

# Rockwell Automation Library of Process Objects: 2-state Valve Statistics (P\_ValveStats)

Version 3.5

**IMPORTANT**

This manual applies to the Rockwell Automation Library of Process Objects version 3.5 or earlier.  
For Rockwell Automation Library of Process Objects version 5.0, see

- [PROCES-RM200](#)

For Rockwell Automation Library of Process Objects version 4.0 or later, use the following manuals:

- [PROCES-RM013](#) contains logic instructions
- [PROCES-RM014](#) contains display elements



## 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.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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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.

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### IMPORTANT

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

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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).

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**Notes:**

This manual contains new and updated information. Changes throughout this revision are marked by change bars, as shown to the right of this paragraph.

## Software Compatibility and Content Revision

**Table 1 - Summary of Changes**

Topic	Page
Changed software version from 3_1 to 3_5	9
Split visualization files table by type and reordered to align with installation requirements	9

For the latest compatible software information and to download the Rockwell Automation® Library of Process Objects, see the Product Compatibility and Download Center at <http://www.rockwellautomation.com/rockwellautomation/support/pcdc.page>.

For general library considerations, see Rockwell Automation Library of Process Objects, publication [PROCES-RM002](#).

## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
PlantPAx® Distributed Control System Selection Guide, publication <a href="#">PROCES-SG001</a>	Provides information to assist with equipment procurement for your PlantPAx system.
PlantPAx Distributed Control System Reference Manual, publication <a href="#">PROCES-RM001</a>	Provides characterized recommendations for implementing your PlantPAx system.
Rockwell Automation Library of Process Objects, publication <a href="#">PROCES-RM002</a>	Provides general considerations for the PlantPAx system library of process objects.
FactoryTalk® View Machine Edition User Manual, publication <a href="#">VIEWME-UM004</a>	Provides details on how to use this software package for creating an automation application.
FactoryTalk View Site Edition User Manual, publication <a href="#">VIEWSE-UM006</a>	Provides details on how to use this software package for developing and running human-machine interface (HMI) applications that can involve multiple users and servers, distributed over a network.
Logix5000™ Controllers Add-On Instructions Programming Manual, publication <a href="#">1756-PM010</a>	Provides information for designing, configuring, and programming Add-On Instructions.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

**Notes:**

## 2-state Valve Statistics (P\_ValveStats)

The P\_ValveStats (2-state Valve Statistics) Add-On Instruction monitors a 2-state (open and close) valve and records various statistics related to stroke times and stroke counts. The global object and faceplate shown below are examples of the graphical interface tools for this Add-On Instruction.

Add-On Instruction

P\_ValveStats  
2-State Valve Statistics

- Inp\_Closed
- Inp\_Opened
- Val\_CurrClosedT
- Val\_LastClosedT
- Val\_TotClosedT
- Val\_MaxClosedT
- Val\_CurrOpeningT
- Val\_LastOpeningT
- Val\_TotOpeningT
- Val\_MaxOpeningT
- Val\_MAvgOpeningT
- Val\_CurrOpenedT
- Val\_LastOpenedT
- Val\_TotOpenedT
- Val\_MaxOpenedT
- Val\_CurrClosingT
- Val\_LastClosingT
- Val\_TotClosingT
- Val\_MaxClosingT
- Val\_MAvgClosingT
- Val\_CpltOpenC
- Val\_CpltCloseC
- Val\_IncpltOpenC
- Val\_IncpltCloseC
- Val\_SlowOpenC
- Val\_SlowCloseC
- Sts\_SlowOpen
- Sts\_SlowClose
- Sts\_Err

Faceplate

P\_ValveStats - Valve Statistics (stroke times, counts)

Home - Operator

	<u>Completed</u>	<u>Failed to Complete</u>	<u>Moving Average (last 10)</u>
Close Strokes	31	3	6.02 secs
Open Strokes	25	3	17.70 secs


  

	<u>Count</u>	<u>Last Stroke</u>
Slow Close Strokes	8	OK
Slow Open Strokes	7	Slow
Stopped	0	

<u>State</u>	<u>Current Time in State</u>	<u>Last Time in State</u>	<u>Max Time in State</u>	<u>Total Time in State</u>
Closed	4532.75 secs	1.25 secs	387.53 hrs	1738.08 hrs
Closing		5.25 secs	3773.55 secs	1.35 hrs
Opened		27.76 secs	648.08 hrs	2982.07 hrs
Opening		37.50 secs	116.00 secs	0.12 hrs
Stopped		0.00 secs	0.00 hrs	0.00 hrs

Global Object



### Guidelines

Use this instruction in these situations:

- You want to maintain stroke time and stroke count data on a 2-state valve to aid in planning maintenance or diagnosing valve and actuator problems. The P\_ValveStats instruction is designed to work with the P\_ValveSO (solenoid operated valve), P\_ValveMO (motor operated valve), and P\_ValveHO (hand operated valve) instructions and can be used with the P\_ValveMP (mix proof valve) instruction as well.
- You want an indication when a valve takes longer to stroke than a configured threshold time.
- The valve is not an 'intelligent' valve that maintains its own valve stroke time and count data.
- You do not have more specialized valve monitoring software that provides functionality above and beyond what the P\_ValveStats instruction provides.

Do **not** use this instruction in these situations:

- You have a continuously variable valve (control valve, throttling valve). The P\_ValveStats instruction works only with valves that have full open and full close actions. The P\_ValveStats instruction is not suitable for use with the P\_AOut (Analog Output) or P\_ValveC (Control Valve) instructions.
- You have an intelligent valve or valve monitoring and maintenance software that provides the same or more functionality than the P\_ValveStats instruction. The valve or software provides more data than the P\_ValveStats instruction, including specialized algorithms that predict impending valve failure or schedule maintenance.

## Functional Description

This instruction monitors a 2-state valve and provides the following statistics:

- Amount of time in the current state (closed, opening, opened, closing, stopped/other)
- Amount of time the valve was in each state the last time it was in that state (closed, opening, opened, closing, stopped/other)
- Maximum amount of time spent in each state (closed, opening, opened, closing, and stopped/other); these are the highest values achieved by the previous statistics
- Total amount of time spent in each state (closed, opening, opened, closing, stopped/other)
- Moving average of the last 10 closing (close stroke) times
- Moving average of the last 10 opening (open stroke) times
- Number of completed open strokes (from closed to opened)
- Number of completed close strokes (from opened to closed)
- Number of incomplete open strokes (from closed to opening and back to closed)
- Number of incomplete close strokes (from opened to closing and back to opened)
- Number of times the valve was in the stopped/other state
- Number of 'slow' open strokes; this is the number of open strokes that took longer than the configured Slow Open Time
- Number of 'slow' close strokes; this is the number of close strokes that took longer than the configured Slow Close Time



## Required Files

Add-On Instructions are reusable code objects that contain encapsulated logic that can streamline implementing your system. This lets you create your own instruction set for programming logic as a supplement to the instruction set provided natively in the ControlLogix® firmware. An Add-On Instruction is defined once in each controller project, and can be instantiated multiple times in your application code as needed.

## Controller File

The P\_ValveStats\_3\_5-00\_AOIL5X Add-On Instruction must be imported into the controller project to be used in the controller configuration. The service release number (boldfaced) can change as service revisions are created.

## Visualization Files

This Add-On Instruction has associated visualization files that provide a common user interface. These files can be downloaded from the Product Compatibility and Download Center at <http://www.rockwellautomation.com/rockwellautomation/support/pcdc.page>.

**IMPORTANT** The visualization file dependencies require Process Library content imports to occur in a specific order as reflected in the following tables:

- Images
- Global Objects
- Standard Displays
- HMI Tags
- Macros

Images are external graphic files that can be used in displays. They must be imported for FactoryTalk View to make use of them.

When PNG files are imported, they are renamed by FactoryTalk View with a .bmp file extension, but retain a .png format.

**Table 2 - Visualization Files: Images (.png)**

FactoryTalk View SE Software	FactoryTalk View ME Software	Description
All .png files in the images folder	All .png files in the images folder	These are the common icons used in the global objects and standard displays for all Process Objects.

The Global Object files (.ggfx file type) in the following table are Process Library display elements 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.

**Table 3 - Visualization Files: Global Objects (.ggfx)**

FactoryTalk View SE Software	FactoryTalk View ME Software	Description
(RA-BAS) Common Faceplate Objects	(RA-BAS-ME) Common Faceplate Objects	Global objects used on process object faceplates.
(RA-BAS) Process Faceplate Valve Objects	(RA-BAS-ME) Process Faceplate Valve Objects	Valve global objects used on process object faceplates

**Table 3 - Visualization Files: Global Objects (.ggfx)**

FactoryTalk View SE Software	FactoryTalk View ME Software	Description
(RA-BAS) Process Graphics Library	(RA-BAS-ME) Process Graphics Library	Process global object device symbols used to build process graphics

The Standard Display files (.gfx file type) in the following table are the Process Library displays that you see at runtime.

**Table 4 - Visualization Files: Standard Displays (.gfx)**

FactoryTalk View SE Software	FactoryTalk View ME Software	Description
(RA-BAS) Common-AnalogEdit	N/A	Faceplate used for analog input data entry. The FactoryTalk View ME faceplates use the native analog input data entry so no file is required.
(RA-BAS) P_ValveStats-Faceplate	(RA-BAS-ME) P_ValveStats-Faceplate	The faceplate that is used for the object

HMI Tags are created in a FactoryTalk View ME application to support tab switching on Process Library faceplates. The HMI tags may be imported via the comma-separated values file (.csv file type) in the following table.

**Table 5 - Visualization Files: HMI Tags (.csv)**

FactoryTalk View SE Software	FactoryTalk View ME Software	Description
N/A	FTVME_PlantPaxLib_Tags_3_5_XX.csv where XX = the service release number.	These tags must be imported into the FactoryTalk View ME project to support switching tabs on any Process Object faceplate.

## Controller Code

This section describes the parameter references for this Add-On Instruction.

### 2-state Valve Statistics Input Structure

Input parameters include the following:

- Input data elements (Inp\_) are typically used to connect field inputs from I/O modules or signals from other objects.
- Configuration data elements (Cfg\_) are used to set configurable capabilities and features of the instruction.
- Command data elements (PCmd\_, OCmd\_, MCmd\_) are used by program logic, operators, and maintenance personnel to request instruction actions.

**Table 7 - P\_ValveStats Input Parameters**

Input Parameter	Data Type	Default	Description
EnableIn	BOOL	1	<p><b>Ladder Diagram:</b> If the rung-in condition is true, the instruction's Logic routine executes. If the rung-in condition is false, the instruction's EnableInFalse routine executes.</p> <p><b>Function Block Diagram:</b> If true, or not connected, the instruction's Logic routine executes. If the parameter is exposed as a pin and wired, and the pin is false, the instruction's EnableInFalse routine executes.</p> <p><b>Structured Text:</b> No effect. The instruction's Logic routine executes.</p>
Inp_Closed	BOOL	0	1 = Valve is confirmed closed (from valve instruction).
Inp_Opened	BOOL	0	1 = Valve is confirmed opened (from valve instruction).
Inp_StopOther	BOOL	0	1 = Valve is confirmed stopped/other (from valve instruction).
Cfg_HasStopOther	BOOL	0	1 = Valve provides a stopped or other state(s) to be monitored.
Cfg_PCcmdClear	BOOL	1	<p>When this parameter is 1, program commands are cleared once they are acted upon. When set to 0, program commands remain set until cleared by the application program logic.</p> <p><b>IMPORTANT:</b> Clearing this parameter online can cause unintended program command execution.</p>
Cfg_SlowOpenT	REAL	10.0	Maximum time opening (seconds) before raising Sts_SlowOpen.
Cfg_SlowCloseT	REAL	10.0	Maximum time closing (seconds) before raising Sts_SlowClose.
PCmd_ClearTotTimes	BOOL	0	<p>When Cfg_PCcmdClear is 1:</p> <ul style="list-style-type: none"> <li>• Set PCmd_ClearTotTimes to 1 to clear total time statistics</li> <li>• Set PCmd_ClearMaxTimes to 1 to clear maximum time statistics</li> <li>• Set PCmd_ClearStrokeCounts to 1 to clear stroke count statistics</li> <li>• Set PCmd_ClearSlowCounts to 1 to clear valve slow count statistics</li> <li>• Set PCmd_ClearMAvgs to 1 to clear moving average stroke times</li> <li>• These parameters reset automatically</li> </ul> <p>When Cfg_PCcmdClear is 0:</p> <ul style="list-style-type: none"> <li>• Set PCmd_ClearTotTimes to 1 to clear total time statistics</li> <li>• Set PCmd_ClearMaxTimes to 1 to clear maximum time statistics</li> <li>• Set PCmd_ClearStrokeCounts to 1 to clear stroke count statistics</li> <li>• Set PCmd_ClearSlowCounts to 1 to clear valve slow count statistics</li> <li>• PSet Cmd_ClearMAvgs to 1 to clear moving average stroke times</li> <li>• These parameters do not reset automatically</li> </ul>
PCmd_ClearMaxTimes			
PCmd_ClearStrokeCounts			
PCmd_ClearSlowCounts			
PCmd_ClearMAvgs			
MCmd_ClearTotTimes	BOOL	0	Maintenance command to clear total time statistics.
MCmd_ClearMaxTimes	BOOL	0	Maintenance command to clear maximum time statistics.
MCmd_ClearStrokeCounts	BOOL	0	Maintenance command to clear stroke count statistics.
MCmd_ClearSlowCounts	BOOL	0	Maintenance command to clear valve slow count statistics.
MCmd_ClearMAvgs	BOOL	0	Maintenance command to clear moving average stroke times.

## 2-state Valve Statistics Output Structure

Output parameters include the following:

- Value data elements (Val\_) are numeric outputs of the instruction for use by the HMI. Values also can be used by other application logic or software packages.
- Status data elements (Sts\_) are bit outputs of the instruction for use by the HMI. Status bits also can be used by other application logic.

**Table 8 - P\_ValveStats Output Parameters**

Output Parameter	Data Type	Description
EnableOut	BOOL	Enable output: The EnableOut signal is not manipulated by this instruction. Its output state always reflects EnableIn input state.
Val_CurrClosedT	REAL	Current time in closed state (seconds).
Val_LastClosedT	REAL	Time in closed state (seconds) last time valve was closed.
Val_TotClosedT	REAL	Accumulated time in closed state (hours).
Val_MaxClosedT	REAL	Maximum time in closed state (hours) of any occurrence.
Val_CurrOpeningT	REAL	Current time in opening state (seconds).
Val_LastOpeningT	REAL	Time in opening state (seconds) last time valve was opening.
Val_TotOpeningT	REAL	Accumulated time in opening state (hours).
Val_MaxOpeningT	REAL	Maximum time in opening state (seconds) of any occurrence.
Val_MAvOpeningT	REAL	Moving average open stroke time, last 10 complete open strokes (seconds).
Val_CurrOpenedT	REAL	Current time in opened state (seconds).
Val_LastOpenedT	REAL	Time in opened state (seconds) last time valve was opened.
Val_TotOpenedT	REAL	Accumulated time in opened state (hours).
Val_MaxOpenedT	REAL	Maximum time in opened state (hours) of any occurrence.
Val_CurrClosingT	REAL	Current time in closing state (seconds).
Val_LastClosingT	REAL	Time in closing state (seconds) last time valve was closing.
Val_TotClosingT	REAL	Accumulated time in closing state (hours).
Val_MaxClosingT	REAL	Maximum time in closing state (seconds) of any occurrence.
Val_MAvClosingT	REAL	Moving average close stroke time, last 10 complete close strokes (seconds).
Val_CurrStopOtherT	REAL	Current time in stopped/other state (seconds).
Val_LastStopOtherT	REAL	Time in stopped/other state (seconds) last time valve was stopped (or other).
Val_TotStopOtherT	REAL	Accumulated time in stopped/other state (hours).
Val_MaxStopOtherT	REAL	Maximum time in stopped/other state (hours) of any occurrence.
Val_CpltOpenC	DINT	Count of complete valve open strokes (closed to opened).
Val_CpltCloseC	DINT	Count of complete valve close strokes (opened to closed).
Val_IncptOpenC	DINT	Count of incomplete valve open strokes (closed, moving, closed).
Val_IncptCloseC	DINT	Count of incomplete valve close strokes (opened, moving, opened).
Val_StopOtherC	DINT	Count of valve stopped/other occurrences.
Val_SlowOpenC	DINT	Count of valve slow to open occurrences.
Val_SlowCloseC	DINT	Count of valve slow to close occurrences.
Sts_SlowOpen	BOOL	1 = Last closed to opened stroke exceeded configured time threshold.

**Table 8 - P\_ValveStats Output Parameters**

Output Parameter	Data Type	Description
Sts_SlowClose	BOOL	1 = Last opened to closed stroke exceeded configured time threshold.
Sts_Err	BOOL	1 = Configuration error: invalid slow open time or slow close time.
P_ValveStats	BOOL	Unique parameter name for auto-discovery.

## 2-state Valve Statistics Local Configuration Tags

Configuration parameters that are array, string, or structure data types cannot be configured as parameters for Add-On Instructions. Configuration parameters of these types appear as local tags to the Add-On Instruction. Local tags can be configured through the HMI faceplates or in Studio 5000 Logix Designer® application by opening the Instruction Logic of the Add-On Instruction instance and then opening the Data Monitor on a local tag. These parameters cannot be modified by using controller logic or Logix Designer application export/import functionality.

**Table 9 - Local Configuration Tags**

Tag Name	Data Type	Default	Description
Cfg_Desc	STRING_40	'Valve Statistics' (stroke times, counts)	Description for display on HMI. This string is shown in the title bar of the faceplate.
Cfg_Label	STRING_20	'Valve Statistics'	Label for graphic symbol displayed on HMI. This string appears on the graphic symbol.
Cfg_StopOtherDesc	STRING_20	''	Name for the stopped or other state for display on HMI.
Cfg_Tag	STRING_20	'P_ValveStats'	Tagname for display on HMI. This string is shown in the title bar of the faceplate.

## Operations

This section describes the primary operations for this Add-On Instruction.

### Modes

The P\_ValveStats Add-On Instruction has no modes and does not use the P\_Mode Add-On Instruction. Commands to reset certain statistics are provided with security, but are accepted at any time and do not depend on modes.

### Alarms

The P\_ValveStats instruction does not provide any alarms and does not have any embedded P\_Alarm Add-On Instructions. Slow Open and Slow Close Status bits are provided if you want to alarm on every slow open stroke or slow close stroke. External P\_Alarm instances can be tied to these status outputs.

## Simulation

The 2-state Valve Statistics Add-On Instruction does not have a Simulation capability.

It monitors the associated valve regardless of whether that valve is live or simulated.

## Execution

The following table explains the handling of instruction execution conditions.

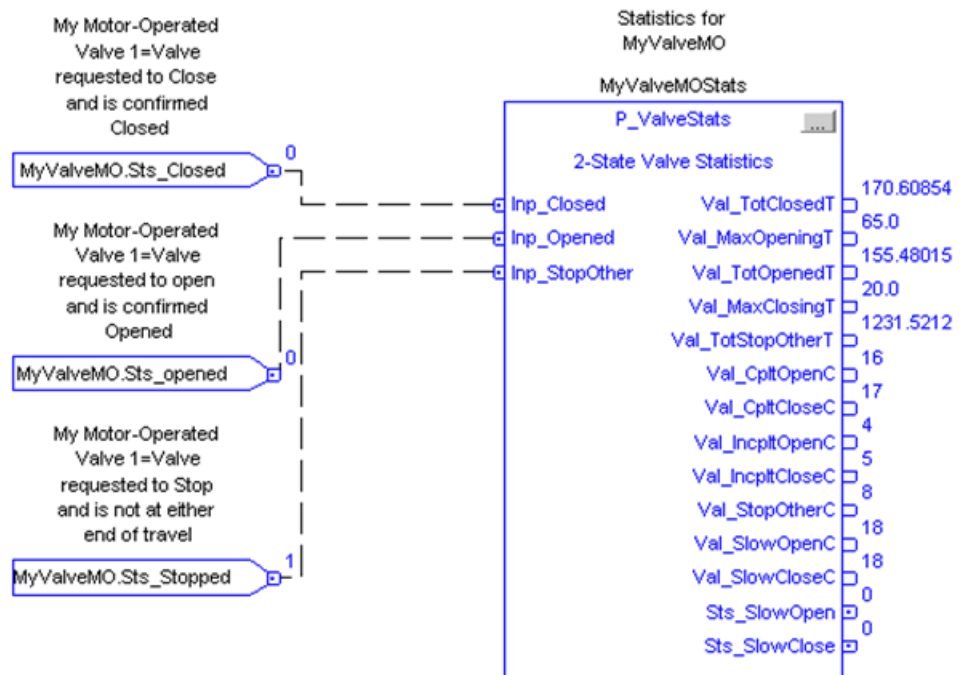
Condition	Description
EnableIn False (false rung)	Total times, total valve stroke counts, and slow stroke counts are maintained. Current position times are cleared. The internal instruction state for the valve is set to 'unknown'.
Powerup (prescan, first scan)	Total times, total valve stroke counts, and slow stroke counts are maintained. Current position times are cleared. The internal instruction state for the valve is set to 'unknown'. Any commands received while the controller was in Program mode are cleared.
Postscan	No SFC Postscan logic is provided.

Refer to the Logix5000 Controllers Add-On Instructions Programming Manual, publication [1756-PM010](#), for more information.

## Programming Example

This section shows how the P\_ValveStats instruction can collect statistics on a motor-operated valve. In this example, the motor-operated valve is controlled by using the P\_ValveMO instruction. By naming the P\_ValveStats instance tag the same as the P\_ValveMO tag plus 'ValveStats', it is automatically linked at the HMI to the valve instance.

In this example, the motor-operated valve is either opened, closed, or the motor could stop moving while in travel before reaching either position. Statistics for all of these three states can be tracked by using the P\_ValveStats instruction.



In this example, the parameters Inp\_Closed, Inp\_Opened, and Inp\_StopOther are connected to the parameters Sts\_Closed, Sts\_Opened, and Sts\_Stopped of the P\_ValveMO instruction.

The P\_ValveStats instruction keeps track of completed strokes, plus open and close strokes that are slower than expected. The parameters Cfg\_SlowOpenT and Cfg\_SlowCloseT are set to 10, to indicate that any transition longer than 10 seconds is considered slow. The parameter Cfg\_PCcmdClear is set to 1, so any program commands provided to the instruction are cleared once acted upon.

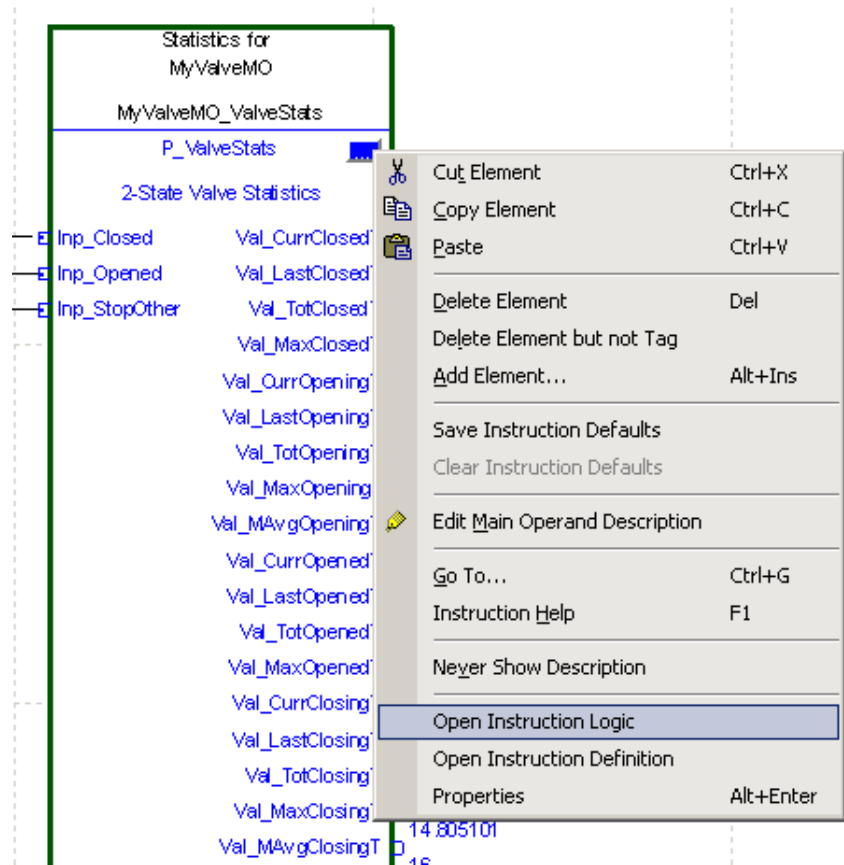
The following local configuration tags are configured to drive the text on the HMI faceplate:

```

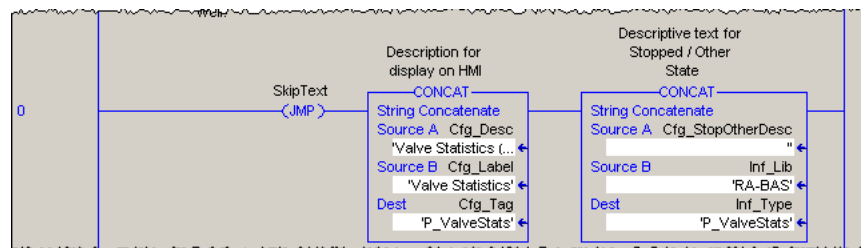
Cfg_Tag:           'MyValveMO_Stats'
Cfg_Label:         'MyValveMO Stats'
Cfg_Desc:          'MyValveMO Statistics'
Cfg_StopOtherDesc: 'Stopped'

```

Local tags can be configured through the HMI faceplates or in the Logix Designer application by opening the Instruction Logic of the Add-On Instruction instance and then selecting the string on the displayed rung.



All of the strings in local tags are shown on the first rung of the Add-On Instruction's 'Logic' routine for your convenience.




To access the valve statistics from the faceplate for the valve, you must configure MyValveMO. Set the Cfg\_HasStatsObj parameter to 1. There is no need to set a global object parameter, but the P\_ValveStats backing tag must be named the same as the Valve tag plus '\_ValveStats'.



## Display Elements

A display element (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 global objects, in conjunction with tag structures in the ControlLogix system, aid consistency and save engineering time.

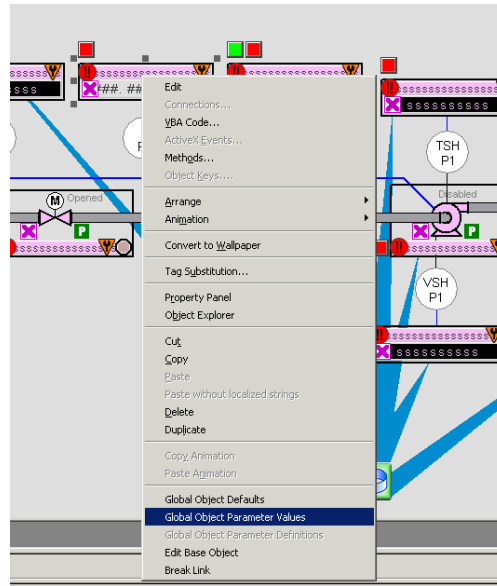
**Table 10 - P\_ValveStats Display Elements Description**

Display Element Name	Display Element	Description
GO_P_ValveStats		This GO_P_ValveStats object can be added to application graphics to access valve statistics. A similar object is already included on faceplates for 2-state valves to provide access to valve statistics.

## Using Display Elements

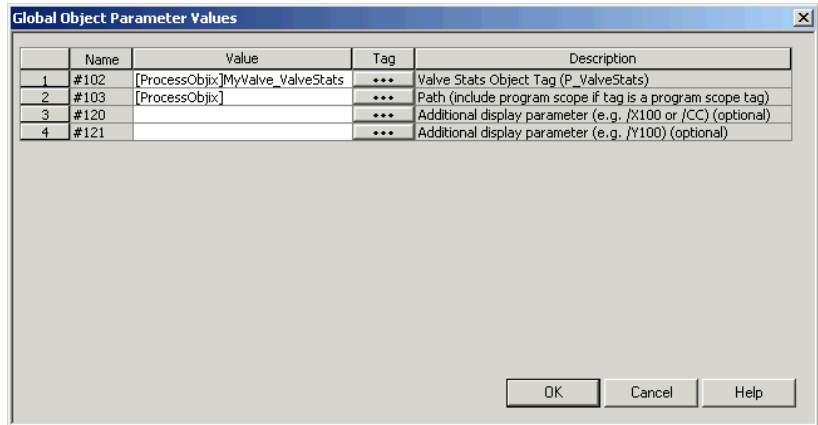
The global objects for the P\_ValveStats instruction can be found in the global object file (RA-BAS) P\_AIn Graphics Library.ggfx. Follow these steps to use a global object.

1. Copy it from the global object file and paste it in the display file.



2. In the display, right-click the global object and choose Global Object Parameter Values.

The Global Object Parameter Values dialog box appears.



The global object parameters are as follows.

Parameter	Required	Description
#102	Y	Object tag must point to the tag of the associated Add-On Instruction in the controller.
103	Y	Path used for display navigation features to other objects. Include program scope if tag is a program scope tag.
120	N	Additional parameter to pass to the display command to open the faceplate. Typically used to define position for the faceplate.
121	N	Additional parameter to pass to the display command to open the faceplate. if defining X and Y coordinate, separate parameters so that X is defined by #120 and Y is defined by #121. This lets the same parameters be used in subsequent display commands originating from the faceplate.

3. Type the tag or value in the Value column as specified in the Description column.

**TIP** You can click the ellipsis (...) to browse and select a tag.  
 Values for items marked '(optional)' can be left blank.

4. Click OK.

## Faceplate

The P\_ValveStats instruction faceplate consists of two tabs and each tab consists of one or more pages.

Each faceplate contains the value of local configuration tags Cfg\_Tag and Cfg\_Desc in the title bar.

### Tag - Description

The Operator tab appears when the faceplate is initially accessed. There is also an Engineering tab for configuring the instruction.



## Operator Tab

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

The Operator tab shows the following information:


- Completion information and moving average for close and open strokes.
- Count and last stroke information for slow close and slow open strokes.
- Current, last, maximum, and total time in different states.

P\_ValveStats - Valve Statistics (stroke times, counts)

Home - Operator				
	<u>Completed</u>	<u>Failed to Complete</u>	<u>Moving Average (last 10)</u>	
Close Strokes	31	3	6.02 secs	
Open Strokes	25	3	17.70 secs	
	<u>Count</u>	<u>Last Stroke</u>		
Slow Close Strokes	8	OK		
Slow Open Strokes	7	Slow		
Stopped	0			
<u>State</u>	<u>Current Time in State</u>	<u>Last Time in State</u>	<u>Max Time in State</u>	<u>Total Time in State</u>
Closed	4532.75 secs	1.25 secs	387.53 hrs	1738.08 hrs
Closing		5.25 secs	3773.55 secs	1.35 hrs
Opened		27.76 secs	648.08 hrs	2982.07 hrs
Opening		37.50 secs	116.00 secs	0.12 hrs
Stopped		0.00 secs	0.00 hrs	0.00 hrs

The following table shows the functions included on the Operator tab.

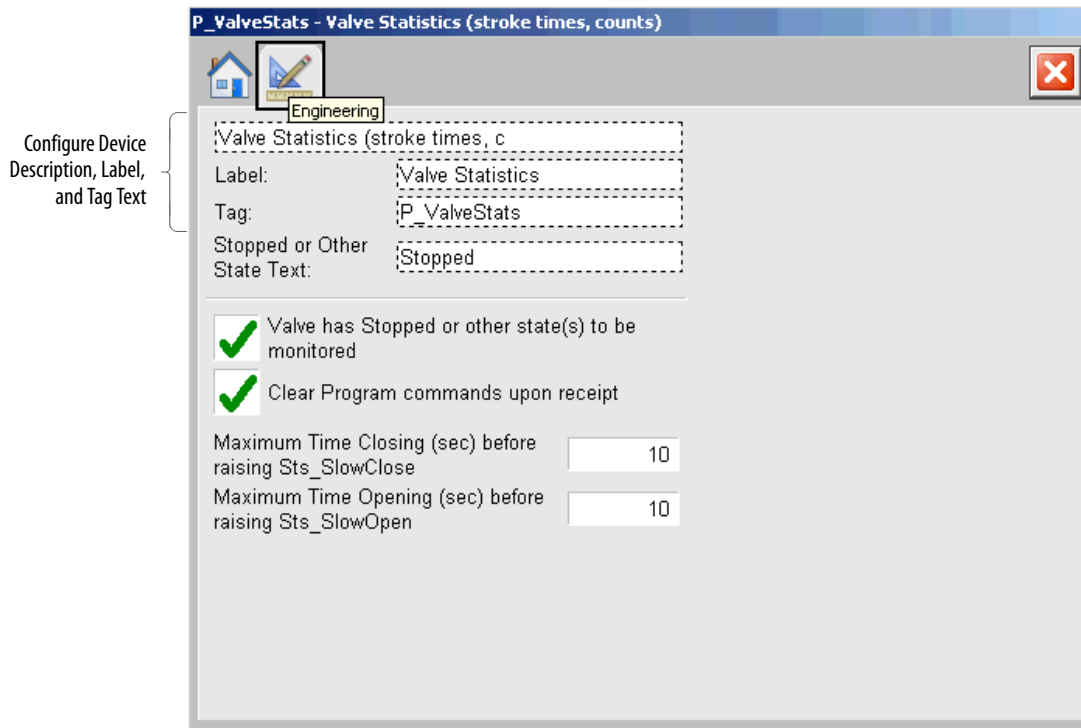
**Table 11 - Operator Tab Description**

Function	Action	Security
	Click to reset an accumulated time or count.	Configuration and Tuning Maintenance (Code D)

## Engineering Tab

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

### Engineering Tab



The following table lists the functions on the Engineering tab.

**Table 12 - Engineering Tab Description**

Function	Action	Security	Configuration Parameters
Description	Type the device description to show on the Faceplate title bar.	Engineering Configuration (Code E)	Cfg_Desc
Label	Type the label to show on the Graphic Symbol.		Cfg_Label
Tag	Type the tag name to show on the Faceplate and Tooltip. <b>IMPORTANT:</b> Pausing the mouse over this field displays a tool tip with the configured Logix tag/path.		Cfg_Tag
Stopped or Other State Text	Type a name for the Stopped or other state of the valve.		Cfg_StopOtherDesc
Valve has Stopped or other state(s) to be monitored	Check when a valve has stopped or other state to monitor.		Cfg_HasStopOther
Clear Program Commands on receipt	Check to clear program commands on receipt. Clear the checkbox to leave program commands set.		Cfg_PCmdClear
Maximum Time Closing (seconds) before raising Sts_SlowClose	Type the number of seconds to give the valve to close before counting a slow close stroke.		Cfg_SlowCloseT
Maximum Time Opening (seconds) before raising Sts_SlowOpen	Type the number of seconds to give the valve to open before counting a slow open stroke.		Cfg_SlowOpenT

**Notes:**



## Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products.

At <http://www.rockwellautomation.com/support> you can find technical and application notes, sample code, and links to software service packs. You can also visit our Support Center at <https://rockwellautomation.custhelp.com/> for software updates, support chats and forums, technical information, FAQs, and to sign up for product notification updates.

In addition, we offer multiple support programs for installation, configuration, and troubleshooting. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://www.rockwellautomation.com/services/online-phone>.

## Installation Assistance

If you experience a problem within the first 24 hours of installation, review the information that is contained in this manual. You can contact Customer Support for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the <a href="#">Worldwide Locator</a> at <a href="http://www.rockwellautomation.com/rockwellautomation/support/overview.page">http://www.rockwellautomation.com/rockwellautomation/support/overview.page</a> , or contact your local Rockwell Automation representative.

## New Product Satisfaction Return

Rockwell Automation tests all of its products to help ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned, follow these procedures.

United States	Contact your distributor. You must provide a Customer Support case number (call the phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for the return procedure.

## Documentation Feedback

Your comments will help us serve your documentation needs better. If you have any suggestions on how to improve this document, complete this form, publication [RA-DU002](#), available at <http://www.rockwellautomation.com/literature/>.

Rockwell Automation maintains current product environmental information on its website at <http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>.

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