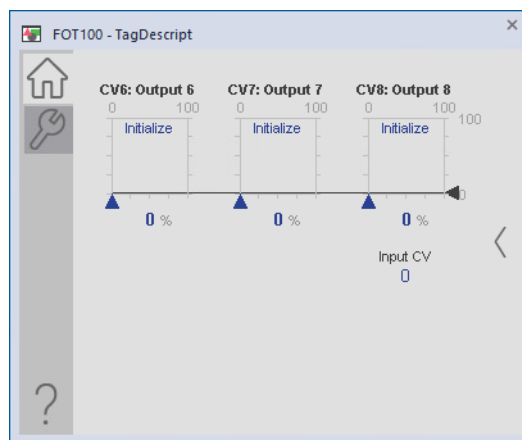
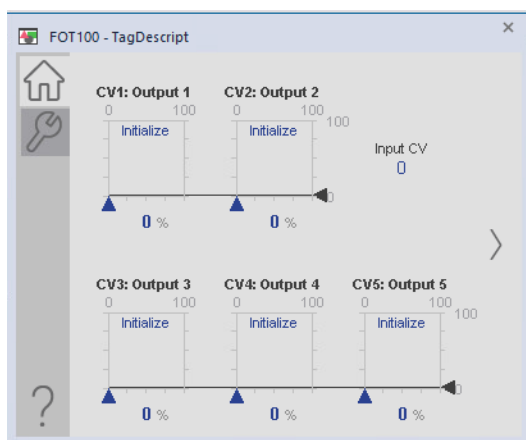
FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

The Faceplate initially opens to the Operator (Home) tab. From here, an operator can monitor the device status and manually operate the device when it is in Operator mode.

If outputs 6, 7, and 8 are used by the instruction (in other words, if Cfg_HasCV6... Cfg_HasCV8 are 1), the Home tab has a second page that displays the information.



Maintenance Tab

1

2

3

FOT100 - TagDescription

Home Settings Help

Rate of Change Limit (%/sec)

	Ratio	Offset
CV1	-2	100
CV2	2	-100
CV3	1	0
CV4	1	0
CV5	1	0
CV6	1	0
CV7	1	0
CV8	1	0

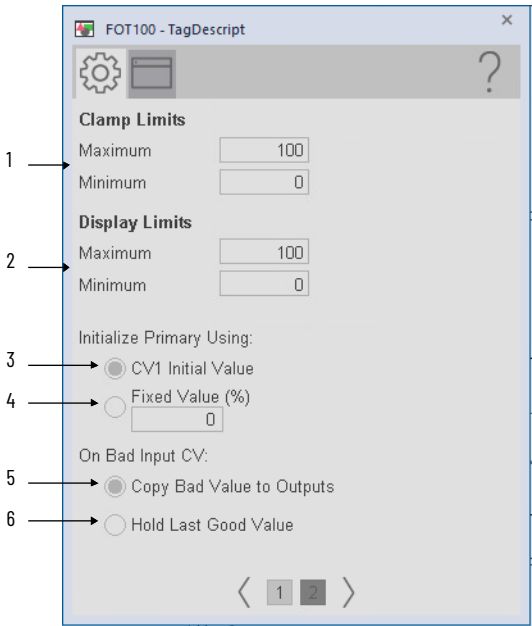
Item	Description
1	Enter a value that sets the ratio to calculate each individual output. This value either sets the operator ratio (for example, OSet_CV1Ratio) or the configuration ratio (for example, Cfg_CV1Ratio) depending on the ratio source selection.
2	Enter a value that sets the offset to calculate each individual output. This value either sets the operator offset (for example, OSet_CV1Offset) or the configuration offset (for example, Cfg_CV1Offset) depending on the ratio source selection.
3	Operator setting for the Input CV rate of change limit (increasing or decreasing). If Cfg_MaxCVRoC = 0.0, then this parameter can be set to zero, which means the rate of change is not limited.

Engineering Tab

The screenshot shows the 'FOT100 - TagDescriptor' window. At the top, there is a title bar with a close button. Below it is a toolbar with a settings gear icon (arrow 1), a table icon (arrow 2), and a help question mark icon (arrow 4). The main area contains a table with four columns: 'Has CV', 'Minimum (EU)', 'Maximum (EU)', and 'Takeup Rate (EU/sec)'. The table has eight rows, each representing a CV (CV1 to CV8). Each row has a checkbox in the 'Has CV' column, which is checked for all CVs. The 'Minimum (EU)' and 'Maximum (EU)' columns contain numeric input fields with values 0 and 100 respectively. The 'Takeup Rate (EU/sec)' column contains numeric input fields with values 1. At the bottom, there are navigation arrows and a page indicator showing '1' and '2' (arrow 3 points to the '2' indicator).

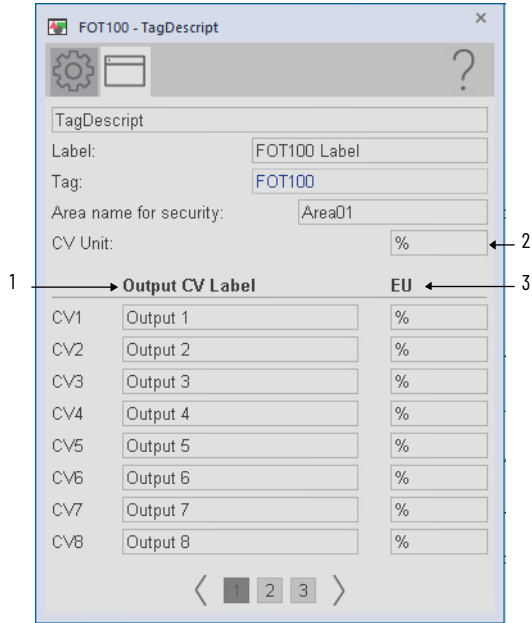
Has CV	Minimum (EU)	Maximum (EU)	Takeup Rate (EU/sec)
<input type="checkbox"/> CV1	0	100	1
<input checked="" type="checkbox"/> CV2	0	100	1
<input checked="" type="checkbox"/> CV3	0	100	1
<input checked="" type="checkbox"/> CV4	0	100	1
<input checked="" type="checkbox"/> CV5	0	100	1
<input checked="" type="checkbox"/> CV6	0	100	1
<input checked="" type="checkbox"/> CV7	0	100	1
<input checked="" type="checkbox"/> CV8	0	100	1

Item	Description
1	Select to enable use of the corresponding output.
2	Enter a value for the minimum value to be used to clamp CV (in engineering units).
3	Enter a value for the maximum value to be used to clamp CV (in engineering units).
4	Enter a rate that the CV is to change to a calculated value after initialization to provide bumpless transfer from initialization.

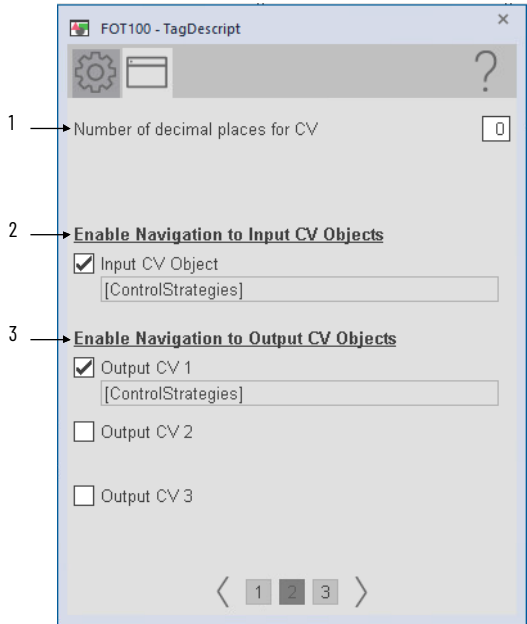


Item	Description
1	Enter values to set the limits to use to clamp the CV.
2	Enter values to set the limits to display for the CV.
3	Select to use the CV1 initialization value (Inp_CV1InitVal) to set the initialization output (Out_CV_InitVal) when initialization is requested.
4	Select to use a fixed value (Cfg_FixedInitVal) to set the initialization output (Out_CV_InitVal) when initialization is requested. Enter a value to set the initialization value (Out_CVInitVal) if initialization is requested and a fixed value option is selected.
5	Select to pass through the bad value.
6	Select to hold last good value.

HMI Configuration Tab




Item	Description
1	Enter the description of the output name.
2	Enter the units that are used with the CV.
3	Sets the CV engineering units to use for display.



Item	Description
1	Enter the number of decimal places to be shown for CV.
2	Select to permit navigation to an input CV object faceplate for which you typed a tag name.
3	Select to permit navigation to an output CV object faceplate for which you typed a tag name.

Process High or Low Selector (PHLS)

Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PHLs 	Standard High or Low Selector graphic symbol.

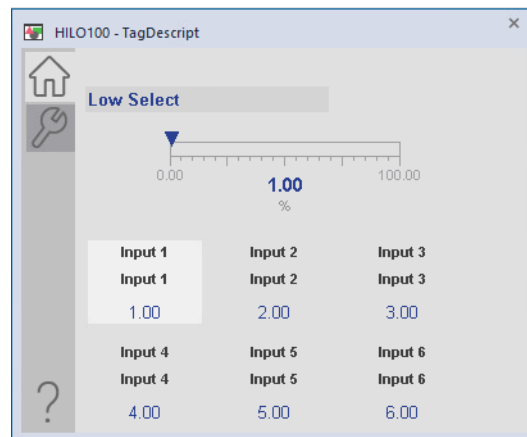
FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

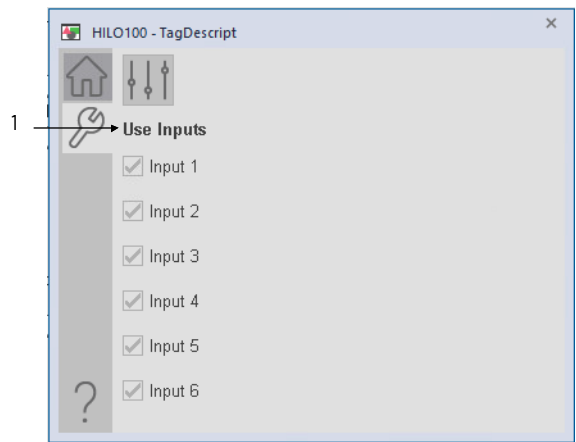
Operator Tab

The Operator tab shows the following information:

- Current operation (High or Low Select)
- Currently selected input (white highlight)
- Bar graph for clamp limits from minimum to maximum plus Output CV indicator
- Input CV values and Output CV value

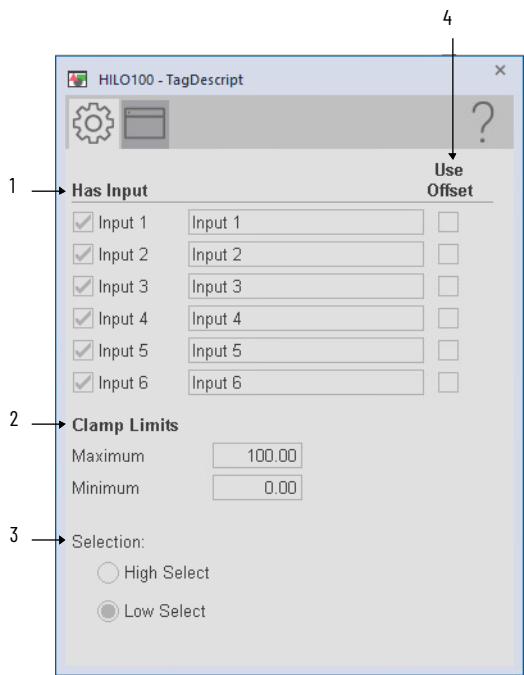


Maintenance Tab



Item	Description
1	Select to use a CV input. Clear a checkbox not to use the input and put the instruction in Maintenance Bypass.

Engineering Tab



Item	Description
1	Select 'Has Input' (CV1...CV6) where an input is connected.
2	Enter in the minimum and maximum to set the range for the selected input CV. If the selected input CV is below the minimum, it is clamped to the minimum value. If the selected input CV is above the maximum, it is clamped to the maximum value.
3	Select High Select to select the highest input CV value to pass to the output. Select Low Select to select the lowest input CV value to pass to the output.
4	Select a 'Use Offset' (CV1...CV6) to include the Kp*E offset in initialization calculation.

HMI Configuration Tab

HILO100 - TagDescript

TagDescript

Label: HILO100 Label

Tag: HILO100

Area name for security: Area01

Unit: %

Number of decimal places: 2

☐ Enable navigation to an object with more information

Enable Navigation to Output Object

☐ Output Object

< 1 2 >

Item	Description
1	Enter the engineering units for display on the HMI. Percent (%) is the default.
2	Enter in the number of decimal places that are displayed for the CV.
3	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.
4	Select to enable navigation to an output object.

HILO100 - TagDescript

Enable Navigation to Input Objects

☒ Input 1
[ControlStrategies]

☒ Input 2
[ControlStrategies]

☐ Input 3

☐ Input 4

☐ Input 5

☐ Input 6


< 1 2 >

Item	Description
1	Select an input (CV1...CV6) or the Output CV to allow navigation to a specified object.
2	Enter the tag name for the corresponding input (CV1...CV6) or Output CV.





Notes:

Process Interlock (PINTLK)

Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PINTLK 	Standard Interlock Graphic Symbol.

Interlock States

Item	Description
	Not ready to run or energize. One or more interlock conditions are not OK.
	Ready to run or energize. One or more conditions that can be bypassed are not OK, but these conditions are bypassed. All conditions that cannot be bypassed are OK.
	Ready to run or energize. All interlock conditions are OK.
	Ready to run or energize, and all interlock conditions are OK, conditions that can be bypassed are being bypassed and the equipment is not shut down.

The overall graphic symbol includes a touch field that opens the faceplate. Hover the pointing device over the graphic symbol to display a tooltip that describes the function of the symbol (FactoryTalk View SE).



FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

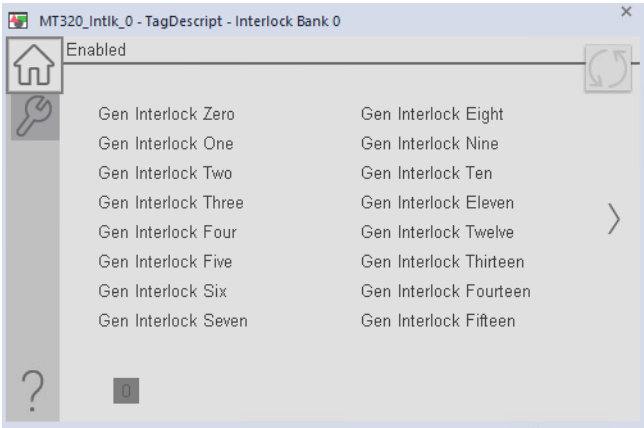
The Faceplate initially opens to the Operator (Home) Tab. From here, an operator can monitor the device status.

The Operator tab shows the following information:

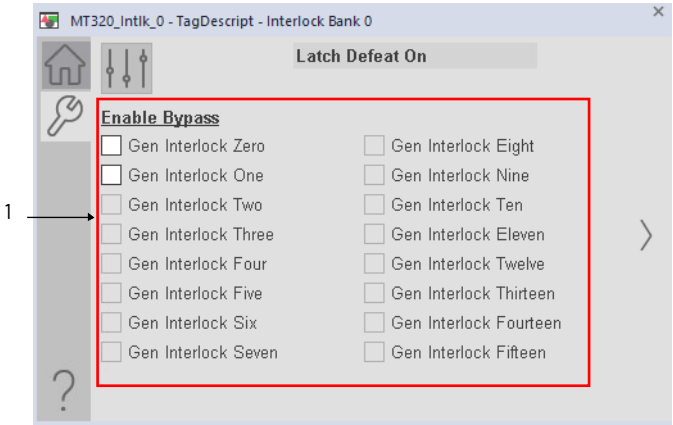
- Interlock bypass status indicator (Enabled, Bypassed)
- Each configured interlock along with the current state of the interlock

If navigation is enabled, Select a condition to open the faceplate of the object that is associated with the condition.

The following figure shows the Operator tab in a non-bypassed condition with no faults.

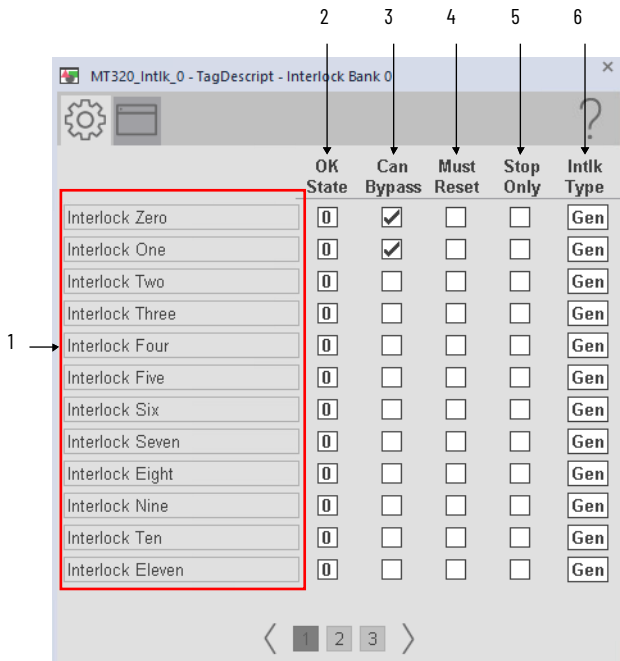


Maintenance Tab



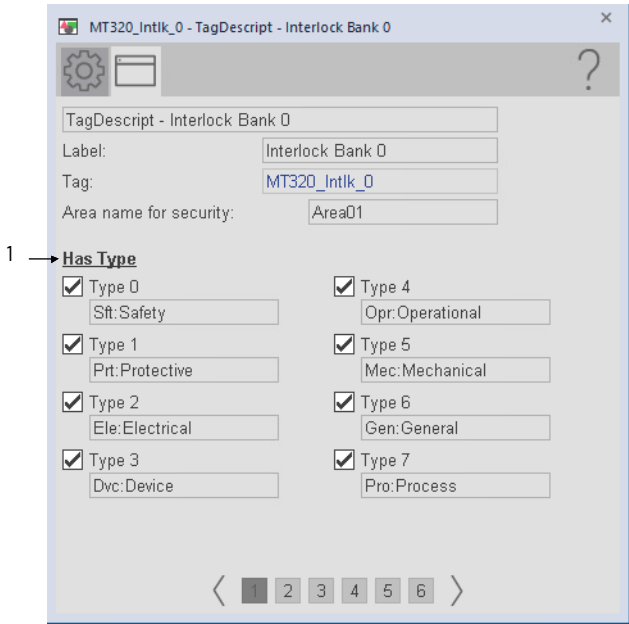
Item	Description
1	Select an interlock condition that can be bypassed, one that has a white checkbox, to enable bypass of that individual interlock.

Engineering Tab

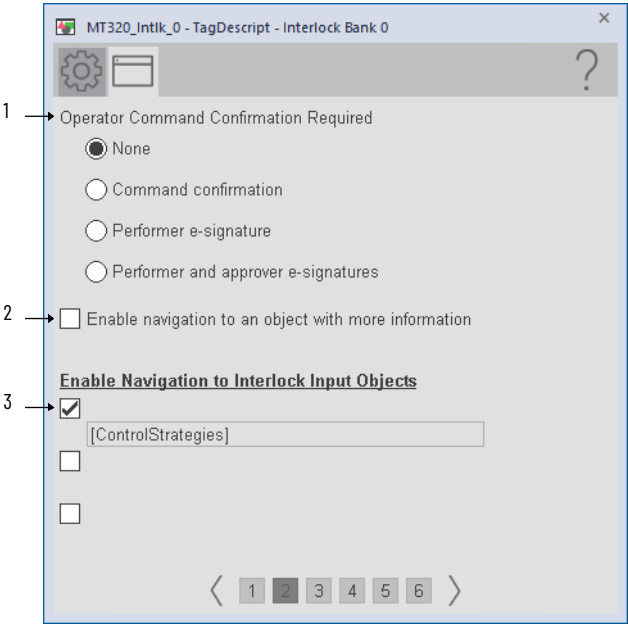


Item	Description
1	Enter the text description of each interlock condition used. Only the interlocks with text entered appear on the Operator tab of the faceplate.
2	Selects the state of the corresponding interlock that is the OK to Run state.
3	Select to indicate that the corresponding interlock can be bypassed.
4	Select to indicate that the corresponding interlock is latched and must be reset.
5	Select to configure the interlock for stop only. The object (motor) the interlock object is associated will trip when if this specific interlock is not OK, but it will not alarm.
6	Select to define the interlock type. The display opens to select an available interlock type that was defined in the HMI Configuration. <div></div>

HMI Configuration Tab




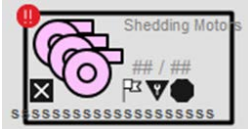

Item	Description
1	Select to enable the interlock type that can be defined in the Engineering tab. There are eight types that are configurable. The first three letters define the short name type followed by ':' and then the full type description.



Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.
3	Select to allow navigation to interlock input objects.

Process Lead/Lag/Standby Motor Group (PLLS)

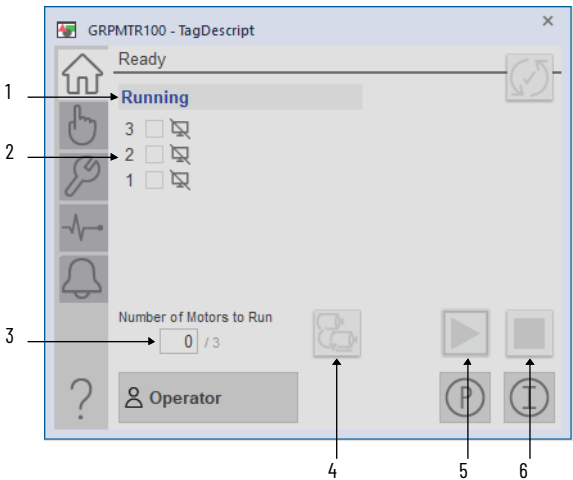
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO.PLLS.Motors</div> 	A group of motors.
<div>GO.PLLS.Blowers</div> 	A group of blowers.
<div>GO.PLLS.Pumps</div> 	A group of pumps

FactoryTalk View SE Faceplates

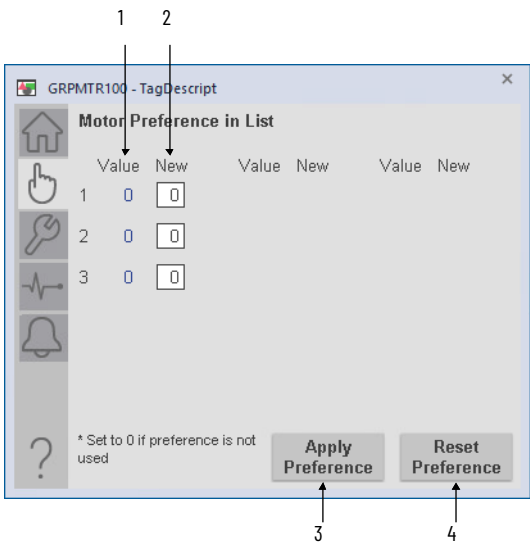
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



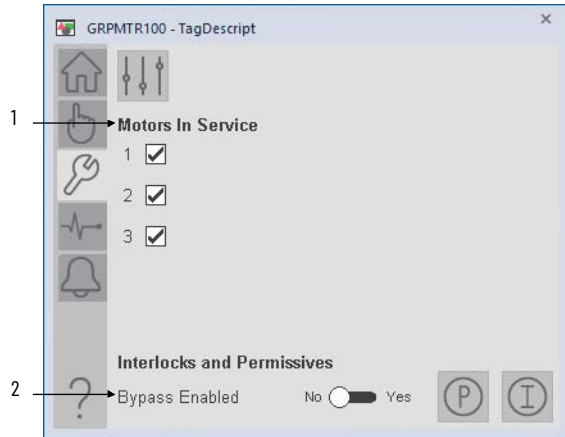
Item	Description
1	Motor state indicator.
2	Individual motor state indicators.
3	Enter a number between 0 and the maximum demand to indicate the number of motors to run.
4	Select to rotate motor assignments. The lead motor is demoted to the end of the list. Motors are started or stopped to satisfy Number of Motors to Run.
5	Select to start group.
6	Select to stop group. IMPORTANT: Motors stop in reverse order of starting unless First Started is First Stopped on the engineering tab is checked.

Manual Mode Tab



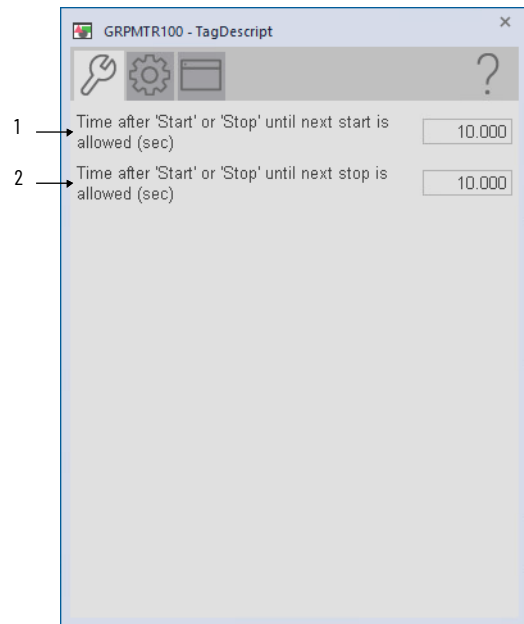
Item	Description
1	Displays the current preference for a motor.
2	Enter new preference value. The preference value determines the precedence when starting motors.
3	Apply the values in the new column to the preference values.
4	Reset preferences to previous.

Maintenance Tab



Item	Description
1	Select to place a motor in service (not in maintenance bypass). Clear the checkbox to place a motor out of service (maintenance bypass)
2	Select Yes to bypass checking of bypassable interlocks and permissives. Select No to enable checking of all interlocks and permissives.

Advanced Maintenance Tab



Item	Description
1	Enter the number of seconds after a start or stop that the next start is allowed.
2	Enter the number of seconds after a start or stop that the next stop is allowed.

Engineering Tab

The screenshot shows the 'GRPMTR100 - TagDescript' window. It features a toolbar with icons for a wrench, gears, a folder, and a question mark. Below the toolbar, the title 'Number Of Motors' is displayed. The main area contains a list of settings, each with a checkbox and a numeric input field. The settings are as follows:

Setting	Value
Number of motors (pumps) in this Lead / Lag / Standby Group	3
Maximum demand	2
Minimum demand	0
Allow 'Rotate' (demote lead) command	<input checked="" type="checkbox"/>
Rotate assignments upon stopping all motors	<input checked="" type="checkbox"/>
First started is first stopped	<input type="checkbox"/>
Operator command resets fault	<input type="checkbox"/>
External command resets fault	<input type="checkbox"/>
In Override, bypass Interlocks and Permissives that can be bypassed	<input type="checkbox"/>

At the bottom of the window, there is a navigation bar with left and right arrow buttons, a gray square button, and a numeric input field showing the value '2'.

Item	Description
1	Enter the number of motors (2...30) in the group.
2	Enter the highest number of motors that can be running.
3	Enter the lowest number of motors that can be running.
4	Select to allow the Rotate command to rotate motor assignments.
5	Select to rotate the lead motor to the end of list upon stopping all motors.
6	Select so that the first motor that is started is the first motor that is stopped.
7	Select to allow the Operator Start or Stop command to reset any previous faults (Interlock Trip), then start or stop the group. Clear this checkbox to reset faults by using only the reset commands.
8	Select to allow the External Start or Stop command to reset any previous faults (Interlock Trip), then start or stop the group. Clear this checkbox to reset faults by using only the reset commands.
9	Select to bypass interlocks and permissives that are bypassable when in Override command source.

The screenshot shows the 'GRPMTR100 - TagDescript' window. At the top, there are three icons: a wrench, a gear, and a folder, followed by a question mark. Below these are four configuration options, each with a checkbox and a number to its left:

- 1 → ☐ Operator 'Stop' command always available
- 2 → ☐ External 'Stop' command always available
- 3 → ☒ Bumpless Program/Operator transition
- 4 → ☐ Bumpless transition from Override/Hand to Program/Operator

Below these options is a section titled 'Motor Priority in list' with the text 'set to 0 if priority is not used'. Under this section, there are three rows, each with a number and a box containing a value:

- 1
- 2
- 3

At the bottom of the window, there are navigation arrows: a left arrow, a box containing '1', a box containing '2', and a right arrow.

Item	Description
1	Select (= 1) so that the OCmd_Stop has priority and is accepted at any time. If the Command Source is not Operator or Maintenance, the motor or drive requires a reset. Clear this checkbox (= 0) so that the OCmd_Stop works only in Operator or Maintenance command source.
2	Select (= 1) so that the XCmd_Stop has priority and is accepted at any time. If the Command Source is not External, the motor or drive requires a reset. Clear this checkbox (= 0) so that the XCmd_Stop only works when the command source is External.
3	Select to have Program settings (such as Speed Reference) track Operator settings in Operator command source, and have Operator settings track Program settings in Program command source.
4	Select to have Program and Operator Speed Reference track the Override Speed Reference in Override command source or the actual speed in Hand command source.
5	Enter the start priority within the list of the motors selected. Motors start in order of priority (0...31) and the higher numbers start first.

HMI Configuration Tab

GRPMTR100 - TagDescript

TagDescript

Label: GRPMTR100 Label

Tag: GRPMTR100

Area name for security: Area01

1 ☒ Enable navigation to permissive object

2 ☒ Enable navigation to interlock object

Alarm Configuration

3 ☒ Allow Operator to Shelve Alarm

4 ☒ Allow Maintenance to Disable Alarm

< 1 2 3 4 5 6 >

Item	Description
1	Select if a Permissive object is used with this motor. This check changes the Permissive indicator to a clickable button to open the Permissive faceplate. IMPORTANT: The name of the Permissive object in the controller must be the name of the object with the suffix '_Perm'. For example, if your P_LLS object has the name 'LLS123', then its Permissive object must be named 'LLS123_Perm'.
2	Select if an Interlock object is used with this group. Checking this box changes the Interlock indicator to a clickable button to open the Interlock faceplate. IMPORTANT: The name of the Interlock object in the controller must be the object name with the suffix '_Intlk'. For example, if your P_LLS object has the name 'LLS123', then its Interlock object must be named 'LLS123_Intlk'.
3	Select to allow Operator to shelve the alarm.
4	Select to allow Maintenance to disable the alarm.

GRPMTR100 - TagDescript

Operator Command Confirmation Required

1 ☒ None

☐ Command confirmation

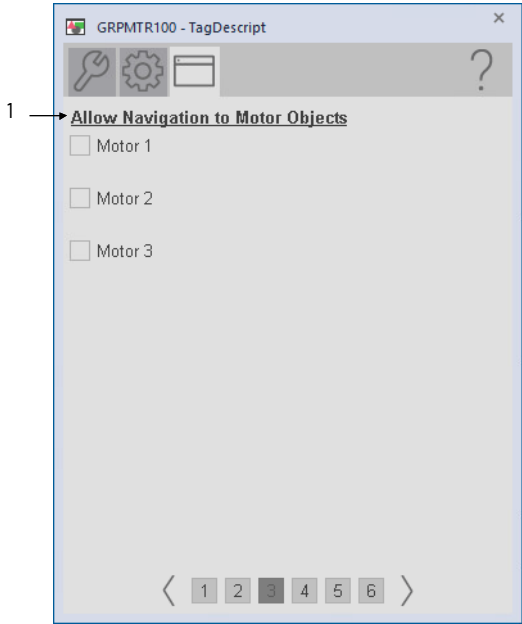
☐ Performer e-signature

☐ Performer and approver e-signatures

2 ☐ Enable navigation to an object with more information

< 1 2 3 4 5 6 >

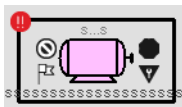

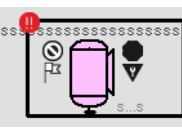



Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.

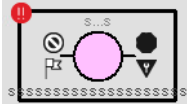

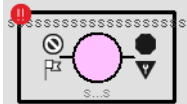





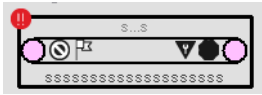





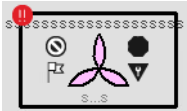
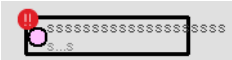



Item	Description
1	Select to allow navigation to motor objects. Additional pages are available if configured for more than 8 motors.

Process Motor (Power Discrete) (PMTR)

Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<p>GO_PMTR_R</p> 	<p>Motors operate in different positions: right, up, and down.</p>
<p>GO_PMTR_U</p> 	
<p>GO_PMTR_D</p> 	
<p>GO_PMTR_Pump_R</p> 	<p>Pumps operate in several positions: right, left, and up</p>
<p>GO_PMTR_Pump_L</p> 	
<p>GO_PMTR_Pump_U</p> 	

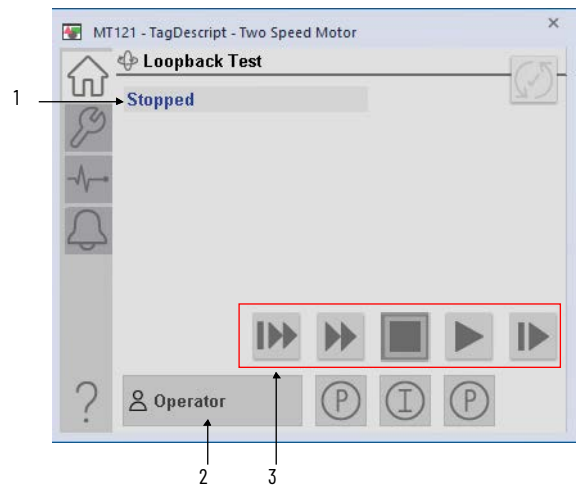
FactoryTalk View SE Graphic Symbol	Description
<div>GO_PMTR_Inline_U</div>  <div>GO_PMTR_Inline_L</div>  <div>GO_PMTR_Inline_D</div>  <div>GO_PMTR_Inline_R</div> 	Inline motors operate in several positions: up, left, down, and right.
<div>GO_PMTR_Blower_R</div>  <div>GO_PMTR_Blower_L</div>  <div>GO_PMTR_Blower_U</div>  <div>GO_PMTR_Blower_D</div> 	Blowers operate in different positions: right, left, up, and down.
<div>GO_PMTR_Conveyor_R</div> 	Conveyor that is shown as a Graphic Symbol.
<div>GO_PMTR_Agitator_D</div> 	Agitator that is shown as a Graphic Symbol
<div>GO_PMTR_Mixer_U</div> 	Mixer that is shown as a Graphic Symbol.

FactoryTalk View SE Graphic Symbol	Description
GO_PMTR_RPump_U 	Rotary gear pump that is shown as a Graphic Symbol.
GO_PMTR_Fan_D 	Fan that is shown as a Graphic Symbol.
GO_PMTR_L1_ 	Indicator with label.
GO_PMTR_L1_Motor 	Motor indicator
GO_PMTR_L1_Pump 	Pump indicator
GO_PMTR_L1_Blower 	Blower indicator

FactoryTalk View SE
Faceplates

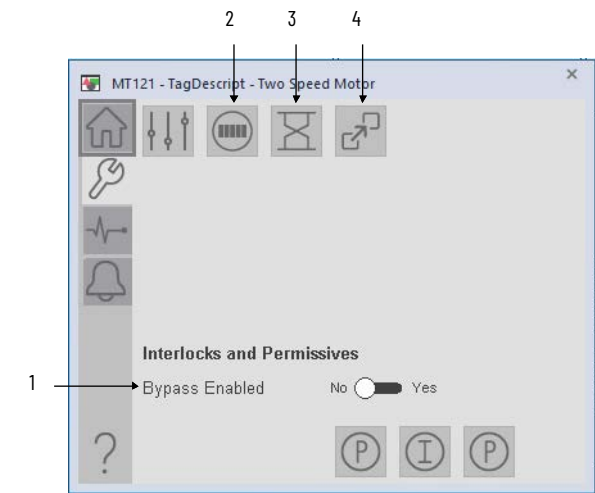
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



Item	Description
1	Motor state (stopping, stopped, starting, or running)
2	Current command source (Program, Operator, Override, Maintenance, or Hand)
3	Motor command buttons. The buttons change based on the motor configuration.
	Start Forward Speed 1
	Start Forward Speed 2
	Jog Forward Speed 1
	Jog Forward Speed 2
	Stop
	Start Reverse
	Jog Reverse

Maintenance Tab



Item	Description
1	Select Yes to bypass checking of bypassable interlocks and permissives. Select No to enable checking of all interlocks and permissives.
2	Select to open the runtime faceplate. IMPORTANT: This option is only available if 'Enable navigation to run time object' on the HMI Configuration tab is checked.
3	Select to open the Restart Inhibit faceplate. IMPORTANT: This option is only available if 'Enable navigation to restart inhibit object' on the HMI Configuration tab is checked.
4	Select to open the device object faceplate. IMPORTANT: This option is only available if 'Enable navigation to device object' on the HMI Configuration tab is checked.

Advanced Maintenance Tab

MT121 - TagDescript - Two Speed Motor

1

Time to pulse Out_Reset to clear fault (sec)

2.000

2

Time after 'Start' for feedback before fault (sec)

15.000

3

Time after 'Stop' for feedback before fault (sec)

15.000

4

Maximum jog time (sec)
0=unlimited

0.000

Item	Description
1	Enter the time for the reset output to be pulsed.
2	Enter the time to allow the run feedback to show that the motor has started before raising a fail to start alarm.
3	Enter the time to allow the run feedback to show that the motor has stopped before raising a Fail to Stop alarm.
4	Enter the maximum time to allow the motor to jog. Enter zero to allow unlimited jog time.

Engineering Tab

MT121 - TagDescript - Two Speed Motor

1

Motor Type

Single Speed Motor

Reversing Motor

Two Speed Motor

2

Motor has Run Feedback

3

Motor can Start speed 1

4

Motor can Start speed 2

5

Motor can Jog

6

Motor can Jog speed 2

7

Motor can be stopped

<

1

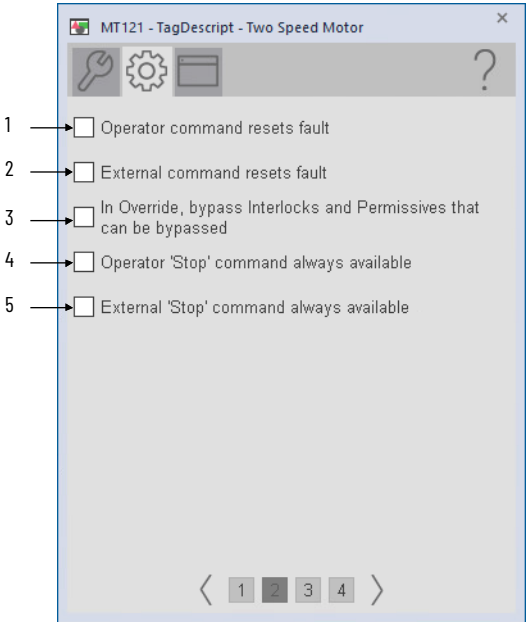
2

3

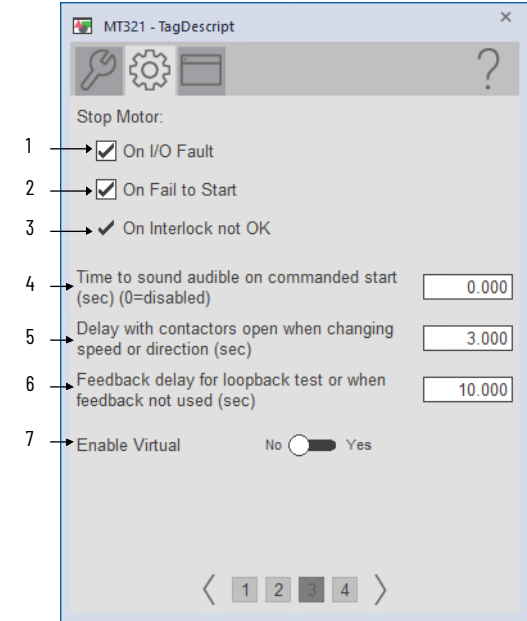
4

>

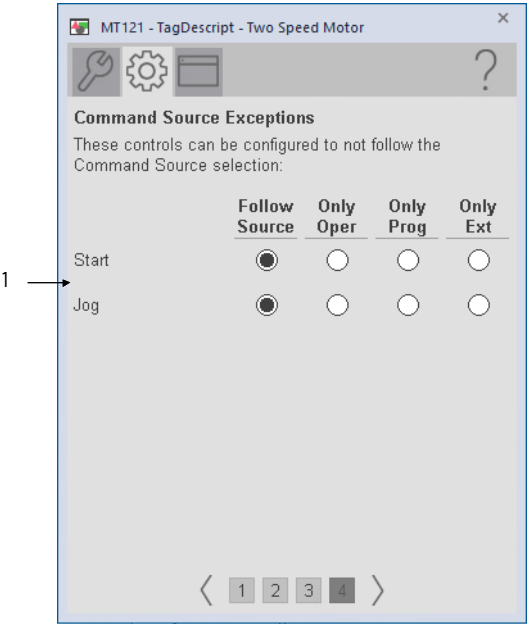
Item	Description
1	Select the motor type.
2	Select if the motor provides run feedback to Inp_SlowRunFdbk and Inp_FastRunFdbk. Clear this checkbox if there is no run feedback. IMPORTANT: This check places the device in Maintenance Bypass unless 'Use Run Feedback' on the Maintenance tab is checked.
3	Select to allow the motor to start at speed 1.
4	Select to allow the motor to start at speed 2.
5	Select to allow the motor to be jogged.
6	Select to allow the motor to jog at speed 2.
7	Select to allow the motor to be stopped.



Item	Description
1	Select to allow the Operator commands for Start Slow, Start Fast, or Stop to reset any previous faults (I/O fault, Fail to Start, Fail to Stop, Interlock Trip). Then start or stop motor. Clear this checkbox to reset faults only using the reset commands.
2	Select to allow the External commands for Start Slow, Start Fast, or Stop to reset any previous faults (I/O fault, Fail to Start, Fail to Stop, Interlock Trip). Then start or stop motor. Clear this checkbox to reset faults only using the reset commands.
3	Select to bypass bypassable interlocks and permissives in Override command source.
4	Select to have the Operator Stop command available in any command source. Clear this checkbox to have the Operator Stop command available only in the Operator and Maintenance command sources.
5	Select to have the External Stop command available in any command source. Clear this checkbox to have the External Stop command available only in the Operator and Maintenance command sources.

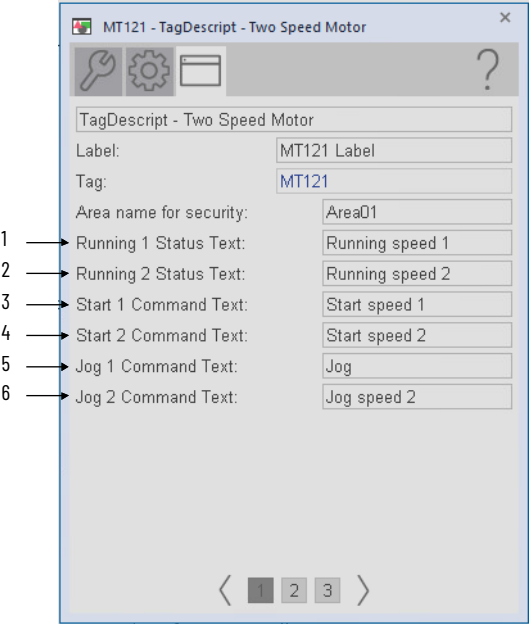


Item	Description
1	Select to stop the motor if an I/O fault is detected. Clear this checkbox to show only the I/O fault status/alarm and not stop the motor if an I/O fault is detected.
2	Select to stop the motor if a fail to Start fault is detected. Clear this checkbox to show only the Fail to Start status/alarm and not stop the motor if a fail to Start fault is detected.
3	The motor always stops on interlock not OK. This item cannot be cleared. It is displayed as a reminder that the interlock function always stops the motor.
4	Enter the amount of time to sound the audible alarm when the motor starts.
5	Enter the time delay between when the run output has turned off for one speed and when it is turned on for the other speed.
6	Enter the time delay (in seconds) for the running or stopped status to be echoed back when the virtual is enabled or when run feedback is not used.
7	Select yes to enable virtual.

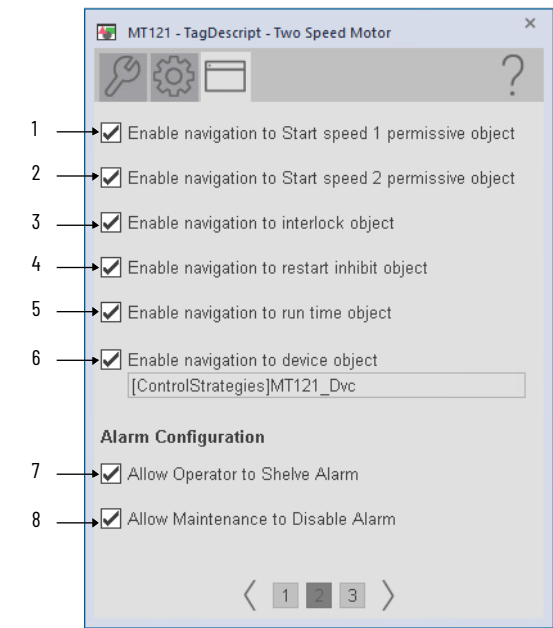


Item	Description
1	Select one of the four options to determine the source of each command (start and jog). If any option but "Follow Source" is selected, then that source will be the only source allowed for that command.

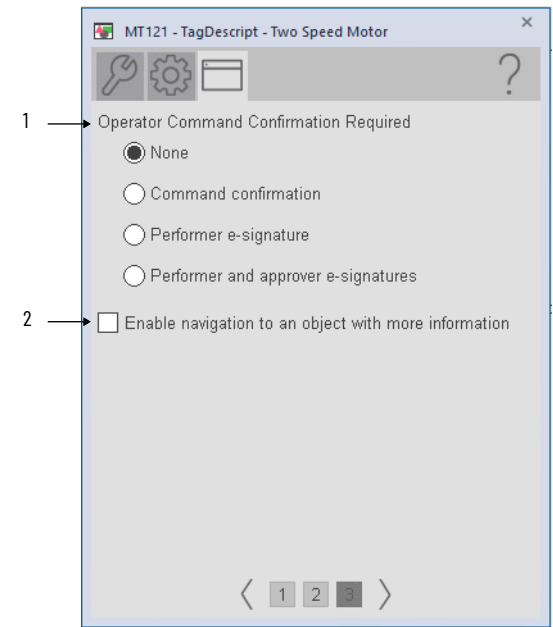
HMI Configuration Tab



Item	Description
1	Enter the text to display when the motor is running at speed 1.
2	Enter the text to display when the motor is running at speed 2.
3	Enter the text to display when the motor is starting at speed 1.
4	Enter the text to display when the motor is starting at speed 2.
5	Enter the text to display when the motor is jogging at speed 1.
6	Enter the text to display when the motor is jogging at speed 2.



Item	Description
1	Select if Start Speed 1 permissive object is used with this motor. <ul style="list-style-type: none"> For 2 Speed Motors, speed 1 is Slow and Speed 2 is Fast. For Reversing Motors, speed 1 is Forward and Speed 2 is Reverse. <p>IMPORTANT: The name of the Permissive object in the controller must be the name of the object with the suffix '_1Perm'. For example, if your PMTR object has the name 'Motor123', then its Start Speed 1 object must be named 'Motor123_1Perm'.</p>
2	Select if Start Speed 2 permissive object is used with this motor. <ul style="list-style-type: none"> For 2 Speed Motors, speed 1 is Slow and Speed 2 is Fast. For Reversing Motors, speed 1 is Forward and Speed 2 is Reverse. <p>IMPORTANT: The name of the Permissive object in the controller must be the name of the object with the suffix '_2Perm'. For example, if your PMTR object has the name 'Motor123', then its Permissive object must be named 'Motor123_2Perm'.</p>
3	Select if an interlock object is used with this motor. <p>IMPORTANT: The name of the Interlock object in the controller must be the name of the object with the suffix '_Intlk_0'. For example, if your PMTR object has the name 'Motor123', then its Interlock object must be named 'Motor123_Intlk_0'.</p>
4	Select if a restart inhibit object is used with this motor. <p>IMPORTANT: The name of the Restart Inhibit object in the controller must be the name of the object with the suffix '_Reslnh'. For example, if your PMTR object has the name 'Motor123', then its Restart Inhibit object must be named 'Motor123_Reslnh'.</p>
5	Select if a run time object is used with this motor. <p>IMPORTANT: The name of the Run Time object in the controller must be the name of the object with the suffix '_RunTime'. For example, if your PMTR object has the name 'Motor123', then its Run Time object must be named 'Motor123_RunTime'.</p>
6	Select to allow navigation to the device object.
7	Select to allow Operator to shelve the alarm.
8	Select to allow Maintenance to disable the alarm.


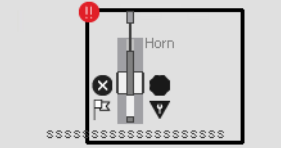
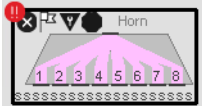
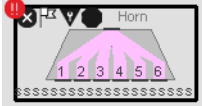
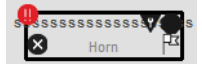


Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.

n-Position Device (PNPOS)

Graphic Symbols

FactoryTalk View SE Graphic Symbol Name	FactoryTalk View SE Graphic Symbol	Description
GO_PnPos_8SelValve		These Graphic Symbols are used for routing one flow path to many vertically. These elements show all 3, 4, 6, or 8 ports and unused ports are not hidden.
GO_PnPos_8SelValve1		
GO_PnPos_6SelValve		
GO_PnPos_6SelValve1		
GO_PnPos_4SelValve		
GO_PnPos_4SelValve1		
GO_PnPos_3SelValve		
GO_PnPos_3SelValve1		
GO_PnPOS_8PosRotary		These Graphic Symbols are used for rotary selection from one port to many ports. Only the ports that are enabled are displayed. For example, if you configure the PnPos instruction with five positions, ports 6, 7, and 8 are not displayed.
GO_PnPOS_6PosRotary		
GO_PnPOS_4PosRotary		

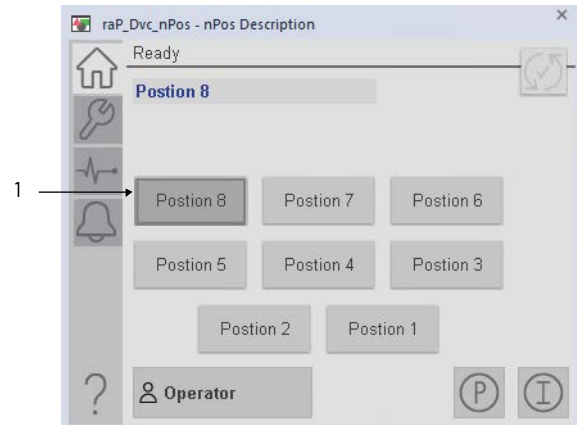
FactoryTalk View SE Graphic Symbol Name	FactoryTalk View SE Graphic Symbol	Description
GO_PnPOS_SlideGate		These Graphic Symbols show a linear multi-position device. The symbol is animated to show the position that is based on the number of positions configured.
GO_PnPOS_SlideGate1		
GO_PnPos		These Graphic Symbols are similar to those elements shown on the first page of this table, but ports that aren't configured are not displayed.
GO_PnPos1		
GO_PnPos2		

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

The Faceplate initially opens to the Operator (Home) tab. From here, an operator can monitor the device status and manually operate the device when it is in Operator command source.



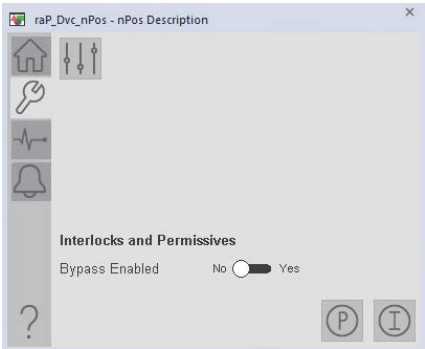
Item	Description
1	Current device position



There is a larger faceplate available that supports 30 positions.

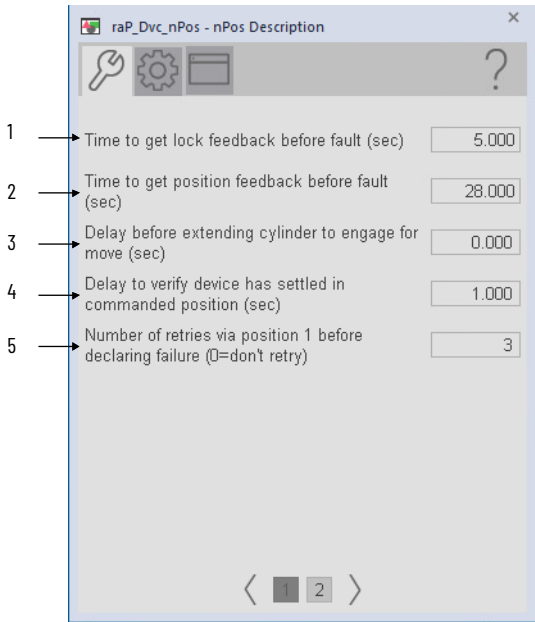
Maintenance Tab

Maintenance personnel use the information and controls on the Maintenance tab to adjust device parameters, troubleshoot, temporarily work around device problems, and disable the device for routine maintenance.

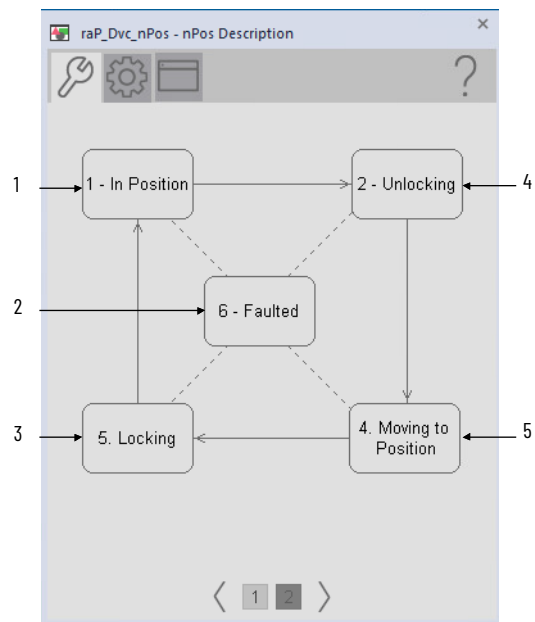


Advanced Maintenance Tab

The Advanced Properties Display opens to the advanced maintenance settings. The Advanced Properties Display provides access to device configuration parameters and ranges, and options for device and I/O setup. This tab is used for initial system commissioning or later system changes.

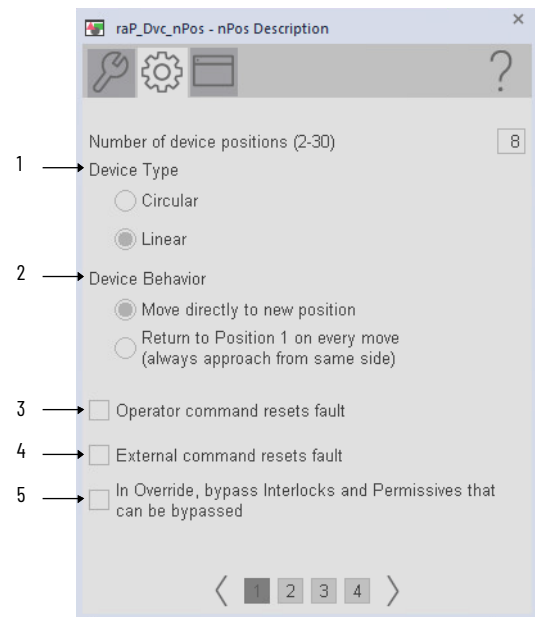


Item	Description
1	Enter a value (0...2,147,483) that indicates the maximum time that is allowed for lock feedback before a fault.
2	Enter a value (0...2,147,483) that indicates the maximum time that is allowed for the device to be in position before a fault.
3	Enter a value (0...2,147,483) that indicates the time delay before engaging a cylinder move.
4	Enter a value (0...2,147,483) that indicates the delay time to verify that a device is in a commanded position.
5	Enter a value (0...2,147,483) to indicate the number of retries for a device in Position 1 before a fault is set.

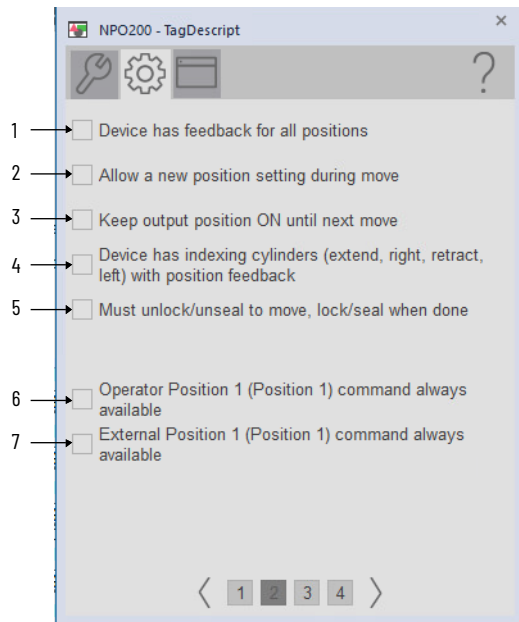


Item	Description
1	This state is highlighted whenever the device is in the position that it was last commanded.
2	This state is highlighted if the device feedback fails to confirm that the device is unlocked, moved to position, or locked as requested within the configured failure times.
3	This state is displayed only if the device is configured with a lock or seal that must be unlocked or unsealed to move. This state is highlighted when the device has reached its commanded position and has been commanded to lock, but locked feedback has not been received yet.
4	This state is displayed only if the device is configured with a lock or seal that must be unlocked or unsealed to move. This state is highlighted when the device has been commanded to unlock, but unlocked feedback has not been received yet.
5	This state is highlighted when the device is being moved to its commanded position, but that position feedback has not been received yet.

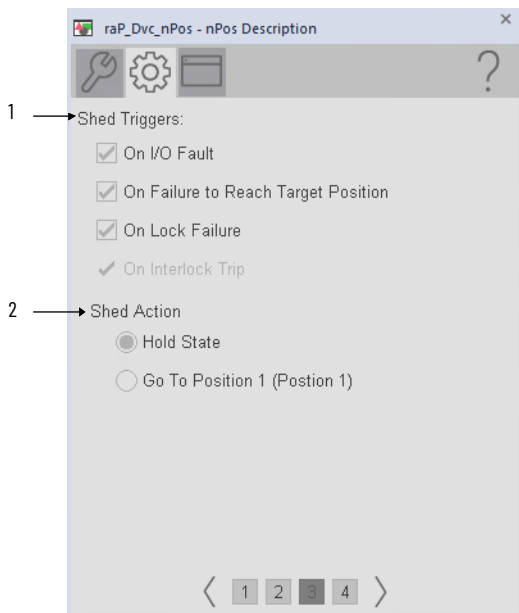
Engineering Tabs



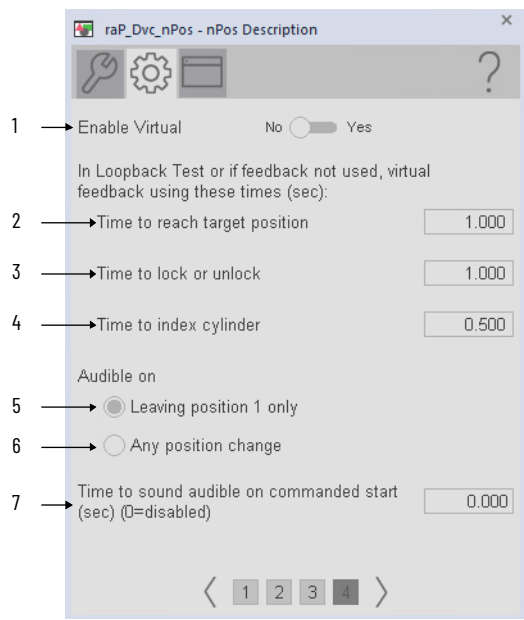
Item	Description
1	Select circular or linear for the device type
2	For Circular, select either clockwise only or clockwise or counterclockwise.
3	Select to reset a fault on a new Operator command.
4	Select to reset a fault on a new External command.
5	Select to bypass permissives and interlocks in Override command source.



Item	Description
1	Select to enable device feedback for all positions.
2	Select to enable a new position command to be received and processed while a move is in progress.
3	Select to keep a position output On until the next move.
4	Select to enable indexing cylinders with position feedback.
5	Select if the device must be unlocked to move and locked when the move is complete.
6	Select to have Position 1 command always available to Operator control.
7	Select to have Position 1 command always available to External control.



Item	Description
1	Select to enable whether an I/O Fault, Failure to Reach Position, or Lock Failure is considered a shed condition. The device always sheds on an Interlock Trip. This item cannot be unchecked. It is displayed as a reminder that the Interlock Trip function always triggers a shed. If a condition causes the device to shed, a reset is required to operate the device.
2	Select to determine whether the device holds the hold position or goes to position 1 upon a shed condition.



Item	Description
1	Select yes to enable virtual.
2	Enter the time (0...2,147,483) to reach a target position in virtual.
3	Enter the time (0...2,147,483) to lock/unlock with the device in virtual.
4	Enter the time (0...2,147,483) to simulate index cylinder feedback in virtual.
5	Select to sound an audible on a commanded move from Position 1.
6	Select to sound an audible on a commanded move from any State.
7	Enter the time (in seconds) that the audible sounds when there is a commanded State change.

HMI Configuration Tab

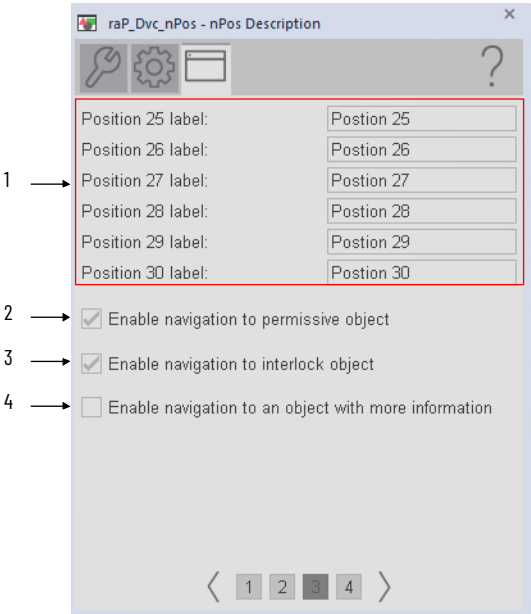
The HMI configuration tab provides access to displayed text, and faceplate-to-faceplate navigation settings. View the description, label, tag, and security area for the device.

The screenshot shows the 'raP_Dvc_nPos - nPos Description' window. It has a toolbar with a wrench, a gear, a folder, and a question mark. Below the toolbar, there are input fields for 'Label' (nPos Label), 'Tag' (raP_Dvc_nPos), and 'Area name for security' (Area01). A red box highlights a list of position labels from 'Position 01 label' to 'Position 10 label', each with a corresponding text box containing 'Postion 1' through 'Postion 10'. A red arrow labeled '1' points to the 'Position 01 label' text. At the bottom, there are navigation buttons: '< 1 2 3 4 >'. The '1' button is highlighted.

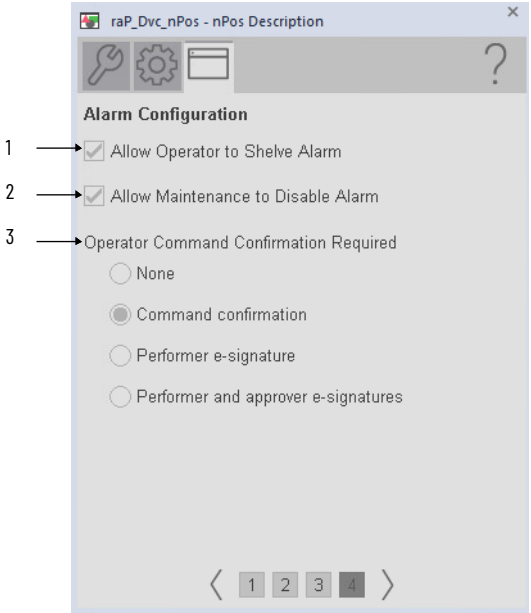
Item	Description
1	Name is displayed for each device position that is based on the number of positions.

The screenshot shows the 'raP_Dvc_nPos - nPos Description' window. It has a toolbar with a wrench, a gear, a folder, and a question mark. Below the toolbar, there are input fields for 'Label' (nPos Label), 'Tag' (raP_Dvc_nPos), and 'Area name for security' (Area01). A red box highlights a list of position labels from 'Position 11 label' to 'Position 24 label', each with a corresponding text box containing 'Postion 11' through 'Postion 24'. A red arrow labeled '1' points to the 'Position 17 label' text. At the bottom, there are navigation buttons: '< 1 2 3 4 >'. The '2' button is highlighted.

Item	Description
1	Name is displayed for each device position that is based on the number of positions.




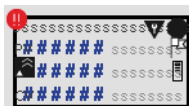

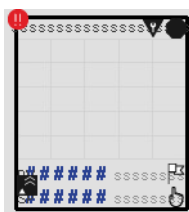

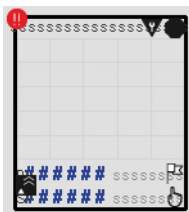
Item	Description
1	Name is displayed for each device position that is based on the number of positions.
2	Select to indicate that a permissive object is connected to the permissive inputs of this object. IMPORTANT: The name of the Permissives object in the controller must be the name of the object with the suffix '_Perm'. For example, if your raP_Dvc_nPos object has the name 'nPos123', then its Permissives object must be named 'nPos123_Perm'
3	Select to indicate that an interlock object is connected to the interlock inputs of this object. IMPORTANT: The name of the Interlock object in the controller must be the name of the object with the suffix '_Intlk'. For example, if your raP_Dvc_nPos object has the name 'nPos123', then its Interlock object must be named 'nPos123_Intlk'.
4	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) You configure the tagname of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.


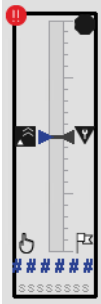
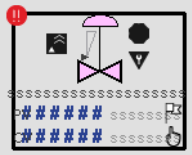
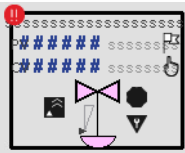




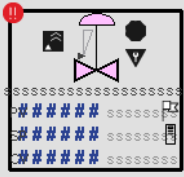
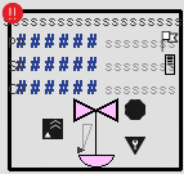


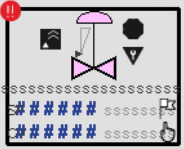
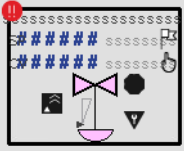




Item	Description
1	Select to allow Operator to shelve alarm.
2	Select to allow Maintenance to disable alarm.
3	Select to configure operator command confirmation. This action would take place after any operator command.

Process Proportional + Integral + Derivative (PPID)


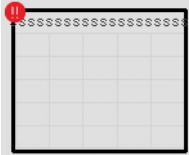
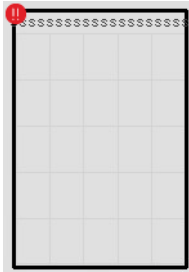
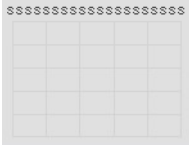
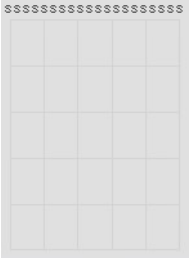
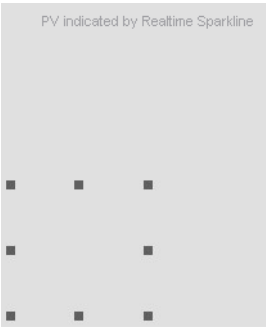
Graphic Symbols



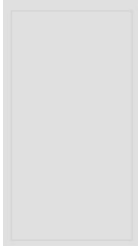
FactoryTalk View SE Graphic Symbol	Description
GO_PPID 	Graphic Symbol with PV and CV numeric displays.
GO_PPID1 	Graphic Symbol with PV, SP, and CV numeric displays.
GO_PPID2 	Graphic Symbol with SP and CV numeric displays
GO_PPID_Trend 	Graphic Symbol with PV and CV numeric displays and a trend display that plots SP, PV, High, and Low Deviations. The trend is scaled to PV EU Min and Max.
GO_PPID_Trend1 	Graphic Symbol with PV, SP, and CV numeric displays and a trend display that plots SP, PV, High, and Low Deviations. The trend is scaled to PV EU Min and Max.
GO_PPID_TrendWTarget 	Graphic Symbol with PV and CV numeric displays and a trend display that plots SP, PV, High, and Low Deviations. The trend is scaled by using the High and Low Deviations.

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PPID_TrendWTarget1</div>  A square graphic symbol with a red alarm icon in the top-left corner. It features a large trend display area with a grid. At the bottom, there are three rows of numeric displays, each preceded by a '#' symbol, representing PV, SP, and CV values. The trend display plots SP, PV, High, and Low Deviations.	Graphic Symbol with PV, SP, and CV numeric displays and a trend display that plots SP, PV, High, and Low Deviations. The trend is scaled by using the High and Low Deviations.
<div>GO_PPID_Indicator</div>  A vertical rectangular graphic symbol with a red alarm icon in the top-left corner. It contains a vertical bar graph. On the left side of the bar graph is the SP (Setpoint) value, and on the right side is the PV (Process Variable) value. The bar graph is scaled by the PV EU minimum and maximum.	Bar graph with SP on the left and PV on the right that is scaled by PV EU minimum and maximum.
<div>GO_PPID_Valve</div>  A square graphic symbol with a red alarm icon in the top-left corner. It features a central valve symbol with a pink handle. Above the valve is a numeric display for PV, and below it is a numeric display for CV. The symbol also includes a trend display area and a status indicator.	Proportional Valve Graphic Symbol with PV and CV numeric displays.
<div>GO_PPID_Valve1</div>  A square graphic symbol with a red alarm icon in the top-left corner. It features a central valve symbol with a pink handle. Above the valve is a numeric display for PV, and below it is a numeric display for CV. The symbol also includes a trend display area and a status indicator.	
<div>GO_PPID_Valve2</div>  A rectangular graphic symbol with a red alarm icon in the top-left corner. It features a central valve symbol with a pink handle. Above the valve is a numeric display for PV, and below it is a numeric display for CV. The symbol also includes a trend display area and a status indicator.	
<div>GO_PPID_Valve3</div>  A rectangular graphic symbol with a red alarm icon in the top-left corner. It features a central valve symbol with a pink handle. Above the valve is a numeric display for PV, and below it is a numeric display for CV. The symbol also includes a trend display area and a status indicator.	

FactoryTalk View SE Graphic Symbol	Description
GO_PPID_Valve4 	Proportional Valve Graphic Symbol with PV, CV, and Setpoint numeric displays.
GO_PPID_Valve5 	
GO_PPID_Valve6 	
GO_PPID_Valve7 	
GO_PPID_Valve8 	Proportional Valve Graphic Symbol with SP, CV, and Setpoint numeric displays.
GO_PPID_Valve9 	
GO_PPID_Valve10 	
GO_PPID_Valve11 	
GO_PPID_Val_PV 	PV indicator with label.
GO_PPID_PV1 	PV indicator with label.

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PPID_PVSP</div> <div><div>P#####S#####</div><div>S#####S#####</div></div>	Indicator with PV and SP.
<div>GO_PPID_Label</div> <div><div>#####</div></div>	Label only
<div>GO_PPID_Indicator</div> <div></div>	Bar indicator with PV and SP moving triangles. Includes displayed limits. Alarm indication.
<div>GO_PPID_Indicator1</div> <div></div>	Bar indicator with PV and SP moving triangles. Includes displayed limits. Alarm indication.
<div>GO_PPID_Indicator2</div> <div></div>	Bar indicator with PV and SP moving triangles. Includes displayed limits. Alarm indication and PV value in tooltip.
<div>GO_PPID_Indicator3</div> <div></div>	Bar indicator with PV and SP moving triangles. Includes displayed limits. Alarm indication and PV value in tooltip.
<div>GO_PPID_Indicator4</div> <div></div>	Bar indicator with PV and SP moving triangles. Includes displayed limits. PV value in tooltip.

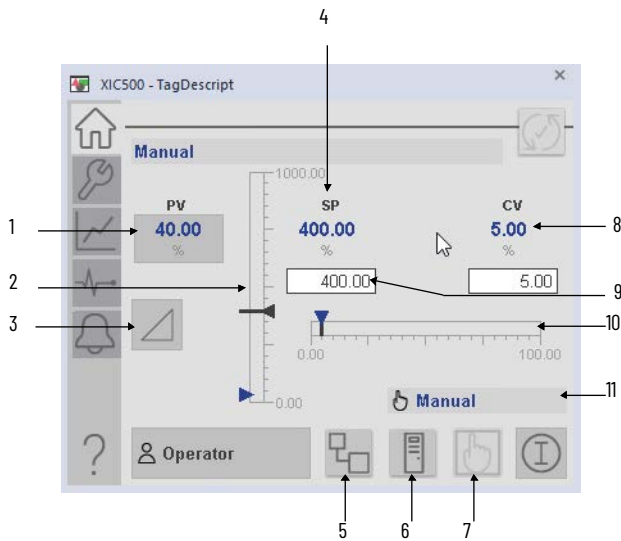
FactoryTalk View SE Graphic Symbol	Description
<p>GO_PPID_Indicator5</p> 	<p>Bar indicator with PV and SP moving triangles. Includes displayed limits. PV value in tooltip.</p>
<p>GO_PPID_Trend_L1</p> 	<p>Trend with PV and SP values.</p>
<p>GO_PPID_Trend1_L1</p> 	<p>Trend with PV and SP values.</p>
<p>GO_PPID_HistTrend1</p> 	<p>Trend with PV and SP historical values.</p>
<p>GO_PPID_HistTrend2</p> 	<p>Trend with PV and SP historical values.</p>
<p>GO_PPID_Sparkline</p> 	<p>PV indicated by real-time Sparkline</p>

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PPID_Sparkline1</div> <div></div>	PV indicated by real-time Sparkline
<div>GO_PPID_HistTrend3</div> <div></div>	PV indicated by Historical Sparkline
<div>GO_PPID_HistTrend4</div> <div></div>	PV indicated by Historical Sparkline

FactoryTalk View SE Faceplates

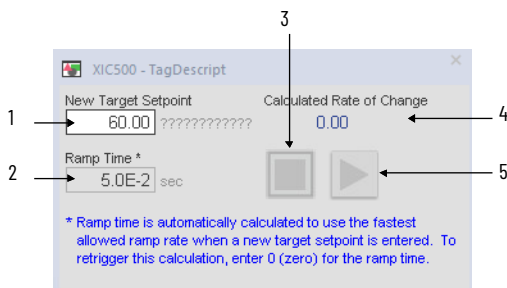
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



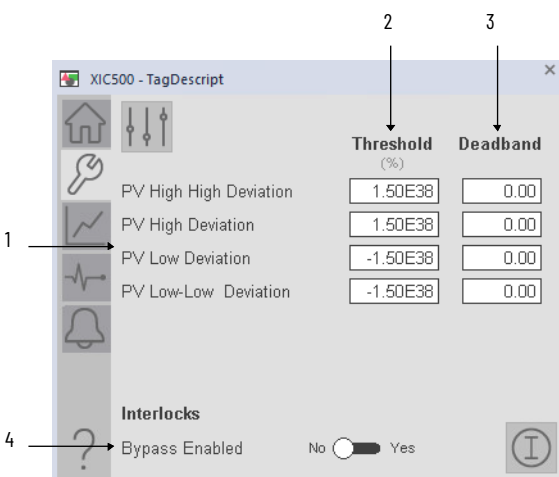
Item	Description
1	Current Process Variable (PV).
2	Bar graph for the current Process Variable.
3	Select to open the ramp wizard display.
4	Current Setpoint (SP).
5	Cascade loop mode.
6	Auto loop mode.
7	Manual loop mode
8	Current Control Variable (CV).
9	Enter a value for the loop setpoint. IMPORTANT: This value can be entered only when the instruction command source is Operator and the Loop mode is Automatic or Manual.
10	Bar graph for the current Control Variable.
11	Loop mode indicator.

Ramp Wizard Display



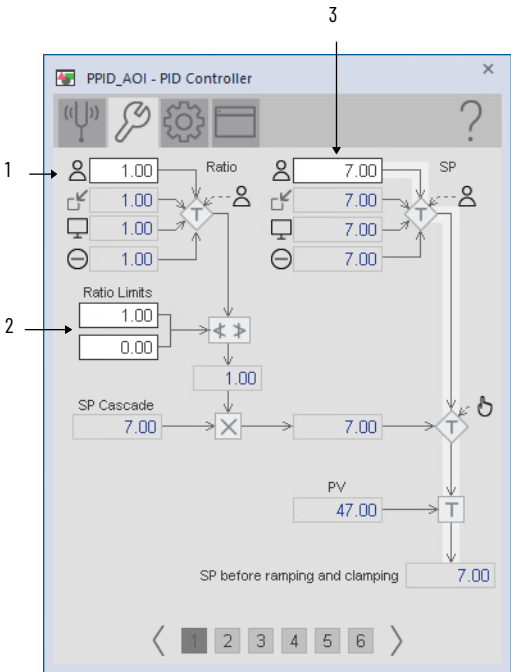
Item	Description
1	Enter new target setpoint.
2	Ramp Time
3	Stop setpoint ramping.
4	Calculated rate of change.
5	Start setpoint ramping.

Maintenance Tab

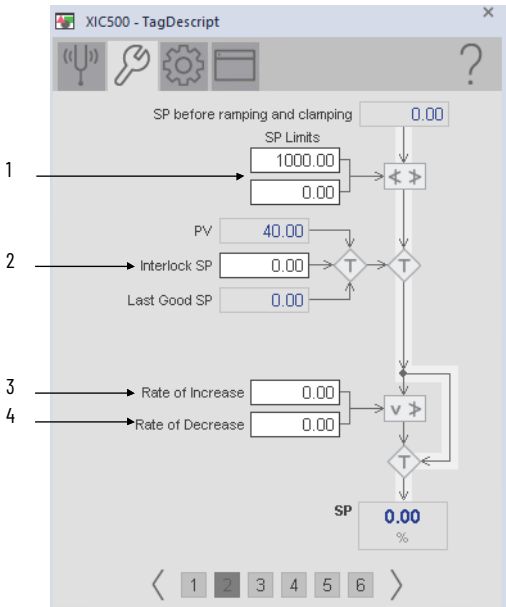


Item	Description
1	Threshold Name
2	Enter the threshold (trip point) for analog input alarms.
3	Enter the deadband (hysteresis) that applies to each alarm limit. Deadband helps prevent a noisy signal from generating numerous spurious alarms. Example: If the High alarm limit is 90.0 and the High alarm deadband is 5, once the signal rises above 90.0 and generates a High alarm. The signal must fall below 85.0 (90.0 minus 5.0) for the alarm to clear.
4	Select Yes to bypass checking of bypassable interlocks and permissives. Select No to enable checking of all interlocks and permissives.

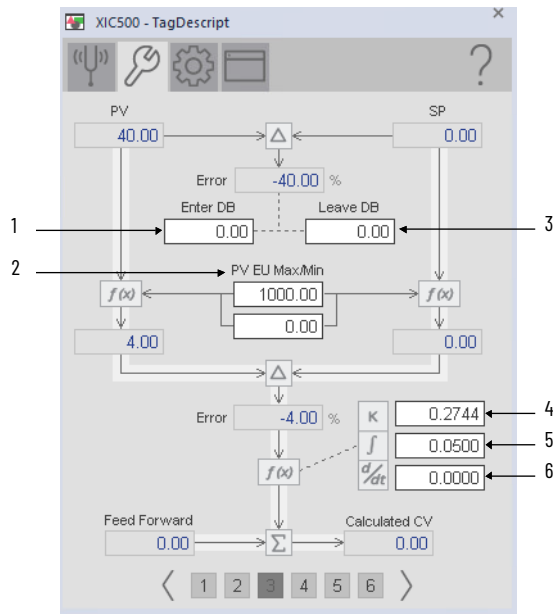
Advanced Maintenance Tab



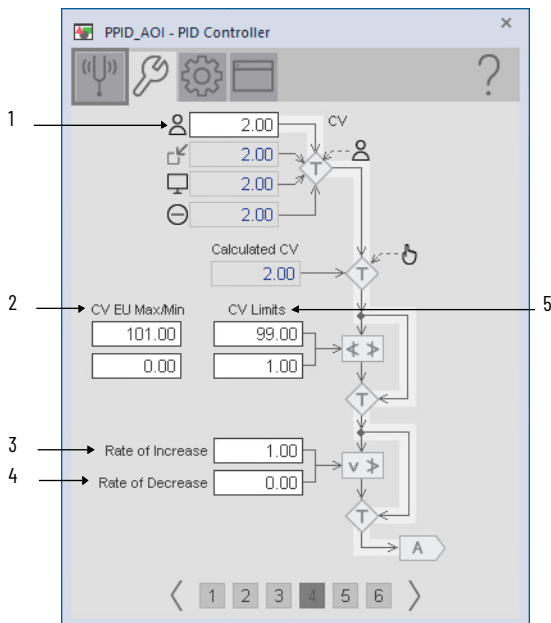
Item	Description
1	Enter the Operator ratio.
2	Enter the maximum and minimum limits for the ratio.
3	Enter the Operator Setpoint for the Operator Loop mode.



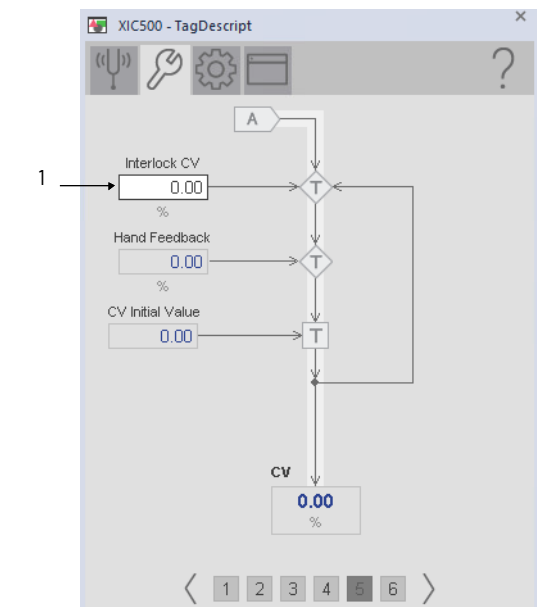
Item	Description
1	Enter the minimum and maximum limits for the setpoint
2	Enter the interlock setpoint.
3	Enter the setpoint rate of increase.
4	Enter the setpoint rate of decrease.



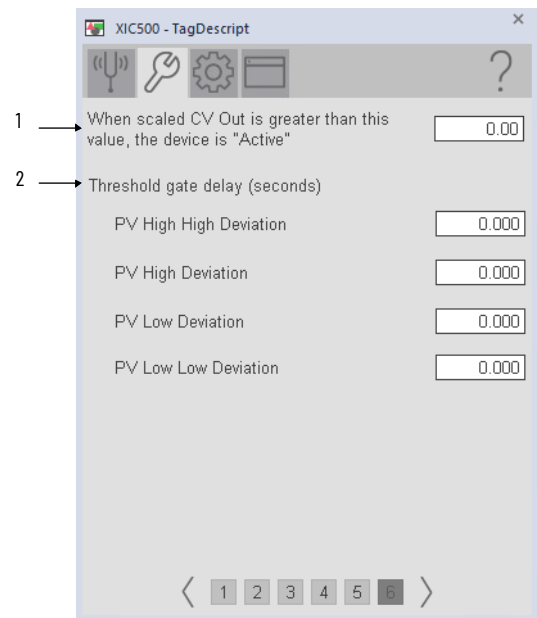
Item	Description
1	Enter the value for the zero-crossing deadband (in PV engineering units). When the loop error is less than the zero-crossing deadband, the loop output does not change.
2	Enter the maximum and minimum values of the PV range (span) (in PV engineering units). The maximum value must be greater than the minimum.
3	
4	<p>Gains: Proportional</p> <p>This value depends on the setting of Cfg_Depend. If Cfg_Depend = 1 (dependent gains, the default), Enter the Controller Gain (unitless). This gain is applied to the Proportional, Integral, and Derivative terms. If Cfg_Depend = 0 (independent gains), Enter the Proportional Gain (unitless). This gain is applied to the Proportional term only. A value of zero in either case disables the Proportional term of the controller. Negative values are not valid.</p>
5	<p>Gains: Integral</p> <p>This value depends on the setting of Cfg_Depend. If Cfg_Depend = 1 (dependent gains, the default), Enter the Integral Time Constant (minutes pre-repeat). If Cfg_Depend = 0 (independent gains), Enter the Integral Gain (1/minutes). A value of zero in either case disables the Integral term of the controller. Negative values are not valid.</p>
6	<p>Gains: Derivative</p> <p>This value depends on the setting of Cfg_Depend. If Cfg_Depend = 1 (dependent gains, the default), Enter the Derivative Time Constant (minutes). If Cfg_Depend = 0 (independent gains), Enter the Derivative Gain (minutes). A value of zero in either case disables the Derivative term of the controller. Negative values are not valid.</p>



Item	Description
1	Enter the operator CV (when the PID is in manual mode).
2	Enter the minimum and maximum CV engineering units. These are used for scaling the output.
3	Enter the values for the maximum rate of change for increasing CV.
4	Enter the values for the maximum rate of change for decreasing CV.
5	<p>Enter the maximum allowed value of the CV in percent. The CV output is clamped not to exceed the entered value. This value must be less than or equal to 100.0 and greater than the CV Low Limit.</p> <p>Enter the minimum allowed value of the CV in percent. The CV output is clamped not to go below the entered value. This value must be greater than or equal to 0.0 and less than the CV High Limit.</p>

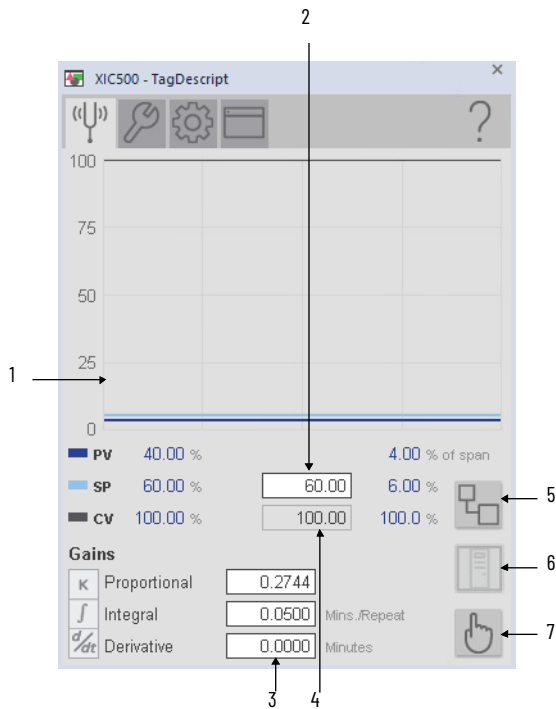


Item	Description
1	Enter the value in percent to output as the CV when an Interlock input is not OK. The CV is held at this value until the interlock inputs are OK (subject to interlock bypassing).



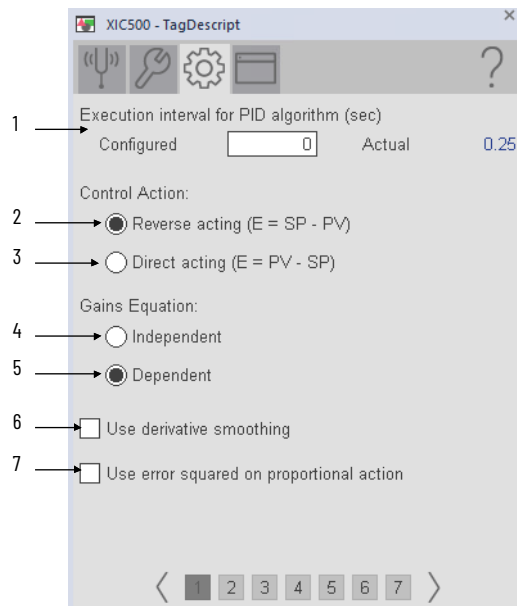
Item	Description
1	Enter the CV active threshold.
2	Process variable high high, high, low, and low low deviation threshold gate delay (seconds).

Tuning Tab

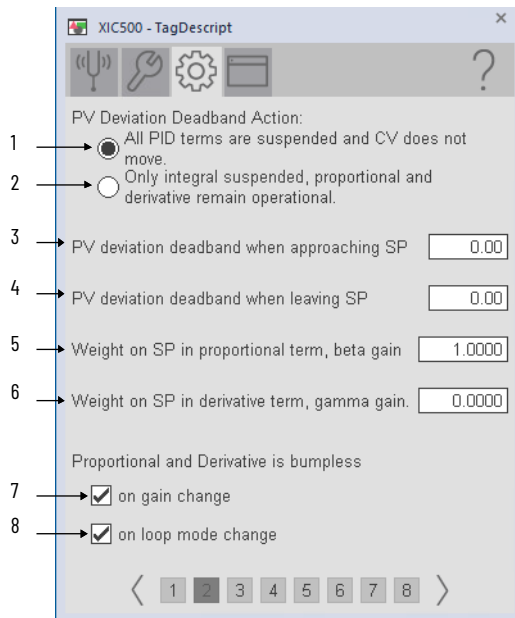


Item	Description
1	Trend display for Process Variable, Setpoint, and Controlled Variable.
2	Setpoint data entry.
3	Tuning constant entries.
4	Process variable data entry
5	Cascade loop mode.
6	Auto loop mode.
7	Manual loop mode.

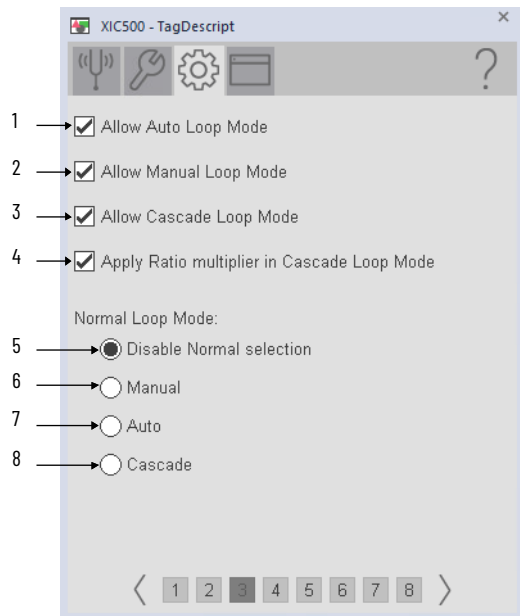
Engineering Tabs



Item	Description
1	Enter the interval (in seconds) to execute the PID algorithm.
2	Select for reverse-acting loop response (default). When the PV increases, the CV (output) decreases.
3	Select for direct-acting loop response. When the PV increases, the CV (output) increases.
4	Select to use the Independent Gains form of the PID algorithm. Changes to the proportional gain do not affect integral or derivative response.
5	Select to use the Dependent Gains form of the PID algorithm (default). Changes to Cfg_PGain are applied as loop gain changes and affect proportional, integral, and derivative responses.
6	Select to enable derivative smoothing. Derivative smoothing can help reduce output jitter due to noise on the PV signal. Clear this checkbox to disable derivative smoothing. When derivative smoothing is disabled, it can result in quicker loop response at high derivative gain.
7	Select whether the error is squared on proportional action or not. Squaring the error minimizes the effect of a small error on the output.



Item	Description
1	If the PV derivative deadband is exceeded, PID stops processing the error calculation and the CV freezes.
2	If the PV derivative deadband is exceeded, the integral portion of the error calculation will be suspended. The error calculation continues and the CV is updated.
3	Enter the value for PV deviation when the CV is approaching SP. A lower deadband allows for less deviation in the PV. If the deviation deadband is reached, action is taken according to items #1 or #2.
4	Enter the value for PV deviation when the CV is leaving the SP. A lower deadband allows for less deviation in the PV. If the deviation deadband is reached, action is taken according to items #1 or #2.
5	Enter value for beta gain. This is the weight (multiplier) of the proportional gain. If beta is set to 0.0, the proportional gain has value. If beta is set to 1.0, the proportional gain has full effect. This is configurable from 0.0 to 1.5.
6	Enter value for gamma gain. This is the weight (multiplier) of the derivative gain. If gamma is set to 0.0, the derivative gain has value. If gamma is set to 1.0, the derivative gain has full effect. This is configurable from 0.0 to 1.5.
7	Select whether the CV response to the proportional and derivative gains is bumpless or not.
8	Select if the proportional and derivative is bumpless during a loop mode change. This is only enabled when the integral gain is set to 0



Item	Description
1	Select to enable Auto Loop mode.
2	Select to enable Manual Loop mode.
3	Select to enable Cascade Loop mode.
4	Select to enable ratio multiplier in Cascade mode.
5	Select to disable normal loop mode selection
6	Select to choose manual as the normal loop mode
7	Select to choose auto as the normal loop mode
8	Select to choose cascade as the normal loop mode.

XIC500 - TagDescript

Power up Loop Mode:

- 1 → ☐ No Change (use last mode)
- 2 → ☒ Manual
- 3 → ☐ Auto
- 4 → ☐ Cascade

5 → Loop SP on power up

6 → Loop CV on power up

Power up CV in Auto or Cascade:

- 7 → ☒ Use Power up CV
- 8 → ☐ CV tracks value from inner loop

< 1 2 3 4 5 6 7 8 >

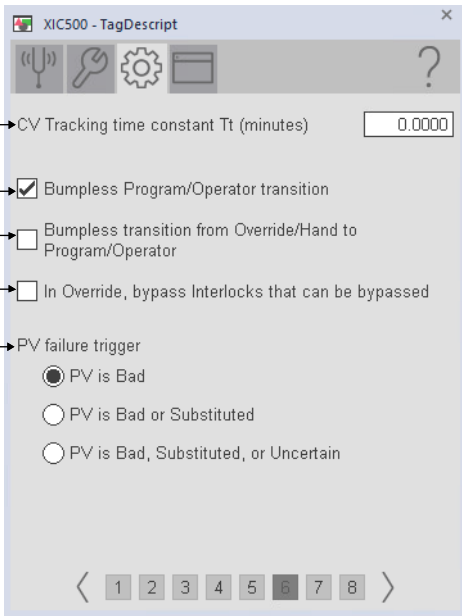
Item	Description
1	Select to keep the Loop mode what it was at powerdown.
2	Select to set the Loop mode to Manual on powerup.
3	Select to set the Loop mode to Auto on powerup.
4	Select to set the loop mode to Cascade on powerup.
5	Enter a value to apply to the loop CV (in percent) on controller powerup. The CV is set to this value on controller powerup in Run mode and on controller transition from Program mode to Run mode.
6	Enter a value to apply to the loop setpoint (in PV engineering units) on controller powerup. The setpoint is set to this value on controller powerup in Run mode and on controller transition from Program mode to Run mode.
7	Select to set the loop mode to the Normal loop mode on powerup.

XIC500 - TagDescript

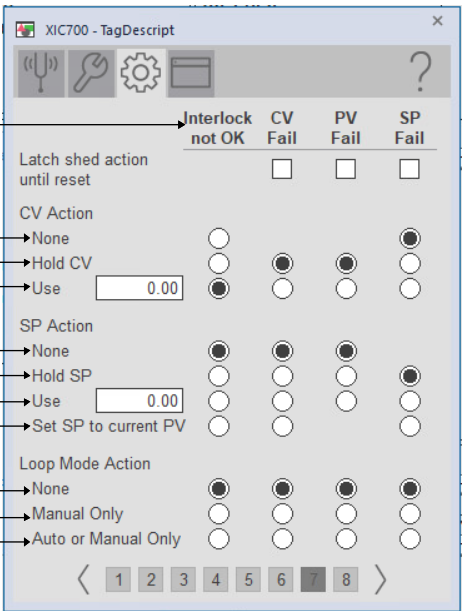
- 1 → ☒ Go to Manual Loop Mode when an init request is seen
- 2 → ☒ SP tracks PV in Manual Loop Mode
- 3 → ☒ Skip Setpoint Rate of Change limiting in Interlock Trip, Maintenance or Override
- 4 → ☒ Enable the Setpoint Ramp 'Wizard' function
- 5 → If deviation exceeds this value, pause SP ramp (0.0=never pause)
- 6 → ☒ Skip CV clamping in Manual loop mode
- 7 → ☒ Skip CV rate of change limiting in Manual loop mode
- 8 → ☒ Use CV reset feedback in tracking, e.g. if output is significantly faster than actuator or inner loop.

< 1 2 3 4 5 6 7 8 >

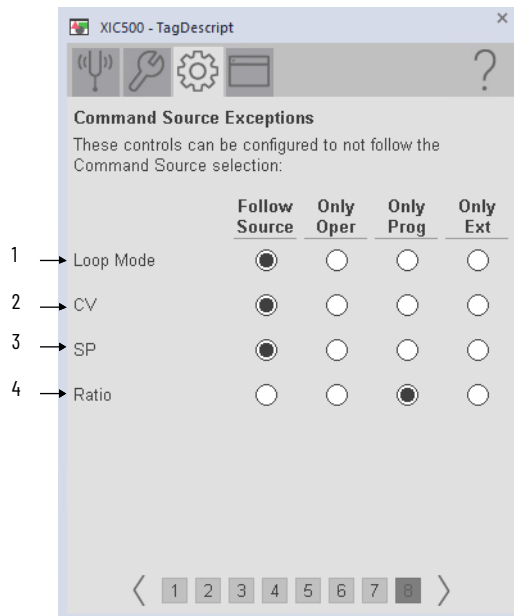
Item	Description
1	Select to set the Loop mode to Manual when the Use CVInit Value input is true. The loop is left in manual with the CV at the initialization value when the initialization request clears. Clear this checkbox to leave the loop in its current mode on an initialization request. When the initialization request clears, the loop resumes controlling in its previous mode.
2	Select to have the current PV copied to the SP (track) whenever the loop is in Manual mode.
3	Select to skip the setpoint rate of change limiting in Interlock Trip, Maintenance, or Override.
4	Select to allow navigation to the setpoint Ramp Wizard Display from the Operator tab.
5	Enter a value for maximum deviation between SP and PV. If the deviation exceeds this value, the SP ramp pauses until the PV returns to a value within the set deviation.
6	Select to disable CV clamping during Manual mode.
7	Select to disable CV rate of change during Manual mode.
8	Select to enable CV reset feedback tracking. This keeps the CV from ramping if the output device or inner loop is significantly slower.



Item	Description
1	Enter gain for CV tracking.
2	Select so that when this parameter is: <ul style="list-style-type: none">On, the operator settings track the program settings when command source is Program, and program settings track the operator settings when the command source is Operator. Transition between command sources is bumpless.Off, the operator settings and program settings retain their values regardless of command source. When the command source is changed, the value of a limit can change, such as from the Programset value to the Operator-set value.
3	Select so that Program and operator settings track when the command source is Hand or Override.
4	Select to bypass Interlocks that can be bypassed while in Override command source.
5	Select the PV failure trigger.

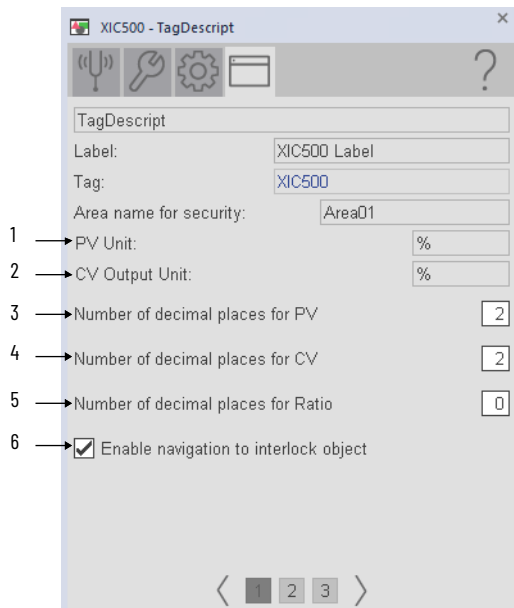


Item	Description
1	Possible Failures
2	For the given failure, do not change the CV operation, keep controlling.
3	For the given failure, hold the CV at the current value.
4	For the given failure, set the CV to the configured value.
5	For the given failure, do not change the SP operation.
6	For the given failure, hold the SP at the current value.
7	For the given failure, set the SP to the configured value.
8	For the given failure, have SP track the current PV value.
9	For the given failure, keep current loop mode.
10	For the given failure, set the loop mode to manual.
11	For the given failure, If loop made is cascade set to auto.

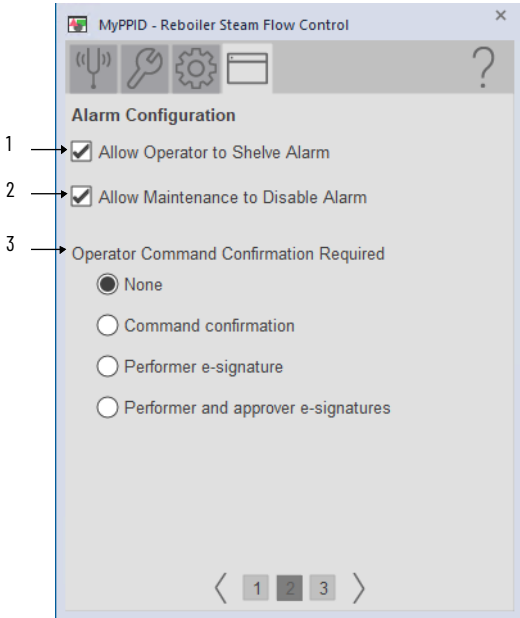


Item	Description
1	Select to keep control of loop mode commands with the Operator, Program, External, or Follow the Source even if the instruction is in Program mode.
2	Select to keep control of the controlled variable quantity setting with the Operator, Program, External, or Follow the Source even if the instruction is in Program mode.
3	Select to keep control of the setpoint settings with the Operator, Program, External, or Follow the Source even if the instruction is in Program mode.
4	Select to keep control of the ratio settings with the Operator, Program, External, or Follow the Source even if the instruction is in Program mode.

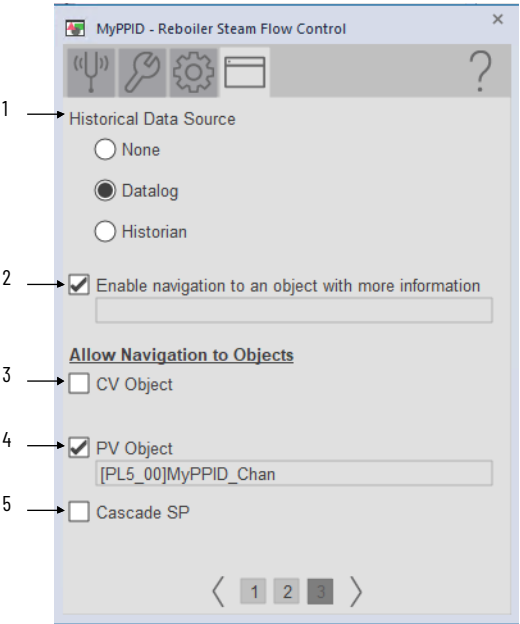
HMI Configuration Tab



Item	Description
1	Enter the PV engineering units for display on the HMI.
2	Enter the CV engineering units for display on the HMI. Percent (%) is the default
3	Enter in the number of decimal places that are displayed for the Process Variable
4	Enter in the number of decimal places that are displayed for the Control Variable
5	Enter the number of decimal places that are displayed for the ratio (cascade)
6	Select to enable navigation to the Interlock object.



Item	Description
1	Select to allow Operator to shelve alarm.
2	Select to allow Maintenance to disable alarm.
3	Select to configure operator command confirmation. This action would take place after any operator command.







Item	Description
1	Select to configure if a Historical data source will be used or not.
2	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.
3	Select to enable navigation to the CV object.
4	Select to enable navigation to the PV object.
5	Select to enable navigation to Cascade SP object.

Process Permissive (PPERM)

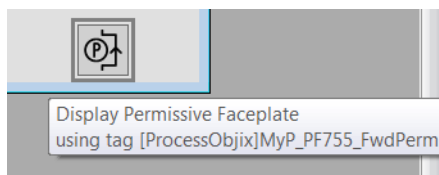
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PPERM 	Standard Permissive Global Object.

Permissive States

Image	Description
	Not ready to run or energize. One or more permissive conditions are not OK.
	Ready to run or energize. One or more conditions that can be bypassed are not OK, but these conditions are bypassed. All conditions that cannot be bypassed are OK.
	Ready to run or energize. All permissive conditions are OK.
	Ready to run or energize, and all permissive conditions are OK, conditions that can be bypassed are being bypassed and the equipment is not shut down.

The overall graphic symbol includes a touch field over it that opens the faceplate. Hover the pointing device over the graphic symbol to display a tooltip that describes the function of the symbol.



FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. See [Basic Faceplate Attributes on page 23](#).

This object has no Trends, Diagnostics, or Alarms tabs.

Operator Tab

The Faceplate initially opens to the Operator (Home) tab. From here, an operator can monitor the device status.

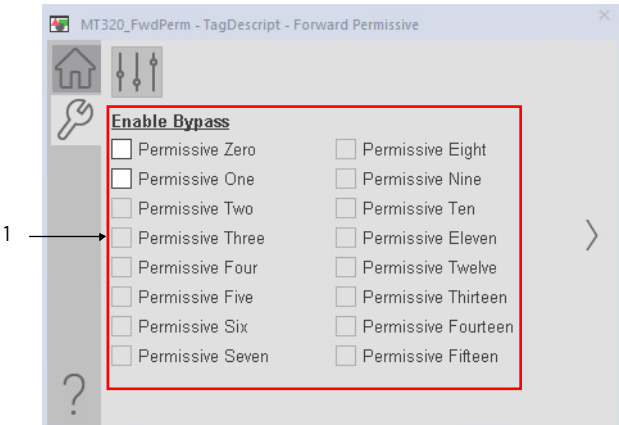
The Operator tab shows the following information:

- Permissive bypass status indicator (Enabled, Bypassed)
- Each configured permissive along with the current state of the permissive

If navigation is enabled, Select the condition to open the faceplate of the object that is associated with the condition.

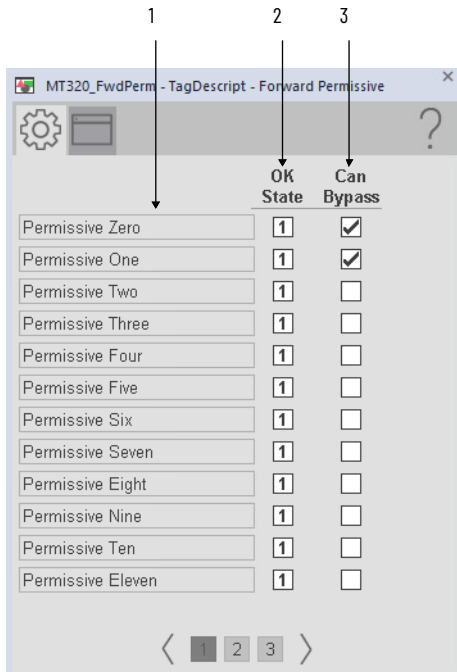


Maintenance Tab



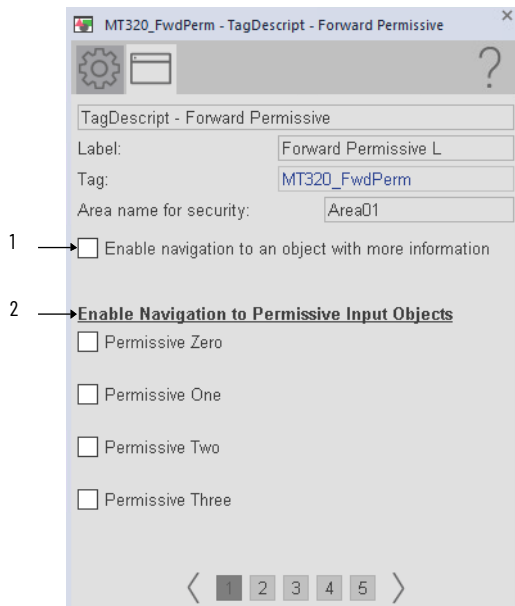
Item	Description
1	Select an active permissive, one that has a white checkbox, to enable bypass of that individual permissive.

Engineering Tabs



Item	Description
1	Enter the text description of each permissive condition used. Only the permissives with text entered appear on the Operator tab of the faceplate.
2	Selects the state of the corresponding permissive that is the OK to Run state.
3	Select to indicate that the corresponding permissive can be bypassed.

HMI Configuration Tab

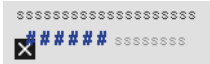


Item	Description
1	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.
2	Select to allow navigation to Permissive Input objects.

Notes:

Process Pressure/Temperature Compensated Flow (PPTC)

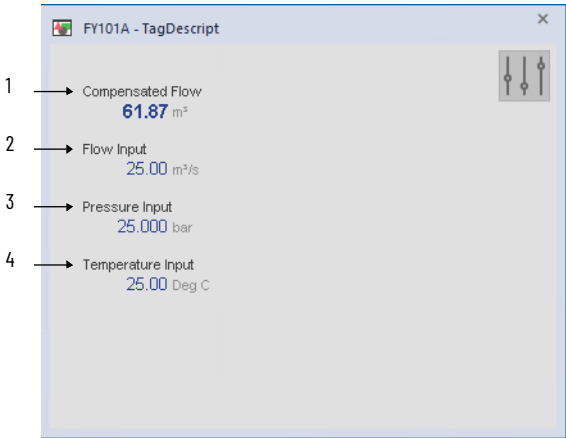
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PPTC 	Standard pressure / temperature compensated flow graphic symbol

FactoryTalk View SE Faceplates

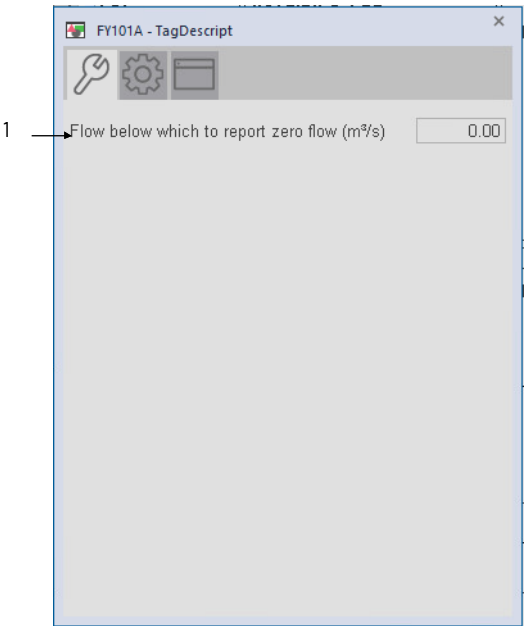
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



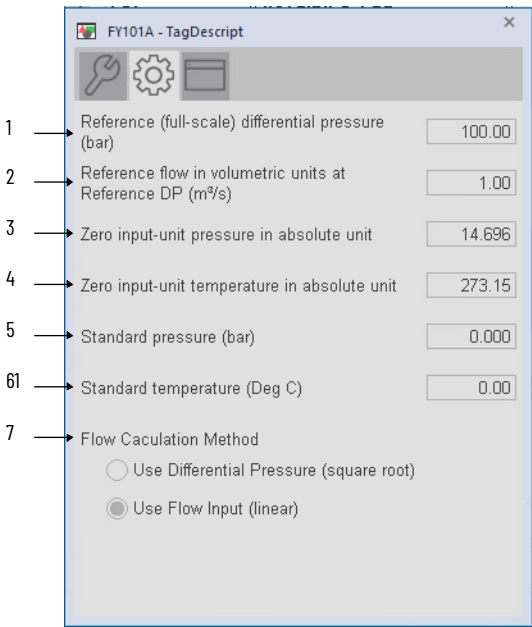
Item	Description
1	The compensated flow (at standard temperature and pressure).
2	Actual (measured) uncompensated flow in volumetric units.
3	The actual (measured) pressure. Can be absolute or common units.
4	The actual (measured) temperature.

Advanced Maintenance Tab



Item	Description
1	Enter the flow value. Any flow below this value will be reported as 0.

Engineering Tab



Item	Description
1	Enter the full-scale differential pressure reference.
2	Enter the flow at the reference differential pressure.
3	Enter the zero input-unit pressure. This is the pressure offset (usually 14.696 PSIA).
4	Enter the zero input-unit temperature. This is the temperature offset (usually 273.15 K or 459.67 Rankine).
5	Enter the standard pressure value.
6	Enter the standard temperature value.
7	Select the flow calculation method.

HMI Configuration Tab

FY101A - TagDescript

TagDescript

Label: FY101A Label

Tag: FY101A

Area name for security: Area01

Compensated Flow Unit: m³

Flow Input Unit: m³/s

Pressure Input Unit: bar


Temperature Input Unit: Deg C

Item	Description
1	Displays units

Notes:

Process Restart Inhibit (PRI)

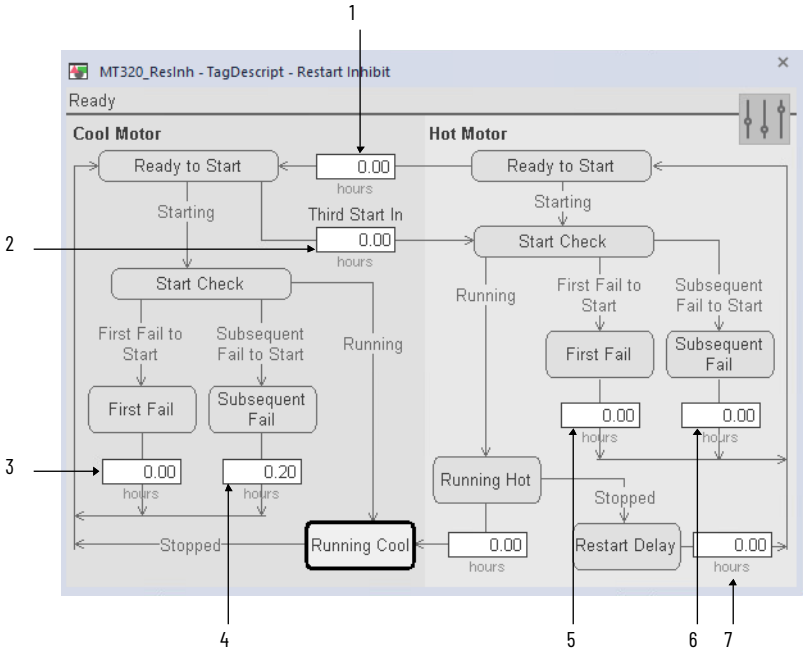
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PRI 	Standard Restart Inhibit Graphic Symbol.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab




Item	Description
1	Enter the time, in hours, for a stopped hot motor to cool.
2	Enter the time, in hours, during which three motor starts turn a cold motor to hot.
3	Enter the time, in hours, to wait after failing to start a cold motor the first time.
4	Enter the time, in hours, to wait after failing to start a cold motor two or more times.
5	Enter the time, in hours, to wait after failing to start a hot motor the first time.
6	Enter the time, in hours, to wait after failing to start a hot motor two or more times.
7	Enter the time, in hours, to wait after stopping a running hot motor.

Notes:

Process Run Time (PRT)

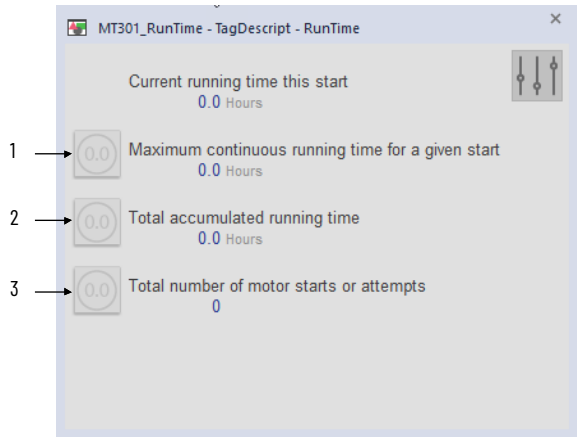
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PRT 	Standard Run Time Graphic Symbol.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

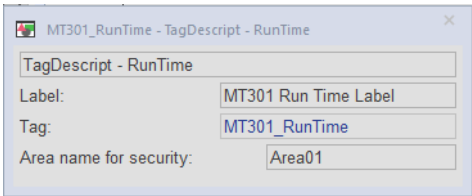
Operator Tab



Item	Description
1	Select to clear maximum continuous running time for any given start.
2	Select to clear total running time.
3	Select to clear total number of motor starts or start attempts.

Advanced Tab


The Advanced Tab shows the HMI text that has been configured.



Notes:

Process Tank Strapping Table (PTST)

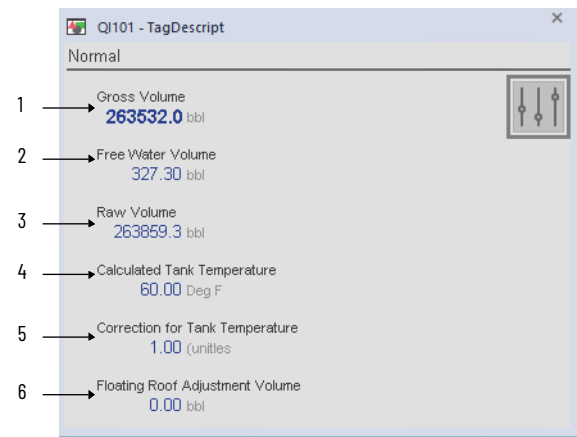
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PTST 	Standard tank strapping table graphic symbol

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



Item	Description
1	Displays gross tank volume.
2	Displays free water volume.
3	Displays raw (observed) volume.
4	Displays calculated tank temperature.
5	Displays correction for tank temperature
6	Displays floating roof adjustment volume

Engineering Tab

QI102 - TagDescript

1 → Tank calibration temperature (Deg F) 60.00

2 → Degrees API for which table includes floating roof data 30.50

3 → Lowest level at which to add/subtract floating roof compensation (feet) 0.00

4 → Adjustment to table values for API <> CalAPI (bbl/Degree API) -2.50

5 → Temperature weighting (0.0 for insulated tank) 7.0

6 → Table minor units per major unit 12.0

7 → Tank shell linear coefficient of thermal expansion (1/Deg F) 0.0000062

< 1 2 >

Item	Description
1	Enter temperature of tank calibration (typically 60 F or 15 C)
2	Enter degrees API for which the table includes floating roof data.
3	Enter the lowest level at which to add or subtract floating roof compensation.
4	Enter adjustment to table values for API <> CalAPI (volume/degrees API, typically a negative number).
5	Enter temperature weighting (0.0 for insulated tank). See API MPMS 2.2A Appendix D.
6	Enter table minor units in inches, cm, mm, per major unit (feet or meters). Enter 0.0 if minor units are not used.
7	Enter tank shell linear coefficient of thermal expansion (1 per degree Fahrenheit or 1 per Celsius).

QI101 - TagDescript

1 → ☐ Include correction for temperature of tank shell.

2 → ☐ Include floating roof adjustment for displacement of fluid level.

< 1 2 >

Item	Description
1	Select to include the tank shell temperature correction.
2	Select to include the floating roof adjustment for calculating fluid level.

HMI Configuration Tab

QI102 - TagDescript

TagDescript

Label: QI102

Tag: QI102

Area name for security: Area01

Volume Unit: bbl

Temperature Unit: Deg F

Level Unit: feet

☐

Enable navigation to an object with more information

1 →

2 →

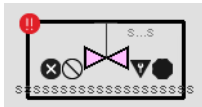



Item	Description
1	Display units
2	Select to enable navigation to another object as a reference.

Notes:

Process Valve (PVLV)

The PVLV Add-On Instruction can be configured to be a Hand Operated, Motor Operated, or Solenoid Operated valve.

Graphic Symbols
(Configured as Hand
Operated Valve)

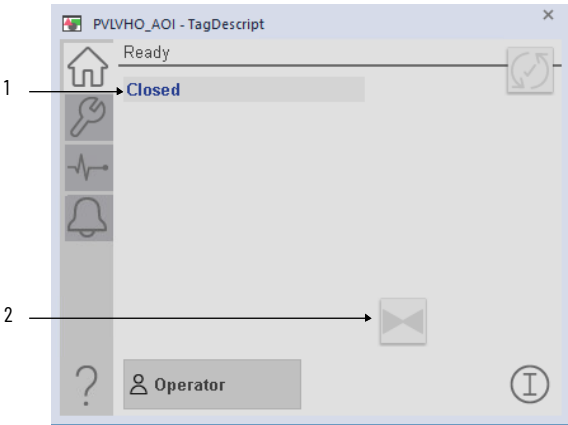
FactoryTalk View SE Graphic Symbol	Description
GO_PVLV_H0	
	
GO_PVLV_H01	
	
GO_PVLV_H02	
	
GO_PVLV_H03	
	

Hand-operated Valves that are shown in various orientations.

FactoryTalk View SE Faceplates (Configured as Hand Operated Valve)

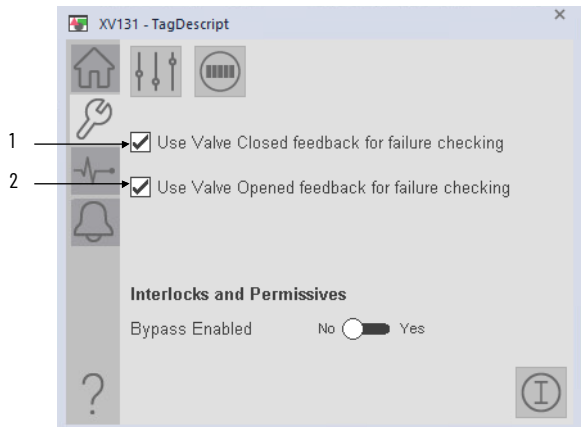
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



Item	Description
1	Valve state indicator.
2	Select to trip the valve “Open” or “Closed” depending on the valve configuration.

Maintenance Tab



Item	Description
1	Select to configure the valve to use the closed limit switch. Clear the checkbox to bypass the closed limit switch temporarily.
2	Select to configure the valve to use the open limit switch. Clear the checkbox to bypass the closed limit switch temporarily.

Advanced Maintenance Tab

1 → Time after command with no motion before Full Stall fault (sec) 15.000

2 → Time after command to reach position before Transit Stall fault (sec) 60.000

3 → Time after 'Trip' to reach trip position before Trip Fail fault (sec) 10.000

4 → Delay before changing output (sec) Close 2.000 Open 2.000

Item	Description
1	Enter the amount of time with no motion after a command for an alarm to occur.
2	Enter the amount of time that the valve is not confirmed open or closed before a Transit Stall.
3	Enter the amount of time to allow the valve to reach its trip position after a trip command is received before raising a trip fail alarm.
4	Enter the amount of time after receiving a command to open or close the valve before changing the outputs to actually move the valve (command delay).

Engineering Tab

1 → Valve Type

☐ Solenoid Valve (SO)

☐ Motorized Valve (MO)

☒ Hand Valve (HO)

2 → ☒ Valve has Closed feedback

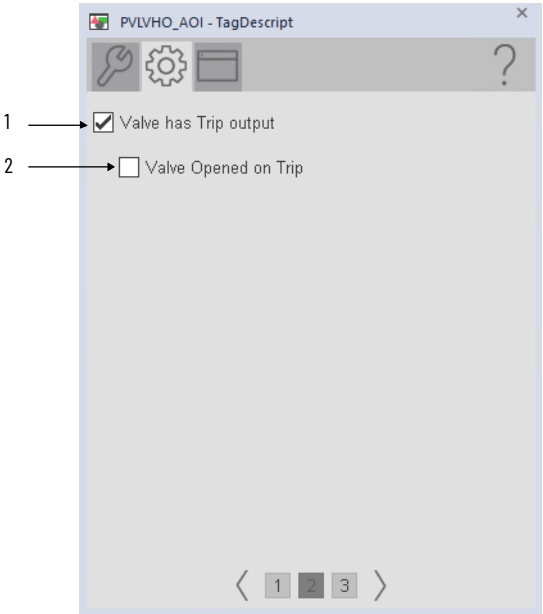
3 → ☒ Valve has Opened feedback

4 → Fault when both feedback inputs are

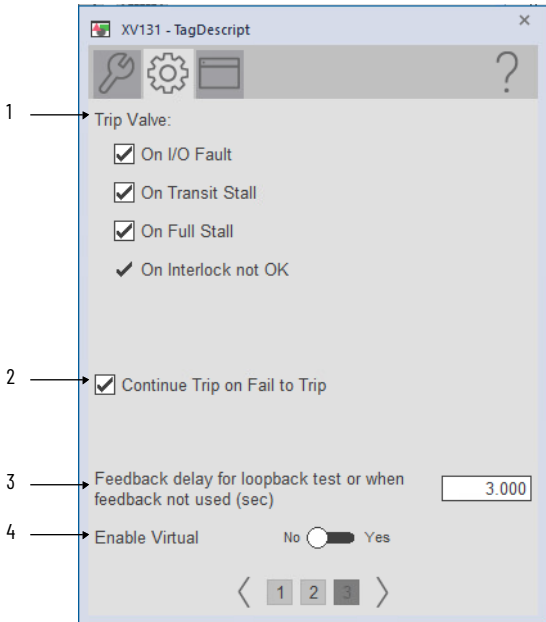
☒ ON ☐ OFF

5 → ☐ Operator command resets fault

Item	Description
1	Select the Valve type.
2	Select if the valve has Closed feedback.
3	Select if the valve has Open feedback.
4	Select 'ON' if both limit switches are OFF when the valve is moving in normal operation. Select 'OFF' if both limit switches are ON when the valve is moving in normal operation. This selection determines which limit switch combination indicates abnormal operation.
5	Select to allow the operator trip command to reset any previous faults (I/O fault, fail to trip, interlock trip), then trip the valve. Clear this checkbox to reset faults with only the reset command.



Item	Description
1	Select if a trip output is connected to the PVLV instruction to trip the valve on an interlock or trip command. This selection makes the trip command button visible on the operator tab.
2	Select if triggering the trip output causes the valve to open. Clear the checkbox (default) if triggering the trip output causes the valve to close. Note: This generally corresponds to the "fail" or "spring return" position of the valve. selected for a "fail open" valve or cleared for a "fail closed" valve.



Item	Description
1	Select the options for when to send the trip output to the valve if a fault is detected. Clear this checkbox to show only the fault status/alarm and not trip the valve if a fault is detected. The valve always stops on interlock not OK. This item cannot be cleared. It is displayed as a reminder that the interlock function always stops the valve.
2	Select to keep sending the trip output to the valve on a trip, even if position feedback does not confirm the valve reached the trip position. Clear this checkbox to stop sending the trip output to the valve when the valve trip times out and the fail to trip status is set.
3	Configure the amount of time the valve status shows 'tripping' before showing an opened or closed status when the valve is tripped and I/O are being simulated.
4	Enable or disable virtual mode.

HMI Configuration Tab

XV131 - TagDescript

TagDescript

Label: XV131 Label

Tag: XV131

Area name for security: Area01

1 → Position 1 status text: Closed

2 → Position 2 status text: Opened

Alarm Configuration

3 → ☒ Allow Operator to Shelve Alarm

4 → ☒ Allow Maintenance to Disable Alarm

< 1 2 >

Item	Description
1	Displays the text for Position 1.
2	Displays the text for Position 2.
3	Select to allow Operator to shelve alarm.
4	Select to allow Maintenance to disable alarm.

XV131 - TagDescript

1 → ☒ Enable navigation to valve statistics object

2 → ☒ Enable navigation to interlock object

3 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

☐ Performer e-signature





☐ Performer and approver e-signatures

4 → ☐ Enable navigation to an object with more information

< 1 2 >

Item	Description
1	Select if the Valve Stats instruction. For example, PVLVS is used with this device. This check adds a button to the faceplate that opens the Valve Stats faceplate. IMPORTANT: The name of the Valve Statistics object in the controller must be the name of the object with the suffix '_ValveStats'. For example, if your PVLV object has the name 'ValveH0123', then its valve statistics object must be named 'ValveH0123_ValveStats'.
2	Select if an Interlock object is used with this valve. This check changes the Interlock indicator to a clickable button to open the Interlock faceplate. IMPORTANT: The name of the interlock object in the controller must be the name of the object with the suffix '_Intlk'. For example, if your PVLV object has the name 'ValveH0123', then its interlock object must be named 'ValveH0123_Intlk'.
3	Select to configure operator command confirmation. This action would take place after any operator command.
4	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) You configure the tagname of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.

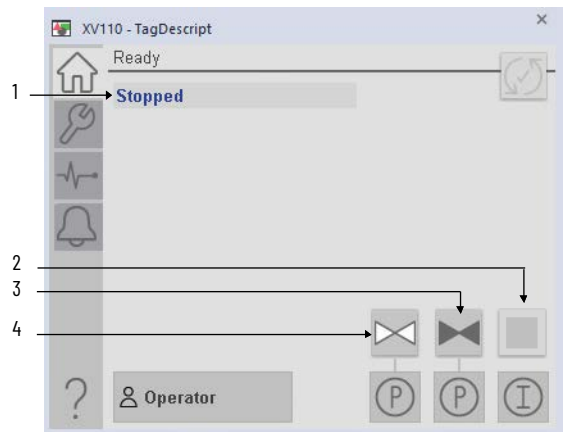
Graphic Symbols
(Configured as Motorized
Valve)

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PVLV_M0</div> 	Standard motor-operated valves that are shown in various orientations.
<div>GO_PVLV_M01</div> 	
<div>GO_PVLV_M02</div> 	
<div>GO_PVLV_M03</div> 	

FactoryTalk View SE Faceplates (Configured as Motorized Valve)

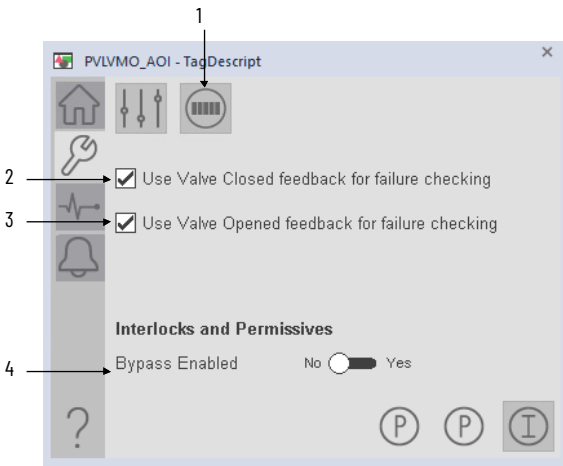
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



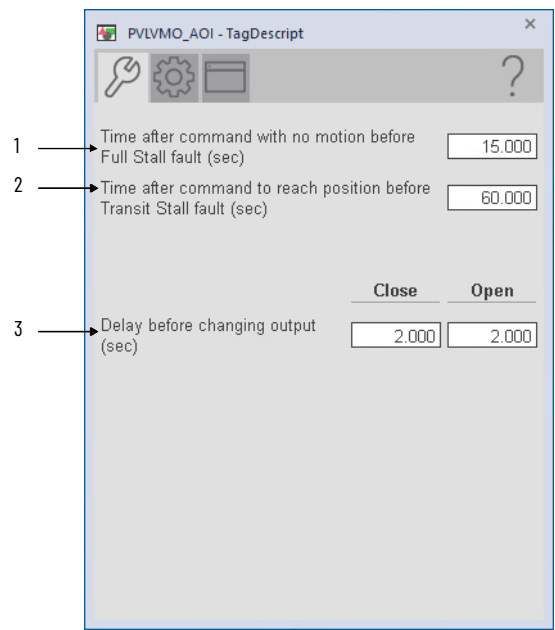
Item	Description
1	Valve state indicator.
2	Select to issue the valve Stop command.
3	Select to open valve.
4	Select to close valve.

Maintenance Tab



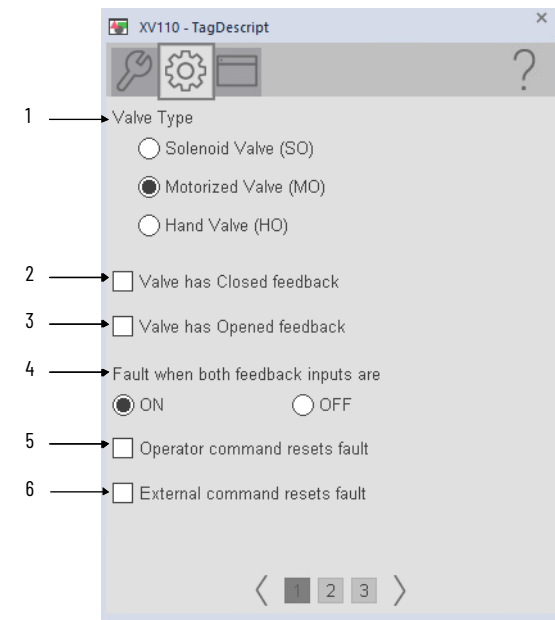
Item	Description
1	Select to open the Valve Statistics faceplate.
2	Select to use Valve Closed feedback for failure checking.
3	Select to use Valve Opened feedback for failure checking.
4	Select yes to bypass checking of interlocks and permissives that can be bypassed.

Advanced Maintenance Tab

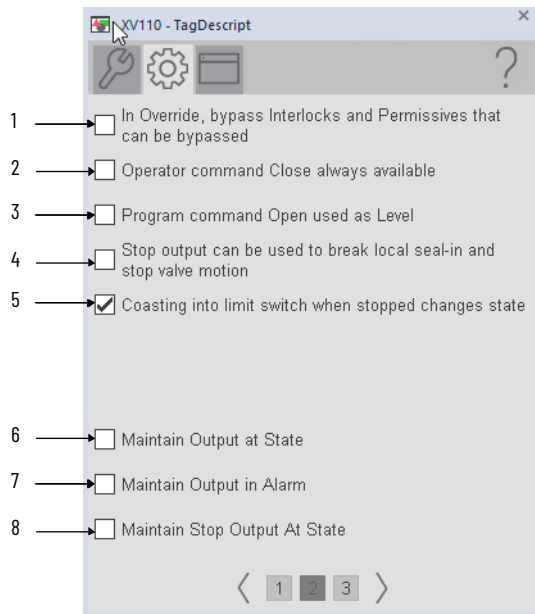


Item	Description
1	Enter the amount of time with no motion after a command for an alarm to occur.
2	Enter the amount of time (in seconds) that the valve is not confirmed open or closed before a Transit Stall.
3	Enter the amount of time after receiving a command to open or close the valve before changing the outputs to actually move the valve (command delay).

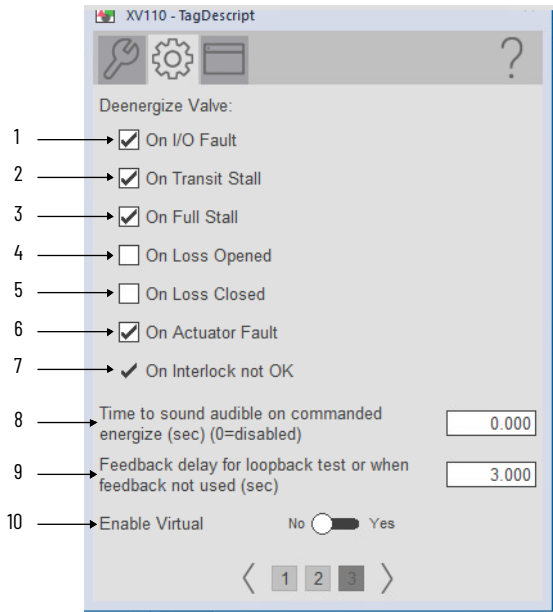
Engineering Tab



Item	Description
1	Select the Valve type.
2	Select if the valve has Closed feedback.
3	Select if the valve has Opened feedback.
4	Select 'ON' if both limit switches are OFF when the valve is moving in normal operation. Select 'OFF' if both limit switches are ON when the valve is moving in normal operation. This selection determines which limit switch combination indicates abnormal operation.
5	Select to allow operator commands to reset any previous faults (I/O fault, fail to trip, interlock trip), then move the valve. Clear this checkbox to reset faults with only the reset command.
6	Select to allow External commands to reset any previous faults (I/O fault, transit stall, full stall, interlock trip), then move the valve. Clear this checkbox to reset faults by using only the reset command



Item	Description
1	When selected, the bypassable interlocks and permissives are bypassed when Override command source is selected. When the checkbox is cleared, the bypassable interlocks and permissives are enforced in Override.
2	When selected, the Operator command button to close the valve is available even when a command source other than Operator or Maintenance is selected. When the checkbox is cleared, the Operator close command button is only enabled in Operator or Maintenance command source.
3	When selected, the Program open command pin is treated as a level input: when 1, the valve is commanded to open, and when 0 the valve is commanded to close. When the checkbox is cleared, the Program commands follow the normal command convention: write a 1 to the Program open command to open the valve, and write a 1 to the Program close command to close the valve
4	When selected, the valve Stop command is enabled and commanding the valve in the opposite direction while moving is permitted. When the checkbox is cleared, the valve Stop command is hidden, and a valve command to the opposite direction is not accepted while the initial move is in progress.
5	When selected, if the valve is stopped and limit switches then indicate the valve has reached the opened or closed position, the valve state changes to opened or closed, as appropriate. When the checkbox is cleared, if the valve is stopped, the state shows stopped until the valve is commanded to a position, even if limit switch inputs change state.
6	When selected, outputs are maintained on, even when the valve reaches the target position. When the checkbox is cleared, outputs are turned off once the valve reaches the target position.
7	When selected, outputs are maintained on when a valve has a full stall (failed to move) or transit stall (failed to reach target position). When the checkbox is cleared, outputs are turned off when a valve stall occurs.
8	When selected, the stop output is maintained, even if the valve coasts into the opened or closed position. When the checkbox is cleared, the stop output is cleared if the valve coasts into the opened or closed position after a stop is commanded.



Item	Description
1	Select to send a stop output to the valve and clear the Open and Close outputs when an I/O Fault condition occurs. Clear this checkbox to keep the outputs to the valve in their current state on an I/O Fault condition. IMPORTANT: When this checkbox is selected and an I/O Fault condition occurs, a reset is required before the valve can be energized.
2	Select to send a stop output to the valve and clear the Open and Close outputs when a Transit Stall condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Transit Stall condition. (A Transit Stall means the valve, when commanded to move, moved off its original position, but did not reach its commanded position before the Transit Stall time expired.) IMPORTANT: When this checkbox is selected and a Transit Stall condition occurs, a reset is required before the valve can be energized.
3	Select to send a stop output to the valve and clear the Open and Close outputs when a Full Stall condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Full Stall condition. (A Full Stall means the valve, when commanded to move, did not move off its original position before the Full Stall time expired.) IMPORTANT: When this checkbox is selected and a Full Stall condition occurs, a reset is required before the valve can be energized.
4	Select to send a stop output to the valve and clear the Open and Close outputs when a Loss of Open Position condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Loss of Open Position condition. (A Loss of Open Position means that the valve was commanded to open, reached the open position as confirmed by the limit switches, and then moved off the open position.) IMPORTANT: When this checkbox is selected and a Loss of Open Position condition occurs, a reset is required before the valve can be energized.
5	Select to send a stop output to the valve and clear the Open and Close outputs when a Loss of Closed Position condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Loss of Closed Position condition. (A Loss of Closed Position means that the valve was commanded to close, reached the closed position as confirmed by the limit switches, and then moved off the closed position.) IMPORTANT: When this checkbox is selected and a Loss of Closed Position condition occurs, a reset is required before the valve can be energized.
6	Check to send a stop output to the valve and clear the Open and Close outputs when an Actuator Fault condition occurs. Clear this checkbox to keep the outputs to the valve in their current state on an Actuator Fault condition. IMPORTANT: When this checkbox is selected and an Actuator Fault condition occurs, a reset is required before the valve can be energized.
7	The device always de-energizes on interlock not OK. This item cannot be cleared. It is displayed as a reminder that the interlock function always de-energizes the valve.
8	Enter the seconds to sound an audible alarm when the valve energizes.
9	Enter the time delay (in seconds) for the opened or closed status to be echoed back when Simulation is enabled or when limit switch feedback is not used.
10	Enable or disable virtual mode.

HMI Configuration Tab

1 → Position 1 status text: Closed

2 → Position 2 status text: Opened

3 → Position 1 command text: Close

4 → Position 2 command text: Open

Alarm Configuration

5 → ☒ Allow Operator to Shelve Alarm

6 → ☒ Allow Maintenance to Disable Alarm

Item	Description
1	Displays the text for Position 1.
2	Displays the text for Position 2.
3	Displays the command text for Position 1.
4	Displays the command text for Position 2.
5	Select to allow Operator to shelve alarm.
6	Select to allow Maintenance to disable alarm.

1 → ☒ Enable navigation to valve statistics object

2 → ☒ Enable navigation to interlock object

3 → ☒ Enable navigation to Open permissive object

4 → ☒ Enable navigation to Close permissive object

5 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

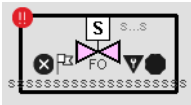



☐ Performer e-signature

☐ Performer and approver e-signatures

6 → ☐ Enable navigation to an object with more information

Item	Description
1	Check if a Valve Stats object is used with this valve. This action makes the Valve Statistics button visible on the Maintenance faceplate; Select this button to open the Valve Statistics faceplate for this valve. IMPORTANT: The name of the ValveStats object in the controller must be the name of the object with the suffix '_ValveStats'. For example, if your PVLV object has the name 'ValveM0123', then its Valve Stats object must be named 'ValveM0123_ValveStats'.
2	Select if an interlock instruction is used with this output. IMPORTANT: The name of the Interlock object in the controller must be the name of the object with the suffix '_Intlk'. For example, if your PVLV object has the name 'ValveM0123', then its Interlock object must be named 'ValveM0123_Intlk'.
3	Select if you have a PPERM instruction that is used with this valve for Open Permissives. This action changes the Permissive indicator to a clickable button to open the Permissive faceplate. IMPORTANT: The name of the Permissive object in the controller must be the name of the object with the suffix '_Pos2Perm'. For example, if your PVLV object has the name 'ValveM0123', then its Permissive object must be named 'ValveM0123_Pos2Perm'.
4	Select if you have a PPERM instruction that is used with this valve for Close Permissives. This action changes the Permissive indicator to a clickable button to open the Permissive faceplate. IMPORTANT: The name of the Permissive object in the controller must be the name of the object with the suffix '_Pos1Perm'. For example, if your PVLV object has the name 'ValveM0123', then its Permissive object must be named 'ValveM0123_Pos1Perm'.
5	Select to configure operator command confirmation. This action would take place after any operator command.
6	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) You configure the tagname of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.

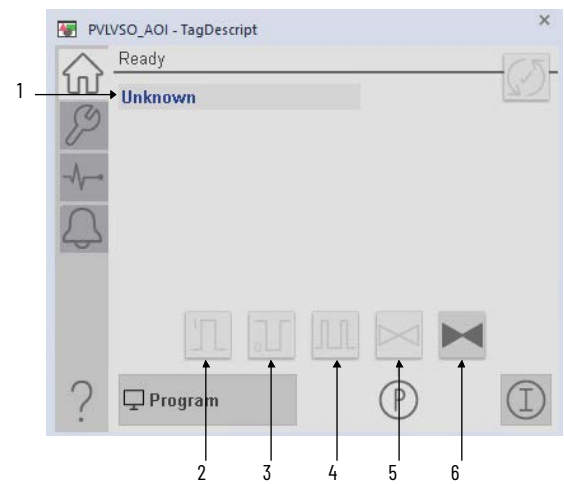
Graphic Symbols
(Configured as Solenoid
Operated Valve)

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PVLV_S0</div> 	Standard solenoid-operated valves that are shown in various orientations.
<div>GO_PVLV_S01</div> 	
<div>GO_PVLV_S02</div> 	
<div>GO_PVLV_S03</div> 	

FactoryTalk View SE Faceplates (Configured as Solenoid Operated Valve)

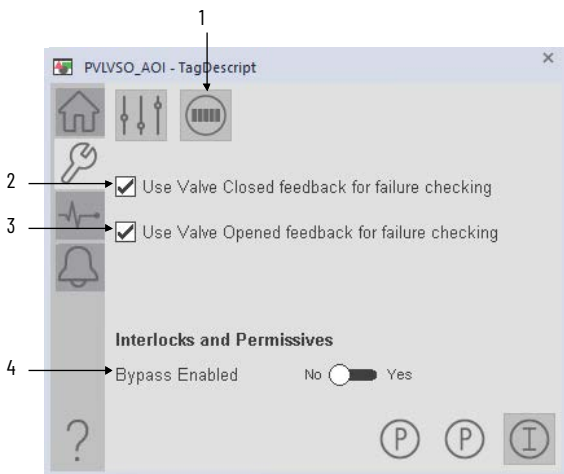
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



Item	Description
1	Valve state indicator.
2	Select to have the valve pulse open.
3	Select to have the valve pulse closed.
4	Select to have the valve pulse continuously.
5	Select to open valve.
6	Select to close valve.

Maintenance Tab



Item	Description
1	Select to open the Valve Statistics faceplate.
2	Select to use Valve Closed feedback for failure checking.
3	Select to use Valve Opened feedback for failure checking.
4	Select yes to bypass checking of interlocks and permissives that can be bypassed.

Advanced Maintenance Tab

Time after command with no motion before Full Stall fault (sec)

15.000

Time after command to reach position before Transit Stall fault (sec)

60.000

Time to pulse valve output (sec)
(0 = outputs maintained ON)

5.000

Delay before changing output (sec)

2.000

2.000

Pulse duration (sec)

5.000

5.000

Command*

Open

Item	Description
1	Enter the amount of time with no motion after a command for an alarm to occur.
2	Enter the amount of time (in seconds) that the valve is not confirmed open or closed before a Transit Stall.
3	Enter the amount of time to pulse outputs to the valve (in seconds). Enter 0 if outputs to the valve should be maintained on indefinitely once energized.
4	Enter the amount of time after receiving a command to open or close the valve before changing the outputs to actually move the valve (command delay).
5	Enter the amount of time to pulse the open and close outputs when commanding the valve. Enter zero if the outputs are to be maintained until the valve reaches the target position.

Engineering Tab

Valve Type

☒ Solenoid Valve (SO)

☐ Motorized Valve (MO)

☐ Hand Valve (HO)

Valve has Closed feedback

☐

Valve has Opened feedback

☐

Fault when both feedback inputs are

☒ ON

☐ OFF

Operator command resets fault

☐

External command resets fault

☐

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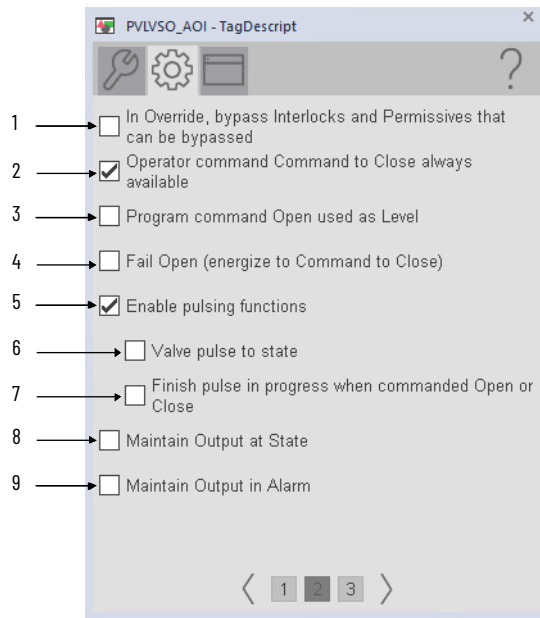
1

2

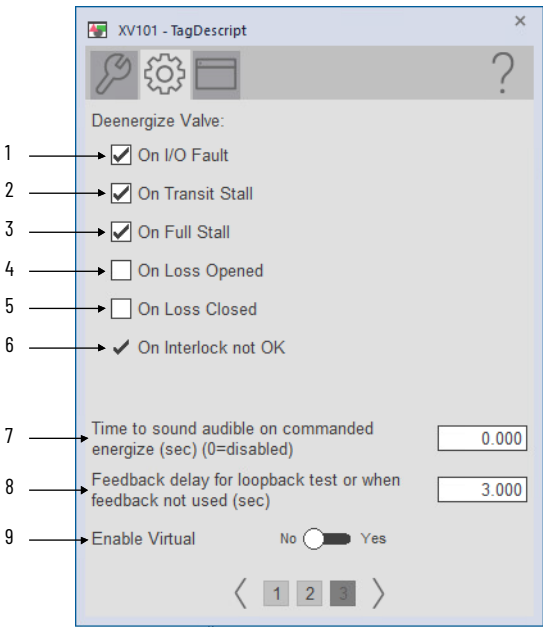
3

>

Item	Description
1	Select the Valve type.
2	Select if the valve has Closed feedback.
3	Select if the valve has Opened feedback.
4	Select 'ON' if both limit switches are OFF when the valve is moving in normal operation. Select 'OFF' if both limit switches are ON when the valve is moving in normal operation. This selection determines which limit switch combination indicates abnormal operation.
5	Select to allow operator commands to reset any previous faults (I/O fault, fail to trip, interlock trip), then move the valve. Clear this checkbox to reset faults with only the reset command.
6	Select to allow External commands to reset any previous faults (I/O fault, transit stall, full stall, interlock trip), then move the valve. Clear this checkbox to reset faults by using only the reset command



Item	Description
1	When selected, the bypassable interlocks and permissives are bypassed when Override command source is selected. When the checkbox is cleared, the bypassable interlocks and permissives are enforced in Override.
2	When selected, the Operator command button to close the valve is available even when a command source other than Operator or Maintenance is selected. When the checkbox is cleared, the Operator close command button is only enabled in Operator or Maintenance command source.
3	When selected, the Program open command is pin is treated as a level input: when 1, the valve is commanded to open, and when 0 the valve is commanded to close. When the checkbox is cleared, the Program commands follow the normal command convention: write a 1 to the Program open command to open the valve, and write a 1 to the Program close command to close the valve
4	When selected, the valve is spring-return (fail) to the open position (energize to close). Leave the box unchecked if the valve is spring-return (fail) to the closed position (energize to open).
5	Select to enable pulsing functions.
6	Select to allow the valve to pulse to the desired state.
7	When selected, the valve will finish pulsing to the desired state before executing a command to open or close.
8	When selected, outputs are maintained on, even when the valve reaches the target position. When the checkbox is cleared, outputs are turned off once the valve reaches the target position.
9	When selected, outputs are maintained on when a valve has a full stall (failed to move) or transit stall (failed to reach target position). When the checkbox is cleared, outputs are turned off when a valve stall occurs.



Item	Description
1	Select to send a stop output to the valve and clear the Open and Close outputs when an I/O Fault condition occurs. Clear this checkbox to keep the outputs to the valve in their current state on an I/O Fault condition. IMPORTANT: When this checkbox is checked and an I/O Fault condition occurs, a reset is required before the valve can be energized.
2	Select to send a stop output to the valve and clear the Open and Close outputs when a Transit Stall condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Transit Stall condition. (A Transit Stall means the valve, when commanded to move, moved off its original position, but did not reach its commanded position before the Transit Stall time expired.) IMPORTANT: When this checkbox is checked and a Transit Stall condition occurs, a reset is required before the valve can be energized.
3	Select to send a stop output to the valve and clear the Open and Close outputs when a Full Stall condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Full Stall condition. (A Full Stall means the valve, when commanded to move, did not move off its original position before the Full Stall time expired.) IMPORTANT: When this checkbox is checked and a Full Stall condition occurs, a reset is required before the valve can be energized.
4	Select to send a stop output to the valve and clear the Open and Close outputs when a Loss of Open Position condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Loss of Open Position condition. (A Loss of Open Position means that the valve was commanded to open, reached the open position as confirmed by the limit switches, and then moved off the open position.) IMPORTANT: When this checkbox is selected and a Loss of Open Position condition occurs, a reset is required before the valve can be energized.
5	Select to send a stop output to the valve and clear the Open and Close outputs when a Loss of Closed Position condition occurs. Clear this checkbox to keep the outputs to the valve in their current state (keep trying) on a Loss of Closed Position condition. (A Loss of Closed Position means that the valve was commanded to close, reached the closed position as confirmed by the limit switches, and then moved off the closed position.) IMPORTANT: When this checkbox is selected and a Loss of Closed Position condition occurs, a reset is required before the valve can be energized.
6	The device always de-energizes on interlock not OK. This item cannot be cleared. It is displayed as a reminder that the interlock function always de-energizes the valve.
7	Enter the seconds to sound an audible alarm when the valve energizes.
8	Enter the time delay (in seconds) for the opened or closed status to be echoed back when Simulation is enabled or when limit switch feedback is not used.
9	Enable or disable virtual mode.

HMI Configuration Tab

XV101 - TagDescript

TagDescript

Label: XV101 Label

Tag: XV101

Area name for security: Area01

1 → Position 1 status text: Closed

2 → Position 2 status text: Opened

3 → Position 1 command text: Close

4 → Position 2 command text: Open

5 → Pulse Position 1 command text: Pulse close

6 → Pulse Position 2 command text: Pulse open

Alarm Configuration

7 → ☒ Allow Operator to Shelf Alarm

8 → ☒ Allow Maintenance to Disable Alarm

< 1 2 >

Item	Description
1	Displays the text for Position 1.
2	Displays the text for Position 2.
3	Displays the command text for Position 1.
4	Displays the command text for Position 2.
5	Displays the command text for Pulse Position 1.
6	Displays the command text for Pulse Position 2.
7	Select to allow Operator to shelf alarm.
8	Select to allow Maintenance to disable alarm.

XV101 - TagDescript

1 → ☒ Enable navigation to valve statistics object

2 → ☒ Enable navigation to interlock object

3 → ☒ Enable navigation to Open permissive object

4 → Operator Command Confirmation Required

☒ None

☐ Command confirmation

☐ Performer e-signature

☐ Performer and approver e-signatures

5 → ☐ Enable navigation to an object with more information

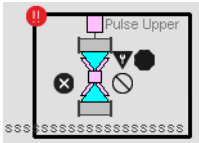
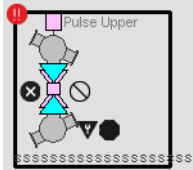
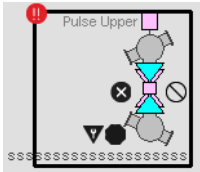
< 1 2 >

Item	Description
1	Check if a Valve Stats object is used with this valve. This action makes the Valve Statistics button visible on the Maintenance faceplate; Select this button to open the Valve Statistics faceplate for this valve. IMPORTANT: The name of the ValveStats object in the controller must be the name of the object with the suffix '_ValveStats'. For example, if your PVLV object has the name 'ValveM0123', then its Valve Stats object must be named 'ValveM0123_ValveStats'.
2	Select if an interlock instruction is used with this output. IMPORTANT: The name of the Interlock object in the controller must be the name of the object with the suffix '_Intlk'. For example, if your PVLV object has the name 'ValveM0123', then its Interlock object must be named 'ValveM0123_Intlk'.
3	Select if you have a PPERM instruction that is used with this valve for Open Permissives. This action changes the Permissive indicator to a clickable button to open the Permissive faceplate. IMPORTANT: The name of the Permissive object in the controller must be the name of the object with the suffix '_Pos2Perm'. For example, if your PVLV object has the name 'ValveM0123', then its Permissive object must be named 'ValveM0123_Pos2Perm'.
4	Select to configure operator command confirmation. This action would take place after any operator command.
5	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) You configure the tagname of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.

Notes:

Mix-proof Valve (PVLVMP)

Graphic Symbols

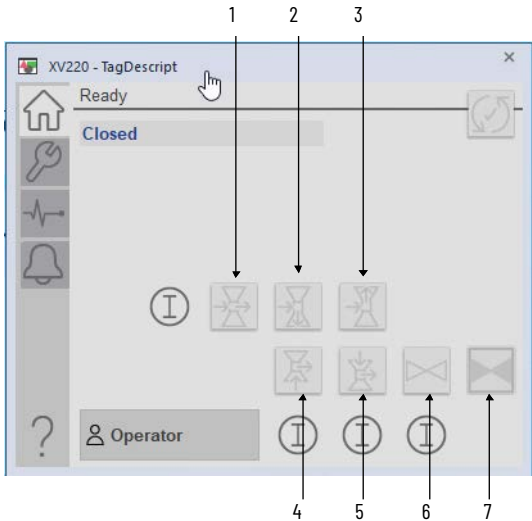
FactoryTalk View SE Graphic Symbol	Description
<div>GO_PVlvMP2D</div> 	This Mix-proof Valve graphic object allows for numerous orientations on displays
<div>GO_PVlvMP_Orth</div> 	This 3-D orthogonal Mix-proof Valve graphic object provides different valve angle positions on displays.
<div>GO_PVlvMP_Orth1</div> 	This 3-D orthogonal Mix-proof Valve graphic object provides different valve angle positions on displays.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

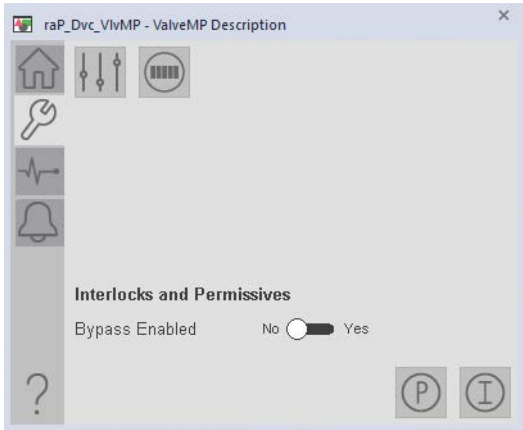
The Faceplate initially opens to the Operator (Home) tab. From here, an operator can monitor the device status and manually operate the device when it is in Operator command source.



Item	Description
1	Select to go to the CIP/SIP Valve Cavity state.
2	Select to go to the CIP/SIP Valve Lower Seat state.
3	Select to go to the CIP/SIP Valve Upper Seat state.
4	Select to go to the Lift Valve Lower Seat state.
5	Select to go to the Lift Valve Upper Seat state.
6	Select to open valve.
7	Select to close valve.

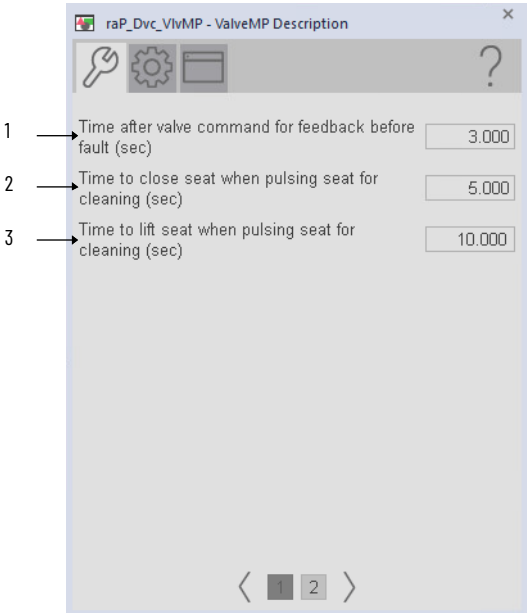
Maintenance Tab

Maintenance personnel use the information and controls on the Maintenance tab to adjust device parameters, troubleshoot, temporarily work around device problems, and disable the device for routine maintenance.

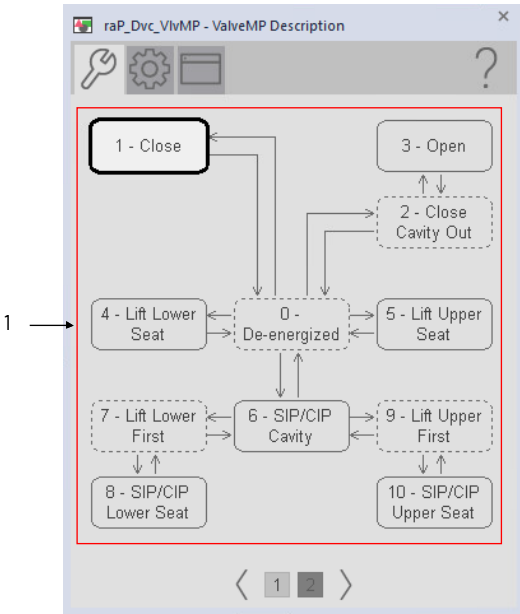


Advanced Maintenance Tab

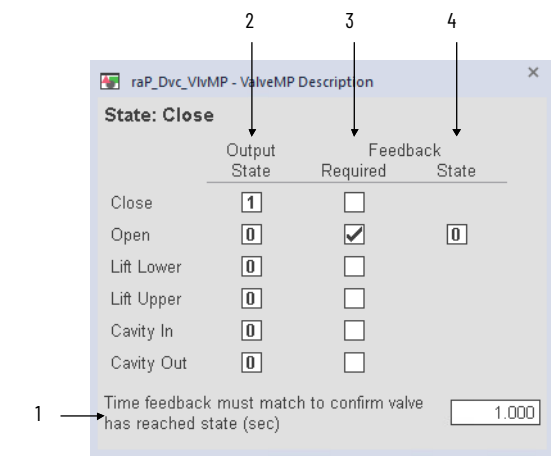
The Advanced Properties Display opens to the advanced maintenance settings. The Advanced Properties Display provides access to device configuration parameters and ranges, and options for device and I/O setup. This tab is used for initial system commissioning or later system changes.



Item	Description
1	Enter a value (seconds) that gives the valve time to achieve state before triggering a valve failure fault.
2	Enter a value (seconds) that the valve seat is held closed when pulsing for cleaning.
3	Enter a value (seconds) that the valve seat is held open when pulsing for cleaning.

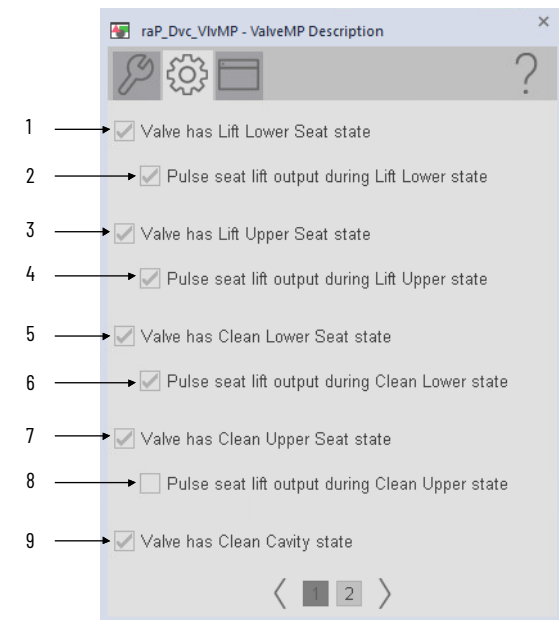


Item	Description
1	Select a state box to open the State Configuration display to access configuration parameters for the valve state

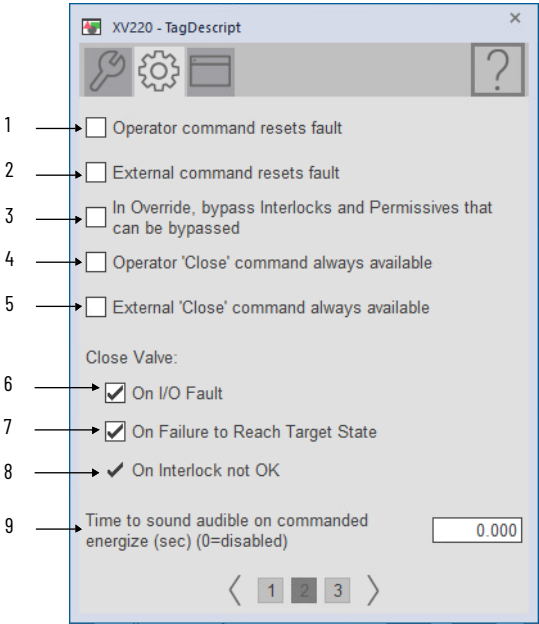


Item	Description
1	Enter a value (seconds) the feedback must match for the valve to achieve the selected state.
2	Set State of each Output in the selected valve state.
3	Select to require a feedback signal for the selected valve state.
4	Sets the desired value of the feedback signals for the selected valve state.

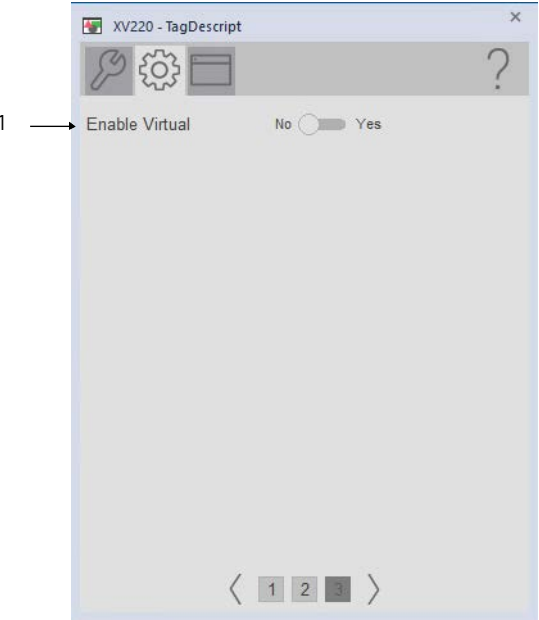
Engineering Tab



Item	Description
1	Select to enable the lift lower seat state for the valve.
2	Select to enable pulsing in the lift lower state.
3	Select to enable the lift upper seat state for the valve.
4	Select to enable pulsing in the lift upper state.
5	Select to enable the clean lower seat state.
6	Select to enable pulsing in the clean lower seat state
7	Select to enable the clean upper seat state.
8	Select to enable pulsing in the clean upper seat state.
9	Select to enable the clean cavity state.

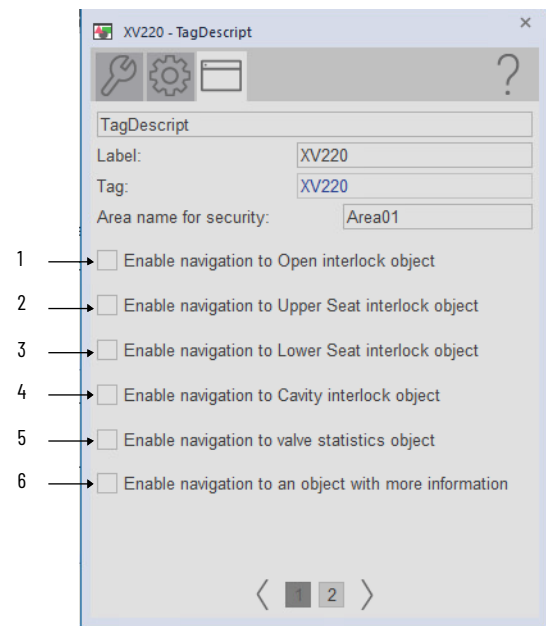


Item	Description
1	Select to reset a fault on a new Operator command.
2	Select to reset a fault on a new External command.
3	Select to bypass permissives and interlocks in Override command source.
4	Select to have Close command always available to Operator control.
5	Select to have Close command always available to External control.
6	Select to close the valve when an I/O Fault occurs. A reset is required to clear this latched shed condition. Clear this checkbox to show only the I/O fault status/alarm and not trip the valve if an I/O fault is detected.
7	Select to close the valve when a Position Fail occurs. A reset is required to clear this latched shed condition. Clear this checkbox to show only the Position Fail status/alarm and not trip the valve if a Position Fail is detected
8	The device always sheds (closes) on interlock not OK. This item cannot be unchecked. It is displayed as a reminder that the interlock function always triggers a shed.
9	Enter the time (in seconds) that the audible sounds when there is a commanded State change.

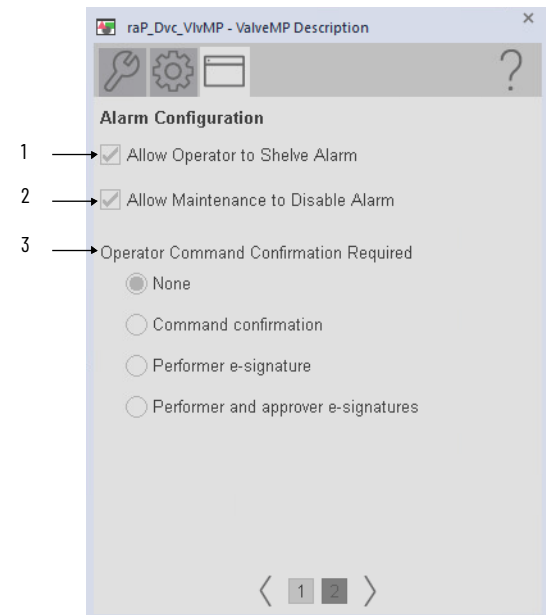


Item	Description
1	Select yes to enable virtual.

HMI Configuration Tab




Item	Description
1	Select if an interlock object is connected to Inp_OpenIntlkOK. The Open Interlock indicator becomes a button that opens the interlock faceplate.
2	Select if an interlock object is connected to Inp_UpperSeatIntlkOK. The Upper Seat Interlock indicator becomes a button that opens the interlock faceplate.
3	Select if an interlock object is connected to Inp_LowerSeatIntlkOK. The Lower Seat Interlock indicator becomes a button that opens the interlock faceplate.
4	Select if an interlock object is connected to Inp_CavityIntlkOK. The Cavity Interlock indicator becomes a button that opens the interlock faceplate.
5	Select if the Valve Stats instruction (for example, P_ValveStats) is used with this device. This check adds a button to the faceplate that opens the Valve Stats faceplate. IMPORTANT: The name of the Valve Statistics object in the controller must be the name of the object with the suffix '_ValveStats'. For example, if your raP_Dvc_VlvMP object has the name 'ValveMP123', then its Interlock object must be named 'ValveMP123_ValveStats'.
6	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) You configure the tagname of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.



Item	Description
1	Select to allow Operator to shelve alarm.
2	Select to allow Maintenance to disable alarm.
3	Select to configure operator command confirmation. This action would take place after any operator command.

Process Valve Statistics (PVLVS)

Graphic Symbols

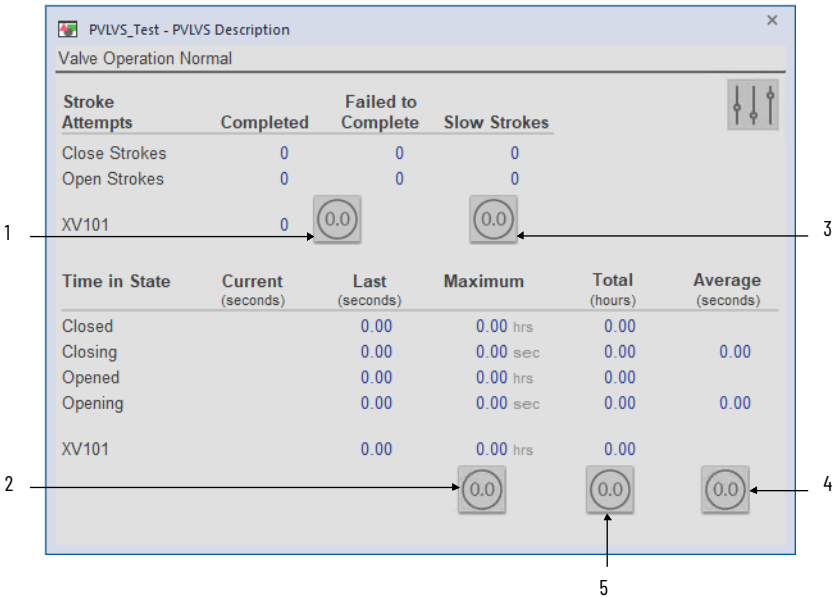
FactoryTalk View SE Graphic Symbol	Description
<div>GO_PVLVS</div> <div></div>	Graphic symbol which launches the faceplate for the Valve Statistics device.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. There are basic faceplate attributes that are common across all instructions. See [Basic Faceplate Attributes on page 23](#).

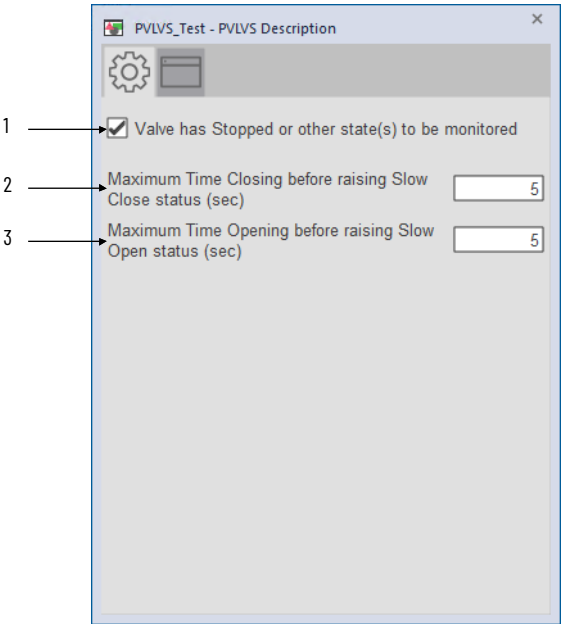
This object has no Trends, Diagnostics, or Alarms tabs.

Operator



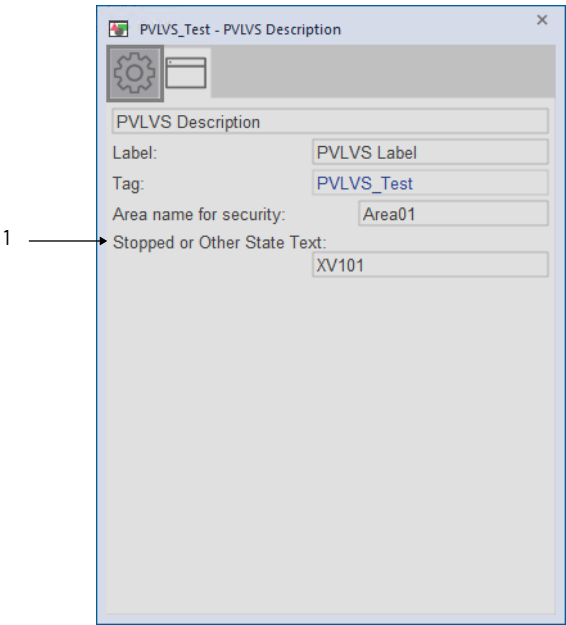
Item	Description
1	Select to clear Failed to Complete stroke counts.
2	Select to clear Maximum time.
3	Select to clear Slow Stroke counts.
4	Select to clear Average time.
5	Select to clear Total time

Advanced Engineering



Item	Description
1	Select if valve has Stopped or other states to be monitored.
2	Enter the maximum time for valve to be in the closing state before indicating that the valve closed slower than expected.
3	Enter the maximum time for valve to be in the opening state before indicating that valve opened slower than expected.

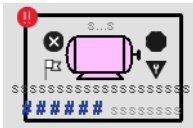
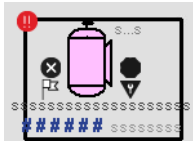
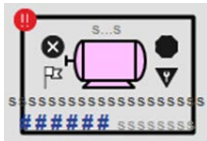

Advanced HMI



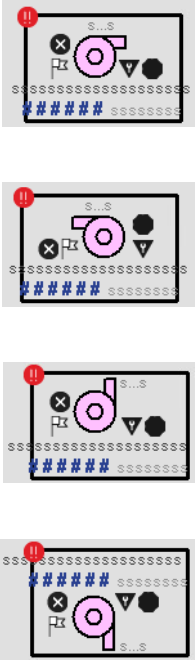
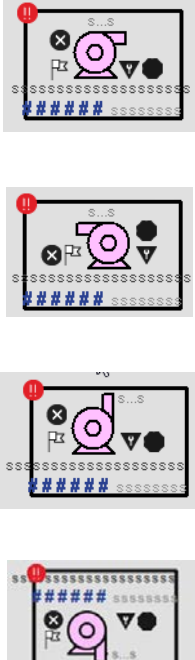
Item	Description
1	The text for Stopped or Other State to be displayed in HMI.

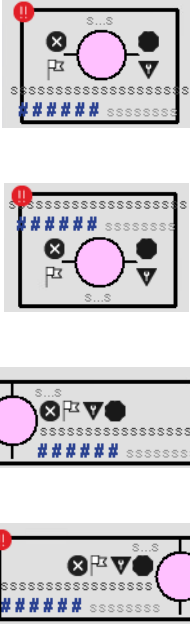
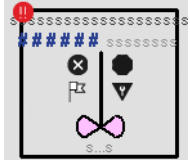

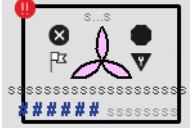

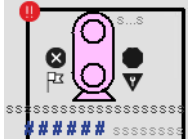
Variable Speed Drive (PVSD)

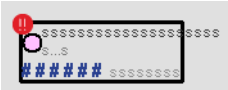



Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_PVSD	
	
GO_PVSD1	
	
GO_PVSD2	
	
GO_PVSD4	
	

Motors operate in different positions:
right, up, left, and down.

FactoryTalk View SE Graphic Symbol	Description
	Blowers operate in different positions: right, left, up, and down.
	Pumps operate in several positions: right, left, and up

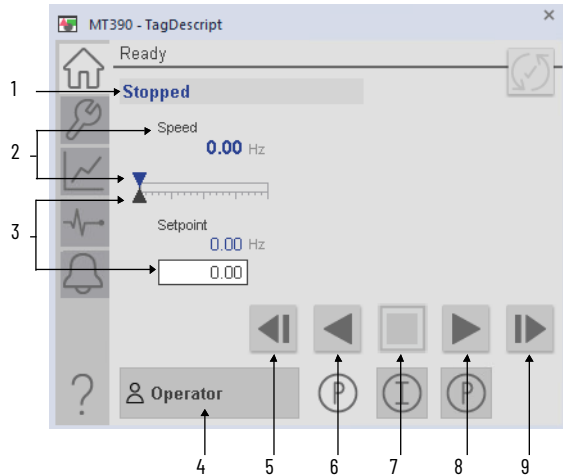
FactoryTalk View SE Graphic Symbol	Description
	<p>Inline motors operate in several positions: up, left, down, and right.</p>
	<p>Agitator that is shown as a Graphic Symbol.</p>
	<p>Conveyor that is shown as a Graphic Symbol.</p>
	<p>Fan that is shown as a Graphic Symbol.</p>
	<p>Mixer that is shown as a Graphic Symbol</p>
	<p>Rotary Pump that is shown as a Graphic Symbol</p>

FactoryTalk View SE Graphic Symbol	Description
	Indicator with label.
	Blower indicator
	Motor indicator
	Pump indicator

FactoryTalk View SE Faceplates

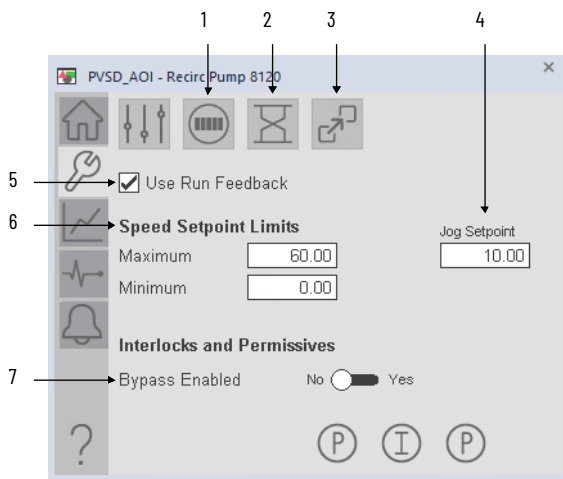
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



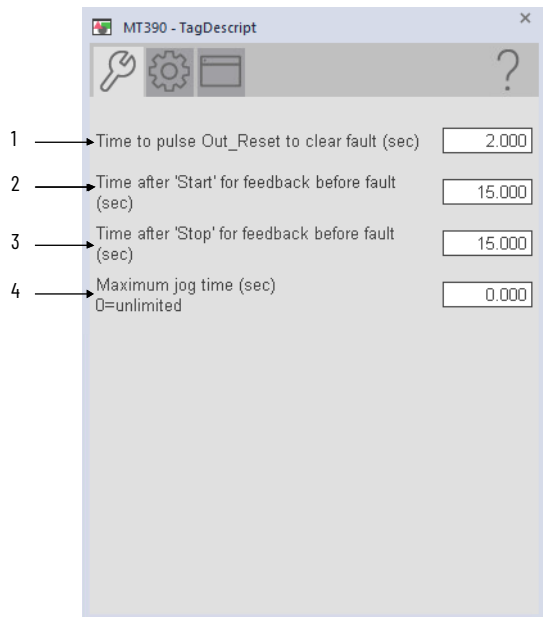
Item	Description
1	Drive state indicator.
2	Current speed of the drive.
3	Setpoint for the speed of the drive.
4	Current command source (Program, Operator, Override, Maintenance, or Hand)
5	Jog drive in reverse.
6	Start drive in reverse.
7	Stop drive.
8	Start drive forward.
9	Jog drive forward.

Maintenance Tab



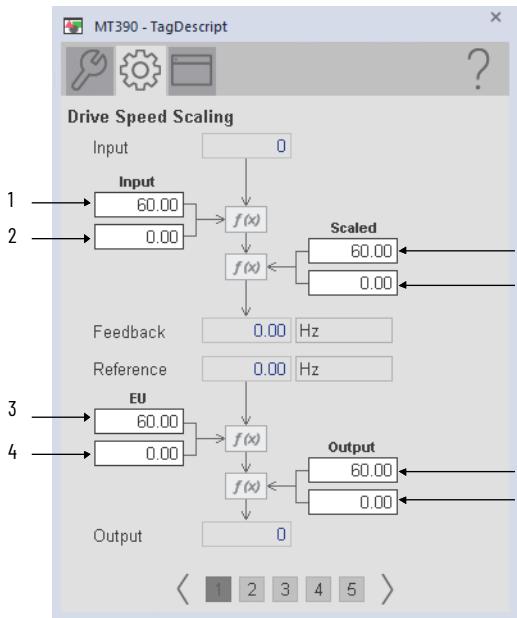
Item	Description
1	Display Runtime Accumulator Faceplate.
2	Display Restart Inhibit Faceplate.
3	Display Device Faceplate.
4	Enter the Jog Setpoint.
5	Select to use Run Feedback.
6	Enter the clamping limits for the speed setpoint. If a speed setpoint outside this range is entered, the speed is clamped at these limits and Sts_SpeedLimited is asserted.
7	Select yes to bypass checking of interlocks and permissives that can be bypassed.

Advanced Maintenance Tab

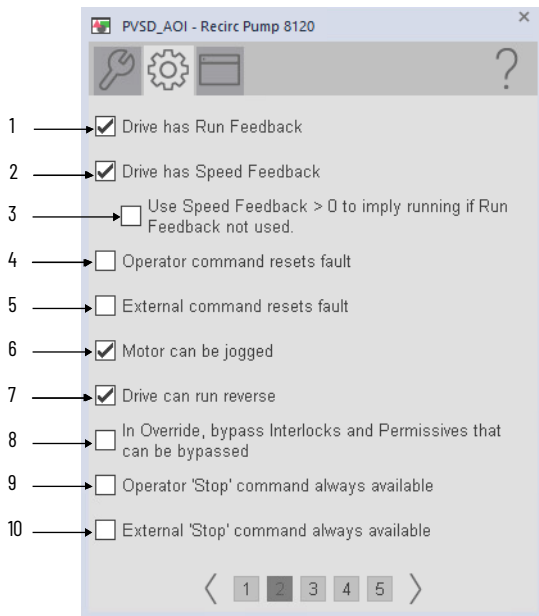


Item	Description
1	Enter the amount of time to hold Out_Reset true to reset a drive fault when a reset command is received.
2	Enter the amount of time to allow for the run feedback on the drive to confirm that the drive has started before raising a Fail to Start alarm.
3	Enter the amount of time to allow for the run feedback on the drive to confirm that the drive has stopped before raising a Fail to Stop alarm. TIP: Allow extra time for the drive to decelerate or coast to zero speed before it returns a confirmed Stopped status.
4	Enter the maximum amount of time allowed to jog the motor.

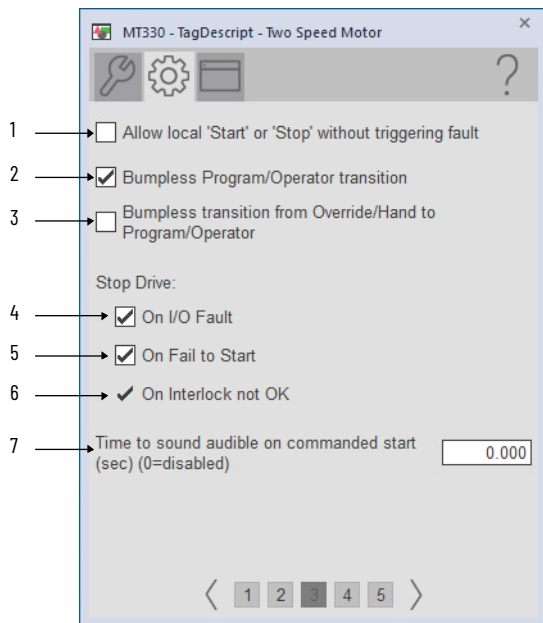
Engineering Tab



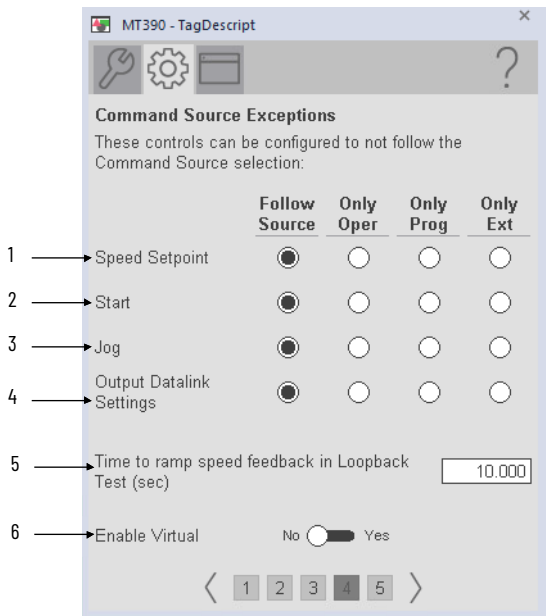
Item	Description
1	Enter the raw input count that corresponds to the maximum speed feedback from the drive.
2	Enter the raw input count that corresponds to the minimum speed feedback from the drive. (This value is usually zero.)
3	Enter the engineering unit value for the maximum speed reference that is sent to the drive.
4	Enter the engineering unit value for the minimum speed reference that is sent to the drive. (This value is usually zero. Do not enter a negative value for reversing drives. Reversing is handled separately.)
5	Enter the engineering unit value for the maximum speed feedback from the drive.
6	Enter the engineering unit value for the minimum speed feedback from the drive. (This value is usually zero. Do not enter a negative value for reversing drives. Reversing is handled separately.)
7	Enter the raw output count that corresponds to the maximum speed reference sent to the drive.
8	Enter the raw output count that corresponds to the minimum speed reference sent to the drive. (This value is usually zero.)



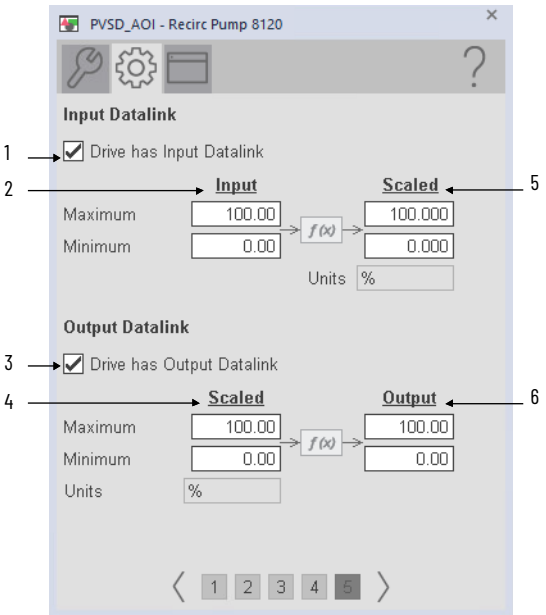
Item	Description
1	Select if the drive provides a run feedback signal. This check enables feedback checking for Fail to Start and Fail to Stop. Clear this checkbox if there is no run feedback.
2	Select if the drive provides a speed feedback signal. Clear this checkbox if there is no speed feedback.
3	Select if Speed feedback greater than zero is used to signify the drive is running. IMPORTANT: This configuration setting is available only if the previous configuration setting is checked.
4	Select to reset faults when a new operator drive command, such as start or stop, is issued. Clear this checkbox to require an explicit reset command to clear faults.
5	Select to reset faults when a new external drive command, such as start or stop, is issued. Clear this checkbox to require an explicit reset command to clear faults.
6	Select to make the Jog command button visible on the Operator tab and enable the drive to be jogged from the faceplate.
7	Select to make the forward and reverse direction command buttons visible on the Operator tab and enable the drive to run forward or reverse.
8	Select to have the interlocks and permissives that can be bypassed, bypassed in Override command source.
9	Select (= 1) so that the OCmd.Stop has priority and is accepted at any time. If the Command Source is not Operator or Maintenance, the motor or drive requires a reset. Clear this checkbox (= 0) so that the OCmd.Stop works only in Operator or Maintenance command source.
10	Select (= 1) so that the XCmd.Stop has priority and is accepted at any time. If the Command Source is not External, the motor or drive requires a reset. Clear this checkbox (= 0) so that the XCmd.Stop only works when the command source is External.



Item	Description
1	Select to allow for local command source start and stop without triggering a fault.
2	Select to have Program settings, such as Speed Reference, track Operator settings in Operator command source, and have Operator settings track Program settings in Program command source.
3	Select to have Program and Operator Speed Reference track the Override Speed Reference in Override command source or the actual speed in Hand command source.
4	Select to stop the drive if an I/O Fault is detected. Clear this checkbox show the I/O Fault Status/Alarm only and not stop the drive if an I/O Fault is detected.
5	When the bit is on and a motor Fail to Start is detected, the drive is stopped. A reset is required before another start can be attempted. If the bit is off and a drive Fail to Start is detected, the instruction sets only the Sts.FailToStart status (and the Alm.FailToStart alarm, if so configured). The outputs are not changed, so the instruction continues to start the drive.
6	The drive always stops on interlock not OK. This item cannot be cleared. It is displayed as a reminder that the interlock function always stops the drive.
7	Enter the time (in seconds) that the audible sounds when there is a commanded State change.



Item	Description
1	This selection determines whether control of the drive speed reference follows the command source that is selected for the instruction, stays with the operator, stays with the program, or stays with the external command source.
2	This selection determines whether control of the drive starting and stopping follows the command source that is selected for the instruction, stays with the operator, stays with the program, or stays with the external command source.
3	This selection determines whether control of the drive jogging follows the command source that is selected for the instruction, stays with the operator, stays with the program, or stays with the external command source.
4	This selection determines whether control of the output datalink value follows the command source that is selected for the instruction, stays with the operator, stays with the program, or stays with the external command source.
5	Enter the time, in seconds, to ramp speed feedback when in Virtual.
6	Enable or disable virtual mode.



Item	Description
1	Select to make the Input Datalink configuration and operation functions visible.
2	Enter the minimum and maximum raw (from the drive) units for the Input Datalink.
3	Select to make the Output Datalink configuration and operation functions visible.
4	Enter the minimum and maximum scaled values for the Output Datalink in Engineering Units.
5	Enter the minimum and maximum scaled values for the Input Datalink in Engineering Units.
6	Enter the minimum and maximum scaled values for the Output Datalink in Raw (to the drive) Units. Enter the text to display for the label and units of measure of the Output Datalink.

HMI Configuration Tab

MyPVSD - Variable Speed Drive

Variable Speed Drive

Label: MY PVSD DRIVE

Tag: MyPVSD

Area name for security: Area01

1 → Running Forward status text: Going This Way

2 → Running Reverse status text: Going Other Way

3 → Starting Forward Status Text: Starting forward

4 → Starting Reverse Status Text: Starting reverse

5 → Stopped Status Text: Not Running

6 → Stopping Status Text: Stopping

7 → Jogging Forward Status Text: Jogging This Way

8 → Jogging Reverse Status Text: Jogging Other Wa

< 1 2 3 4 >

Item	Description
1	Display name for running forward direction.
2	Display name for running reverse direction.
3	Display name for starting forward direction.
4	Display name for starting reverse direction.
5	Display name for Stopped status.
6	Display name for Stopping status.
7	Display name for jogging forward direction.
8	Display name for jogging reverse direction.

MyPVSD - Variable Speed Drive

1 → Start Forward command text: Run This Way

2 → Start Reverse command text: Run Other Way

3 → Stop Command Text: Stop

4 → Jog Forward command text: Jog This Way

5 → Jog Reverse command text: Jog Other Way

6 → Input Datalink label: Tremie pipe voltage

7 → Output Datalink label: Sinusoidal replenera

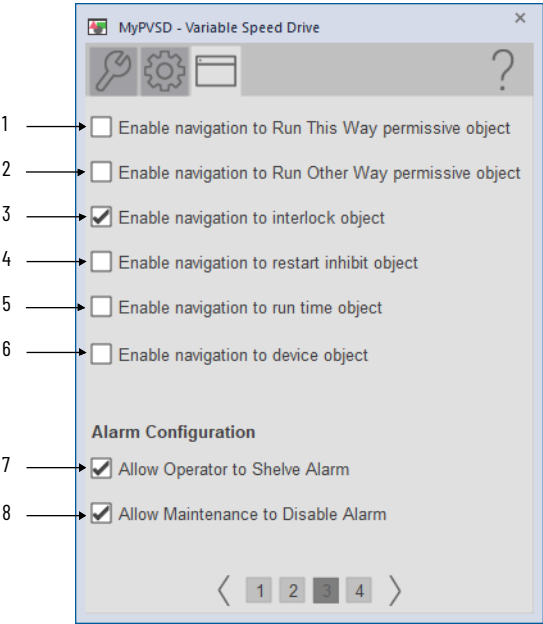
8 → Number of decimal places for Actual Speed 2

9 → Number of decimal places for Input Datalink 2

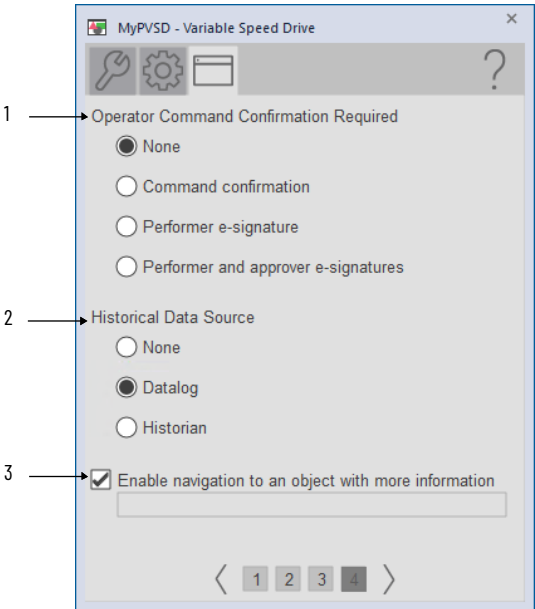
Number of decimal places for Output Datalink 2

< 1 2 3 4 >

Item	Description
1	Display name for start forward direction.
2	Display name for start reverse direction.
3	Display name for Stop
4	Display name for jog forward direction.
5	Display name for jog reverse direction.
6	Display name for input Datalink.
7	Display name for output Datalink.
8	Enter the decimal places to display for actual speed.
9	Enter the decimal places to display for Input Datalink.



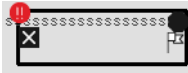
Item	Description
1	Select if a permissive object is connected to Inp_FwdPermOK. The permissive indicator becomes a button that opens the permissive faceplate. IMPORTANT: The name of the permissive object in the controller must be the name of the object with the suffix "_FwdPerm".
2	Select if a permissive object is connected to Inp_RevPermOK. The permissive indicator becomes a button that opens the permissive faceplate. IMPORTANT: The name of the permissive object in the controller must be the name of the object with the suffix "_RevPerm".
3	Select if an interlock object is connected to Inp_IntlkOK. The Interlock indicator becomes a button that opens the interlock faceplate. IMPORTANT: The name of the Interlock object in the controller must be the name of the object with the suffix "_Intlk_O". For example, if your PVSD object has the name 'Drive123', then its Interlock object must be named 'Drive123_Intlk'.
4	Select if a restart inhibit object is connected. The button that opens the Restart Inhibit faceplate appears. IMPORTANT: The name of the Restart Inhibit object in the controller must be the name of the object with the suffix '_Reslnh'. For example, if your PVSD object has the name 'Drive123', then its Restart Inhibit object must be named 'Drive123_Reslnh'.
5	Select if a runtime object is connected. The button that opens the runtime faceplate appears. IMPORTANT: The name of the runtime object in the controller must be the name of the object with the suffix '_RunTime'. For example, if your PVSD object has the name 'Drive123', then its runtime object must be named 'Drive123_RunTime'.
6	Select to allow navigation to the device object.
7	Select to allow Operator to shelve alarm.
8	Select to allow Maintenance to disable alarm.



Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.
2	Select to configure if a Historical data source will be used or not.
3	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an Add-On Instruction backing tag or a UDT tag that has HMI_Type and HMI_Lib defined. For example, there is a motor with the tag name P_101 and there is a need to have the more information button navigate to the parent P_LLS object. A tag is created for the P_LLS object that is given the alias P101_More. When the more information button is pressed on the motor, it links to P101_More. This opens the faceplate for the LLS object.

Process Area Module (raP_Opr_Area)

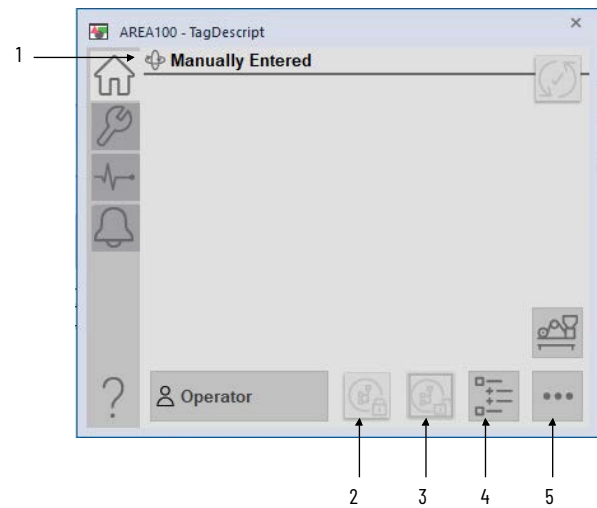
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PAREA</div> 	The raP_Opr_Area object groups Units together, and provides a propagation mechanism for aggregating status from Unit objects, and broadcasting commands to Unit Objects.

FactoryTalk View SE Faceplates

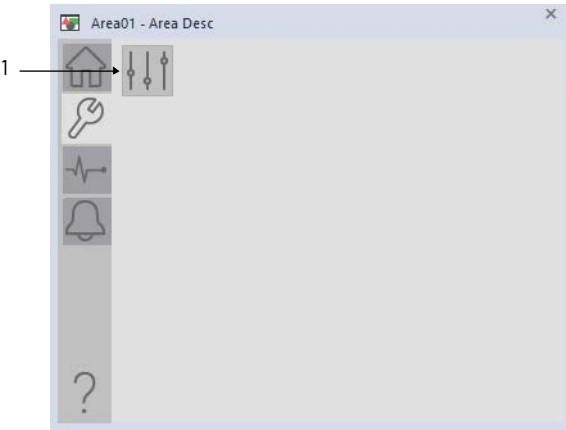
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



Item	Description
1	Displays the current state of the object
2	Acquire child command source
3	Release child command source
4	Display organizational tree view for this object
5	Display more information

Maintenance Tab



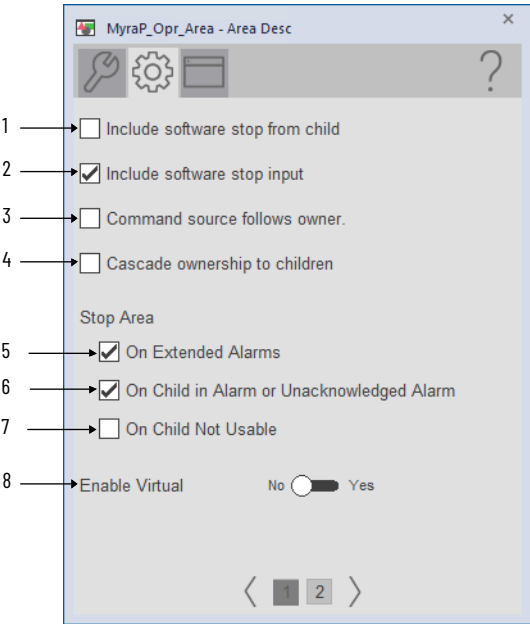
Item	Description
1	Display Advanced Properties

Advanced Maintenance Tab

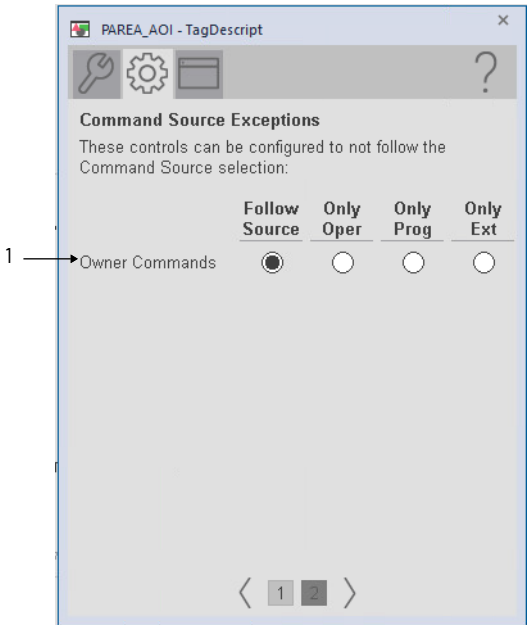


The timer creates a delay for the Tree View to indicate that Children are 'not good' upon ownership acquisition. This is done to avoid nuisance indications on the Tree View while waiting for children to be acquired. The default of five seconds is sufficient delay for most applications. You may wish to raise that value if child acquisition takes longer than this. This can occur if the organization has many nested organizational levels or nested elements have relatively long scan intervals. This value is limited less than 3600 seconds.

Engineering Tab



Item	Description
1	Select to include software stop from child
2	Select to include software stop input
3	Select to have the Command source follow the owner
4	Select to cascade ownership to children (children will be owned when this object is owned)
5	Select to stop unit on extended alarms
6	Select to stop unit when Child is in Alarm or Unacknowledged Alarm
7	Select to stop unit when Child cannot be put into Program or is owned by another owner.
8	Select yes to enable virtual mode



Item	Description
1	Use the radio buttons for the area owner commands to follow the overall command source of the instruction, or to "keep" particular source (operator, program, or external).

HMI Configuration Tab

PAREA_AOI - TagDescribe

TagDescribe

Label: PAREA_AOI Label

Tag: PAREA_AOI

Area name for security: Area01

Alarm Configuration

1

☒ Allow Operator to Shelve Alarm

2

☒ Allow Maintenance to Disable Alarm

3

☒ Enable extended alarms

<

1

2

>

Item	Description
1	Select to allow Operator to shelve alarm
2	Select to allow Maintenance to disable alarm
3	Select to enable extended alarms

raP_Opr_Area_AOI - Area Desc

Operator Command Confirmation Required

☒ None

☐ Command confirmation

☐ Performer e-signature

☐ Performer and approver e-signatures

2

☒ Enable navigation to an object with more information

[MyClx]MoreStuffHere

<

1


2

>

Item	Description
1	Select an option for Operator Command Confirmation Requirements
2	Select to allow navigation to an object with more information. You configure the tag name of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.

Process Unit (raP_Opr_Unit)

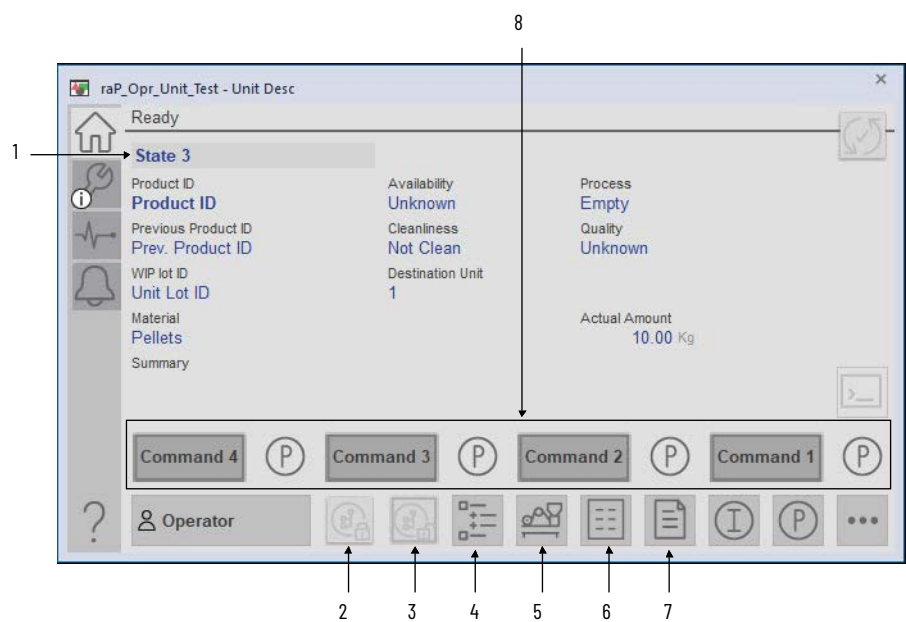
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PUNIT</div> 	The raP_Opr_Unit object groups Equipment together, and provides a propagation mechanism for aggregating status from Equipment, and broadcasting commands to Equipment.

FactoryTalk View SE Faceplates

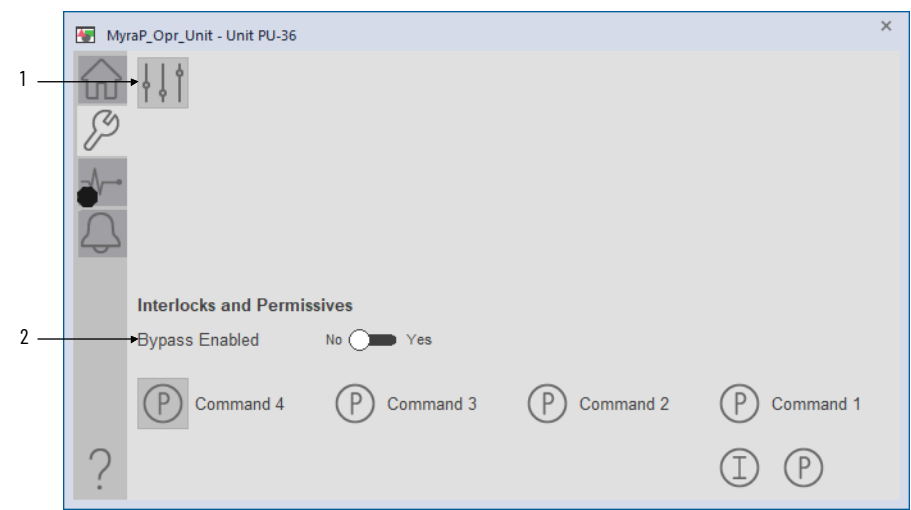
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



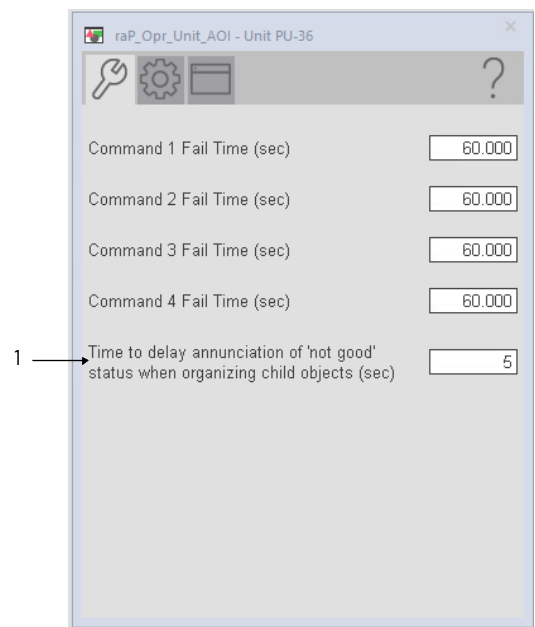
Item	Description
1	Displays the current state of the object
2	Acquire child command source
3	Release child command source
4	Display tree view for this object
5	Display the Bus faceplate for this object
6	Show parameter display
7	Show report display
8	Command user-defined function (1, 2, 3, or 4)

Maintenance Tab



Item	Description
1	Display Advanced Properties
2	Select yes to enable bypass

Advanced Maintenance Tab



Item	Description
1	The timer creates a delay for the Tree View to indicate that Children are 'not good' upon ownership acquisition. This is done to avoid nuisance indications on the Tree View while waiting for children to be acquired. The default of five seconds is sufficient delay for most applications. You may wish to raise that value if child acquisition takes longer than this. This can occur if the organization has many nested organizational levels or nested elements have relatively long scan intervals. This value is limited less than 3600 seconds.

Engineering Tab

MyraP_Opr_Unit - Unit PU-36

Unit includes a Batch object with more information

- ☐ Include software stop from child
- ☐ Include software stop input
- ☒ Include material
- ☐ Command source follows owner.
- ☒ Cascade ownership to children
- Material Quantity**

Maximum

Minimum

Units

< 1 2 3 4 >

Item	Description
1	Select to include a software stop from child object
2	Select to include software stop input
3	Select to include material
4	Select to have the command source follow the owner.
5	Select to cascade ownership to children (children will be owned when this object is owned)
6	Enter the material maximum and minimum quantities as well as the units.

UNIT100 - TagDescript

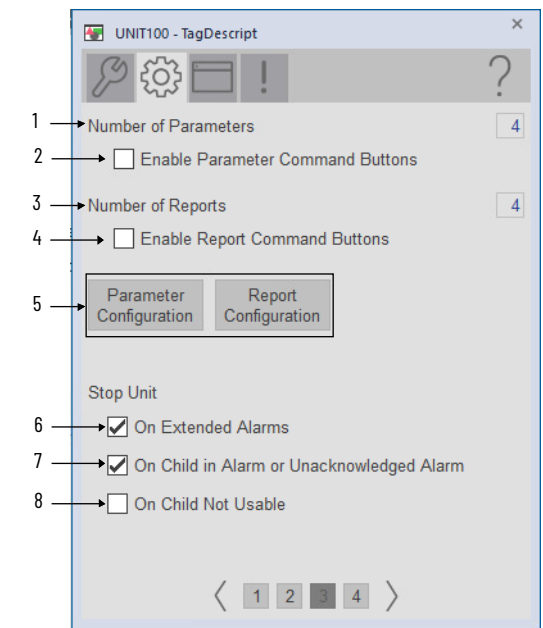
☒ This object has an operator prompt

Prompt Config

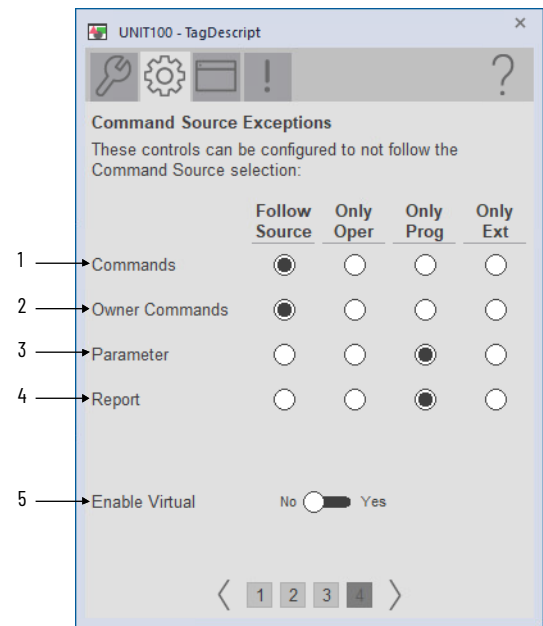
- ☒ Include Group Commands
- ☐ Maintain Command 0
- ☐ Maintain Command 1
- ☐ Maintain Command 2
- ☐ Maintain Command 3
- ☒ Include Group Ready
- ☐ Include Group States

< 1 2 3 4 >

Item	Description
1	Select to enable an operator prompt
2	Select to open the Prompt configuration
3	Enable User-Defined Group Commands
4	Enable level command for Command 0
5	Enable level command for Command 1
6	Enable level command for Command 2
7	Enable level command for Command 3
8	Enable external ready mapping to group commands
9	Enable User-Defined Group States

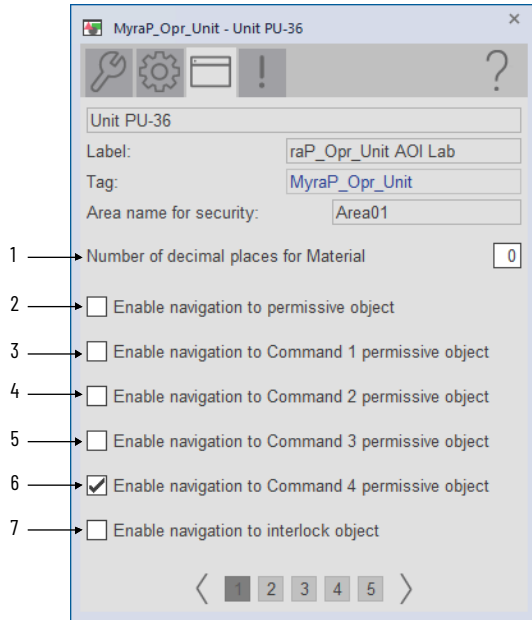


Item	Description
1	Number of Parameters configured
2	Select to enable parameter command buttons
3	Number of Reports configured
4	Select to enable report command buttons
5	Select to show parameter configuration display (left) or report configuration display (right)
6	Select to stop unit on extended alarms
7	Shed Unit actions on active child alarm, or unacknowledged child alarm
8	Shed Unit actions on child not usable, cannot be owned or in a state that makes it unusable.

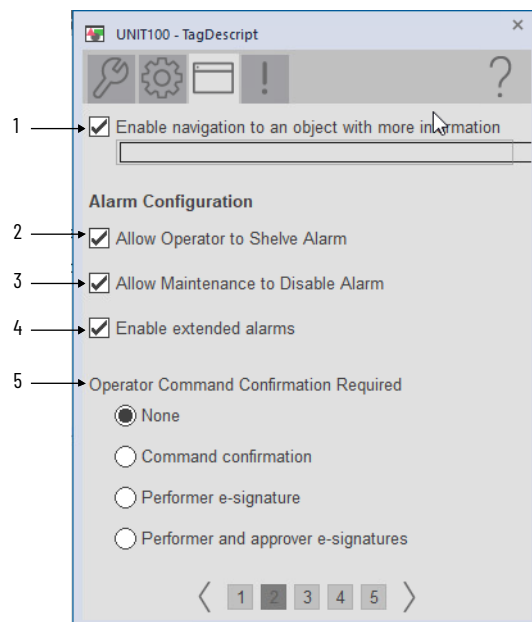


Item	Description
1	Use the radio buttons for the unit commands to follow the overall command source of the instruction, or to "keep" particular source (operator, program, or external).
2	Use the radio buttons for the unit owner commands to follow the overall command source of the instruction, or to "keep" particular source (operator, program, or external).
3	Use the radio buttons for the unit parameter commands to follow the overall command source of the instruction, or to "keep" particular source (operator, program, or external).
4	Use the radio buttons for the unit report commands to follow the overall command source of the instruction, or to "keep" particular source (operator, program, or external).
5	Select to enable virtual mode

HMI Configuration Tab



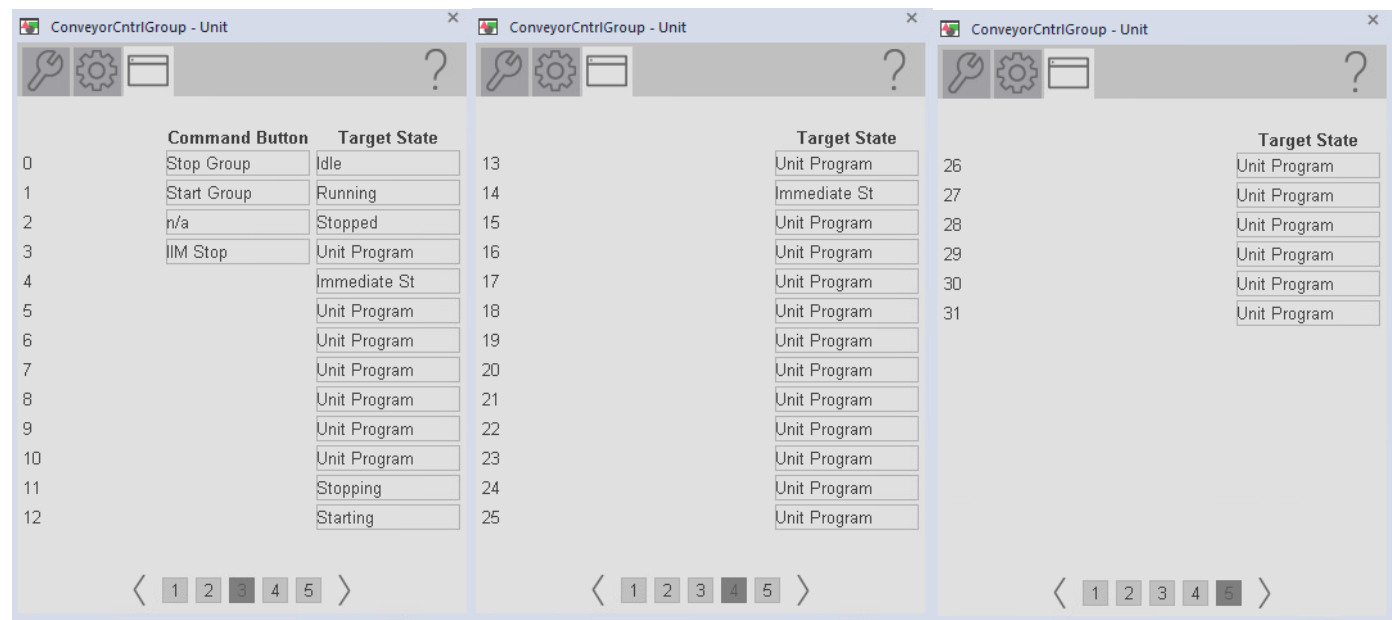
Item	Description
1	Enter the number of decimal places for the material
2	Select to enable navigation to the permissive object
3	Select to enable navigation to the Command 1 permissive object
4	Select to enable navigation to the Command 2 permissive object
5	Select to enable navigation to the Command 3 permissive object
6	Select to enable navigation to the Command 4 permissive object
7	Select to enable navigation to the interlock object



Item	Description
1	Select to enable navigation to an object with more information. You configure the tag name of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.
2	Select to allow Operator to shelve alarm
3	Select to allow Maintenance to disable the alarm
4	Select to enable extended alarms
5	Select an option for Operator Command Confirmation Requirements

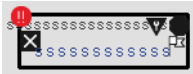
The Configuration – HMI Tab has the following purpose:

- Displays configuration of Command Buttons and Target State text (displayed on Operator Tab) for the Equipment Object.



Generic Equipment Module (raP_Opr_EMGen)

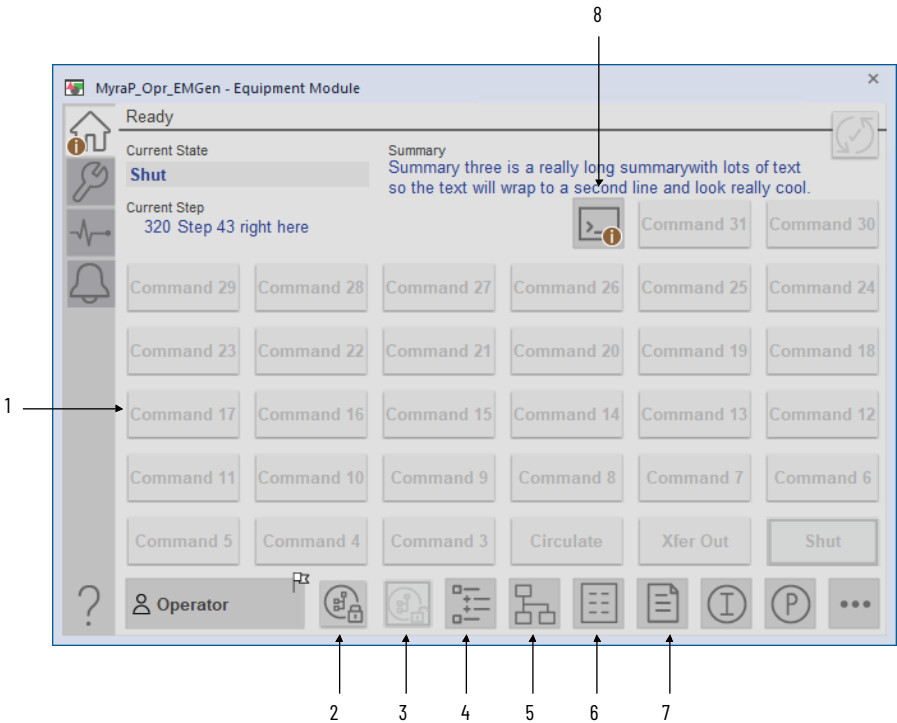
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PEMGEN</div> 	The raP_Opr_EMGen (Generic Equipment Module) object controls an Equipment Module in a variety of command sources and monitors for fault conditions.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



Item	Description
1	Command buttons with command text
2	Acquire child command source
3	Release child command source
4	Display tree view for this object
5	Show State Detail display. Note: This button is only visible if the EM has been configured with a variable state machine. The display to be launched will vary based on the extended tag property that is entered for the EM.Sts.HasVSM.@Navigation tag. The @Navigation text will be appended to the detail display name. For example: EM.Sts.HasVSM.@Navigation = S88 would launch (raP-5_30-SE) raP_Opr_EMGen-Detail_S88. EM.Sts.HasVSM.@Navigation = NAMUR would launch (raP-5_30-SE) raP_Opr_EMGen-Detail_NAMUR.
6	Show parameter display
7	Show report display
8	Show prompt response display

Pre-defined State Detail Displays

State detail displays are available to be used with pre-defined control strategies for Equip, NAMUR, PackML, and S88 state machines. There is also a generic template display that can be customized as needed.

These displays are launched from the state detail navigation button on the home tab of the raP_Opr_EMGen faceplate. The display to launch will be determined based on the extended tag property entered for the EM.Sts_HasVSM.@Navigation tag. The @Navigation text will be appended to the detail display name.

For example,

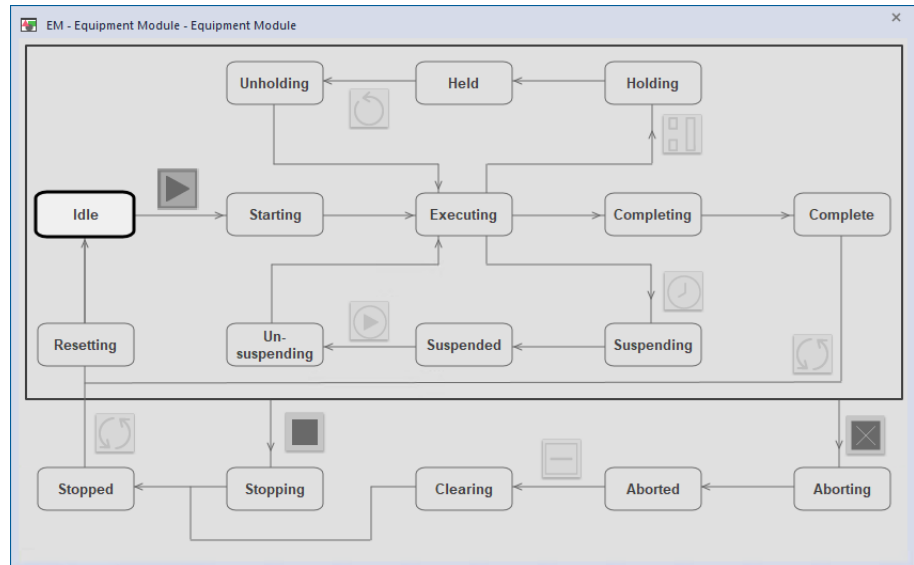
EM.Sts_HasVSM.@Navigation = S88 would launch:

(raP-5_30-SE) raP_Opr_EMGen-Detail_S88.

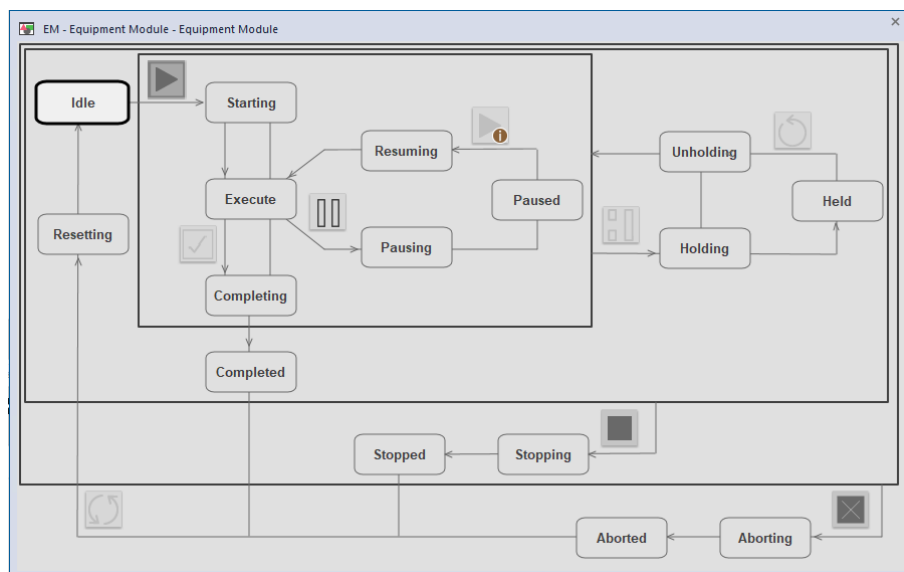
EM.Sts_HasVSM.@Navigation = NAMUR would launch:

(raP-5_30-SE) raP_Opr_EMGen-Detail_NAMUR.

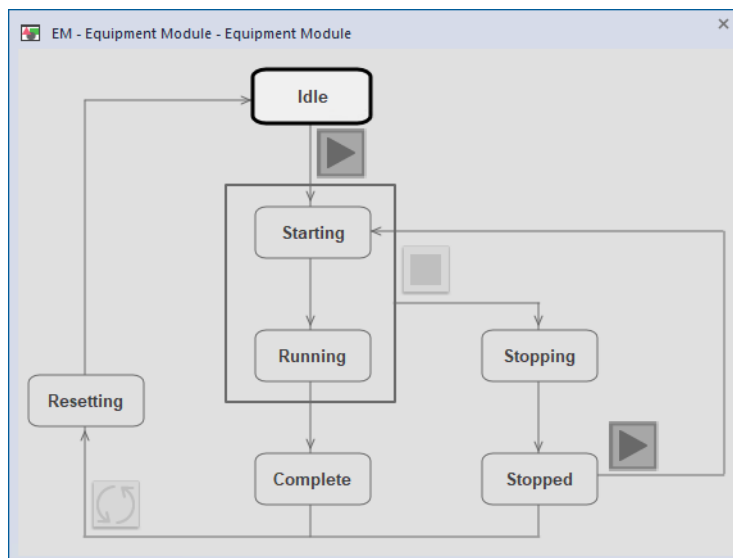
raP_Opr_EMGen-Detail_PackML

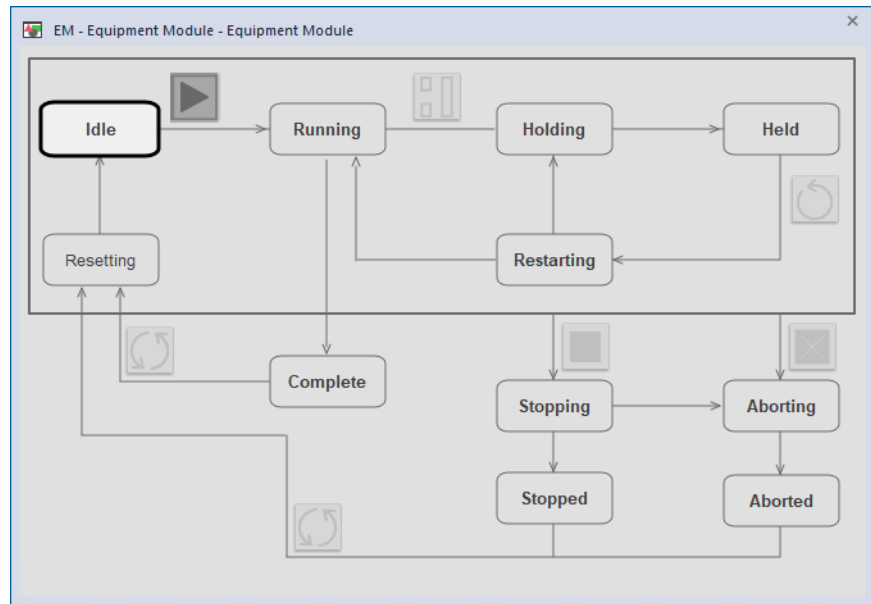


raP_Opr_EMGen-Detail_NAMUR

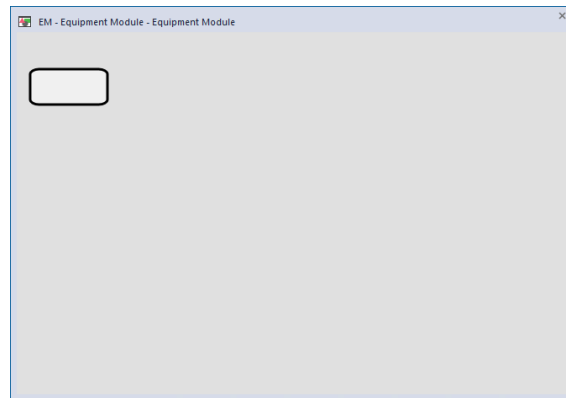


raP_Opr_EMGen-Detail_Equip

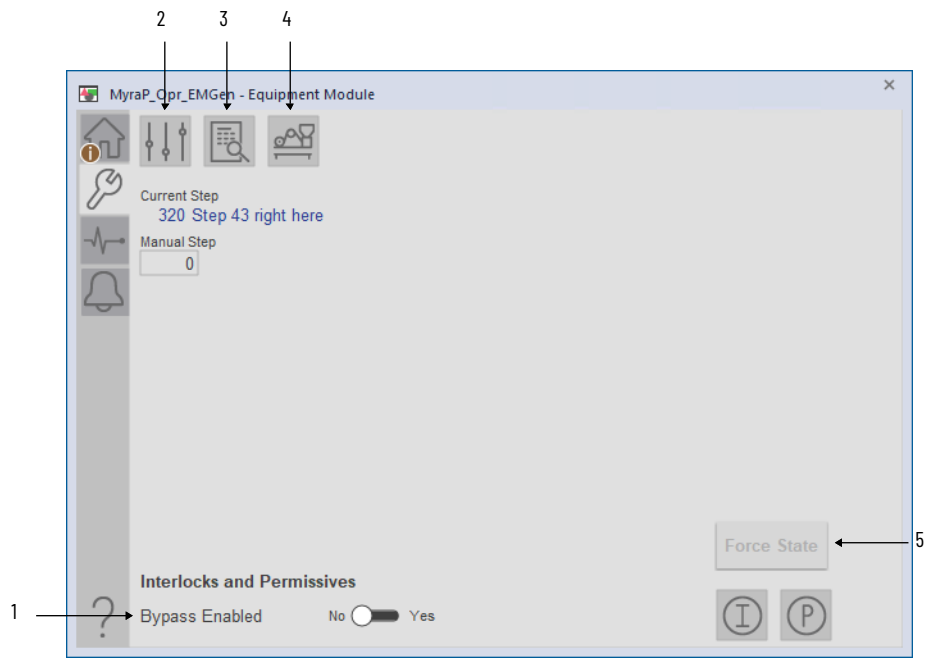


raP_Opr_EMGen-Detail_S88*raP_Opr_EMGen-Detail_Template*

This display can be customized as needed.

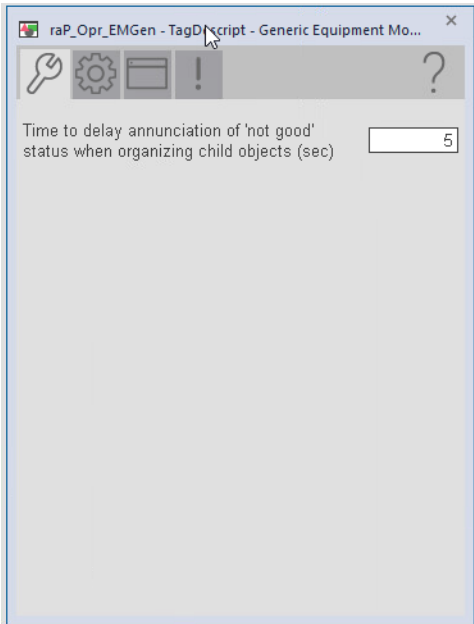


Maintenance Tab



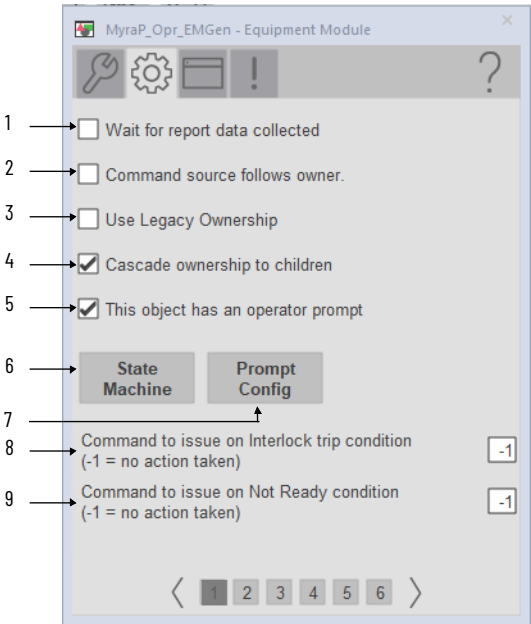
Item	Description
1	Select yes to enable bypass
2	Display advanced properties
3	Navigation to detail display
4	Display the Bus faceplate for this object.
5	The state force button is a Maintenance source command that is used to set the Sts_StateCompleteRqst bit. For an EM instance with the VSM enabled, this will set the Inp_StateComplete parameter and transition the current state to complete. For an instance without the VSM the user will need to connect the Sts_StateCompleteRqst to the required location in their SM logic.

Advanced Maintenance Tab

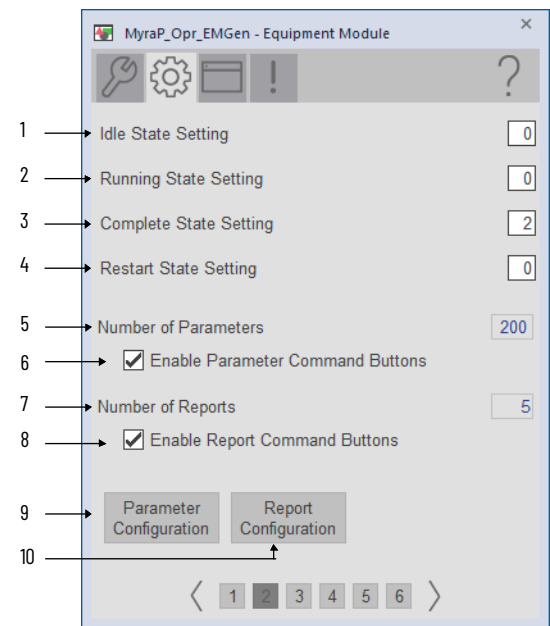


The timer creates a delay for the Tree View to indicate that Children are ‘not good’ upon ownership acquisition. This is done to avoid nuisance indications on the Tree View while waiting for children to be acquired. The default of five seconds is sufficient delay for most applications. You may wish to raise that value if child acquisition takes longer than this. This can occur if the organization has many nested organizational levels or nested elements have relatively long scan intervals. This value is limited less than 3600 seconds.

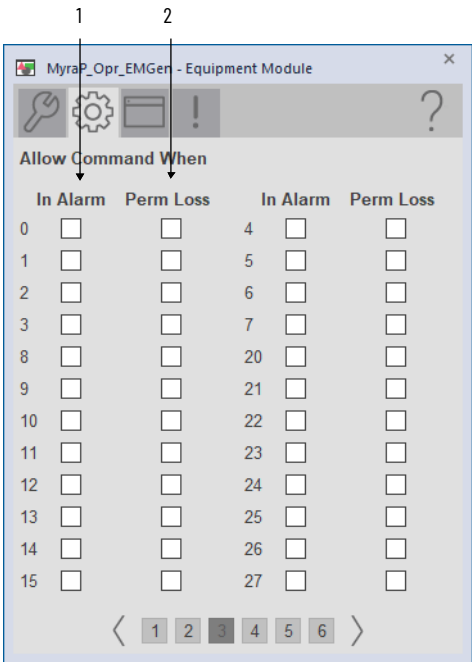
Engineering Tab



Item	Description
1	Wait for report data to be collected.
2	Command source follows parent object.
3	Enable legacy ownership, use PCmd_Owner.
4	Select to cascade ownership to children (children will be owned when this object is owned)
5	Select to enable the Operator prompt.
6	Select to navigate to the Variable State Machine (VSM) faceplate to configure the object's state machine controls.
7	Select to navigate to the Prompt faceplate to configure this object's prompts.
8	Enter the command number to issue on an interlock trip condition. If no action should be taken, enter -1.
9	Enter the command number to issue on a not ready condition. If no action should be taken, enter -1.



Item	Description
1	Define the Idle State for Status indication.
2	Define the Running State for Status indication.
3	Define the Complete State for Status indication.
4	Define the Restart State for Status indication.
5	Define the number of Parameters.
6	Select to enable parameter command buttons
7	Define the number of Reports.
8	Select to enable report command buttons
9	Show parameter configuration display
10	Show report configuration display



Item	Description
1	Select to allow Operator command execution with active alarm condition
2	Select to allow Operator command execution with loss of permissive

MyraP_Opr_EMGen - Equipment Module

⚙️ ⚙️ 📁 ! ?

Allow Command When

	In Alarm	Perm Loss		In Alarm	Perm Loss
16	<input type="checkbox"/>	<input type="checkbox"/>	28	<input type="checkbox"/>	<input type="checkbox"/>
17	<input type="checkbox"/>	<input type="checkbox"/>	29	<input type="checkbox"/>	<input type="checkbox"/>
18	<input type="checkbox"/>	<input type="checkbox"/>	30	<input type="checkbox"/>	<input type="checkbox"/>
19	<input type="checkbox"/>	<input type="checkbox"/>	31	<input type="checkbox"/>	<input type="checkbox"/>

1 → Stop Equipment

☐ On Device Alarm

☒ On Extended Alarms

☐ On Report Data Alarm

☒ On Child in Alarm or Unacknowledged Alarm

☐ On Child Not Usable

< 1 2 3 4 5 6 >

Item	Description
1	Select conditions to stop equipment

raP_Opr_EMGen_AOI - Equipment Module

⚙️ ⚙️ 📁 ! ?

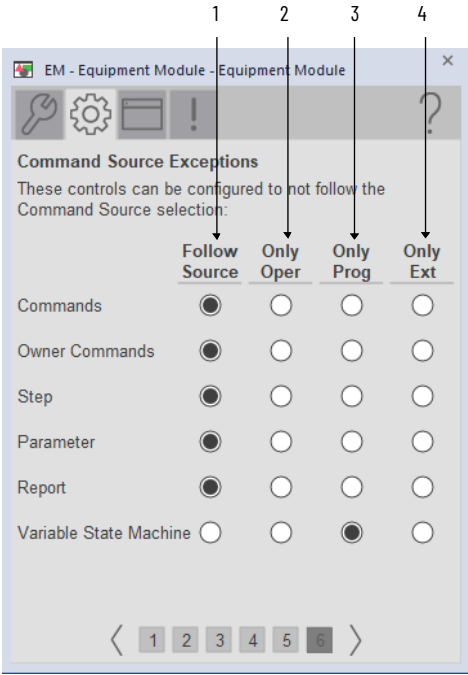
1 → Stop Equipment

On Interlock not OK for the following commands:

<input type="checkbox"/> 0	<input type="checkbox"/> 8	<input type="checkbox"/> 16	<input type="checkbox"/> 24
<input type="checkbox"/> 1	<input type="checkbox"/> 9	<input type="checkbox"/> 17	<input type="checkbox"/> 25
<input type="checkbox"/> 2	<input type="checkbox"/> 10	<input type="checkbox"/> 18	<input type="checkbox"/> 26
<input type="checkbox"/> 3	<input type="checkbox"/> 11	<input type="checkbox"/> 19	<input type="checkbox"/> 27
<input type="checkbox"/> 4	<input type="checkbox"/> 12	<input type="checkbox"/> 20	<input type="checkbox"/> 28
<input type="checkbox"/> 5	<input type="checkbox"/> 13	<input type="checkbox"/> 21	<input type="checkbox"/> 29
<input type="checkbox"/> 6	<input type="checkbox"/> 14	<input type="checkbox"/> 22	<input type="checkbox"/> 30
<input type="checkbox"/> 7	<input type="checkbox"/> 15	<input type="checkbox"/> 23	<input type="checkbox"/> 31

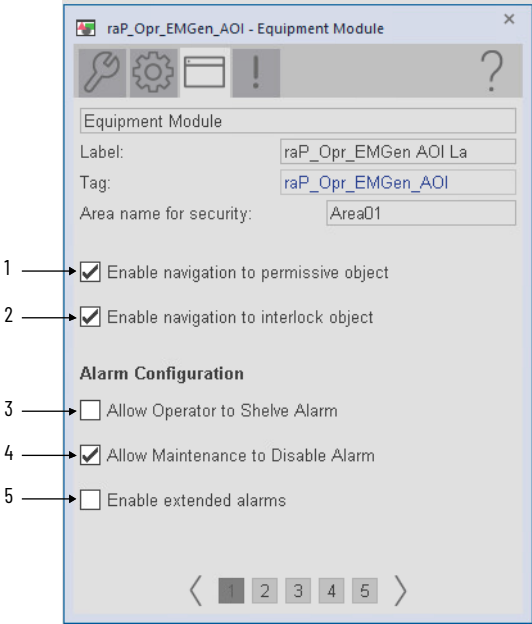
< 1 2 3 4 5 6 >

Item	Description
1	Stop equipment module on interlock trip. Bit based condition applies to only its state, Bit 0 will only affect operation of state 0, bit 31 effects state 31.

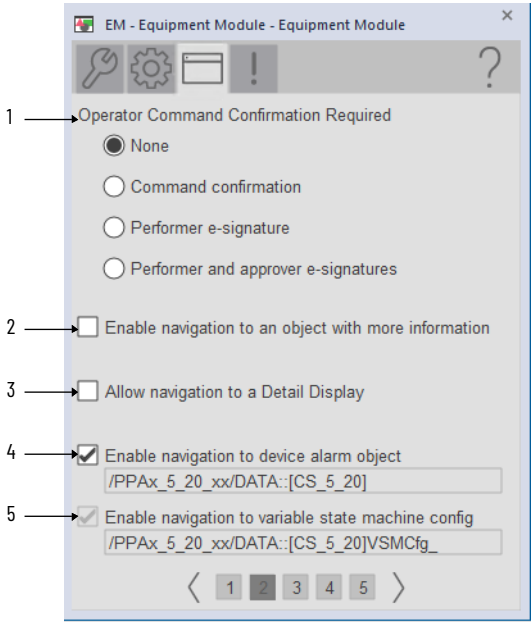


Item	Description
1	Control of this feature is determined by the current command source
2	This feature will always be commanded by the Operator
3	This feature will always be commanded by the Program Logic
4	This feature will always be commanded by the External Source

HMI Configuration Tab

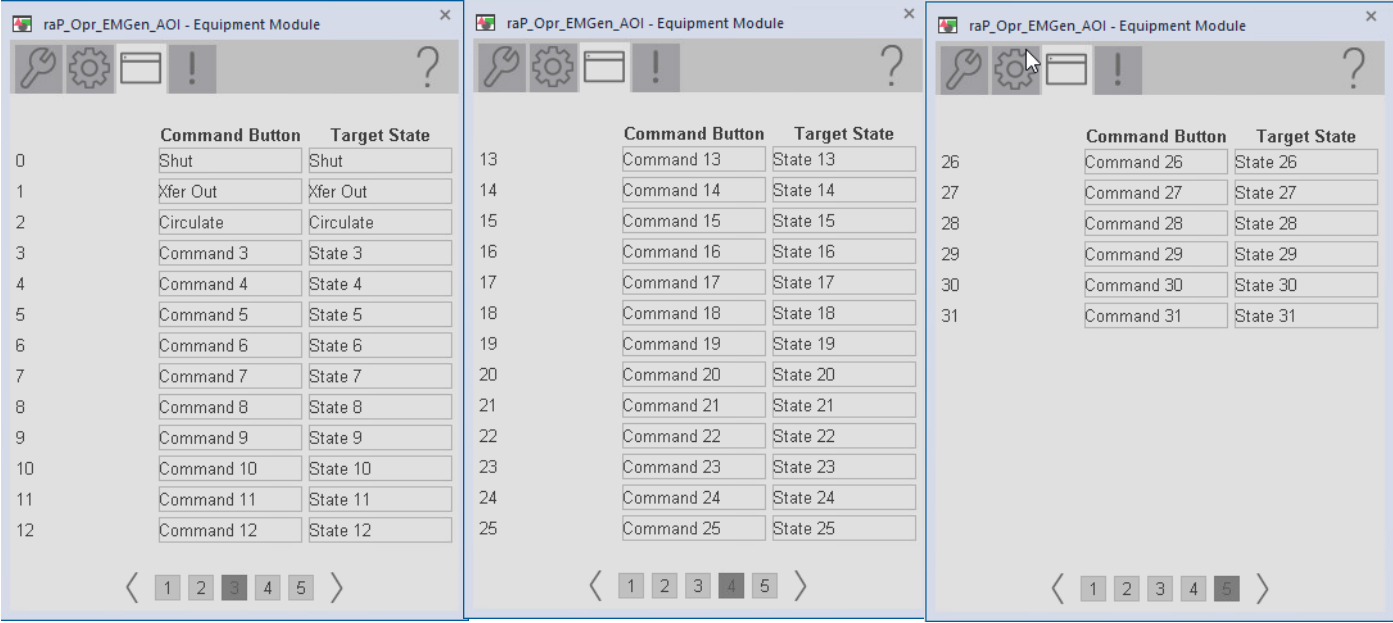


Item	Description
1	Select to enable navigation to permissive object
2	Select to enable navigation to interlock object
3	Select to allow Operator to shelf alarm
4	Select to allow Maintenance to disable alarm
5	Select to enable extended alarms



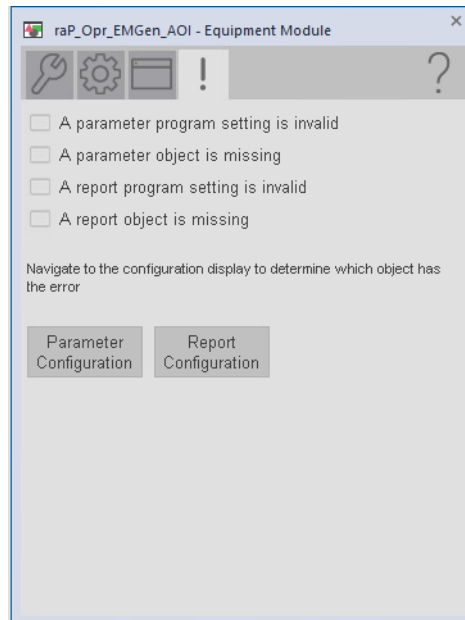
Item	Description
1	Select an option for Operator Command Confirmation Requirements
2	Select to enable navigation to an object with more information. You configure the tag name of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.
3	Select to allow navigation to detail display
4	Select to allow navigation to a device alarm object.
5	Select to allow navigation to the variable state machine configuration.

Define the Command Button and Target Stages on pages three, four, and five..



Faults Tab

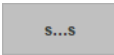
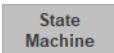
The Faults tab shows information on the status of the objects. You use the Parameter and Report configuration buttons to determine which object has the fault.



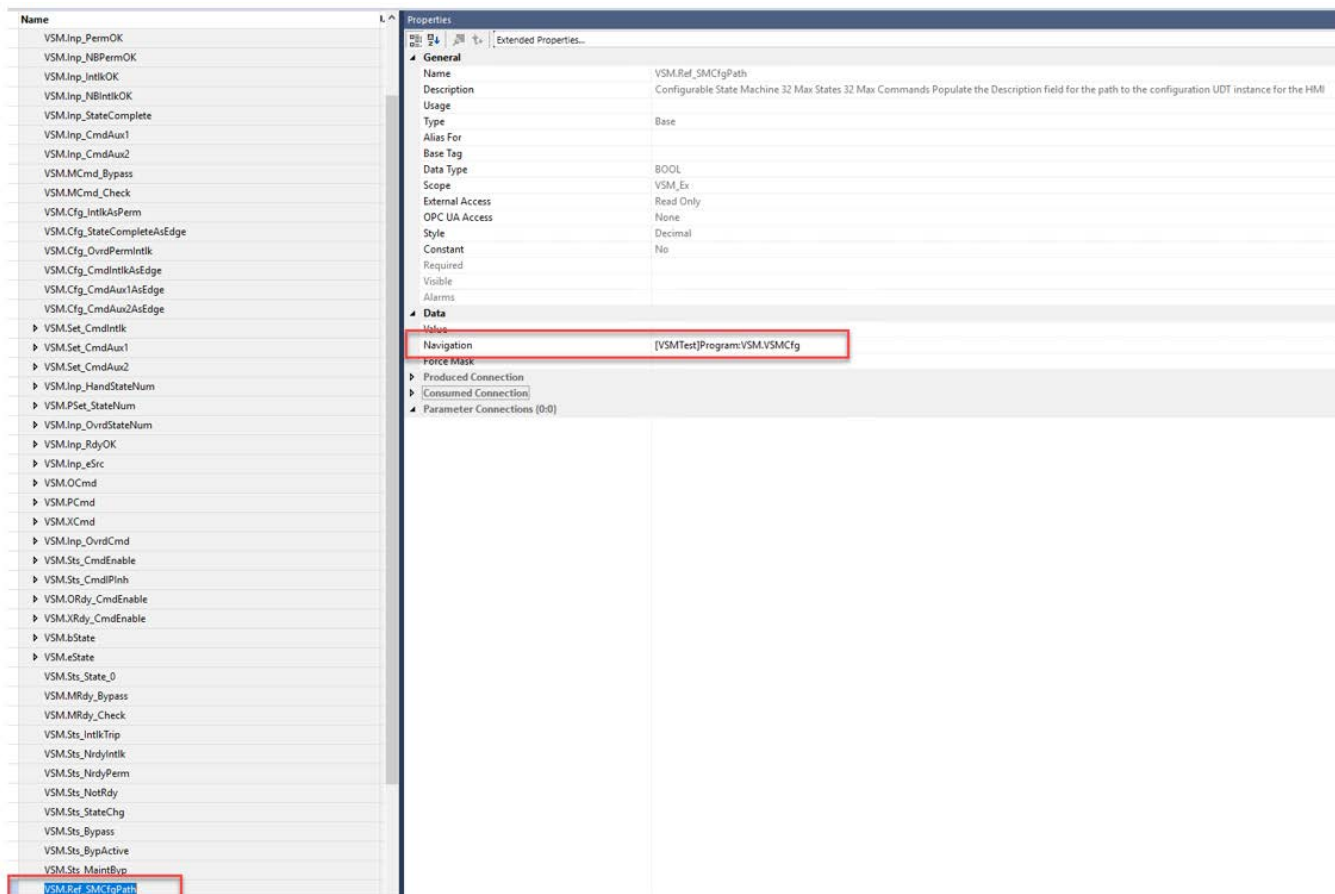
Graphic Symbols

Variable State Machine (raP_Opr_VSM)

A Graphic Symbol (global object) is created once and can be referenced multiple times on multiple displays in an application. When changes are made to the original (base) object, the instantiated copies (reference objects) are automatically updated. Use of graphic symbols, with tag structures in the ControlLogix® system, aid consistency and save engineering time. The configuration tag for the state machine backing tag is stored in the Parent Add-On Instruction tag Ref_SMCfgPath.@Navigation. The macro NavToVSM.mcr is used to process the indirect reference.

Graphic Symbol	Description
GO_nav_VSM 	Show the VSM Config display
GO_nav_VSM.Indirect 	Display the VSM Config from a faceplate display

The graphic faceplates require the tag name for the Cfg_VSM tag. You must set the @Navigation extended tag property on the VSM.Ref_SMCfgPath tag.



The screenshot shows the Rockwell Studio interface. On the left is a project tree with a list of tags. At the bottom of this list, 'VSM.Ref_SMCfgPath' is highlighted with a red box. On the right is the 'Properties' window for this tag. The 'General' tab is active, showing various properties like Name, Description, Usage, Type, etc. The 'Data' section is expanded, and the 'Navigation' property is highlighted with a red box, showing the value '[VSMTest]Program\VSM.VSMCfg'.

FactoryTalk View SE
Faceplates

Configuration Page 1

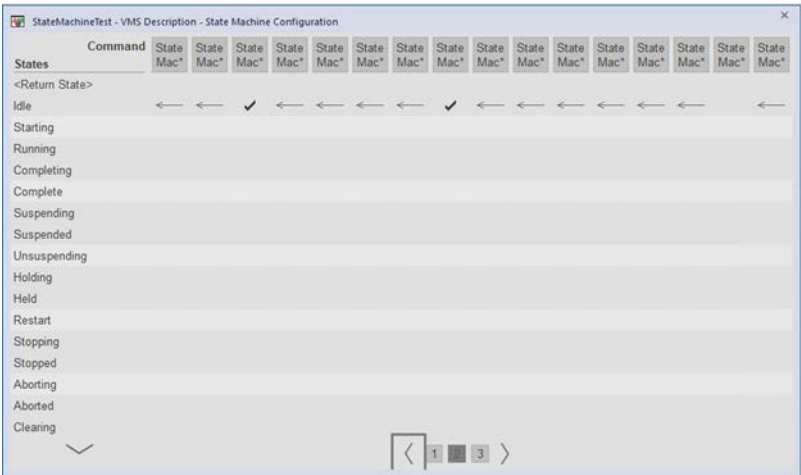
Page 1 displays the command configurations for commands 0-15.



Item	Description
1	Check Box = The command is allowed in this state
2	Arrow = Target State when the command is executed
3	Shift the list downward to allow the user to view the remaining of the 32 states.
4	Each Command button navigates the user to a Command Configuration faceplate. From here the user can configure the states in which that command is available and which state is the target state for that command.

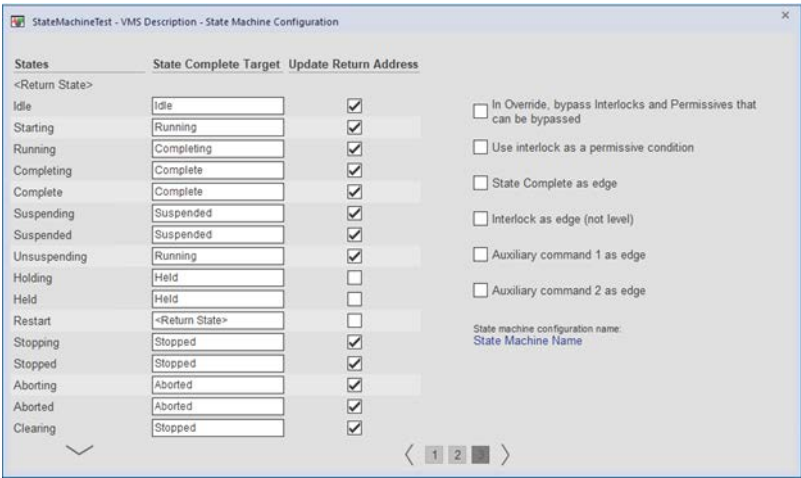
Configuration Page 2

Page two displays the command configurations for commands 16...31.

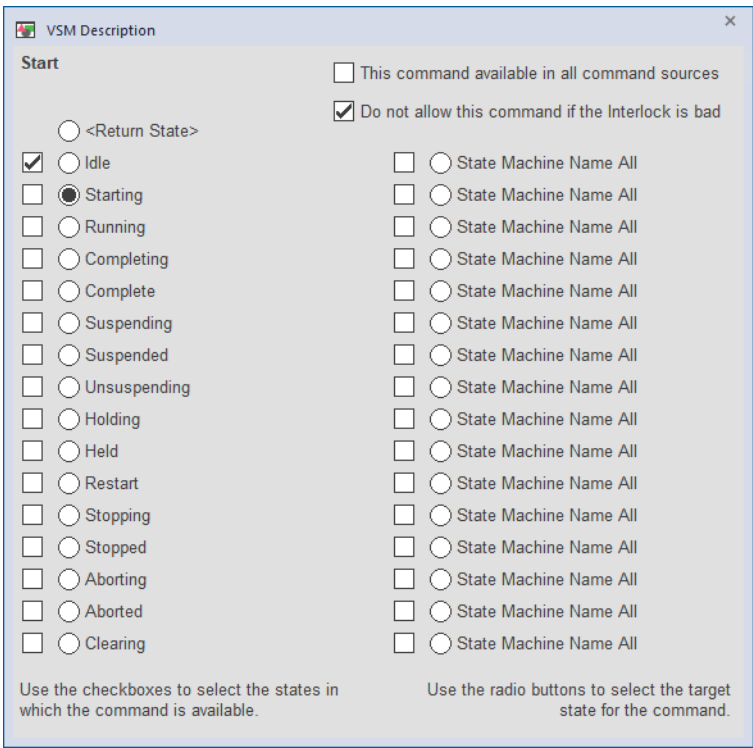


Configuration Page 3

Page 3 provides a view of the state configuration. By clicking any of the state complete targets, you can navigate to the Select-State faceplate display and change the state complete target.



Command Configuration



Select State

VSM Description

Select 'State Complete Target' for state Idle

☐ <Return State>

☒ Idle

☐ Starting

☐ Running

☐ Completing

☐ Complete

☐ Suspending

☐ Suspended

☐ Unsuspending

☐ Holding

☐ Held

☐ Restart

☐ Stopping

☐ Stopped

☐ Aborting

☐ Aborted

☐ Clearing

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

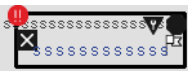
☐ State Machine Name All

☐ State Machine Name All

☐ State Machine Name All

Generic Equipment Phase (raP_Opr_EPGen)

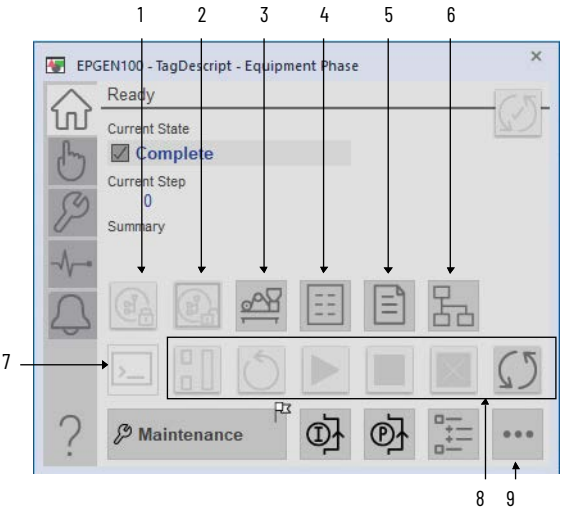
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_PEPGEN</div>	The raP_Opr_EMGen (Generic Equipment Module) object controls an Equipment Module in various command sources and monitors for fault conditions.

FactoryTalk View SE Faceplates

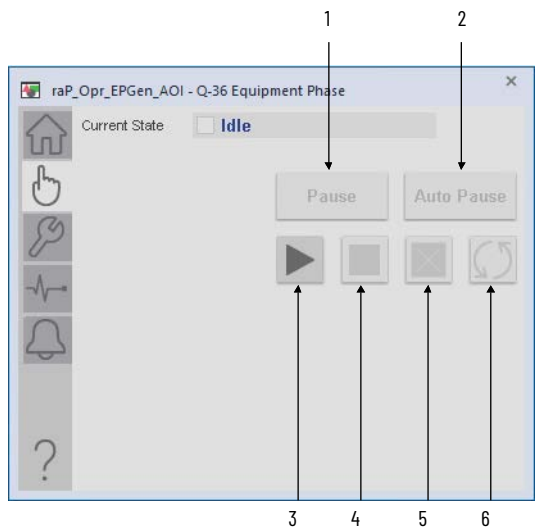
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



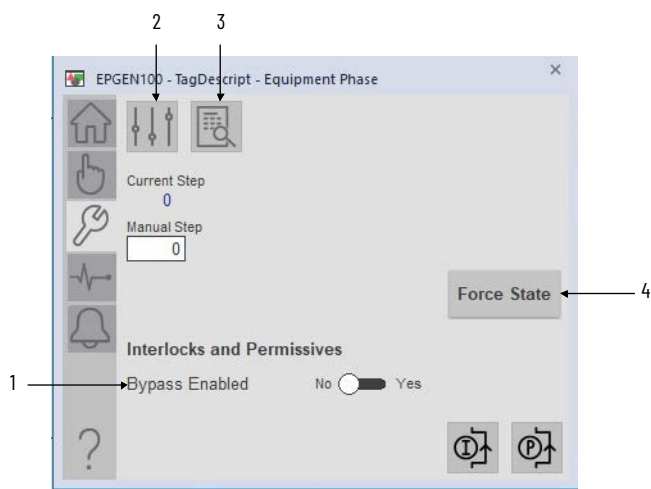
Item	Description
1	Acquire child command source
2	Release child command source
3	Display Bus faceplate for this object
4	Show parameter display
5	Show report display
6	Show State Detail display
7	Respond to Prompt request
8	Phase Commands (from left to right): Hold phase, Restart phase, Start phase, Stop phase, Abort phase, Reset phase
9	Display more information

Manual Control



Item	Description
1	Pause phase
2	Auto pause the phase
3	Start phase (if the phase has been paused, the resume button will appear in place of the start button)
4	Stop phase
5	Abort phase
6	Reset phase

Maintenance Tab



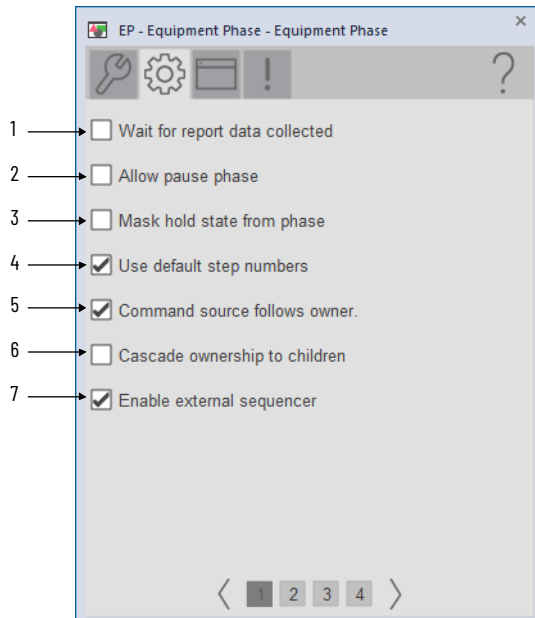
Item	Description
1	Select Yes to enable bypass
2	Display Advanced Properties
3	Navigate to detail display
4	The state force button is a Maintenance source command that is used to set the Sts_StateCompleteRqst bit. For an instance without the VSM the user will need to connect the Sts_StateCompleteRqst to the required location in their SM logic.

Advanced Maintenance

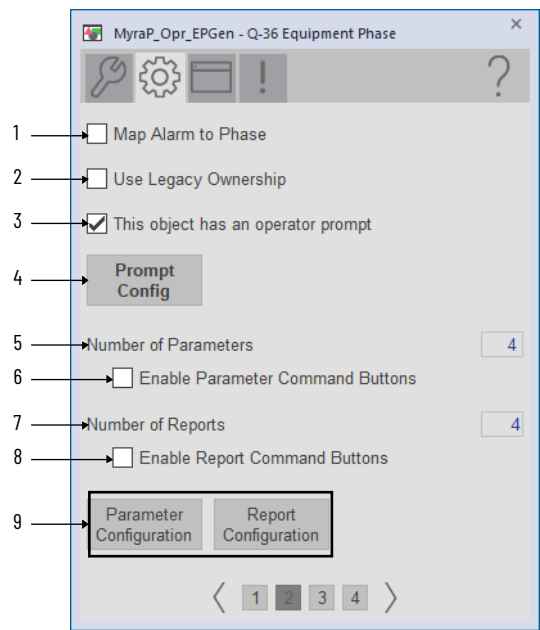


The timer creates a delay for the Tree View to indicate that Children are 'not good' upon ownership acquisition. This is done to avoid nuisance indications on the Tree View while waiting for children to be acquired. The default of five seconds is sufficient delay for most applications. You may wish to raise that value if child acquisition takes longer than this. This can occur if the organization has many nested organizational levels or nested elements have relatively long scan intervals. This value is limited less than 3600 seconds.

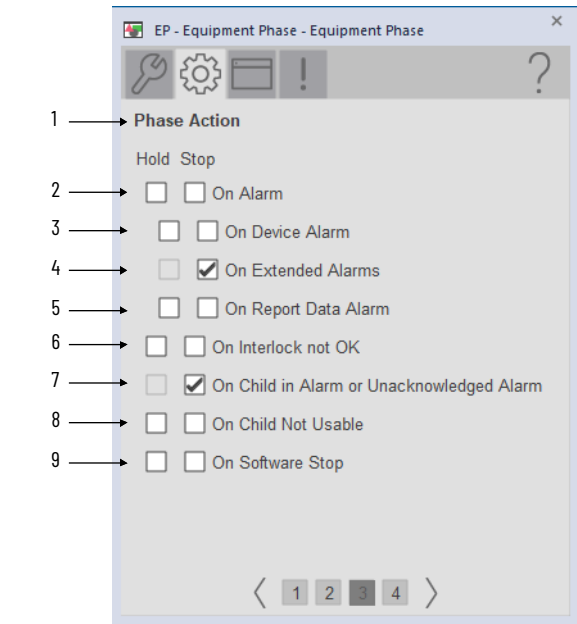
Engineering Tab



Item	Description
1	Select to wait for report data that is collected before alarming.
2	Select to allow a pause phase
3	Select to mask hold state from phase
4	Select to use default step numbers
5	Select to have the command source follow the owner
6	Select to cascade ownership to children (children will be owned when this object is owned)
7	This phase has an external sequence that is associated to it. (FTBatch)



Item	Description
1	Map alarm code form the equipment phase to the phase with the PFL instruction.
2	Use legacy object ownership. Use PCmd_Owner to set Val_Owner.
3	Select to enable an operator prompt
4	Select to open the Prompt configuration
5	Define the number of Parameters.
6	Select to enable parameter command buttons
7	Define the number of Reports.
8	Select to enable report command buttons
9	Select to show parameter configuration display (left) or report configuration display (right)



Item	Description
1	Select conditions to Hold or Stop phase
2	On alarm active
3	Device alarms condition, external devices connected via Inp_DvcAlms
4	Extended alarms active, connected via Inp_ExtdAlmsAlm
5	Report data alarm, report data not received from external system in set time.
6	Interlock not ok
7	Child alarm active or UnAckd via OOAP
8	Child cannot be owned or is in a state that makes it unusable via OOAP
9	Software stop active

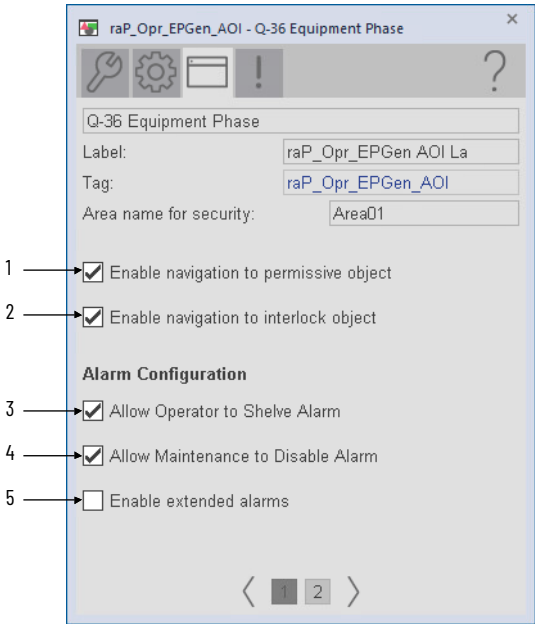
Command Source Exceptions
These controls can be configured to not follow the Command Source selection:

	Follow Source	Only Oper	Only Prog	Only Ext
Commands	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Owner Commands	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Step	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parameter	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Report	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

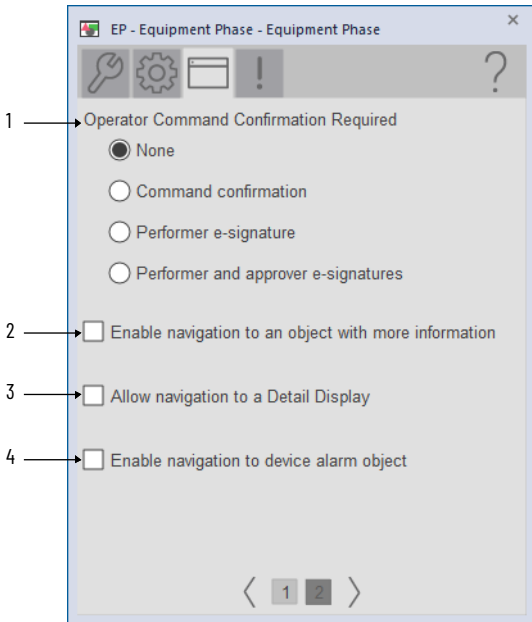
< 1 2 3 4 >

Item	Description
1	Control of this feature is determined by the current command source
2	This feature will always be commanded by the Operator
3	This feature will always be commanded by the Program Logic
4	This feature will always be commanded by the External Source

HMI Configuration Tab



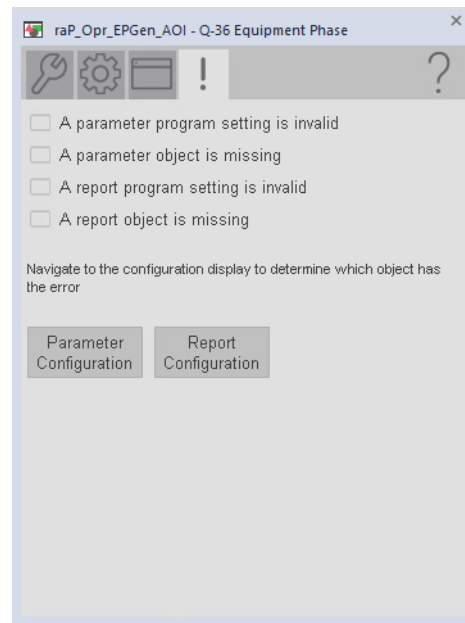
Item	Description
1	Select to enable navigation to permissive object
2	Select to enable navigation to interlock object
3	Select to allow Operator to shelve alarm
4	Select to allow Maintenance to disable alarm
5	Select to enable extended alarms



Item	Description
1	Select an option for Operator Command Confirmation Requirements.
2	Select to enable navigation to an object with more information. You configure the tag name of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.
3	Select to allow navigation to detail display.
4	Select to allow navigation to a device alarm object.

Faults Tab

The Faults tab contains specific reasons that the device is not ready.

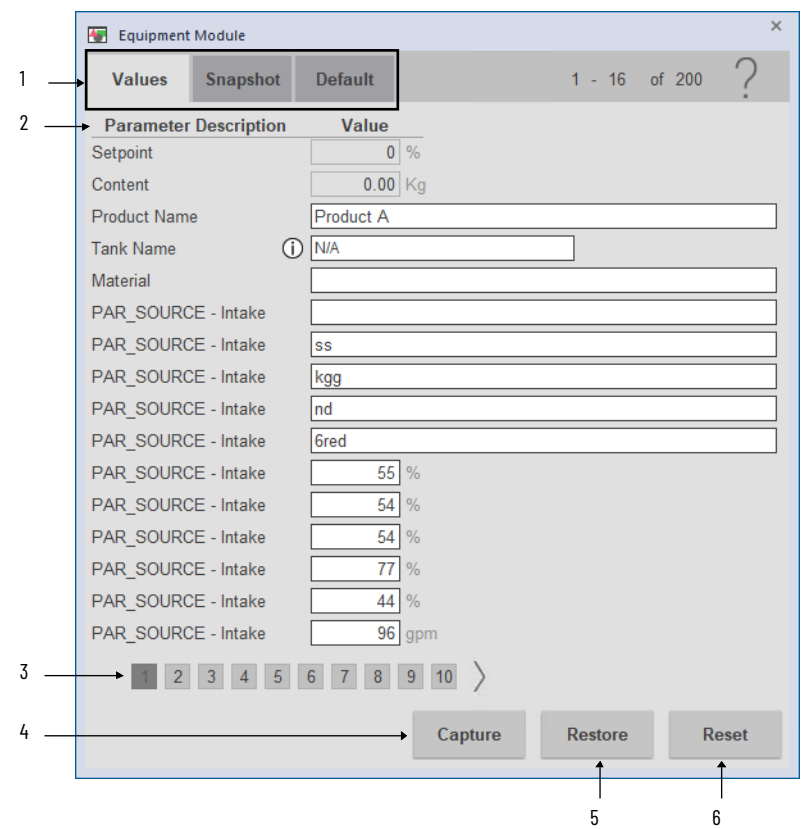


Notes:

Parameter and Reports (raP_Tec_ParRpt)

FactoryTalk View SE
Faceplates

Parameter Display



Item	Description
1	Select to navigate between current values, snapshot values, and default values.
2	List of each parameter value and description.
3	Navigation between up to 480 parameters (only visible if more than 16 parameter values used).
4	Capture Snapshot. Press to capture current values into snapshot values.
5	Restore Snapshot. Press to restore snapshot values into current values.
6	Reset to defaults. Press to reset current values to default values.

The following page shows the information captured by the snapshot.

Equipment Module

Values

Snapshot

Default

1 - 16 of 200 ?

Parameter Description	Snapshot
Setpoint	0
Content	0.00
Product Name	Product A
Tank Name	George
Material	
PAR_SOURCE - Intake	
PAR_SOURCE - Intake	ss
PAR_SOURCE - Intake	kgg
PAR_SOURCE - Intake	nd
PAR_SOURCE - Intake	6red
PAR_SOURCE - Intake	55
PAR_SOURCE - Intake	54
PAR_SOURCE - Intake	54
PAR_SOURCE - Intake	77
PAR_SOURCE - Intake	44
PAR_SOURCE - Intake	96

1

2

3

4

5

6

7

8

9

10

>

Capture

Restore

Reset

The following page shows the default information.

Equipment Module

Values

Snapshot

Default

1 - 16 of 200 ?

Parameter Description	Default
Setpoint	0
Content	0.00
Product Name	
Tank Name	Fred
Material	cotton
PAR_SOURCE - Intake	
PAR_SOURCE - Intake	My Par Source
PAR_SOURCE - Intake	My Par Source
PAR_SOURCE - Intake	My Par Source
PAR_SOURCE - Intake	My Par Source
PAR_SOURCE - Intake	0
PAR_SOURCE - Intake	0
PAR_SOURCE - Intake	0
PAR_SOURCE - Intake	0
PAR_SOURCE - Intake	0
PAR_SOURCE - Intake	0
PAR_SOURCE - Intake	0

1

2

3

4

5

6

7

8

9

10

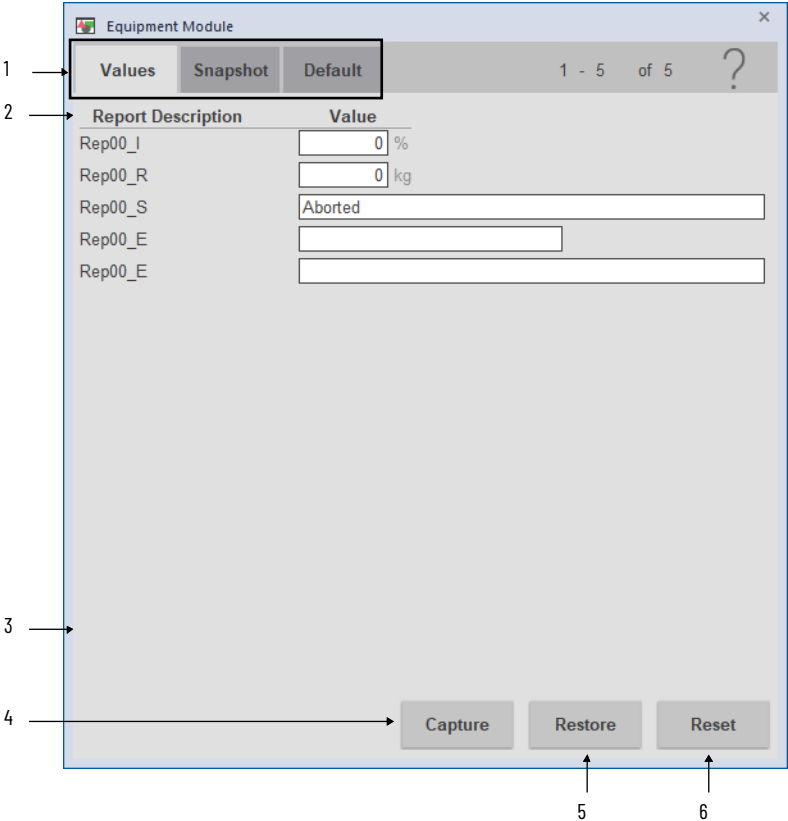
>

Capture

Restore

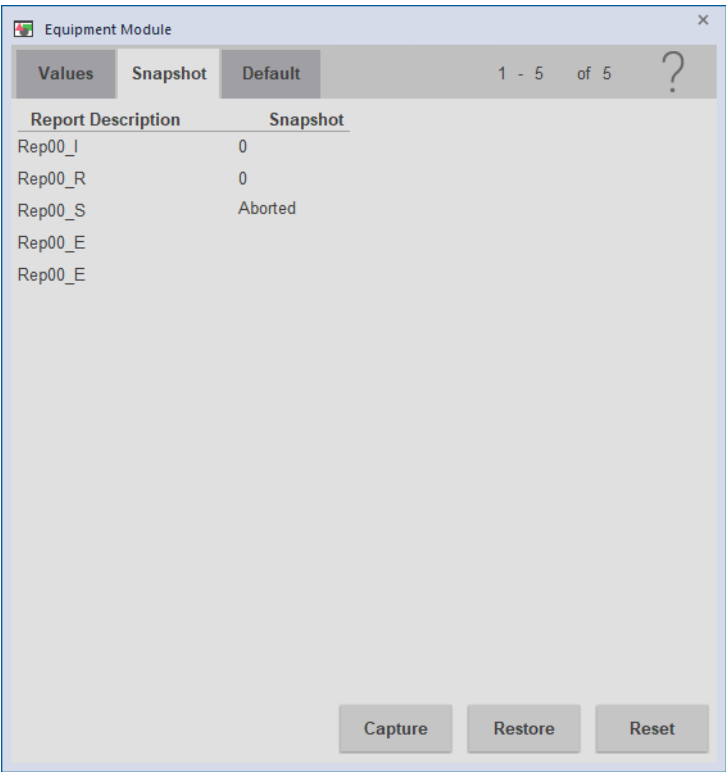
Reset

Report Display

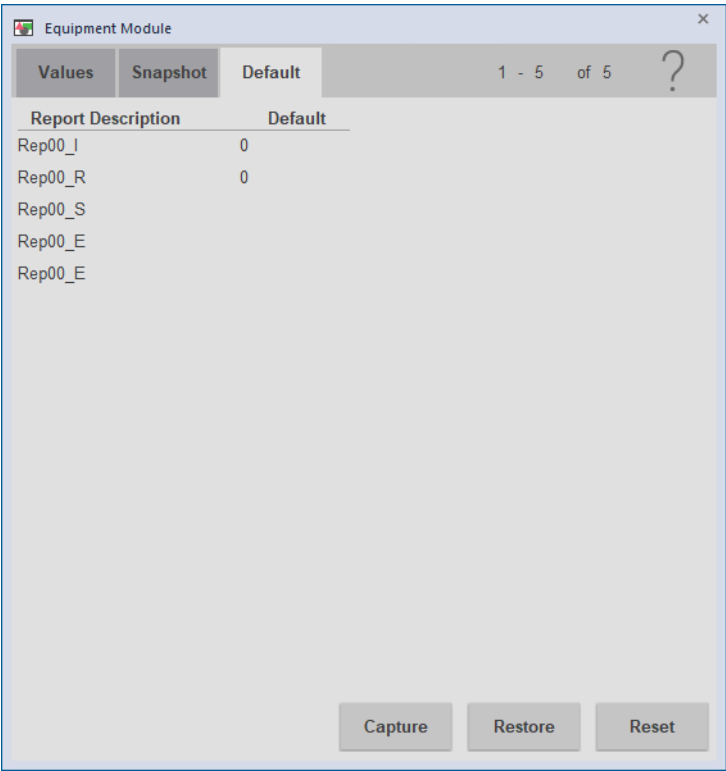


Item	Description
1	Select to navigate between current values, snapshot values, and default values.
2	List of each report value and description.
3	Navigation between up to 480 reports (only visible if more than 16 report values used). See Parameter Display on page 269 .
4	Capture Snapshot. Press to capture current values into snapshot values
5	Restore Snapshot. Press to restore snapshot values into current values
6	Reset to defaults. Press to reset current values to default values

The following page shows the information captured by the snapshot.



The following page shows the default information.



Parameter Configuration

1 2 3 4 5 6 7 8 9 10 11 12 13

epAG1001 - TagDescript - Equipment Module

Has Parameter	Default Value	Adjust	-ve	+ve	Minimum	Maximum	DP	Unit	R/W	Keep	C/E	Security Code
<input checked="" type="checkbox"/> Control Strategy									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E
<input checked="" type="checkbox"/> Setpoint Speed	0.00	<input type="checkbox"/>	-3E38	3E38	-3.40E38	3.40E38	2	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E
<input checked="" type="checkbox"/> Speed Tolerance	0.00	<input type="checkbox"/>	-3E38	3E38	-3.40E38	3.40E38	2	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E
<input checked="" type="checkbox"/> Setpoint Time	0.00	<input type="checkbox"/>	-3E38	3E38	-3.40E38	3.40E38	2	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E

1 - 4 of 4

DP - Decimal places
Keep - Value can be modified when in Program Command

R/W - Value can be modified by the user
C/E - Confirmation / E-Signature

Item	Description
1	Parameter Description
2	Default value of Parameter
3	Allow limit adjust
4	Integer minimum adjust value of parameter.
5	Integer maximum adjust value of parameter.
6	Minimum value of Parameter
7	Maximum value of Parameter
8	Enter the decimal places to display.
9	Engineering unit of Parameter.
10	Parameter value can be modified by the operator when enabled.
11	Parameter value can be modified when in Program Command.
12	Enable Confirmation / E-Signature of Parameter.
13	Assign User Roles Security Level of Parameter.

Report Configuration

epAG1001 - TagDescript - Equipment Module
✕

Has Report	Default Value	Adjust	-ve	+ve	Minimum	Maximum	DP	Unit	R/W	Keep	C/E	Security Code
<input checked="" type="checkbox"/> Equipment ID	<input type="text"/>				...				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E <input type="text"/>
<input checked="" type="checkbox"/> Exit Status	<input type="text" value="Unkown"/>				...				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E <input type="text"/>
<input checked="" type="checkbox"/> Fault Code	<input type="text"/>				...				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E <input type="text"/>
<input checked="" type="checkbox"/> Actual Speed	<input type="text" value="0.00"/>	<input type="checkbox"/>	<input type="text" value="-3E38"/>	<input type="text" value="3E38"/>	<input type="text" value="-3.40E38"/>	<input type="text" value="3.40E38"/>	<input type="text" value="2"/>	<input type="text" value="%"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E <input type="text"/>
<input checked="" type="checkbox"/> Error	<input type="text" value="0.00"/>	<input type="checkbox"/>	<input type="text" value="-3E38"/>	<input type="text" value="3E38"/>	<input type="text" value="-3.40E38"/>	<input type="text" value="3.40E38"/>	<input type="text" value="2"/>	<input type="text" value="%"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	E <input type="text"/>

1 - 5 of 5



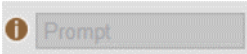
DP - Decimal places
Keep - Value can be modified when in Program Command

R/W - Value can be modified by the user
C/E - Confirmation / E-Signature

Item	Description
1	Report Description
2	Default value of Report
3	Allow limit adjust
4	Integer minimum adjust value of parameter.
5	Integer maximum adjust value of parameter.
6	Minimum value of Report
7	Maximum value of Report
8	Enter the decimal places to display.
9	Engineering unit of Report.
10	Report value can be modified by the operator when enabled.
11	Report value can be modified when in Program Command.
12	Enable Confirmation / E-Signature of Report.
13	Assign User Roles Security Level of Report.

Operator Prompt (raP_Opr_Prompt)

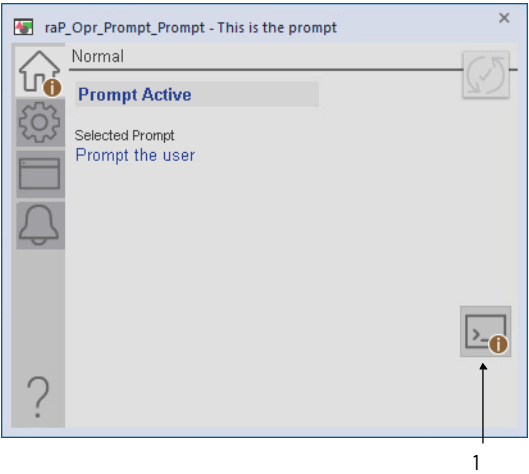
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_Prompt</div> <div></div>	Standard Prompt graphic symbol
<div>GO_nav_PromptResponse</div> <div></div>	Standalone prompt button that assumes the raP_Opr_Prompt instruction is present, and the button is always visible. The Prompt instruction controls the enabled state and alert indicator visibility of the button.
<div>GO_nav_PromptResponseTxt</div> <div></div>	Prompt display indicator for use on faceplates and displays for objects that possibly do not have a prompt instruction.

FactoryTalk View SE Faceplates

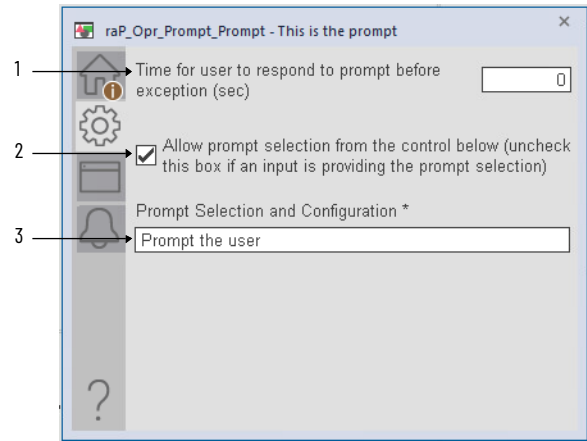
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab



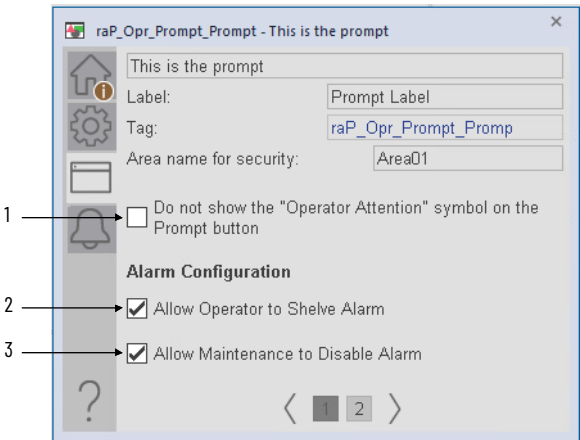
Item	Description
1	Navigate to the Prompt Response display

Engineering Tab

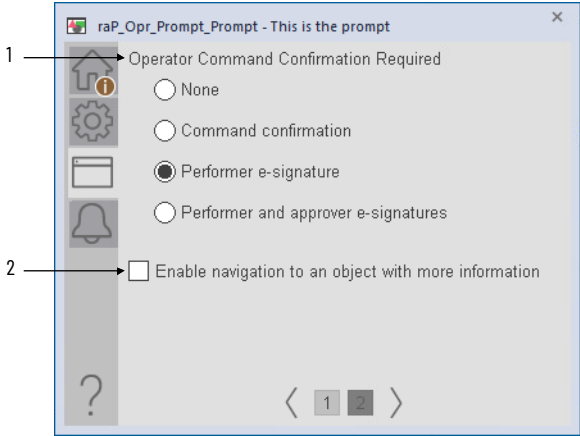


Item	Description
1	Configure the maximum time without a user response before an exception occurs
2	Allow prompt selection and configuration from this display
3	Navigates to the prompt selection and configuration display

HMI Tab



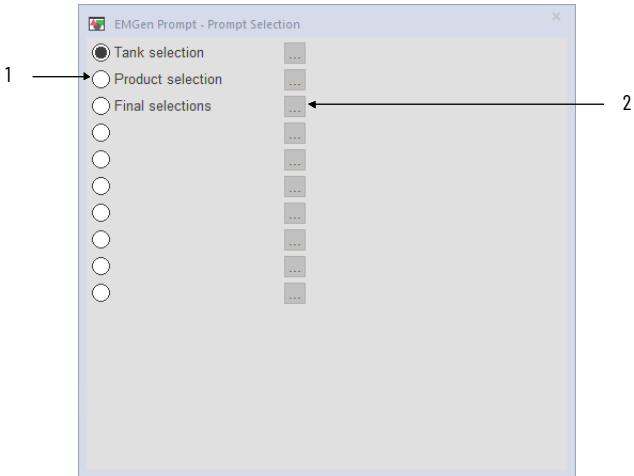
Item	Description
1	Hides the operator attention symbol on the Prompt Response button when there is an active prompt
2	Select to allow Operator to shelve alarm
3	Select to allow Maintenance to disable alarm



Item	Description
1	Select an option for Operator Command Confirmation Requirements
2	Select to enable navigation to an object with more information. You configure the tag name of the object that you want to navigate to in the extended tag property "Cfg_HasMoreObj.@Navigation". It uses the <backing tag>.@Library and <backing tag>.@Instruction extended tag properties to display the objects faceplate.

Selection

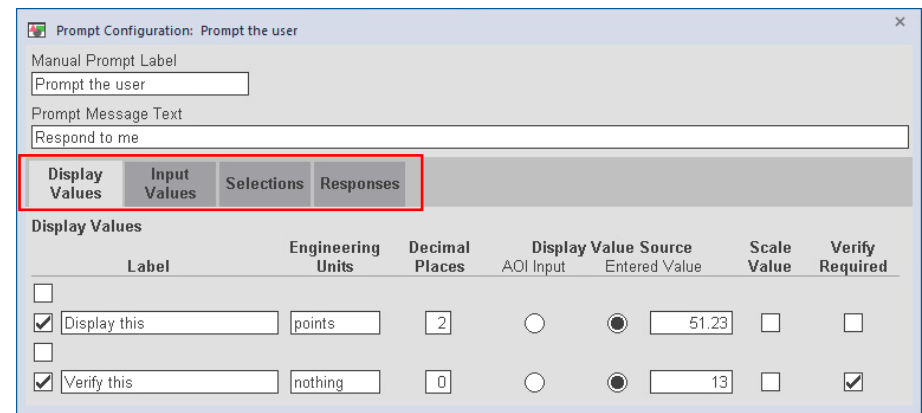
The Prompt Selection display provides access to the configuration dialog box for a given prompt configuration in the prompts array by clicking the corresponding browse button.



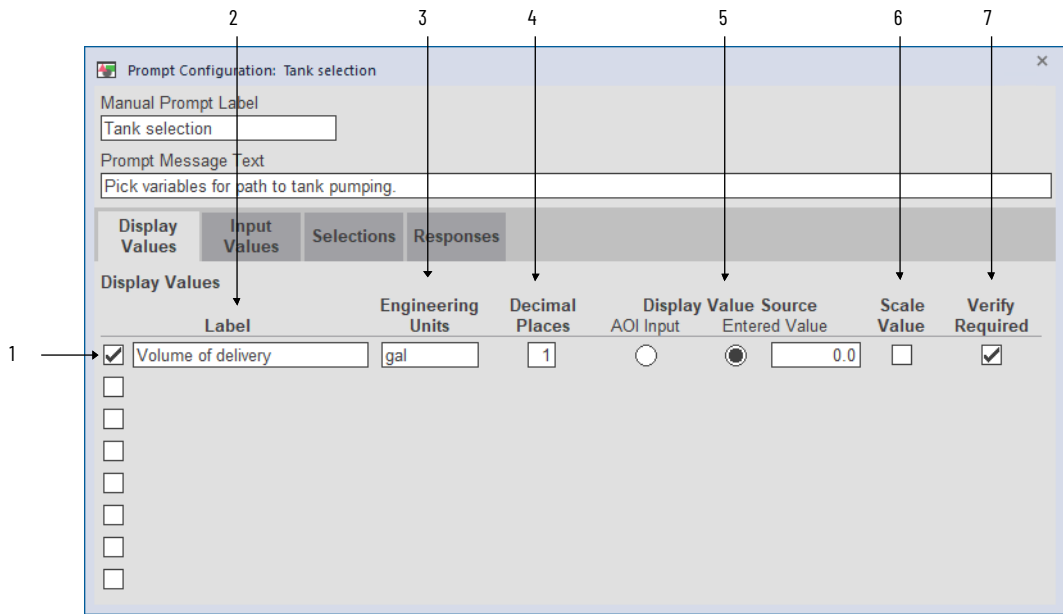
Item	Description
1	Select the radio button to select a prompt.
2	Select to open the configuration faceplate.

Configuration

The Prompt Configuration dialog box has four sections to configure a prompt. The sections are Display Values, Input Values, Selection Options, and Response Prompts. Each of the four sections has the ability to add up to eight individually labeled items.



Display Values



Item	Description
1	Select to enable a numeric display field.
2	Enter a label.
3	Enter an engineering unit.
4	Enter the decimal places to display.
5	Select to either display a value from the prompt 'AOI Input' or the value that you enter in the box that appears.
6	Select to scale the value by the entered value and the Inp_ScalePct.
7	Select to require the operator to verify the displayed value.

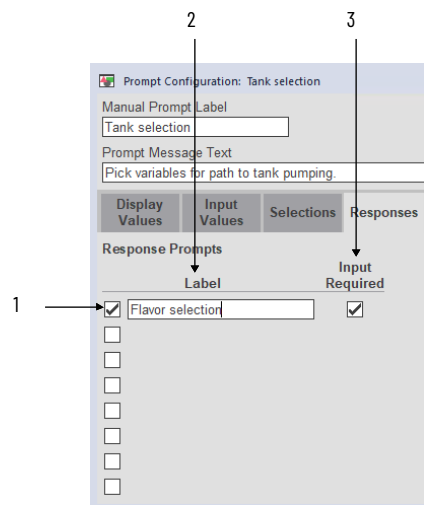
Input Values

Item	Description
1	Select to enable a numeric input
2	Enter a label for the input value.
3	Enter an engineering unit.
4	Enter the decimal places to display.
5	Enter a minimum value for the entry
6	Enter a maximum value for the entry.
7	Select to require an operator to enter a value.
8	If an input is not required, click Minimum or Maximum to be used for the entry.

Selection Options

Item	Description
1	Select to enable a label text box.
2	Enter a label for the selection option.
3	Select to designate a selection as the default.

Response Prompts



Item	Description
1	Select to enable a response prompt.
2	Enter a label for the response prompt.
3	Select to require an input.

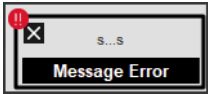
Response

This faceplate lets the operator review and record data based on the prompt. All values are configured on the prompt configuration faceplate. The operator selects the checkbox to continue.

Logix Diagnostic Objects

Logix Change Detector (raP_Dvc_LgxChangeDet)

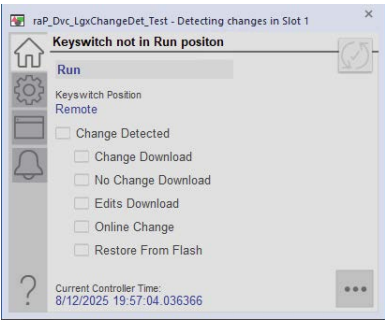
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
GO_LgxChangeDet 	Standard raP_Dvc_LgxChangeDet graphic symbol

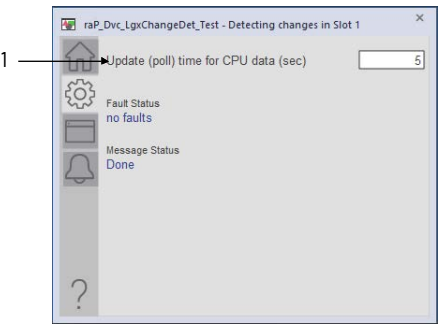
FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

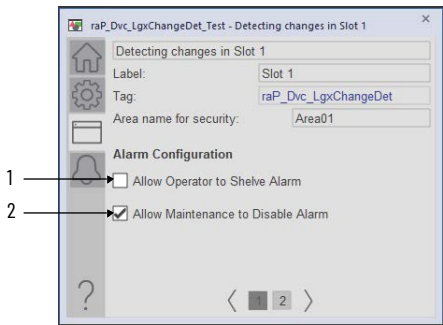


Engineering Tab



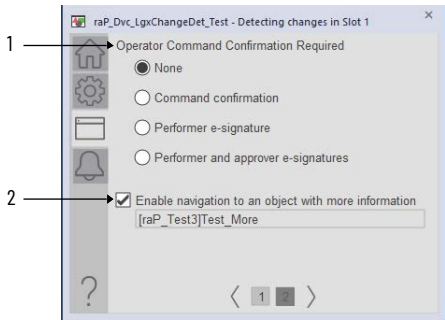
Item	Description
1	Enter the update time for CPU data.

HMI Configuration Tab 1



Item	Description
1	Select to allow Operator to shelve the alarm.
2	Select to allow Maintenance to disable the alarm.

HMI Configuration Tab 2




Item	Description
1	Select the type of confirmation required for Operator commands.
2	Select to enable navigation to an object with more information (Cfg_HasMoreObj is set to true.) This can be configured to navigate to an object backing tag or a UDT tag that has Instruction and Library defined.

Logix Controller CPU Utilization (raP_Dvc_LgxCPU_5x80)

Graphic Symbols

A Graphic Symbol (global object) is created once and can be referenced multiple times on multiple displays in an application. When changes are made to the original (base) object, the instantiated copies (reference objects) are automatically updated. Use of graphic symbols, with tag structures in the ControlLogix® system, aid consistency and save engineering time.

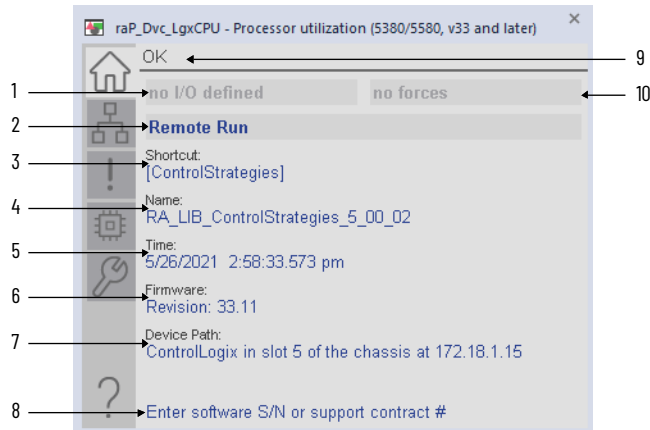
FactoryTalk View SE Graphic Symbol	Description
GO_LgxCPU 	This global object is used to view controller CPU utilization for Logix 5x80 controllers at firmware version 33 or later.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

The Faceplate initially opens to the Operator (Home) tab. From here, an operator can monitor the device status and manually operate the device when it is in Operator command source.



Item	Description
1	I/O communication status
2	Current controller mode
3	Device shortcut
4	Processor name defined in RSLogix 5000®
5	Current date and time
6	Current firmware revision
7	Path from the HMI server to the device
8	Serial number or support agreement. This number is used when contacting Rockwell Automation technical support.
9	Controller OK indicator
10	I/O forcing status indicator

Communication Tab

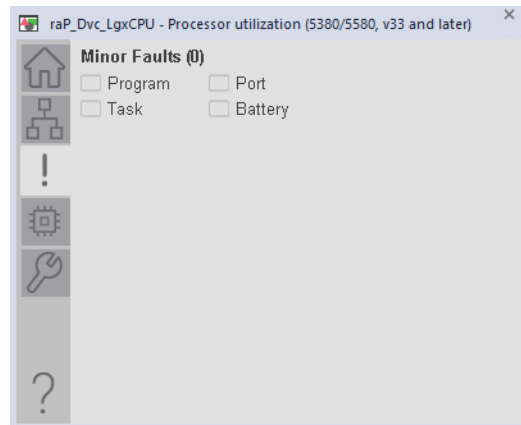
The pages in the Communication tab display the following information:

- Nested bar graph and numeric displays that show the approximate percent CPU available for responding to communication requests from the HMI (outer bar). The outer bar graph changes color from green to yellow when CPU availability for communication is low.
- The approximate percent CPU that is actually being used for responding to communication requests (inner bar). The inner bar graph changes color from blue to red when nearly all CPU availability for communication is being used.
- The count of RSLink® optimized packets that are currently used.
- The high-water value of optimized packets that are used.
- The largest optimized packet instance number that is used in the controller.
- Diagnostic counters for the FactoryTalk® Linx software driver that is being used by the HMI to communicate with the controller.
- The number of connections that are being used, the highest number that is used, and the total available connections for several types of data transfers.
- Data also includes statistics for message instructions that are using unconnected buffers and message cache entries.



Faults Tab

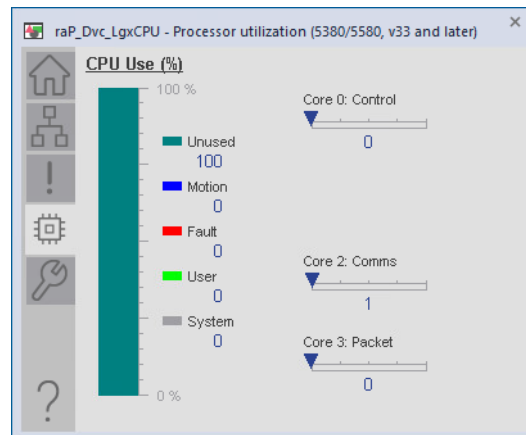
The Faults tab contains the list of minor faults and the fault count. There is an indicator to display the status of each fault. A blue indicator box shows that the fault is active.



Performance Tab

The Performance tab shows the approximate CPU percentage that is used by each of the major activities for the controller. If there is a continuous task running in the controller, the top segment of the bar graph shows the CPU used by the continuous task. If there is no continuous task, the top segment shows the percentage CPU free (unused). The CPU percentages do not necessarily add up to 100% because of the variability between execution cycles of the listed tasks and rounding errors.

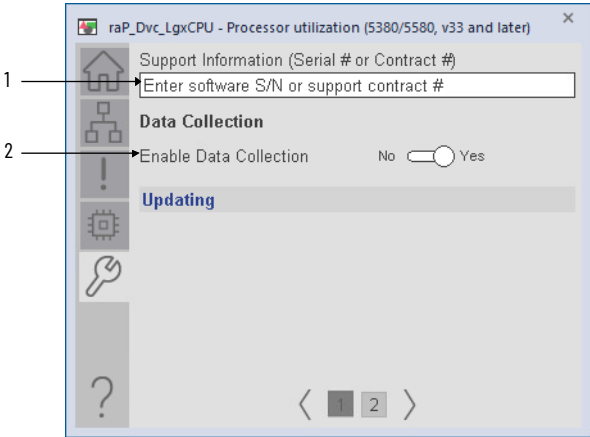
The raP_Dvc_LgxCPU_5x80 instruction is used with a multi-core controller. The bar graph on the left represents the CPU percentage that is used of the control core (Core 0).



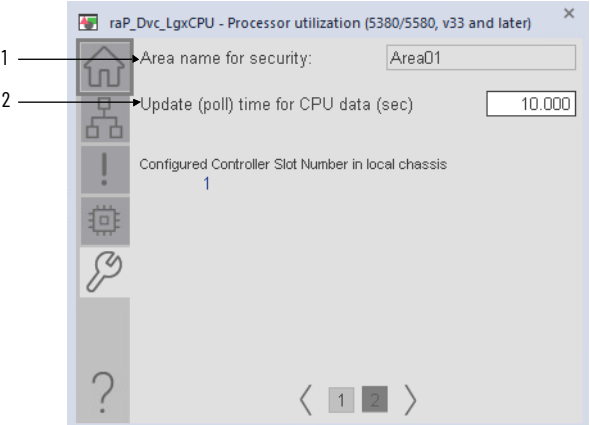
Maintenance Tab

The Maintenance tab shows the following information:

- An indicator to show whether data collection (polling) is enabled or disabled
- An indicator to show when the instruction is waiting before the next data collection (poll) and when a poll is in progress
- An indicator to show when a poll is busy or the result of the last poll
- (Data Received or Error)
- Configuration values, some of which cannot be changed from the faceplate



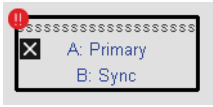
Item	Description
1	Enter a serial number for your Studio 5000 Logix Designer software, the contract number for your TechConnect SM , or other technical support contract information. This information is then available for ready reference if you call Rockwell Automation Technical Support.
2	Enable / Disable Data Collection IMPORTANT: The raP_Dvc_LgxCPU_5x80 instruction accomplishes its data collection by using MSG instructions to the controller (MSG to self), which uses some controller communication resources. You can leave data collection disabled until it is needed. Some faceplate data is monitored without using the polling messages and is still displayed. When disabled, only data collection via MSG instructions is disabled. Other data can still be updated and displayed on the faceplate. Data not updated when collection is disabled is not displayed.



Item	Description
1	Area name for security
2	Enter the interval that is used to collect and update data that is displayed on the other faceplate tabs. IMPORTANT: If you set this parameter too low, it can result in a flood of messages to the controller and possibly affect control performance. Do not use a value less than 5 seconds unless instructed to do so by a Rockwell Automation Technical Support specialist.

Logix Redundant Controller Monitor (raP_Dvc_LgxRedun)

A Graphic Symbol (global object) is created once and can be referenced multiple times on multiple displays in an application. When changes are made to the original (base) object, the instantiated copies (reference objects) are automatically updated. Use of graphic symbols, with tag structures in the ControlLogix system, aid consistency and save engineering time.

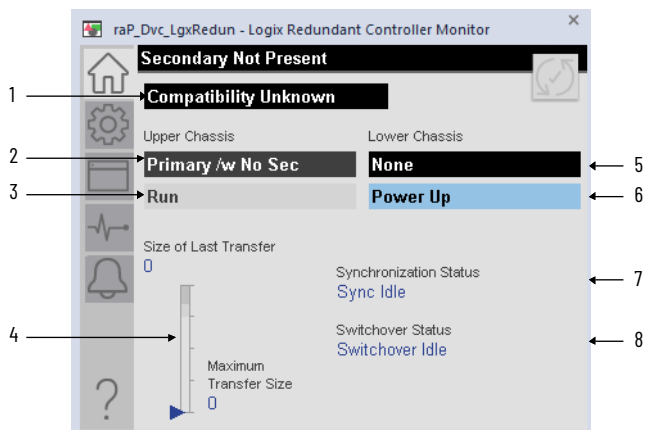
FactoryTalk View SE Graphic Symbol	Description
GO_LgxRedun 	This global object is used for redundancy modules.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

The Operator tab provides status information on the primary and secondary controllers.

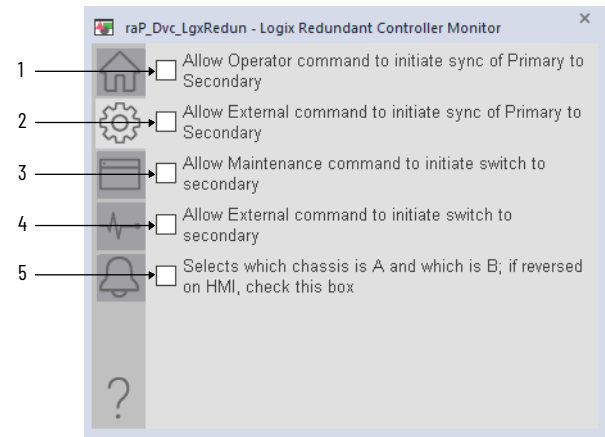


Item	Description
1	Compatibility status
2	Chassis A (upper chassis) status
3	Chassis A (upper chassis) controller mode
4	Transfer size and status
5	Chassis B (lower chassis) status
6	Chassis B (lower chassis) controller status
7	Synchronization status
8	Switchover status

Engineering Tab

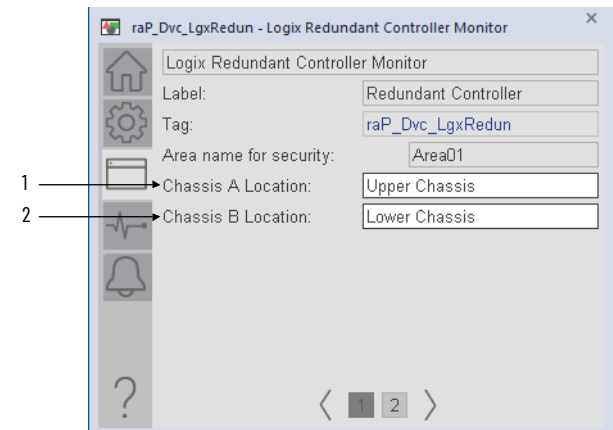
The Engineering tab provides access to device configuration parameters and ranges, options for device and I/O setup, security area, displayed text, and faceplate-to-faceplate navigation settings, for initial system commissioning or later system changes.

On the Engineering tab, you can identify and configure each chassis and configure display, switchover, and synchronization options.

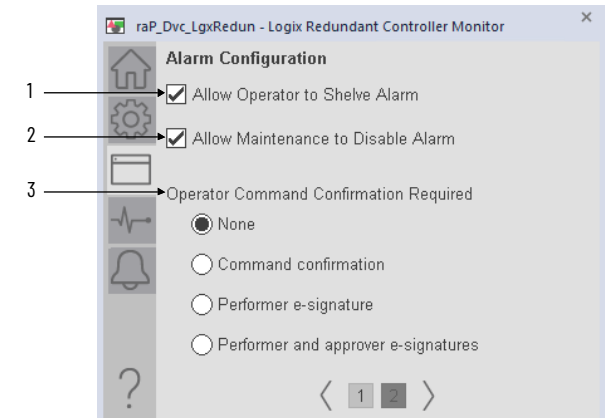


Item	Description
1	Select to enable the Operator command to initiate synchronization of the primary controller to the secondary controller.
2	Select to enable the External command to initiate synchronization of the primary controller to the secondary controller.
3	Select to enable the Maintenance command to switch to the secondary controller.
4	Select to enable the External command to switch to the secondary controller.
5	Select to designate chassis A and chassis B on the HMI.

HMI Configuration Tab



Item	Description
1	Enter a name for the location of Chassis A location.
2	Enter a name for the location of Chassis B location.

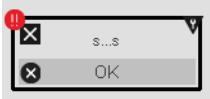


Item	Description
1	Select to allow Operator to shelve the alarm.
2	Select to allow Maintenance to disable the alarm.
3	Select the type of confirmation required for Operator commands.

Logix Module Status (raP_Dvc_LgxModuleSts)

Graphic Symbols

A Graphic Symbol (global object) is created once and can be referenced multiple times on multiple displays in an application. When changes are made to the original (base) object, the instantiated copies (reference objects) are automatically updated. Use of graphic symbols, with tag structures in the ControlLogix system, aid consistency and save engineering time.

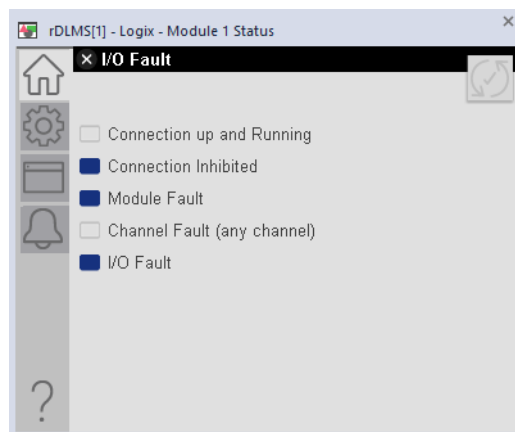
FactoryTalk View SE Graphic Symbol	Description
GO_LgxModuleSts 	This global object is used for module status.

FactoryTalk View SE Faceplates

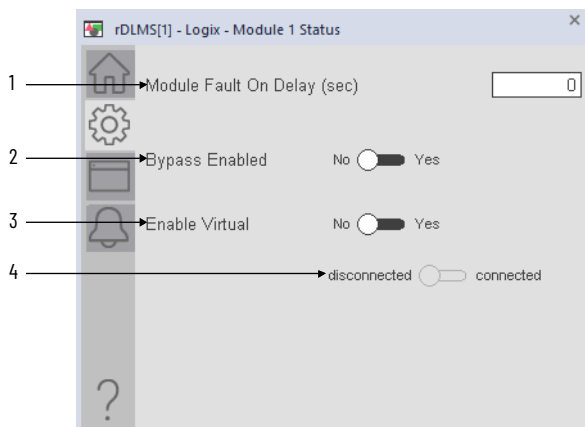
There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Operator Tab

The operator tab displays the status of the module.

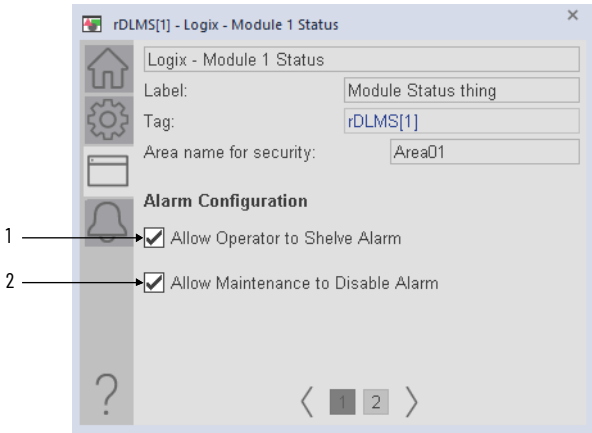


Engineering Tab

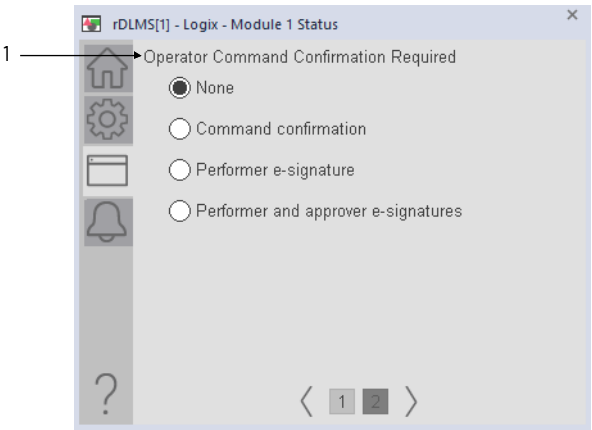


Item	Description
1	Enter the delay, in seconds, after an I/O communication fault is detected before raising the Alm_ModuleFault alarm. This delay may be needed to avoid an alarm flood when a network or I/O adapter fault cascades down to several modules. The delay allows time for the parent fault to inhibit the individual module fault alarms.
2	Select yes to bypass (block) the generation of the I/O Fault status (Sts_IOFault). Select no to enable I/O Fault status generation.
3	Select yes to enable virtual operation; the actual module connection status is ignored, and the virtual connection status setting (#4) is used instead. Select no to enable physical operation; the actual module connection is monitored.
4	When virtual operation is selected, use this selector to set the virtual connection status. When set to disconnected, an I/O Fault status is generated (if not bypassed).

HMI Configuration Tab



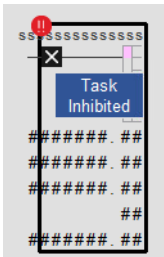

Item	Description
1	Select to allow Operator to shelve the alarm.
2	Select to allow Maintenance to disable the alarm.



Item	Description
1	Select the type of confirmation required for Operator commands.

Logix Task Monitor (raP_Dvc_LgxTaskMon)

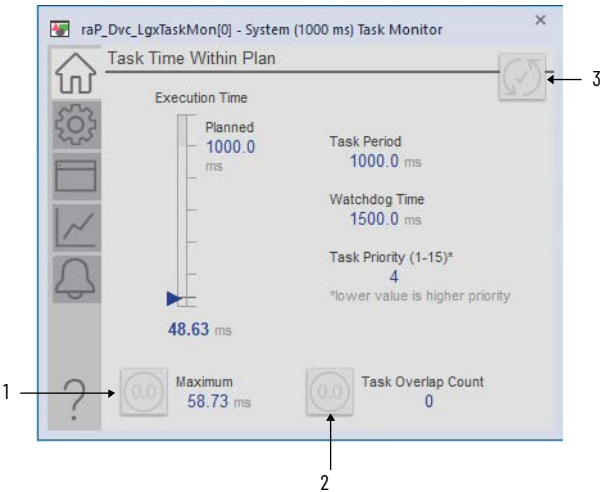
Graphic Symbols

FactoryTalk View SE Graphic Symbol	Description
<div>GO_TaskMon</div> 	This global object provides task statistics for one task in a Logix controller.
<div>GO_TaskMonSummary</div> 	This object provides a graphic representation of eight L_TaskMon objects in a controller. Click this object to display a summary screen of all eight L_TaskMon objects.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

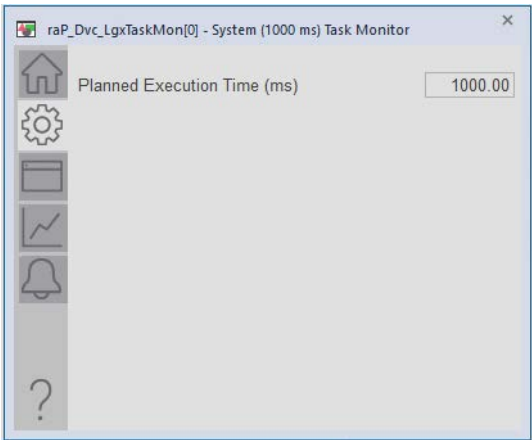
Operator Tab



Item	Description
1	Click to reset the Max Execution Time.
2	Click to reset Task Overlap Count.
3	Click to reset and acknowledge all alarms.

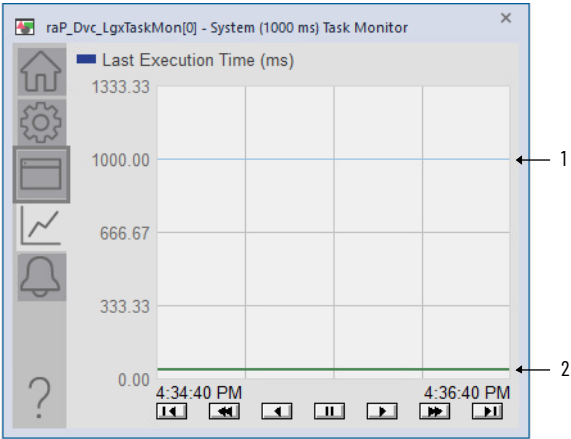
Engineering Tab

The maintenance tab provides access to the planned execution time.



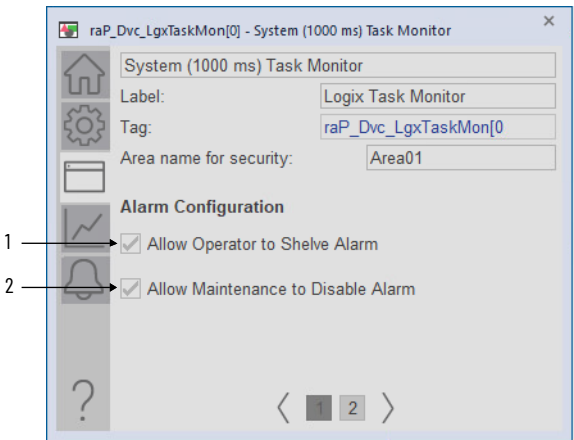
Trends Tab

The Trends tab shows trend charts of key device data over time. These faceplate trends provide a quick view of current device performance to supplement, but not replace, dedicated historical or live trend displays.

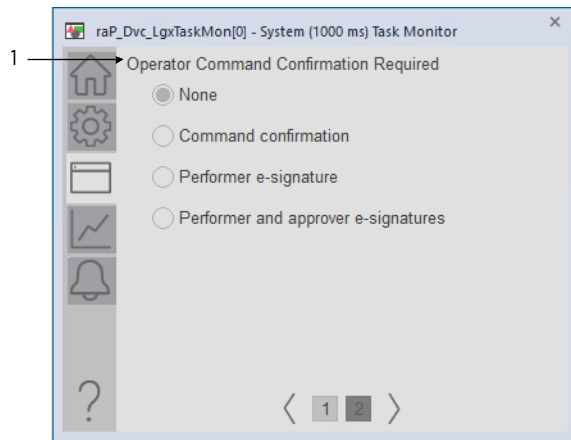


Item	Description
1	Planned execution time (blue line)
2	Last execution time (green line)

HMI Tab



Item	Description
1	Select to allow Operator to shelve alarm.
2	Select to allow Maintenance to disable alarm.



Item	Description
1	Select to configure operator command confirmation. This action would take place after any operator command.

Logix Event (raP_Tec_LgxEvent)

Graphic Symbols

There are no visualization files associated with this object.

Faceplates

There are no visualization files associated with this object

Notes:

Ownership (raP_Opr_Owner)

Graphic Symbols

There are no graphic symbols or HMI graphic support for the raP_Opr_Owner instruction.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Notes:

Arbitration (raP_Opr_ArbitrationQ)

Graphic Symbols

There are no graphic symbols or HMI graphic support for the raP_Opr_ArbitrationQ instruction.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Notes:

Organizational Scan (raP_Opr_OrgScan)

Graphic Symbols

There are no graphic symbols or HMI graphic support for the raP_Opr_ArbitrationQ instruction.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Notes:

Organizational View (raP_Opr_OrgView)

Graphic Symbols

There are no graphic symbols or HMI graphic support for the raP_Opr_ArbitrationQ instruction.

FactoryTalk View SE Faceplates

There are basic faceplate attributes that are common across all instructions. The Trends tab, Diagnostics tab, and Alarms tab all have the same basic functionality and are not described in this section. See [Basic Faceplate Attributes on page 23](#).

Faceplates for this instruction are shown in the OOAP chapter of [PROCES-RM200](#).

Notes:

FactoryTalk View Customization Tool

Overview

This customization tool lets you create a color palette to change the colors for global objects and displays.

The Color Change tool uses three types of files:

- **FactoryTalk® View Graphics .xml file:** This file is exported from the FactoryTalk View graphic (display or global object) in the View Studio software program. Once changes are made, it is imported into the View Studio software program to change the colors in the display or global object.
- **Color Association File:** This .xml file matches a color instance in the FactoryTalk View Graphics .xml file to the color palette entry. There is one Color Association File (CAXML) for each FactoryTalk View Graphics .xml file. The tool creates and maintains the CAXML file.
- **Color Palette:** This .xml file defines the colors for an application. The tool creates and maintains the .xml file. There is one color palette file for all FactoryTalk View Graphics .xml files that are being customized. If you want to change the color, it is done in the color palette.

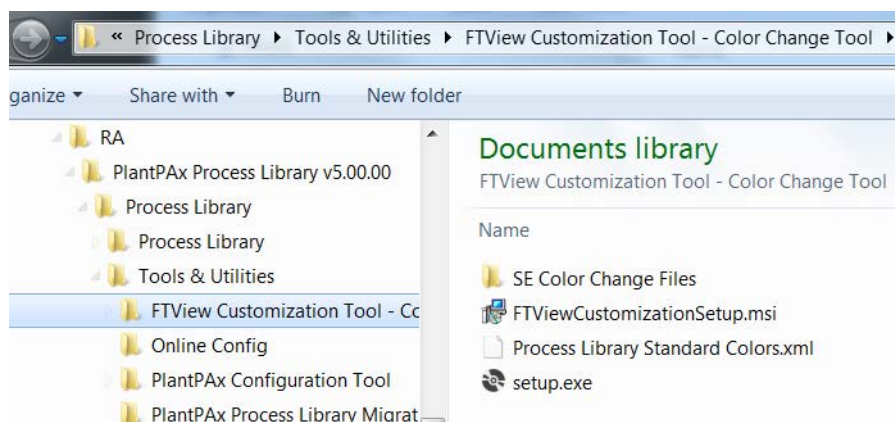


We suggest that you make a copy of the color palette .xml file if you plan to use the color tool.

Install Tool File

Obtain the Color Change tool as part of the Library of Process Objects download from the Product Compatibility and Download Center at <https://www.rockwellautomation.com/rockwellautomation/support/downloads.page>.

Access the tool from the Process Library download. Choose RA>Process Library vX.X>Tools & Utilities>FTView Customization Tool - Color Change Tool and double-click FTViewCustomizationSetup.msi.



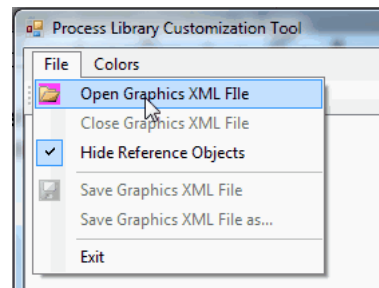
This file installs the program and adds a shortcut to the Start menu under 'PlantPAx®.'

Use the Tool with Library Objects

The download includes .xml exports for all global objects and display files in the library (for FactoryTalk View SE software). Make sure that you also download the CAXML and Process Library Standard Colors .xml files.

Follow these steps to change colors in the process library.

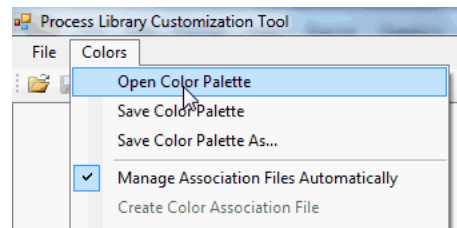
1. From the Process Library Customization Tool File menu, Select Open Graphic XML File.



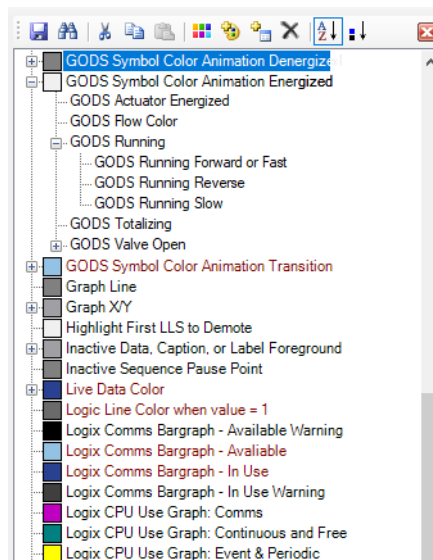
The Open Graphics XML Files dialog box appears.


Multiple global object and display files can be opened simultaneously from the file open dialog box.

2. Select the Colors tab and choose Open Color Palette.

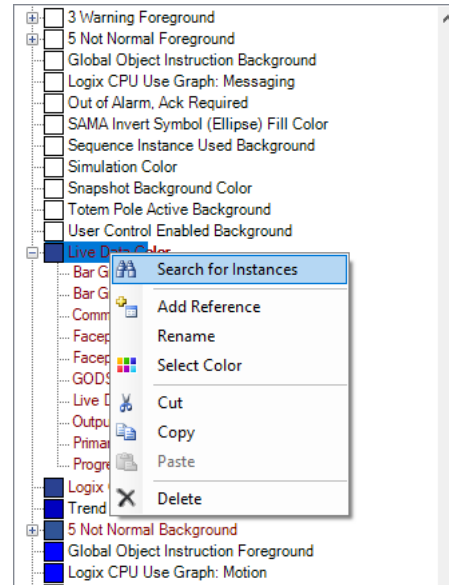



3. Select the colors that you want to change in the palette.

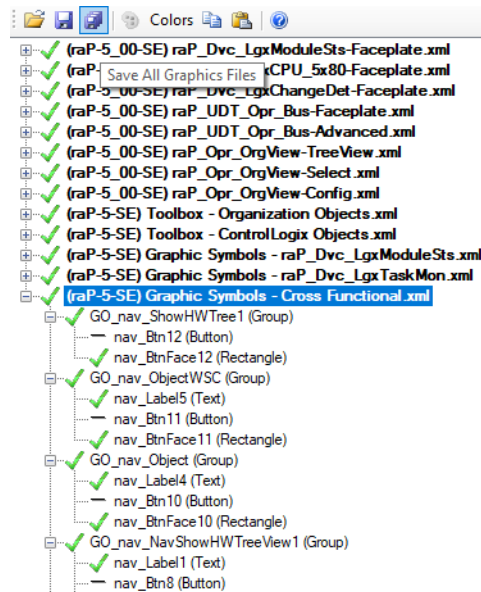


4. To select a new color, Select the Choose Color  icon.
5. Repeat [step 4](#) to change each color.

6. To see where a color is used, right-click a color and choose Search for Instances.



7. To save all graphic files (along with their association files) and the color palette file, Select Save All .



8. Import the files into the FactoryTalk View software program.

There are bulk import files for the displays (BatchImport_Displays_PlantPAx)Library.xml) and global objects (BatchImport_Global_PlantPAx)Library.xml).

Modifying the Color Palette

The color palette appears in a tree format that shows a parent-child relationship between colors. 'Base Colors' are shown with a color box next to them. 'Reference Colors' reference either a Base Color or another Reference Color.

By changing a Base Color, all Reference Colors under it change. For example, you can create a generic Base Color, called 'Energized', and then reference it with the Reference Color, called 'Running'.

Do not delete Color palette entries unless they are known to be unused. To see if a color palette entry is being used, right-click the color and choose 'Find Color Instances'.

Any color palette entry (Reference or Base Color) can be moved to reference another color. This action is done by simply dragging the color to be moved and dropping it on the new color to reference. When a color that has references is moved, all of its references move as well.

To make a Reference Color a Base Color, right-click the Reference Color and select 'Make Base Color' from the context menu.

Color palette entries are stored with an integer code. That integer code is used in the association file. Renaming a color palette entry does not break any existing associations. Multiple color palette entries can have the same name, but this practice is not recommended.

Follow these color palette considerations:

- Once a color palette entry is deleted and the palette is saved, the only way to restore associations is to recreate them manually.
- Object names in FactoryTalk View software usually have a number on the end. Names are considered to be similar if they are the same after the ending number is removed.

Use the Tool with Other FactoryTalk View Software Files

The color palette must be applied to FactoryTalk View software files that are not part of the Rockwell Automation® Library. Graphic elements in the file must be associated to the color palette. You must create associations and save them in a color association file. When opening an .xml graphics file, if the file already has an association file (CAXML), it is automatically opened as well. If an association file does not exist, it is created.

Follow these steps to create associations.

1. From the Process Library Customization Tool File menu, Select Open Graphic XML File. The Open Graphics XML Files dialog box appears.
2. Select an object from the tree on the left, and its colors appear in the center of the screen.
3. To associate a color from the palette, select the palette color and drag it to the text box next to the color display box.

Once all colors for an object are associated with the color palette, a check appears next to the object in the tree.

Colors that are used for the object only are displayed. For example, if an object is configured as 'Transparent', its background color does not show up in the tool. Also, instances of global objects from display files do not appear in the object tree. The tree can be configured to show instances of global objects. These objects do not have any color instances because their parent global objects control their colors.

4. Copy and paste functions have been included to allow quick creation of color associations. To use these functions, right-click the graphic object in the tree on the left and a menu appears.
 - **Copy Color Associations:** Use this function to copy the color associations for the object. If the object is a group, the color configuration for all group members is copied.

- **Paste Color Associations (this Object only):** Use this function to paste the previously copied color associations to the selected object. This option is not available if the selected object is a group that has members with color associations.
- **Paste Color Associations (to all group members):** Use this function to paste the previously copied color associations to the new object and all of its members. This option is available only if the source and destination objects are groups with members that have similar names and object types.
- **Copy and Paste Color Associations to Similar Objects with Names like 'Xxxx#':** This option copies the selected object and searches objects with a similar name and object type. Color associations are copied to all objects with similar names and types in any of the currently open graphics files. If the objects are groups, then the group members must have similar names and object types. Be careful when you use this feature to help prevent unwanted changes.

Notes:

HMI Navigation

Tag Naming Conventions

The following table describes the tag naming conventions and syntax to follow when programming to achieve navigation among HMI Faceplate objects.

Instruction Tag Reference/ Navigation Syntax			
Instruction	Navigation / References	Navigation / Reference Tag Name Syntax	Navigation / Reference Tag Name Example
PAH	—	—	—
PAI	Nav to HART Device	PAH : _Dvc	If PAI Tag Name = XT100 PAH tag name = XT100_Dvc
	Nav to EH Objects	raP_Dvc_EH_Flowmeter/Sensor: _Dvc	If PAI tag name = XT100 EH Object tag name = XT100_Dvc
	Nav to FF/PA Objects	raP_Dvc_AP_FFLink/PALink: _Dvc raP_Dvc_EN2FFR/EN2PAR: _Dvc	If PAI tag name = XT100 FF/PA Object tag name = XT100_Dvc
PAID	—	—	—
PAIM	—	—	—
PAO			If PAO Tag Name = XC100
	Nav to HART Device	PAH : _Dvc	PAH tag name = XC100_Dvc
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = XC100_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank0 tag name = XC100_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank0 tag name = XC100_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank0 tag name = XC100_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank0 tag name = XC100_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank0 tag name = XC100_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank0 tag name = XC100_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank0 tag name = XC100_Intlk_7
PBL	—	—	—
PDBC	—	—	—
PDI	—	—	—
PDO			If PDO Tag Name = XY100
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = XY100_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = XY100_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = XY100_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = XY100_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = XY100_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = XY100_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = XY100_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = XY100_Intlk_7
	Nav to Permissive	PPERM : _Perm	PPERM tag name = XY100_Perm
PDOSE	—	—	—
PFO	—	—	—
PHLS	—	—	—

Instruction Tag Reference/ Navigation Syntax			
Instruction	Navigation / References	Navigation / Reference Tag Name Syntax	Navigation / Reference Tag Name Example
PLLS			If PLLS Tag Name = GRPMTR100
	PLLS Ref_Tag(InOut)	PLLS Ref_Motors (InOut) : _Motors	PLLS Ref_Motors (InOut) = GRPMTR100_Motors
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = GRPMTR100_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = GRPMTR100_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = GRPMTR100_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = GRPMTR100_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = GRPMTR100_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = GRPMTR100_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = GRPMTR100_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = GRPMTR100_Intlk_7
PINTLK	Nav to Permissive	PPERM : _Perm	PPERM tag name = GRPMTR100_Perm
			If PDO Tag Name = XY100
	PINTLK (InOut)_Intlk_BankSts	PINTLK Ref_IntlkBankSts (InOut) : _Intlk_BankSts	PINTLK (InOut) - XY100_Intlk_BankSts
PMTR			If PMTR = MT321
	Device Reference Control Set	PMTR Ref_Ctrl_Set (InOut) : _CtrlSet	PMTR Ref_Ctrl_Set (InOut) = MT321_CtrlSet
	Device Reference Control Commands	PMTR Ref_Ctrl_Cmd (InOut) : _CtrlCmd	PMTR Ref_Ctrl_Cmd (InOut) = MT321_CtrlCmd
	Device Reference Control Commands Status	PMTR Ref_Ctrl_Sts (InOut) : _CtrlSts	PMTR Ref_Ctrl_Sts (InOut) = MT321_CtrlSts
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = MT321_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = MT321_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = MT321_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = MT321_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = MT321_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = MT321_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = MT321_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = MT321_Intlk_7
	Nav to Permissive 1	PPERM : _1Perm	PPERM 1 tag name = MT321_1Perm
	Nav to Permissive 2	PPERM : _2Perm	PPERM 2 tag name = MT321_2Perm
	Nav to RunTime	PRT : _RunTime	PRT tag name = MT321_RunTime
PPERM	Nav to Restart Inhibit	PRI : _ResInh	PRI tag name = MT321_ResInh
	Nav to Device Object	Device Object : _Dvc	Device Object tag name = MT321_Dvc
PPID			If PPID Tag Name = XIC700:
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = XIC700_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = XIC700_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = XIC700_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = XIC700_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = XIC700_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = XIC700_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = XIC700_Intlk_6
PPTC	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = XIC700_Intlk_7
PRI			
PRT			
PTST			If PTST Tag Name = QI102
	Calibration Table Reference	PTST Cfg_CalTbl (InOut) : _CalTable	PTST Cfg_CalTable (InOut) tag name = QI102_CalTable

Instruction Tag Reference/ Navigation Syntax			
Instruction	Navigation / References	Navigation / Reference Tag Name Syntax	Navigation / Reference Tag Name Example
PVLV			If PVLV : XV110
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = XV110_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = XV110_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = XV110_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = XV110_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = XV110_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = XV110_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = XV110_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = XV110_Intlk_7
	Nav to Permissive 1 (Motorized Valve)	PPERM : _Pos1Perm (Motorized Valve)	PPERM 1 tag name = XV110_Pos1Perm (Motorized Valve)
	Nav to Permissive 2 (Solenoid and Motorized Valve)	PPERM : _Pos2Perm (Solenoid and Motorized Valve)	PPERM 2 tag name = XV110_Pos2Perm (Solenoid and Motorized Valve)
	Nav to Valve Statistics	PVLVS : _ValveStats	PVLVS tag name = XV110_ValveStats
PVLVS	—	—	—
PVSD			If PVSD : MT390
	Device Reference Control Set	PVSD Ref_Ctrl_Set (InOut) : _CtrlSet	PVSD Ref_Ctrl_Set (InOut) = MT390_CtrlSet
	Device Reference Control Commands	PVSD Ref_Ctrl_Cmd (InOut) : _CtrlCmd	PVSD Ref_Ctrl_Cmd (InOut) = MT390_CtrlCmd
	Device Reference Control Commands Status	PVSD Ref_Ctrl_Sts (InOut) : _CtrlSts	PVSD Ref_Ctrl_Sts (InOut) = MT390_CtrlSts
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = MT390_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = MT390_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = MT390_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = MT390_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = MT390_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = MT390_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = MT390_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = MT390_Intlk_7
	Nav to Forward Permissive	PPERM : _FwdPerm	PPERM Forward tag name = MT390_FwdPerm
	Nav to Reverse Permissive	PPERM : _RevPerm	PPERM Reverse tag name = MT390_RevPerm
	Nav to RunTime	PRT : _RunTime	PRT tag name = MT390_RunTime
	Nav to Restart Inhibit	PRI : _ResInh	PRI tag name = MT390_ResInh
	Nav to Device Object	Device Object : _Dvc	Device Object tag name = MT390_Dvc
PNPOS			If PNPOS Tag Name = NP0100
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = NP0100_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = NP0100_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = NP0100_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = NP0100_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = NP0100_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = NP0100_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = NP0100_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = NP0100_Intlk_7
	Nav to Permissive	PPERM : _Perm	PPERM tag name = NP0100_Perm

Instruction Tag Reference/ Navigation Syntax			
Instruction	Navigation / References	Navigation / Reference Tag Name Syntax	Navigation / Reference Tag Name Example
PVLVMP			If PVLVMP = XV120
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = XV120_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = XV120_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = XV120_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = XV120_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = XV120_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = XV120_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = XV120_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = XV120_Intlk_7
	Nav to Open Interlock Bank 0	PINTLK : _OpenIntlk_0	PINTLK Bank0 tag name = XV120_OpenIntlk_0
	Nav to Open Interlock Bank 1	: _OpenIntlk_1	PINTLK Bank1 tag name = XV120_OpenIntlk_1
	Nav to Open Interlock Bank 2	: _OpenIntlk_2	PINTLK Bank2 tag name = XV120_OpenIntlk_2
	Nav to Open Interlock Bank 3	: _OpenIntlk_3	PINTLK Bank3 tag name = XV120_OpenIntlk_3
	Nav to Open Interlock Bank 4	: _OpenIntlk_4	PINTLK Bank4 tag name = XV120_OpenIntlk_4
	Nav to Open Interlock Bank 5	: _OpenIntlk_5	PINTLK Bank5 tag name = XV120_OpenIntlk_5
	Nav to Open Interlock Bank 6	: _OpenIntlk_6	PINTLK Bank6 tag name = XV120_OpenIntlk_6
	Nav to Open Interlock Bank 7	: _OpenIntlk_7	PINTLK Bank7 tag name = XV120_OpenIntlk_7
	Nav to Upper Seat Interlock Bank 0	PINTLK : _UpperIntlk_0	PINTLK Bank0 tag name = XV120_UpperIntlk_0
	Nav to Upper Seat Interlock Bank 1	: _UpperIntlk_1	PINTLK Bank1 tag name = XV120_UpperIntlk_1
	Nav to Upper Seat Interlock Bank 2	: _UpperIntlk_2	PINTLK Bank2 tag name = XV120_UpperIntlk_2
	Nav to Upper Seat Interlock Bank 3	: _UpperIntlk_3	PINTLK Bank3 tag name = XV120_UpperIntlk_3
	Nav to Upper Seat Interlock Bank 4	: _UpperIntlk_4	PINTLK Bank4 tag name = XV120_UpperIntlk_4
	Nav to Upper Seat Interlock Bank 5	: _UpperIntlk_5	PINTLK Bank5 tag name = XV120_UpperIntlk_5
	Nav to Upper Seat Interlock Bank 6	: _UpperIntlk_6	PINTLK Bank6 tag name = XV120_UpperIntlk_6
	Nav to Upper Seat Interlock Bank 7	: _UpperIntlk_7	PINTLK Bank7 tag name = XV120_UpperIntlk_7
	Nav to Lower Seat Interlock Bank 0	PINTLK : _LowerIntlk_0	PINTLK Bank0 tag name = XV120_LowerIntlk_0
	Nav to Lower Seat Interlock Bank 1	: _LowerIntlk_1	PINTLK Bank1 tag name = XV120_LowerIntlk_1
	Nav to Lower Seat Interlock Bank 2	: _LowerIntlk_2	PINTLK Bank2 tag name = XV120_LowerIntlk_2
	Nav to Lower Seat Interlock Bank 3	: _LowerIntlk_3	PINTLK Bank3 tag name = XV120_LowerIntlk_3
	Nav to Lower Seat Interlock Bank 4	: _LowerIntlk_4	PINTLK Bank4 tag name = XV120_LowerIntlk_4
	Nav to Lower Seat Interlock Bank 5	: _LowerIntlk_5	PINTLK Bank5 tag name = XV120_LowerIntlk_5
	Nav to Lower Seat Interlock Bank 6	: _LowerIntlk_6	PINTLK Bank6 tag name = XV120_LowerIntlk_6
	Nav to Lower Seat Interlock Bank 7	: _LowerIntlk_7	PINTLK Bank7 tag name = XV120_LowerIntlk_7
	Nav to Cavity Interlock Bank 0	PINTLK : _CavityIntlk_0	PINTLK Bank0 tag name = XV120_CavityIntlk_0
	Nav to Cavity Interlock Bank 1	: _CavityIntlk_1	PINTLK Bank1 tag name = XV120_CavityIntlk_1
	Nav to Cavity Interlock Bank 2	: _CavityIntlk_2	PINTLK Bank2 tag name = XV120_CavityIntlk_2
	Nav to Cavity Interlock Bank 3	: _CavityIntlk_3	PINTLK Bank3 tag name = XV120_CavityIntlk_3
	Nav to Cavity Interlock Bank 4	: _CavityIntlk_4	PINTLK Bank4 tag name = XV120_CavityIntlk_4
	Nav to Cavity Interlock Bank 5	: _CavityIntlk_5	PINTLK Bank5 tag name = XV120_CavityIntlk_5
	Nav to Cavity Interlock Bank 6	: _CavityIntlk_6	PINTLK Bank6 tag name = XV120_CavityIntlk_6
	Nav to Cavity Interlock Bank 7	: _CavityIntlk_7	PINTLK Bank7 tag name = XV120_CavityIntlk_7
	Nav to Valve Statistics	PVLVMP : _ValveStats	PVLVS tag name = XV120_ValveStats

Instruction Tag Reference/ Navigation Syntax			
Instruction	Navigation / References	Navigation / Reference Tag Name Syntax	Navigation / Reference Tag Name Example
PD4SD			If PD4SD : D4SD100
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = D4SD100_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = D4SD100_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = D4SD100_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = D4SD100_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = D4SD100_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = D4SD100_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = D4SD100_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = D4SD100_Intlk_7
	Nav to Permissive 0	PPERM : _0Perm	PPERM 0 tag name = D4SD100_Perm
	Nav to Permissive 1	PPERM : _1Perm	PPERM 1 tag name = D4SD100_Perm
	Nav to Permissive 2	PPERM : _2Perm	PPERM 2 tag name = D4SD100_Perm
	Nav to Permissive 3	PPERM : _3Perm	PPERM 3 tag name = D4SD100_Perm
	Nav to Valve Statistics	PD4SD : _ValveStats	PVLVS tag name : D4SD100_ValveStats
raP_Opr_Area			If raP_Opr_Area = Area01
	Nav to Extended Alarms	raP_Opr_ExtddAlm: _ExtddAlm_00 ... _ExtddAlm_32	raP_Opr_ExtddAlm: Area01_ExtddAlm_00 ... _ExtddAlm_32
raP_Opr_EMGen			If raP_Opr_EMGen Tag Name = eTK101
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = eTK101_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = eTK101_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = eTK101_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = eTK101_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = eTK101_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = eTK101_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = eTK101_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = eTK101_Intlk_7
	Nav to Permissive	PPERM : _Perm	PPERM tag name = eTK101_Perm
	Nav to Extended Alarms	raP_Opr_ExtddAlm: _ExtddAlm_00 ... _ExtddAlm_32	raP_Opr_ExtddAlm tag name = eTK101_ExtddAlm_00 ... _ExtddAlm_32
	Nav Parameters	raP_Tec_ParRpt: _PAR_00 ... _PAR_496	raP_Tec_ParRpt tag name = eTK101_PAR_00 ... _PAR_496
	Nav Reports	raP_Tec_ParRpt: _RPT_00 ... _RPT_496	raP_Tec_ParRpt tag name = eTK101_RPT_00 ... _RPT_496
raP_Opr_EPGen			If raP_Opr_EPGen Tag Name = epAG1001
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = epAG1001_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = epAG1001_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = epAG1001_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = epAG1001_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = epAG1001_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = epAG1001_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = epAG1001_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = epAG1001_Intlk_7
	Nav to Permissive	PPERM : _Perm	PPERM tag name = eTK101_Perm
	Nav to Extended Alarms	raP_Opr_ExtddAlm: _ExtddAlm_00 ... _ExtddAlm_32	raP_Opr_ExtddAlm tag name = epAG1001_ExtddAlm_00 ... _ExtddAlm_32
	Nav Parameters	raP_Tec_ParRpt: _PAR_00 ... _PAR_496	raP_Tec_ParRpt tag name = epAG1001_PAR_00 ... _PAR_496
	Nav Reports	raP_Tec_ParRpt: _RPT_00 ... _RPT_496	raP_Tec_ParRpt tag name = epAG1001_RPT_00 ... _RPT_496
raP_Opr_ExtddAlm	Extended Alarms	—	—

Instruction Tag Reference/ Navigation Syntax			
Instruction	Navigation / References	Navigation / Reference Tag Name Syntax	Navigation / Reference Tag Name Example
raP_Opr_Unit			If raP_Opr_Unit Tag Name = GroupControl
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 tag name = GroupControl_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 tag name = GroupControl_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 tag name = GroupControl_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 tag name = GroupControl_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 tag name = GroupControl_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 tag name = GroupControl_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 tag name = GroupControl_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 tag name = GroupControl_Intlk_7
	Nav to Permissive	PPERM : _Perm PPERM : 1_Perm PPERM : 2_Perm PPERM : 3_Perm PPERM : 4_Perm	PPERM tag name = GroupControl_Perm PPERM tag name = GroupControl_1Perm PPERM tag name = GroupControl_2Perm PPERM tag name = GroupControl_3Perm PPERM tag name = GroupControl_4Perm
raP_Tec_ParRpt	Nav to Extended Alarms	raP_Opr_ExtddAlm: _ExtddAlm_00 ... _ExtddAlm_32	raP_Opr_ExtddAlm tag name = GroupControl_ExtddAlm_00 ... _ExtddAlm_32
	Nav Parameters	raP_Tec_ParRpt: _PAR_00 ... _PAR_496	raP_Tec_ParRpt tag name = epAG1001_PAR_00 ... _PAR_496
	Nav Reports	raP_Tec_ParRpt: _RPT_00 ... _RPT_496	raP_Tec_ParRpt tag name = epAG1001_RPT_00 ... _RPT_496
raP_Tec_ParRpt	Parameters and Reports	—	—
raP_Opr_Prompt			If raP_Opr_Prompt Tag Name = MyPrompt
	Prompt Instance Configuration Data	raP_Opr_Prompt Prompts (InOut) : _Prompts	raP_Opr_Prompt Prompts (InOut) Tagname = MyPrompt_Prompts
		raP_Opr_Prompt RespData (InOut) : _ResponseData	raP_Opr_Prompt RespData (InOut) Tagname = MyPrompt_ResponseData
raP_Opr_Seq			If raP_Opr_Seq : Seq_101
	Reference Sequencer Step	raP_Opr_Seq Ref_Steps (InOut) : _Steps	raP_Opr_Seq Ref_Steps (InOut) : Seq_101_Steps
	Nav to Interlock Bank 0	PINTLK : _Intlk_0	PINTLK Bank0 Tagname = Seq_101_Intlk_0
	Nav to Interlock Bank 1	: _Intlk_1	PINTLK Bank1 Tagname = Seq_101_Intlk_1
	Nav to Interlock Bank 2	: _Intlk_2	PINTLK Bank2 Tagname = Seq_101_Intlk_2
	Nav to Interlock Bank 3	: _Intlk_3	PINTLK Bank3 Tagname = Seq_101_Intlk_3
	Nav to Interlock Bank 4	: _Intlk_4	PINTLK Bank4 Tagname = Seq_101_Intlk_4
	Nav to Interlock Bank 5	: _Intlk_5	PINTLK Bank5 Tagname = Seq_101_Intlk_5
	Nav to Interlock Bank 6	: _Intlk_6	PINTLK Bank6 Tagname = Seq_101_Intlk_6
	Nav to Interlock Bank 7	: _Intlk_7	PINTLK Bank7 Tagname = Seq_101_Intlk_7
	Nav to Permissive	PPERM : _Perm	PPERM Tagname = Seq_101_Perm
	Nav to Boolean Input	raP_Opr_SeqBoolInp : _BoolInp	raP_Opr_SeqBoolInp Tagname = Seq_101_BoolInp
	Reference Boolean Input Sequencer Step	raP_Opr_SeqBoolInp Ref_Steps (InOut) : _Steps	raP_Opr_SeqBoolInp Ref_Steps (InOut) Tagname = Seq_101_Steps
	Nav to Boolean Output	raP_Opr_SeqBoolOut : _BoolOut	raP_Opr_SeqBoolOut Tagname = Seq_101_BoolOut
	Reference Boolean Output Sequencer Step	raP_Opr_SeqBoolOut Ref_Steps (InOut) : _Steps	raP_Opr_SeqBoolOut Ref_Steps (InOut) Tagname = Seq_101_Steps
	Nav to Real Output	raP_Opr_SeqRealOut : _RealOut	raP_Opr_SeqRealOut Tagname = Seq_101_RealOut
	Reference Real Output Sequencer Step	raP_Opr_SeqRealOut Ref_Steps (InOut) : _Steps	raP_Opr_SeqRealOut Ref_Steps (InOut) Tagname = Seq_101_Steps
	Nav to Prompt Core	raP_Opr_Prompt_Core : _Prompt	raP_Opr_Prompt_Core Tagname = Seq_101_Prompt
	Reference Prompt Core Prompt Instance Configuration Data	raP_Opr_Prompt_Core Prompts (InOut) : _Prompts	raP_Opr_Prompt_Core Prompts (InOut) Tagname = Seq_101_Prompts
	Reference Prompt Core Prompt Response Data	raP_Opr_Prompt_Core RespData (InOut) : _ResponseData	raP_Opr_Prompt_Core RespData (InOut) Tagname = Seq_101_ResponseData

Security Policies

System Policies

System Policies	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Common	—	—	—	—	—	—	—
Configure Security	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Create Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Delete	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Execute	Deny	Deny	Deny	Deny	Deny	Allow	Allow
List Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Read	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Write	Deny	Deny	Deny	Deny	Deny	Allow	Allow
User Rights Assignment	—	—	—	—	—	—	—
.User Rights Assignment Properties	—	—	—	—	—	—	—
..Backup and Restore	—	—	—	—	—	—	—
Backup and restore directory contents	Deny	Deny	Deny	Deny	Deny	Allow	Allow
..Directory Server Computer	—	—	—	—	—	—	—
Change Directory Server	Deny	Deny	Deny	Deny	Deny	Allow	Allow
..Manage Servers	—	—	—	—	—	—	—
Manual server switchover	Deny	Deny	Deny	Deny	Deny	Allow	Allow
..Security Authority Identifier	—	—	—	—	—	—	—
Modify Security Authority Identifier	Deny	Deny	Deny	Deny	Deny	Allow	Allow

Product Policies

Product Policies	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
RSLogix 5000®	—	—	—	—	—	—	—
Feature Security	—	—	—	—	—	—	—
Project: New	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Print: Modify Options	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Secure	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Toolbar: Configure	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Firmware: Update	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Workstation: Modify Options	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Studio 5000 Architect®	—	—	—	—	—	—	—
Feature Security	—	—	—	—	—	—	—
Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Open	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Save	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Batch	—	—	—	—	—	—	—
. Batch Campaign	—	—	—	—	—	—	—
. . Commands	—	—	—	—	—	—	—
Abort Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Abort Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Add New Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Add New Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow

Product Policies	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
All Properties	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Append Batch to Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
ConfigServers	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Delete Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Delete Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Disable Triggers	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Enable Triggers	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Hold Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Hold Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Move Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Move Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Pause Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Pause Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Restart Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Restart Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Start Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Start Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Stop Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Stop Campaign	Allow	Allow	Allow	Allow	Allow	Allow	Allow
. BatchView and ActiveX	—	—	—	—	—	—	—
. . View	—	—	—	—	—	—	—
Alarm Summary	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Arbitration	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Batch List	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Configuration	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Event Journals	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Exit	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Help	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Phase Control	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Phase Summary	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Procedure as SFC	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Procedure as Table	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Prompts	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Signatures	Allow	Allow	Allow	Allow	Allow	Allow	Allow
. . Phase Commands	—	—	—	—	—	—	—
Abort	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Ack	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Acquire	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Clear Fail	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Disconnect	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Hold	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Pause	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Phase Auto Mode	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Phase Semi-Auto Mode	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Release	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Reset	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Restart	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Resume	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Start	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Stop	Allow	Allow	Allow	Allow	Allow	Allow	Allow
. . Commands	—	—	—	—	—	—	—
Abort	Allow	Allow	Allow	Allow	Allow	Allow	Allow

Product Policies	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Ack	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Acquire	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Add Batch	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Auto	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Bind	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Bind Ack	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Clear Fail	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Comment	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Disconnect	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Force Transition	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Hold	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Manual	Allow	Allow	Allow	Allow	Allow	Allow	Allow
MatSvrControl	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Override	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Override Clear	Allow	Allow	Allow	Allow	Allow	Allow	Allow
ParamChange	Allow	Allow	Allow	Allow	Allow	Allow	Allow
ReactivateStep	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Release	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Remove	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Reorder	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Restart	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Resume	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Semi-Auto	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Start	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Stop	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Timer-Compete	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Timer-Reset	Allow	Allow	Allow	Allow	Allow	Allow	Allow
. Equipment Editor	—	—	—	—	—	—	—
. . Feature Security	—	—	—	—	—	—	—
Configure Runtime Area Model Deployment	Allow	Allow	Allow	Allow	Allow	Allow	Allow
. Recipe Editor	—	—	—	—	—	—	—
. . Access Modes	—	—	—	—	—	—	—
Full Edit	Allow	Allow	Allow	Allow	Allow	Allow	Allow
View Only	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Asset Centre	—	—	—	—	—	—	—
Address Book Policies	—	—	—	—	—	—	—
View Address Book	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Edit Address Book	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Archive Policies	—	—	—	—	—	—	—
Override Archive Check In	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Configure Database Limitations	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Configure Asset Inventory Settings	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Configure Archive Options Settings	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Override Archive Undo Check Out	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Override Removal Local Copies	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Configure Personal Archive File Associations	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Configure System Archive File Associations	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Configure Personal Archive Working Folders	Deny	Deny	Allow	Allow	Allow	Allow	Allow

Product Policies	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Configure System Archive Working Folders	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Run Archive Database Cleanup Wizard	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Allow Empty Comment at Check In	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Clear the Get Writable Copy check box by default	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Store Latest Version Only	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Set Maximum Versions	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Assets Lifecycle Policies	—	—	—	—	—	—	—
Configure Assets Lifecycle Sync	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Calibration Management Policies	—	—	—	—	—	—	—
Display Calibration Management Data	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Perform Calibration Management	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Administer Calibration Users	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Database Maintenance Policies	—	—	—	—	—	—	—
Configure Database Maintenance Policies	Deny	Deny	Allow	Allow	Allow	Allow	Allow
General Policies	—	—	—	—	—	—	—
Switch to Design mode	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Log Policies	—	—	—	—	—	—	—
View Event Log	Deny	Deny	Allow	Allow	Allow	Allow	Allow
View Audit Log	Deny	Deny	Allow	Allow	Allow	Allow	Allow
View Diagnostics and Health Log	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Change Diagnostics and Health Log Message	Deny	Deny	Allow	Allow	Allow	Allow	Allow
View Diagnostics and Health Log Status	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Run Log Database Cleanup Wizard	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Process Device Configuration Policies	—	—	—	—	—	—	—
Enable or Disable DTMs	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Edit DTM Network	—	—	—	—	—	—	—
Run PDC Field Edition	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Schedule Policies	—	—	—	—	—	—	—
Create a new schedule	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Edit a schedule	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Delete a schedule	Deny	Deny	Allow	Allow	Allow	Allow	Allow
View a schedule	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Command a schedule	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Searching	—	—	—	—	—	—	—
Create a Search	Deny	Deny	Allow	Allow	Allow	Allow	Allow
ControlFLASH™	—	—	—	—	—	—	—
Feature Security	—	—	—	—	—	—	—
Firmware: Update	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Firmware: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
PCDC: Connect	Deny	Deny	Allow	Allow	Allow	Allow	Allow
FactoryTalk View SE	—	—	—	—	—	—	—
Feature Security	—	—	—	—	—	—	—
Configure FTView SE Website	Deny	Deny	Deny	Deny	Deny	Allow	Allow
RSLinx Classic	—	—	—	—	—	—	—
Feature Security	—	—	—	—	—	—	—
Clear DDE/OPC Event Log	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Configure CIP™ Options	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Configure Client Applications	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Configure ControlLogix® Gateway	Deny	Deny	Deny	Deny	Deny	Allow	Allow

Product Policies	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Configure DDE/OPC Topic	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Configure Drivers and Shortcuts	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Configure Gateway	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Configure Network Properties	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Edit DDE/OPC Project	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Edit Options	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Reset Station Diagnostic Counters	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Shutdown	Deny	Deny	Deny	Deny	Deny	Allow	Allow
View NT Event Log	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Access Data Monitor	Deny	Deny	Deny	Deny	Deny	Allow	Allow
RSNetWorx™	—	—	—	—	—	—	—
Feature Security	—	—	—	—	—	—	—
Access Configurations	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Modify Configurations	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Go Online	Deny	Deny	Allow	Allow	Allow	Allow	Allow

Computers and Groups

Computers and Groups	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Common	—	—	—	—	—	—	—
Configure Security	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Create Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Delete	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Execute	Deny	Deny	Deny	Deny	Deny	Allow	Allow
List Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Read	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Write	Deny	Deny	Deny	Deny	Deny	Allow	Allow
FactoryTalk Linx	—	—	—	—	—	—	—
Network Browse	Deny	Deny	Allow	Allow	Allow	Allow	Allow
FactoryTalk Transaction Manager	—	—	—	—	—	—	—
Start, Stop, and Assemble Configurations	Deny	Deny	Allow	Allow	Allow	Allow	Allow

Network and Devices

Network and Devices	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Common	—	—	—	—	—	—	—
Configure Security	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Create Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Delete	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Execute	Deny	Deny	Deny	Deny	Deny	Allow	Allow
List Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Read	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Write	Deny	Deny	Deny	Deny	Deny	Allow	Allow
RSLogix5000	—	—	—	—	—	—	—
Add-On Instruction: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Add-On Instruction: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Add-On Instruction: Export	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Add-On Instruction: Export Unencoded	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Add-On Instruction: Modify	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Add-On Instruction: View Logic	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm Definition: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow

Network and Devices	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Alarm Definition: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm Definition: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm Definition: Modify Required Use	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm: Clear Alarm Log	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm: Configure Direct Commands	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Alarm: Modify Use	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Component: Modify Permission Set	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Clear Fault	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Lock/Unlock	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Modify Mode	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Modify Revision	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Modify Type	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Controller: Unsecure	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Data Log: Clear Log Data Value	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Data Log: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Data Log: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Data Log: Enable/Disable	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Data Log: Modify	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Data Log: Read Log Data Value	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Firmware: Update	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Language: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Language: Switch Language	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Module: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Module: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Module: Maintenance High	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Module: Maintenance Low	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Module: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Module: View Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Motion: Command Axis	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Motion: Modify Configuration	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Nonvolatile Memory: Load	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Nonvolatile Memory: Store	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Phase: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Phase: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Phase: Manual Control	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Phase: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
PLC/SLC: Modify Tag Mappings	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Plug-In: Display	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Print: Report	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Program: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Program: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Program: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Compact	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Download	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Export	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Go Online	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Modify Path	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Open	Deny	Deny	Allow	Allow	Allow	Allow	Allow

Network and Devices	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Project: Save	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Save As	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Project: Upload	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Routine: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Routine: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Routine: Export	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Routine: Manual Control	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Routine: Modify Logic	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Routine: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Routine: View Logic	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Safety: Generate/Delete Signature	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Safety: Lock/Unlock	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Safety: Modify Component	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Safety: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Safety: Modify Tag Mappings	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Sequence: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Sequence: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Sequence: Manual Control	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Sequence: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Tag: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Tag: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Tag: Force	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Tag: Modify Constant Property	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Tag: Modify Constant Tag Value	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Tag: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Tag: Modify Values	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Task: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Task: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Task: Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Trend: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Trend: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Trend:Modify Properties	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Trend: Run	Deny	Deny	Allow	Allow	Allow	Allow	Allow
User Defined Type: Create	Deny	Deny	Allow	Allow	Allow	Allow	Allow
User Defined Type: Delete	Deny	Deny	Allow	Allow	Allow	Allow	Allow
User Defined Type: Modify	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Sequence Manager	—	—	—	—	—	—	—
Event Server: Archiving Service Commands	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Event Server: Client Service Commands	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Event Server: Configure Archiving Service Settings	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Event Server: Configure Client Service Settings	Deny	Deny	Allow	Allow	Allow	Allow	Allow
Parameter: Change Parameter	Deny	Allow	Allow	Allow	Allow	Allow	Allow
Parameter: Enable or Disable Expression	Deny	Allow	Allow	Allow	Allow	Allow	Allow
Parameter: Force Parameter Evaluation	Deny	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Abort	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Change Active Steps	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Change Mode	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Change Ownership	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Clear Failures	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Hold	Allow	Allow	Allow	Allow	Allow	Allow	Allow

Network and Devices	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Sequence: Initialize Parameters	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Pause and Resume	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Reset	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Restart	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Set ID	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Start	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Sequence: Stop	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Abort	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Clear Failures	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Hold	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Pause and Resume	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Reset	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Restart	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Start	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Step: Stop	Allow	Allow	Allow	Allow	Allow	Allow	Allow
Transition: Force Expression to Evaluate True	Allow	Allow	Allow	Allow	Allow	Allow	Allow

Users and Groups

Users and Groups	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Common	—	—	—	—	—	—	—
Configure Security	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Create Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Delete	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Execute	Deny	Deny	Deny	Deny	Deny	Allow	Allow
List Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Read	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Write	Deny	Deny	Deny	Deny	Deny	Allow	Allow

Connections

Connections	Operators	Operator Supervisor	Maintenance	Maintenance Supervisor	Manager	Engineer	Administrator
Common	—	—	—	—	—	—	—
Configure Security	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Create Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Delete	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Execute	Deny	Deny	Deny	Deny	Deny	Allow	Allow
List Children	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Read	Deny	Deny	Deny	Deny	Deny	Allow	Allow
Write	Deny	Deny	Deny	Deny	Deny	Allow	Allow

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

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Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.





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Rockwell Otomasyon Ticaret A.Ş. Kar Plaza İş Merkezi E Blok Kat:6 34752, İçerenköy, İstanbul, Tel: +90 (216) 5698400 EEE Yönetmeliğine Uygundur

Connect with us.    

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AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2663 0600

ASIA PACIFIC: Rockwell Automation SEA Pte Ltd, 2 Corporation Road, #04-05, Main Lobby, Corporation Place, Singapore 618494, Tel: (65) 6510 6608

UNITED KINGDOM: Rockwell Automation Ltd., Pitfield, Kiln Farm, Milton Keynes, MK11 3DR, United Kingdom, Tel: (44)(1908) 838-800

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