

# Rockwell Automation Library of Process Objects Add-On Instructions and Graphics

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*Release Notes*

*Version 3.5-08*

*Updated October 13, 2017*

**Rockwell**  
**Automation**

**PlantPAx**  
Process Automation System

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This document provides the Release Notes for the RSLogix 5000 Add-On Instructions and FactoryTalk View Objects that make up the Rockwell Automation Library of Process Objects. This version of the Release Notes document (dated January 29, 2016) is for Version 3.5-08 of the Library.

## Revision 3.5-01 (January 29, 2016)

Revision 3.5-01 is a major release and as such, it includes changes to logic and HMI files and documentation.

### Summary of Changes

Here is a summary of the changes to the Library going from Version 3.1-04 to Version 3.5-01. (Because Version 3.1-05 and Version 3.5-01 are being released at about the same time, this release notes document should be considered a “delta” from Version 3.1-04 Patch01.

For Version 3.5-01, ALL instructions in the Library of Process Objects, the Premier Integration Objects, the Logix Diagnostics objects and the Steam Table objects are marked Revision 3.5-01 Release, even if they have not changed since the previous release. (This is noted in the revision history of each Add-On Instruction.)

#### 1. New Instructions

The following new-for-3.5 instructions, and their graphic symbols and faceplates, are added:

Library of Process Objects:

- P\_DBC: Deadband Controller
- P\_LLS: Lead/Lag/Standby Motor Group

Library of Premier Integration Objects:

Endress+Hauser EtherNet/IP Instruments

- I\_EH\_Sensor: Endress+Hauser Memosens™ Sensor on Liquiline CM44x via EtherNet/IP
- I\_EH\_Flowmeter: Endress+Hauser Flowmeter common (list follows) via EtherNet/IP

Add-On Instruction “adapters” for supported E+H Flowmeters (no graphics)

- I\_EH\_Promag53\_FW1: Promag 53 Magnetic Flowmeter, Firmware 1.x
- I\_EH\_Promag100\_FW2: Promag 100 Magnetic Flowmeter, Firmware 2.x
- I\_EH\_Promag400\_FW3: Promag 400 Magnetic Flowmeter, Firmware 3.x
- I\_EH\_Promass83\_FW2: Promass 83 Mass Flowmeter, Firmware 2.x
- I\_EH\_Promass100\_FW3: Promass 100 Mass Flowmeter, Firmware 3.x

Each of the above Add-On Instructions provides a “MeterData” structure for use with the new I\_EH\_Flowmeter instruction. The I\_EH\_Flowmeter instruction provides the alarming and faceplate functions for all the above meters.

To use the above instructions with earlier versions of instrument firmware:

- The I\_EH\_Promag400\_FW3 instruction can also be used, unmodified, with instrument firmware 2.x – the Promag 400 2.x uses the same data structures as 3.x.
- The I\_EH\_Promag100, I\_EH\_Promag400 and I\_EH\_Promass100 instructions can be used with previous firmware by following this procedure:
  - In the controller organizer, **copy** the Add-On Instruction for the instrument with newer firmware (e.g., I\_EH\_Promass100\_FW3).
  - **Paste** the Add-On Instruction definition.
  - **Rename** the pasted Add-On Instruction for the older firmware (e.g., “I\_EH\_Promass100\_FW1”)
  - **Open** the new Add-On Instruction definition and go to the Parameters tab.
  - **Modify** the data type of the Ref\_Inp or Ref\_Cfg parameter to match the data provided by the older firmware. Click OK.
  - **Verify** the new Add-On Instruction.
- NOTE: The I\_EH\_Promass83\_FW2 instruction **cannot** be modified to support firmware version 1.x. The earlier instrument firmware does not support required configuration data.

#### HART Analog I/O Objects

- P\_AInHART: HART Analog Input
- P\_AOutHART: HART Analog Output

#### Add-On Instruction “adapters” for supported HART I/O Modules (no graphics)

- I\_1734scIE2CH: Spectrum Controls POINT I/O 2-channel HART Analog Input Module
- I\_1734scIE4CH: Spectrum Controls POINT I/O 4-channel HART Analog Input Module
- I\_1734scOE2CIH: Spectrum Controls POINT I/O 4-channel HART Analog Output Module (isolated)
- I\_1756IF8H: Allen-Bradley ControlLogix I/O 8-channel HART Analog Input Module
- I\_1756IF8IH: Allen-Bradley ControlLogix I/O 8-channel HART Analog Input Module (isolated)
- I\_1756IF16H: Allen-Bradley ControlLogix I/O 16-channel HART Analog Input Module
- I\_1756OF8H: Allen-Bradley ControlLogix I/O 8-channel HART Analog Output Module
- I\_1756OF8IH: Allen-Bradley ControlLogix I/O 8-channel HART Analog Output Module (isolated)
- I\_1769scIF4IH: Spectrum Controls Compact I/O 4-channel HART Analog Input Module (isolated)
- I\_1769scOF4IH: Spectrum Controls Compact I/O 4-channel HART Analog Output Module (isolated)
- I\_1794IF8IH: Allen-Bradley FLEX I/O 8-channel HART Analog Input Module (isolated)
- I\_1794OF8IH: Allen-Bradley FLEX I/O 8-channel HART Analog Output Module (isolated)

Each of the above HART Module Add-On Instructions provides a “ChanData” array structure for use with the new P\_AInHART and P\_AOutHART instructions. Each P\_AInHART or P\_AOutHART instruction instance provides the alarming and faceplate functions for one channel on any of the above Modules.

Each HART Module Add-On Instruction is provided with a RUNG import file, providing the instruction instance with its MSG configuration, plus a rung for the module status. Use the appropriate fields in the rung import dialog to replace tags in the import with final tag names for your application.

The HART I/O instructions above replace the previous HART module, channel and input instructions. The new instructions use a new interface between Module and Input / Output instructions, and so there is not a direct migration for the controller logic. It is recommended that the previous instructions be deleted and the new instructions used in their place. The new instructions have been tested in a variety of scan configurations --- see the Premier Integration Samples application (.ACD) for typical usage. The Module instructions do not need to be in same Task as the Input and Output instructions – in fact, they can be in a slower task, only impacting the digital variable performance. Analog variable linkage is direct to/from the I/O card for best analog I/O performance.

The P\_AInHART instruction uses the common Analog Input graphic symbols, and with the Inf\_Type local tag set to “P\_AInHART” in each AOI instance, the appropriate faceplate is automatically called up. Thus minimal graphic changes should be required when upgrading to the new HART instructions.

**IMPORTANT:** The P\_AInHART and P\_AOutHART instructions check the HART digital variable status returned from each device for good (11xx\_xxxx), substitutes (10xx\_xxxx), uncertain (01xx\_xxxx) or bad (00xx\_xxxx) status, for each PV, SV, TV and FV. Not all instruments return a value for the digital variable status – some simply return zero. These instruments will show a “bad” digital PV, SV, TV and FV (red circle X icon), even when the digital variables are being received OK. These indications can be ignored – if the variable is changing, it is being received.

## 2. Support for HMI Localization

The Library of Process objects now includes support for multiple languages. Global Object and Display files have been enhanced to allow space for languages other than English. For this effort, many objects have been repositioned and/or renamed. Also, many objects that were formally multistate indicators but had only one visible state were changed to a text display with a rectangle background.

Translation files are included in this release for the following languages:

- French
- Portuguese
- Spanish
- Chinese
- Korean

Translation files have been supplied in both a Microsoft Excel spreadsheet file (one file for all languages) and text files (each language in a separate text file). **Important Note:** To import these files into your project, the files must be modified to update the Application Name and Server Name to match your



project. Search for the string “/PlantPAxLibrary3:PlantPAxLibrary3”. In the Excel file, column one must be modified (every row). In the text file, the seventh row must be modified.

Global objects for changing languages can be found in the file “(RA-FRAME) Standard Objects.ggfx”.

Not all text will change with the language switch. The follow text will not change:

- Any strings stored in the Controller, including Descriptions, labels, tags, and units.
- Text on some of the Diagnostic tabs. These will be translated in the next major library release.

### 3. Help Display Consolidation

Help displays have been consolidated single displays for a family of similar objects. For example, all motors and drives share a single help display file. This was done to lower the display count for customers using the library. The following table contains a list of the help of the objects and their help displays. With the exception of the Built-In Help Display, the Help Displays use the tag Inf\_Type to determine what information to display.

Object	Help Displays
L_CPU L_Redun	(RA-BAS) Logix Family-Help.gfx
Logix	(RA-BAS) Logix-Help.gfx
Built-In Autotune Built-In CC Autotune Built-In IMC Autotune Built-In MMC Autotune Built-In CC Built-In IMC Built-In MMC Built-In PIDE Built-In RMPS Built-In Totalizer	(RA-BAS) Built-In Family-Help.gfx
P_AIChan	(RA-BAS) P_AIChan-Help
P_AlnAdv P_AlnDual P_Aln P_AlnMulti	(RA-BAS) Process AnalogIn Family-Help
P_AOut P_ValveC P_Fanout P_HiLoSel	(RA-BAS) Process Analog Family-Help
P_D4SD P_DOut	(RA-BAS) Process Discrete Family-Help

P_nPos P_DIn	
P_DoseFM P_DoseWS	<b>(RA-BAS) Process Dose Family-Help</b>
P_E1PlusE P_E300Ovld P_E3Ovld	<b>(RA-BAS) Process Ovld Family-Help</b>
P_Logic	<b>(RA-BAS) P_Logic-Help</b>
P_Motor2Spd P_Motor P_MotorRev P_MotorHO P_SMC50 P_SMCFlex P_VSD	<b>(RA-BAS) Process Motor Family-Help</b>
P_PIDE	<b>(RA-BAS) Process PID Family-Help</b>
P_ValveMO P_ValveMP P_ValveSO P_ValveHO	<b>(RA-BAS) Process Valve Family-Help</b>
P_Intlk P_Perm	<b>(RA-BAS) Process Interlock Family-Help</b>
P_Mode	<b>(RA-BAS) P_Mode-Help</b>
P_Alarm	<b>(RA-BAS) P_Alarm-Help</b>

#### 4. PNG Image Conversion

.PNG (Portable Network Graphics file format) Images have been created for the following Objects:

- P\_Logic Gate Symbols
- Interlock and Permissive Input States (OK, OK-Bypassed, Not OK, Not OK-Bypassed)
- SAMA Diagram Symbols

#### 5. Diagnostics Global Object File

A Global Object file was created for Diagnostics objects. Currently, this file contains all of the Process Library “Not Ready” conditions.

#### 6. Simulation Shown on the Global Object Display Symbols

The Global Object display symbols have been modified so the simulation state is shown on the object.

#### 7. Online Configuration Tool Sheets Updated

The Online Configuration Tool spreadsheet was updated to include the new P\_DBC and P\_LLS instructions, plus a new tab for configuring the P\_LLS\_Motors interface array used with P\_LLS.

In addition, a new Online Configuration Tool file was provided for the Premier Integration instructions for HART and Endress+Hauser EtherNet/IP instruments. In addition to configuration tabs for the Add-On Instruction instances, tabs were added for the Engineering Units lookup tables and Diagnostics lookup tables for nearly all Endress+Hauser HART and EtherNet/IP instruments. These tags are also populated in the various Samples and Templates ACD files. Simply COPY the tags from the appropriate Template file into your ACD file for the lookup tables you need. A lookup table is also provided for Neles Metso ND7000-series and ND9000-series valve positioners.

## Anomalies

The following anomalies prior to Version 3.1-05 of the Library were resolved in Version 3.1-05 and in this release.

### 1. Analog Inputs: Val\_Fault when Input SrcQ Shows Bad Quality

The Analog Input Add-On Instructions were updated to properly feed Bad Quality from Input SrcQ pins to Val\_Fault.

### 2. P\_Gate On-Delay and Off-Delay

The P\_Gate instruction and the associated Analog Input instructions were modified so the On-Delay and Off-Delay functions work properly with analog threshold values that have a deadband. Previously, Analog Input instructions would provide a threshold alarm (high, high-high, low or low-low) when the input momentarily crossed the threshold then fell back into the deadband. Now the input must be outside the alarm threshold for the entire on-delay time.

### 3. Analog Min/Max Capture Initial Values

For the following instructions, the default (initial) values of the PV Minimum Capture Value and PV Maximum Capture Value in the Add-On Instruction definition were corrected:

- P\_Ain
- P\_AInAdv
- P\_AInMulti

### 4. SrcQ Value Generation

Logic in the following instructions was corrected to provide correct SrcQ (PV Source and Quality) values under the described circumstances:

- P\_AInMulti: SrcQ generation logic in the EnableInFalse routine was corrected.
- P\_AInFFR: SrcQ generation logic for input Simulation was corrected.
- P\_DoseFM, P\_DoseWS: SrcQ generation logic for the case where the strategy Has but does not Use Equipment Feedback was corrected.

### 5. Deviation Deadband in P\_AInAdv

Logic in the P\_AInAdv instruction was modified to ensure that the deviation deadband entered would allow for the deviation status to clear.

## **6. Force Input Selection on P\_AInDual Based on Input SrcQ**

Logic in the P\_AInDual instruction was modified so that input selection to the good input and away from the bad input would occur if the bad input were determined by its SrcQ value ( $\geq 32$  = bad). Previously, only the Inp\_PVxBad input would force selection of the input.

## **7. Wireframe on P\_E300Ovld Analog Inputs**

The Add-On Instruction definition for P\_E300Ovld (E300 Overload Relay) was modified so that the Analog Input values displayed on the faceplate are readable (External Access = ReadOnly) by the HMI. Previously these values were defined as External Access = None, resulting in the values being wireframed on the HMI faceplate.

## **8. P\_PSat, P\_TSat Boundary Conditions**

The P\_PSat and P\_TSat (saturated steam) Add-On Instruction definitions were modified to reject certain invalid input values. Input temperature and pressure values below the triple point of water are now rejected and flagged, and the instructions maintain their last good output values. This behavior matches the change made to the other Steam Table AOIs in Revision 3.1-04 of the Library.

## **9. Removed Duplicate Rung in P\_AInPAR, P\_AInPAR\_A**

The logic for the P\_AInPAR and P\_AInPAR\_A Add-On Instructions was modified so to remove a rung that had been duplicated. The duplicated rung was dead code and did not produce erroneous behavior; it simply made the instruction take more memory and more scan time than needed.

## **10. Jog function on P\_SMC50**

The P\_SMC50 (SMC-50 Smart Motor Controller) Add-On Instruction logic was modified to correct the Jog function. Previous logic made it impossible to jog the motor from the faceplate.

## **11. P\_ValveHO I/O Fault in Simulation**

The P\_ValveHO (Hand-Operated Valve) Add-On Instruction logic was modified to ignore the Inp\_IOFault input when Simulation is active (Inp\_Sim = 1). Previously if the physical valve I/O fault input were active, it would fault the valve even when the valve was being simulated.

## **12. Prescan Check of P\_VSD Prog / Oper Keep Configuration**

The Prescan logic of the P\_VSD (generic Variable Speed Drive) instruction was modified to test for invalid configuration of Cfg\_ProgKeep and Cfg\_OperKeep on Prescan. Previously it was possible for an invalid setup of these configuration values to be established while the controller was in PROGRAM and stay invalid when the controller was placed in RUN.

# **Revision 3.5-02 (March 29, 2016)**

## **Summary of Changes**

The following items were changed for this version of the library.

## System Features

The following features were added for this version of the library.

### 1. Added content for FactoryTalk View ME

Global Objects and Displays for FactoryTalk View ME are included in this release

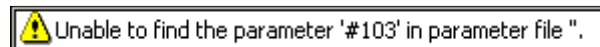
#### *Differences between FTVIEW ME and FTVIEW SE features:*

##### *Navigation*

In FTVIEW SE, users can click on an input or output in the faceplate and navigate to the object that provides the input or uses the output. The FTVIEW ME version of the Library does not have this ability to navigate to upstream or downstream objects. The tags used for navigation however, exist in the controller and can be configured either by FTVIEW SE or FTVIEW ME to provide consistency between visualization systems. This functionality is useful in hybrid systems that use both FTVIEW ME and SE HMIs.

##### *Global Object Parameters*

In FTVIEW ME, if a Global Object Parameter does not have anything entered and the parameter is used as a tag in the display, then FTVIEW ME displays a diagnostic message informing the user that the field is blank.



To avoid the diagnostic message, the HMI designer can enter a character in the Global Object Parameter 'Value' field such as 'x' or 'Unused'. In most cases, this solution will not have any ill effects on the operation of the displays.

### 2. Add-On Instruction for 1794-IF8IHNFXT

An add-on instruction import and rung import were added for the 1794-IF8IHNFXT Flex-I/O Extended Temperature (XT) 8-channel isolated HART analog input module. This instruction works like the other HART module instructions added in Release 3.5-01 of the Library and is used with the P\_AlnHART instruction. Note that the module profile required by this instruction is only provided with Version 24 and later of Studio 5000 Logix Designer, and this instruction is provided in V24 import L5X files.

## Anomalies

The following anomalies were resolved in this release.

### 1. P\_Seq (Sequencer) faceplate textbox anomaly

Resolved an anomaly where the textbox from the Engineering tab appeared on the home tab when the faceplate was opened. The FactoryTalk View SE display "(RA-Seq) P\_Seq-Faceplate.gfx" was modified to correct this anomaly.

### 2. P\_Fanout faceplate configuration anomaly

Resolved an anomaly where the radio buttons for Cfg\_UseFixedInit were reversed (page 4 of the engineering tab). The following FactoryTalk View SE displays were affected by this change:

- (RA-BAS) P\_Fanout-Faceplate
- (RA-BAS) P\_Fanout5-Faceplate

### 3. Built-In MMC faceplate heading anomaly

Corrected the header text for "PV2 Deviation Action Priority" on the Engineering Tab page 1. The FactoryTalk View SE display "(RA-BAS) Built-In MMC-Faceplate.gfx" was modified to correct this anomaly.

### 4. Handling of Drive Not Ready Condition

The logic of the following Add-On Instructions was modified to eliminate an "oscillating" condition that occurred when the connected drive or smart motor controller reported a "not ready" condition:

- P\_PF52x
- P\_PF753
- P\_PF755
- P\_SMC50
- P\_SMCFlex
- P\_VSD

Previously, when the drive or SMC reported "not ready", the Out\_Stop signal would be asserted on alternate scans. Now the instruction will not assert Out\_Stop, as the "not ready" and "faulted" indications from the device do not require an assertion of a Stop signal to stop the motor.

### 5. P\_D4SD Shed Hold

The logic of the P\_D4SD add-on instruction was modified to maintain the state of its outputs on configured shed conditions when Cfg\_St0onShed = 0. Previously the instruction would set its outputs all off when a shed condition occurred with Cfg\_St0onShed = 0.

### 6. P\_PTComp Square Root with Differential Pressure

The logic of the P\_PTComp add-on instruction was modified to correct the calculation of pressure-and-temperature-compensated flow when the differential pressure input is selected (Cfg\_UseDP = 1). In addition, logic was modified to avoid controller minor faults when the instruction is presented with an input that is infinite or not a number (floating point exception values).

### 7. P\_PIDE Handling of CV Tracking

The logic of the P\_PIDE Add-On Instruction was modified to correct the tracking of the output CV into OSet\_CV and PSet\_CV, especially when the instruction is requested to initialize by downstream logic. Previously, when P\_PIDE was requested to initialize, the value of the CV would not be pushed back into OSet\_CV or PSet\_CV. The corrected action is as follows:

- If the instruction is requested to initialize, OSet\_CV has the initialized output value, converted to CV%, pushed to it for bumpless transfer out of initialization when in Operator Mode.

- If the instruction has Cfg\_SetTrack set to 1, OSet\_CV and PSet\_CV have the value of Val\_CVSet pushed to them. If the instruction is requested to initialize, the actual output is push to both these settings.

## Functional Changes

The following functional changes were made in the library for this release.

### 1. MPC Features

A number of changes were made to the MPC faceplates and global objects. Since the MPC control system modules were not officially released prior to this version, these changes will not be detailed here. However, they are noted because the changes required a revision bump. The following FactoryTalk View SE files were modified for this release:

- (RA-MPC) CV-Faceplate.gfx
- (RA-MPC) MV-Faceplate.gfx
- (RA-MPC) DV-Faceplate.gfx
- (RA-MPC) MPC Family-Help.gfx
- (RA-MPC) MPC-Faceplate.gfx
- (RA-MPC) MPC Graphics Library.ggfx

### 2. Handling of Source and Quality Input on P\_Ain, P\_AInAdv, P\_AInDual

The logic of the P\_Ain, P\_AInAdv and P\_AInDual analog input add-on instructions was modified to provide separate configuration of navigation to an upstream channel object and use of the SrcQ (source and quality) from an upstream object. Previously these were controlled by the same configuration bit, Cfg\_HasChanObj. Now, Cfg\_HasChanObj is used solely to control navigation to an upstream object (named with the analog input object tagname plus “\_Chan”). A new configuration bit, Cfg\_UseChanSrcQ, determines whether the value on Inp\_PVSrcQ is used to determine PV source and quality. (On P\_AInDual, Cfg\_UseChanSrcQA controls use of Inp\_PVASrcQ for channel A, and Cfg\_UseChanSrcQB control use of Inp\_PVBSrcQ for channel B.)

When the Cfg\_UseChanSrcQ bit is clear, the final source and quality is determined by Inp\_PVBad, Inp\_PVUncertain, simulation, substitution, out of range checking and infinite/not a number checking. When the bit is set, the final source and quality is determined by Inp\_PVSrcQ, Inp\_PVBad (usually not needed), Inp\_PVUncertain (usually not needed), simulation and substitution. Upstream logic is (usually P\_AIChan) becomes responsible for handling the other conditions.

### 3. Handling of Source and Quality Output on P\_AIChan

The logic of the P\_AIChan add-on instruction was modified to provide a separate indication of Source and Quality (SrcQ) for the output of the instruction. Previously, the SrcQ output followed the SrcQ\_IO output, which provides the status of the input signal to the block, independent of configuration. Now the SrcQ output enumeration value is generated based on how the P\_AIChan instance is configured to act on the detected condition, per the following table:

Condition	SrcQ_IO value	Use/Good	Use/Uncertain	Use/Bad	Hold/Good	Hold/Uncertain	Hold/Bad	Replace/Good	Replace/Unc	Replace/Bad
Invalid Configuration	35	Copy thru (2)	Copy thru (16)	Copy thru (35)	Last Good (2)	Last Good (19)	Last Good (35)	Replace (2)	Replace (20)	Replace (35)
Channel Fault	33	Pass thru (2)	Pass thru (16)	Pass thru (33)	Last Good (2)	Last Good (19)	Last Good (33)	Replace (2)	Replace (20)	Replace (33)
Module Fault	34	Pass thru (2)	Pass thru (16)	Pass thru (34)	Last Good (2)	Last Good (19)	Last Good (34)	Replace (2)	Replace (20)	Replace (34)
Input Not a Number	32	Copy thru (2)	Copy thru (16)	Copy thru (32)	Last Good (2)	Last Good (19)	Last Good (32)	Replace (2)	Replace (20)	Replace (32)
Out of Range	32	Pass thru (1)	Pass thru (16)	Pass thru (32)	Last Good (2)	Last Good (19)	Last Good (32)	Replace (2)	Replace (20)	Replace (32)
Off Spec	16	Pass thru (1)	Pass thru (16)	Pass thru (32)	Last Good (2)	Last Good (19)	Last Good (32)	Replace (2)	Replace (20)	Replace (32)
Function Check	17	Pass thru (1)	Pass thru (17)	Pass thru (32)	Last Good (2)	Last Good (19)	Last Good (32)	Replace (2)	Replace (20)	Replace (32)
Stuck	2	Pass thru (2)	Pass thru (16)	Pass thru (32)	Last Good (2)	Last Good (19)	Last Good (32)	Replace (2)	Replace (20)	Replace (32)
Maintenance Required	1	Pass thru (1)	Pass thru (16)	Pass thru (32)	Last Good (2)	Last Good (19)	Last Good (32)	Replace (2)	Replace (20)	Replace (32)

*P\_AIChan values for SrcQ\_IO and SrcQ (in parentheses) outputs under various input conditions and configurations*



## Revision 3.5-03 (June 3, 2016)

### Summary of Changes

The following items were changed for this version of the library.

### System Features

The following features were added for this version of the library.

#### 1. NAMUR Status Icons added to HART and E&H faceplate diagnostics.

Modified HART and E+H Displays and Global Objects to show Namur Status along with the Diagnostic codes and messages. New Global Objects were created for use on the displays. The Namur Status is also used as a breadcrumb alert on the faceplate diagnostic tab.

The following FactoryTalk View ME and SE files were updated for this release:

- (RA-BAS) Process Faceplate Analog Objects.ggfx
- (RA-EH) Instrument Faceplate Objects.ggfx
- (RA-BAS) P\_AInHart-Faceplate.gfx
- (RA-BAS) P\_AOutHart-Faceplate.gfx
- (RA-EH) I\_EH\_FlowMeter-Faceplate.gfx
- (RA-EH) I\_EH\_Sensor-Faceplate.gfx
- (RA-BAS-ME) Process Faceplate Analog Objects.ggfx
- (RA-EH-ME) Instrument Faceplate Objects.ggfx
- (RA-BAS-ME) P\_AInHART-Faceplate.gfx
- (RA-BAS-ME) P\_AOutHART-Faceplate.gfx
- (RA-EH-ME) I\_EH\_FlowMeter-Faceplate.gfx
- (RA-EH-ME) I\_EH\_Sensor-Faceplate.gfx

#### 2. HART Add-On Instructions

To support the above change for NAMUR Status Icons on the HART Analog Input and HART Analog Output faceplate displays, a new summary parameter, Val\_NAMURSts, was added to the P\_AInHART and P\_AOutHART add-on instructions. This parameter provides the “worst” NAMUR status of the three provided by HART Command 48 diagnostics for use by the new breadcrumb on the faceplate diagnostic tab.

#### 3. Additional Endress+Hauser Devices in Premier Integration Online Configuration Tool

New tabs were added to the Premier Integration Online Configuration Tool spreadsheet to support new Endress+Hauser HART devices:

- Micropilot FMR 20
- Promag 300 and Promag 500
- Promass 300 and Promass 500

## Anomalies

The following anomalies were resolved in this release.

### 1. Gate Navigation anomalies in FactoryTalk View ME faceplates

Resolved issues with the navigation to the P\_Gate faceplate in the View ME faceplate library. This was done by modifying visibility settings in the P\_DIn and P\_Gate faceplates and correcting tagnames in the Analog Global Objects. The following FactoryTalk View ME files were modified to correct this anomaly:

- (RA-BAS-ME) P\_DIn-Faceplate.gfx (changed visibility on the P\_Gate button to “TRUE”)
- (RA-BAS-ME) P\_Gate-Faceplate.gfx (changed visibility on the Home tab group to “TRUE”)
- (RA-BAS-ME) Process Faceplate Analog Objects.ggfx

### 2. View ME Global Object Issues

Corrected minor anomalies in the following global object files:

- (RA-BAS-ME) Logix Graphics Library.ggfx - Fixed the Navigation Expression on the L\_Redun Global Objects
- (RA-BAS-ME) BuiltIn Graphics Library.ggfx - Fixed the Navigation Expression on the APC and the PIDE Global Objects
- (RA-BAS-ME) Common Faceplate Objects.ggfx - The GOP Page Buttons were not using the Global Object Parameters as they should have
- (RA-BAS-ME) BuiltIn Faceplate Objects.ggfx - Fixed the Tag references on the AutoTune Start and Abort buttons

### 3. View ME Display Issue

Corrected the tag for the Response time constant radio buttons on page 3 of the (RA-BAS-ME) Built-In MMC Autotune-Faceplate.

### 4. Analog Input Channel Out of Range Detection Issue

The logic for the Analog Input Channel add-on instruction, P\_AIChan, was modified to correct an issue with generating the Out of Range status. Previously it was possible for an out-of-range condition, once detected, to be sealed in and not clear when the input returned to being in range.

### 5. Motor-Operated Valve Permissive Issue

The logic for the Motor-Operated Valve, P\_ValveMO, was modified to correct an issue with handling of permissives when in the Stopped state. Previously when the valve was in the Stopped state and not making either limit switch, if EITHER permissive was not OK, the valve would be prevented from moving in BOTH directions. The permissive logic was corrected so that the open permissive not OK condition only prevents the valve from being commanded to open, and the close permissive not OK condition only prevents the valve from being commanded to close.

## Revision 3.5-04 (October 7, 2016)

### Summary of Changes

This section summarizes the changes for this version of the library.

### System Features

The following features were added for this version of the library.

#### 1. Bulletin 1715 Redundant I/O HART Support

The 1715-IF16 16-channel redundant analog input module and the 1715-OF8I 8-channel redundant isolated analog output module with firmware version 3.001 and later now support HART communication. The following add-on instructions were added to the Premier Integration library to support these modules:

- I\_1715IF16 Supports 1715-IF16 redundant analog input module FW 3.x with HART
- I\_1715OF8I Supports 1715-OF8I redundant analog output module FW 3.x with HART

**NOTE: The Add-On Profiles for these modules are supported in V20 of RSLogix 5000 software and later. These objects only appear in the sample and template applications for V20 and later.**

Both these module AOIs work with the existing P\_AInHART and P\_AOutHART instructions, respectively.

See below for functions added to P\_AInHART and P\_AOutHART for this release.

#### 2. PowerFlex 7000 Medium Voltage Drive Support

A new Add-On Instruction and Faceplate were added to support the PowerFlex 7000 Medium Voltage Variable Frequency Drive. Communication is via the 20-COMM-E on EtherNet I/O. Operation and setup are similar to the other PowerFlex drive instructions, except that no Fault Code lookup table tag is required. The add-on instruction uses Message (MSG) instructions to read several items from the drive, including:

- Numerous diagnostic and non-real-time-control parameter values
- Most recent Fault code number, description text, and timestamp
- Most recent Alarm code number, description text, and timestamp
- Drive accumulated run time

The following datalink configuration is required for the drive:

1. Torque Feedback (unfiltered) (%) (Par 489\*)
2. Motor Current (% FLA) (Par 340)
3. Motor Speed (RPM) (Par 363)
4. Motor Voltage (filtered) (Volts) (Par 362)
5. Motor Air-Gap Power (%) (Par 346)
6. User choice #1

7. User choice #2
8. User choice #3

\* Parameter number may vary with specific drive model and firmware

The P\_PF7000 instruction is supported in the updated Process Library Online Configuration Tool spreadsheet.

The following displays and global objects were added/modified:

- (RA-BAS) Process Faceplate Motor Objects.ggfx
- (RA-BAS) P\_PF7000-Faceplate.gfx
- (RA-BAS) P\_PF7000-Quick.gfx
- (RA-BAS) Process Motor Family-Help.gfx
- (RA-BAS-ME) Process Faceplate Motor Objects.ggfx
- (RA-BAS-ME) P\_PF7000-Faceplate.gfx
- (RA-BAS-ME) P\_PF7000-Quick.gfx
- (RA-BAS-ME) Process Motor Family-Help.gfx

### 3. HART Add-On Instruction Enhancement

Some HART devices do not provide a proper HART digital variable status (PVStatus, SVStatus, TVStatus, FVStatus) over the HART protocol. These devices return a digital variable status of zero. According to the HART specifications, a digital variable status of 2#00xx\_xxxx (x = don't care bit state) is a BAD value. (2#11xx\_xxxx is a GOOD value.) These devices, with the previous versions of P\_AInHART and P\_AOutHART, would show bad status for the PV, SV, TV and FV, even when communication is OK and the variables are updating.

For V3.5-04, a new configuration bit, Cfg\_UseDigVarSts, with a default value of 1, has been added. If a device is used which does not provide correct digital variable information, clear this configuration bit in order to ignore the bad status. (The PVStatus etc. will now ALWAYS report "good".)

NOTE: This configuration bit does not appear on the faceplate. It will be added in a future release. For now, it will be necessary to open the parameter list for the P\_AInHART or P\_AOutHART instance and toggle the value in RSLogix 5000 / Studio 5000 Logix Designer software. This configuration bit IS included in the updated Premier Integration Online Configuration Tool spreadsheet.

### 4. L\_CPU and P\_Logic Breadcrumbs

Breadcrumbs were added to the L\_CPU faceplate operator tab for the I/O Fault, Forces, and Minor Faults. These breadcrumbs were already on the non-graphical Global object Display Element for L\_CPU. In addition, these breadcrumbs were added to the L\_CPU help display as well. The "Information" breadcrumb was also added to the P\_Logic Help display. The following displays and global objects were modified:

- (RA-BAS) Logix FacePlate Objects.ggfx
- (RA-BAS) L\_CPU-Faceplate.gfx

- (RA-BAS) Logix Family-Help.gfx
- (RA-BAS) P\_Logic-Help.gfx
- (RA-BAS-ME) Logix FacePlate Objects.ggfx
- (RA-BAS-ME) L\_CPU-Faceplate.gfx
- (RA-BAS-ME) Logix Family-Help.gfx
- (RA-BAS-ME) P\_Logic-Help.gfx

## 5. PF\_7000 Process Strategy

A new Process Strategy (PS\_PF7000) was added to support the PowerFlex 7000 Medium Voltage Variable Frequency Drive instruction.

## 6. Process Library Migration Tool

A new PlantPAx Process Library Migration Tool has been developed and included in this release. This tool was designed to help users update their FactoryTalk View SE/ME graphics and Logix ACD files with the latest version of the Process Library AOIs and HMI global objects. It can reduce engineering time and migration error and help users keep up to date with the latest Rockwell Automation software features and increase the life cycle of a PlantPAx DCS.

The PlantPAx Process Library Migration Tool contains the following main functions:

1. Update Logix ACD files containing one version of Process Library AOI definitions to a different version. For example, this tool can be used for updating AOIs from Version 2.0 to 3.5, or Version 3.5-01 to 3.5-02, etc.

- An option is provided to update Logix tag severity values when updating to P\_Alarm Version 3.1 or newer.

For PlantPAx Process Library AOIs Version 3.1 and newer, the P\_Alarm AOI used for alarm processing uses an INT data type for the alarm severity. The default severities are 1..250=Low, 251..500=Medium, 501..750=High, 751..1000=Urgent.

For PlantPAx Process Library P\_Alarm Version 3.0 and older, the AOI uses a SINT data type for the alarm severity. The default severities are 1=Low, 2=Medium, 3=High, 4=Urgent.

The software can automatically change the severity values from 1 to 250, 2 to 500, 3 to 750, 4 to 1000, or make changes with user-defined mappings.

- Set the alarm condition strings of Process Library AOI tags to the default string definitions (e.g., “High-High Alarm”, “Input Failure”, etc.) when migrating AOIs with P\_Alarm Version 2 and older to P\_Alarm Version 3.x.

2. Update FactoryTalk View SE/ME process graphic XML files containing items linked to Process Library HMI global objects. This tool upgrades global objects from Process Library versions 1.1, 1.5, or 2.5 to Version 3.5.
  - Updates the global object parameter values to the correct Version 3.5 format and values.
  - It will also update the corresponding ACD files with any necessary alias tags with the required naming convention for faceplate-to-faceplate navigation.

## Functional Changes

The following functional changes were made in the library for this release.

### 1. MPC Features

Revised the limits on many of the parameters in the Transfer Function faceplate (RA-MPC) TF-Faceplate.gfx.

### 2. Alarm Builder Features

New Alarm Builder features include the following:

- A new option to use P\_Alarm.Cfg\_Tag values as the AE alarm tag name has been added to the “Naming” tab. This option allows the user to customize the AE alarm tag names (e.g., use P&ID tag names, “TAH123”) and not use the alarm builder naming convention (e.g., “TI123\_Alm\_Hi”).
- New options are provided to exclude alias tags and Input/Output program parameter tags when building the AE XML file. These options are useful if alias tags are aliased to base tags with the same data type – this prevents building multiple AE tags with the same alarm triggers.
- New ME options are added to exclude alias tags and Input / Output program parameter tags. InOut program parameter tags are now also excluded from the ME alarms XML file.

## Anomalies

The following anomalies were resolved in this release.

### 1. Analog Output / Control Valve Interlock Trip Status / Alarm Generation

This release includes the V3.5-03 Patch01 update to P\_ValveC and P\_AOut instructions which corrects the generation of the Sts\_IntlkTrip status and Alm\_IntlkTrip alarm when the instruction is configured with Cfg\_ShedHold = 0. This is a logic fix, and only requires importing the updated AOI definition over the previous.

### 2. Corrected Handling of Jog Function vs. Local Control

In motor objects that support jogging, logic was corrected to properly handle the Jog function of the add-on instruction when local control is enabled (Cfg\_AllowLocal = 1). Previously, the local control function would clear the Rdy\_Jog bit when jogging, which would disable the button on the faceplate,

which would then send a “button release” event, resulting in OCmd\_Jog clearing, terminating the jog; thus the jog would be stopped before the operator released the jog button on the screen. The updated logic correctly maintains the Rdy\_Jog state during a jog. Affected instructions are:

- P\_PF52x            PowerFlex 520-series drives
- P\_PF753            PowerFlex 753 drives (using 20-COMM-E)
- P\_PF755            PowerFlex 753 and 755 drives (using 20-750-Exxxx)
- P\_VSD              Generic Variable Speed Drive
- P\_SMC50            SMC-50 Smart Motor Controller (soft starter)  
(The P\_SMCFlex object does not support jogging.)\

### 3. Corrected On-the-Fly Switching of Simulation

In objects that support loopback simulation and which have device feedback, logic was corrected to properly handle the switching from Simulated to Real device. Previously, the instruction could trigger the device to transition to the simulated state, causing a process upset. Now, on a switch from simulated to real device, the instruction aligns with the actual state of the device as indicated by its feedback input (aux contact, drive running state, valve limit switches, etc.). Affected instructions are:

- P\_D4SD            Discrete 2-, 3-, or 4-State Device
- P\_DOut            Discrete Output
- P\_Motor            Single-Speed Motor
- P\_Motor2Spd      Two-Speed Motor
- P\_MotorRev       Reversing Motor
- P\_nPos            n-Position Device
- P\_PF52x            PowerFlex 520-series drives
- P\_PF753            PowerFlex 753 drives (using 20-COMM-E)
- P\_PF755            PowerFlex 753 and 755 drives (using 20-750-Exxxx)
- P\_SMC50            SMC-50 Smart Motor Controller
- P\_SMCFlex        SMC-Flex Smart Motor Controller
- P\_ValveMO        Motor-Operated Valve (also dual solenoid)
- P\_ValveMP        Mix-Proof Valve
- P\_ValveSO        (single) Solenoid-Operated Valve
- P\_VSD            Generic Variable Speed Drive

### 4. Corrected Maintenance Bypass in High / Low Selector

The P\_HiLoSel instruction was modified to have Cfg\_UseCVn properly disable selection of an individual CV by Maintenance, removing that CV temporarily from service. Previously, it was necessary to use Cfg\_HasCVn to disable a CV, which is intended as an Engineering configuration.

### 5. FTView ME Motor Global Objects

Corrected two problems in FactoryTalk View ME global object file (RA-BAS-ME) Process Faceplate Motor Objects.ggfx:

- 1) The motor overload navigation button had visibility animation that only showed the button object for "P\_E1PlusE". This animation was removed.
- 2) The display name on the LLS Motor Config Navigation Buttons used #103 instead of #1 in the display name configuration.

## **6. FTView ME Sequencer step configuration navigation**

(RA-Seq-ME) P\_Seq-Config-Step Real.gfx - The correct tab was not appearing when the display was called. Changed the tag from "Nav\_CfgSeq" to "Nav\_CfgStep" (to match the Macros).

(RA-Seq-ME) P\_Seq-Config-Step.gfx - The correct tab was not appearing when the display was called. Changed the tag from "Nav\_CfgSeq" to "Nav\_CfgStep" (to match the Macros).

(RA-Seq-ME) P\_Seq-Config-Step-Confirm.gfx - Wireframes and tag errors appeared when display was called. Changed all occurrences of tag CfgStep\_TabNav" to "Nav\_CfgStep" (to match the Macros).

## **7. Other FTView ME Anomalies**

(RA-BAS-ME) Built-In Autotune-Faceplate.gfx (Faceplate) - "PV Change Limit" entry was not working properly. Modified tag used for the numeric input for "PV Change Limit" to use the correct {#2.PVTuneLimit} Tag

(RA-BAS-ME) Process Ovld Family-Help.gfx (Help Display) – The help text was blank. Changed the "Group Visible" attribute for "TabPanelGrp\_Help" to TRUE.

(RA-BAS-ME) Process Alarm Objects.ggfx (Global Object) - Corrected the navigation parameters in the Go To Display Buttons on the Stand-alone Alarm Global Object Device Symbols

## **8. Alarm Builder Anomalies**

Tags Aliased to UDT Structure Elements - Fixed error where data is not saved when editing tags that are aliased to UDT elements and the elements are structures (i.e., the elements are not atomic data types).

AE Tag Names for Multi-Dimensional Array Tag Elements - Fixed error where the AE import file builder tool created AE tag names with "," characters for multi-dimensional array tag elements. "," is not a valid character in AE tag names. The "," characters are replaced with "\_" or spaces – depending on the delimiter option selected.

AE XML Builder Include Data Types Not Enabled for Export - The alarm definitions tool allows the user to exclude configured data types for export.

InOut Program Parameter Tags - When using the sync options (e.g., reading the tag's "HasAlarm" value), InOut program parameter tags were added using the data type definition default values – the tag sync element values were not read. With this release, InOut program parameter tags are always excluded from the alarms XML file. Since an InOut program parameter tag must be referenced to another tag, it makes more sense to use the referenced tag in the XML file.



## Revision 3.5-05 (January 6, 2017)

### Summary of Changes

This section summarizes the changes for this version of the library.

### System Features

The following features were added for this version of the library.

#### 1. PowerFlex 6000 Medium Voltage Drive Support

A new Add-On Instruction, P\_PF6000, and corresponding Faceplate were added to support the PowerFlex 6000 Medium Voltage Variable Frequency Drive. Communication is via an Anybus AB7007 EtherNet/IP - Modbus Serial gateway. The AB7007 profile is supported in Logix version 20 and later software / firmware. The AOI and RUNG import files are provided in Logix version20 format and work with version 20 or later. Operation and setup are similar to the other PowerFlex drive Add-On Instructions, except that no drive datalink setup is required (or available).

The P\_PF6000 instruction is supported by the updated Process Library Online Configuration Tool spreadsheet.

Along with addition of the new P\_PF6000 Add-On Instruction, the following HMI displays and global objects were added or modified:

- (RA-BAS) Process Diagnostics Objects.ggfx
- (RA-BAS) P\_PF6000-Faceplate.gfx
- (RA-BAS) P\_PF6000-Quick.gfx
- (RA-BAS-ME) Process Diagnostics Objects.ggfx
- (RA-BAS-ME) P\_PF6000-Faceplate.gfx
- (RA-BAS-ME) P\_PF6000-Quick.gfx

Because the 20-COMM-E (or similar) drive DPI communication adapter is not used, the drive does not support using MSG instructions to read and write parameter values. All data needed for this Add-On Instruction are contained in the Input and Output assemblies and no MSG instructions are needed. The I/O assemblies do provide an interface to read and write drive parameters from the controller, but this parameter read/write capability is NOT part of the P\_PF6000 Add-On Instruction. A separate Add-On Instruction is available from the Rockwell Automation Support Knowledgebase to support remote parameter reading and writing. See Knowledgebase Answer ID 1008677 at <https://www.rockwellautomation.custhelp.com/>.

#### 2. Logix CPU Utilization for Logix Version 24 and Later (L\_CPU\_24\_up)

The L\_CPU\_24 (Logix CPU Utilization for Version 24 of Logix) instruction is replaced with a new Add-On Instruction for Version 24 and Later: L\_CPU\_24\_up. This instruction works with Version 24 and Later (24, 26, 27, 28, 29 and 30) major firmware versions of the CompactLogix 5370 and ControlLogix 5570 controllers:

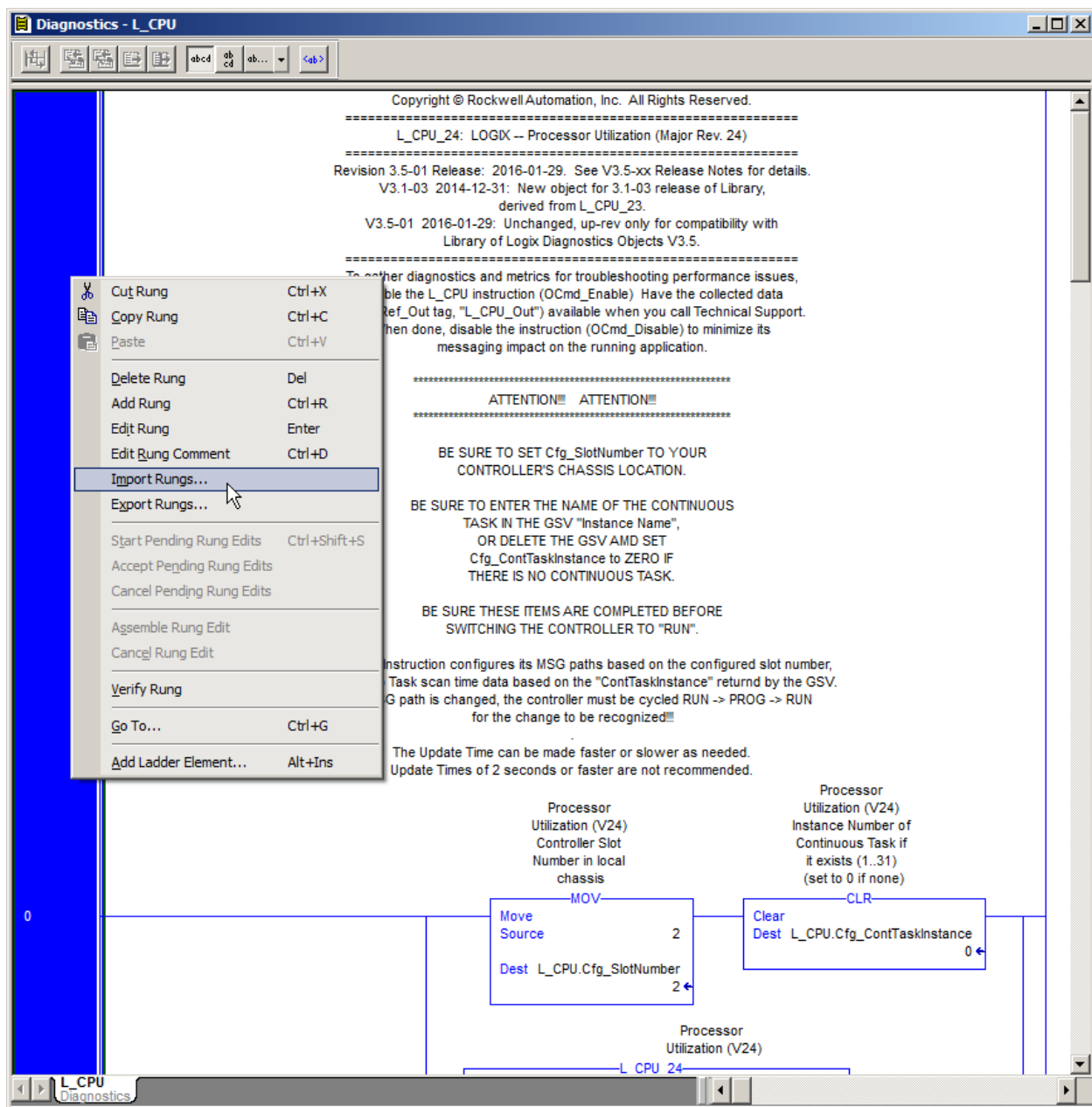
- 1769-L16ER-BB1B
- 1769-L18ER-BB1B
- 1769-L18ERM-BB1B
- 1769-L19ER-BB1B
- 1769-L24ER-QB1B
- 1769-L24ER-QBFC1B
- 1769-L27ERM-QBFC1B
- 1769-L30ER
- 1769-L30ERM
- 1769-L30ER-NSE
- 1769-L33ER
- 1769-L33ERM
- 1769-L36ERM
- 1756-L71
- 1756-L72
- 1756-L73
- 1756-L74
- 1756-L75
- 1769-L30ERMS
- 1769-L33ERMS
- 1769-L36ERMS

**IMPORTANT:** This instruction cannot get CPU utilization and other information from the following controllers:

- 1789-L60 SoftLogix 5800 controller
- Emulate 5570 Studio 5000 Logix Emulate controller
- CompactLogix 5380 controllers (5069-L3xxEx)
- ControlLogix 5580 controllers (1756-L8xE)

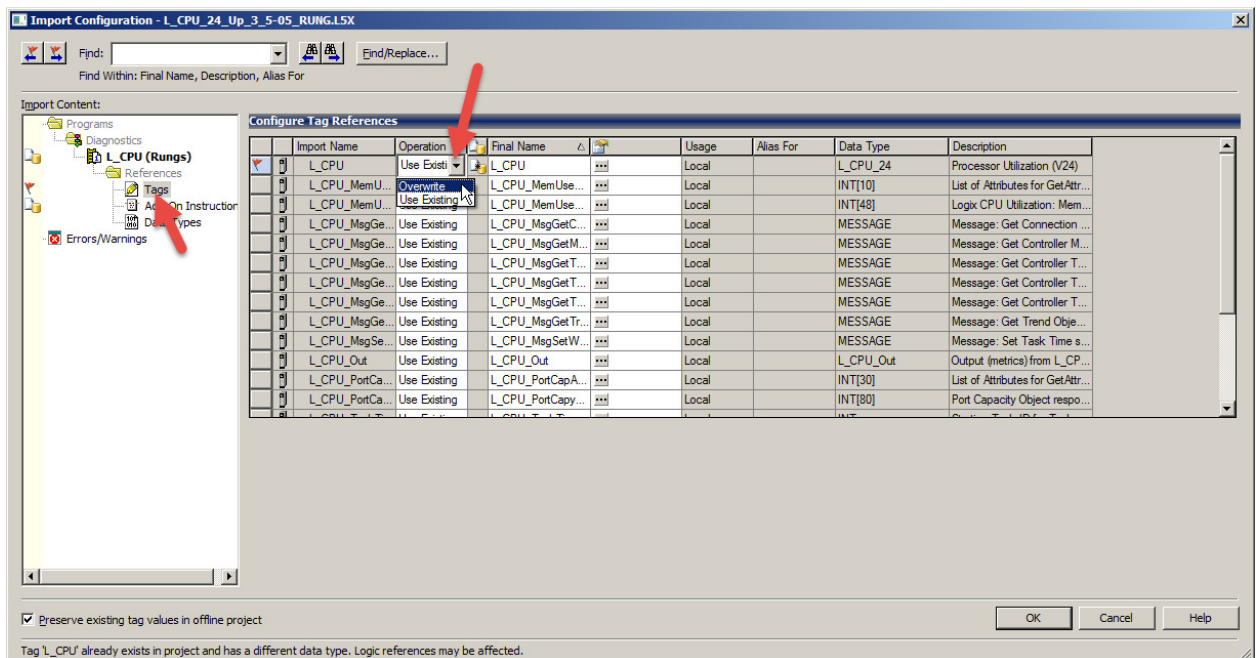
To install this instruction in place of L\_CPU\_24 in existing version 24 applications, perform the following steps:

1. Open the existing application in Studio 5000 Logix Designer.
2. Navigate to the existing L\_CPU\_24 instance in the application code. (A convenient way to do this is to find the L\_CPU\_24 Add-On Instruction in the Controller Organizer, then right-click and select “Cross Reference”. In the Cross Reference dialog, double-click on the instance to go to that rung.)
3. Select the existing L\_CPU\_24 rung, then right-click and select “Import Rung(s)”.



4. Select the **L\_CPU\_24\_up\_3\_5-05\_RUNG.L5X** file from the Library download in folder ...\\Files\\Logix Diagnostic Objects Library\\Logix Add-On Instructions.

5. In the Import Configuration window, note the red flag next to the “Tags” item in the tree. Select this item. In the first tag (L\_CPU), change the Operation from “Use Existing” to “Overwrite”. Click OK to begin the import.



6. The rung will be inserted AFTER the existing L\_CPU\_24 rung, and that rung will have error marks (because the type of the L\_CPU backing tag changed). Note (or select and copy) the existing MOV and GSV (or CLR) instructions on the upper branch.

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L\_CPU\_24\_Up: LOGIX -- Processor Utilization (Major Rev. 24 OR LATER)

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Revision 3.5-05 Release: 2016-12-16. See V3.5-xx Release Notes for details.

V3.5-05 2016-12-16: New object, derived from L\_CPU\_24 V3.5-01. Modified to align with Logix Task Monitor Tool task assignments and priorities for V24 thru V30. ONLY for use with L7x and similar controllers. Not for use with L8z!

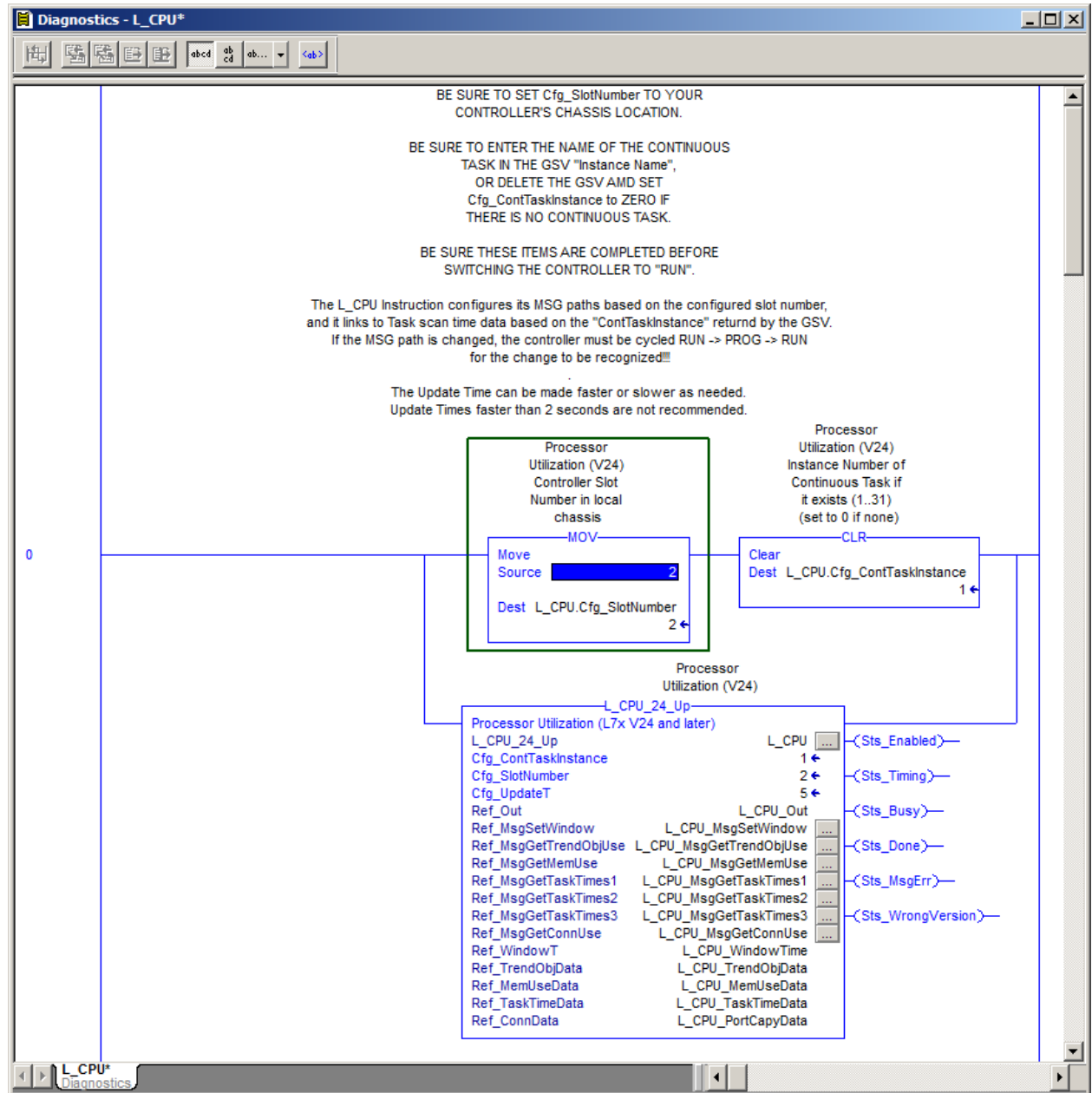
=====

This instruction monitors the Logix controller executing it. It provides several diagnostics that may be useful in troubleshooting system performance issues. This information is good to have handy on-screen when calling Rockwell Automation Technical Support for assistance. Let your Tech Support engineer know you have this info when you call.

Information includes:

- \* Controller Identity information (catalog number, firmware revision)
- \* Communications Timeslice setting
  - \* Minor Fault information
  - \* Memory Usage/Free statistics
- \* CPU Utilization for various controller and user Tasks
- \* Communications data including CPU available for and used by comms.

7. Delete the old L\_CPU\_24 rung. In the new L\_CPU\_24\_up rung, modify the upper branch (paste if you copied) to restore the configuration of the Slot Number and Continuous Task Instance.



8. Delete the (now unused) L\_CPU\_24 Add-On Instruction definition from the project.
9. Verify and save the project and download to the controller.

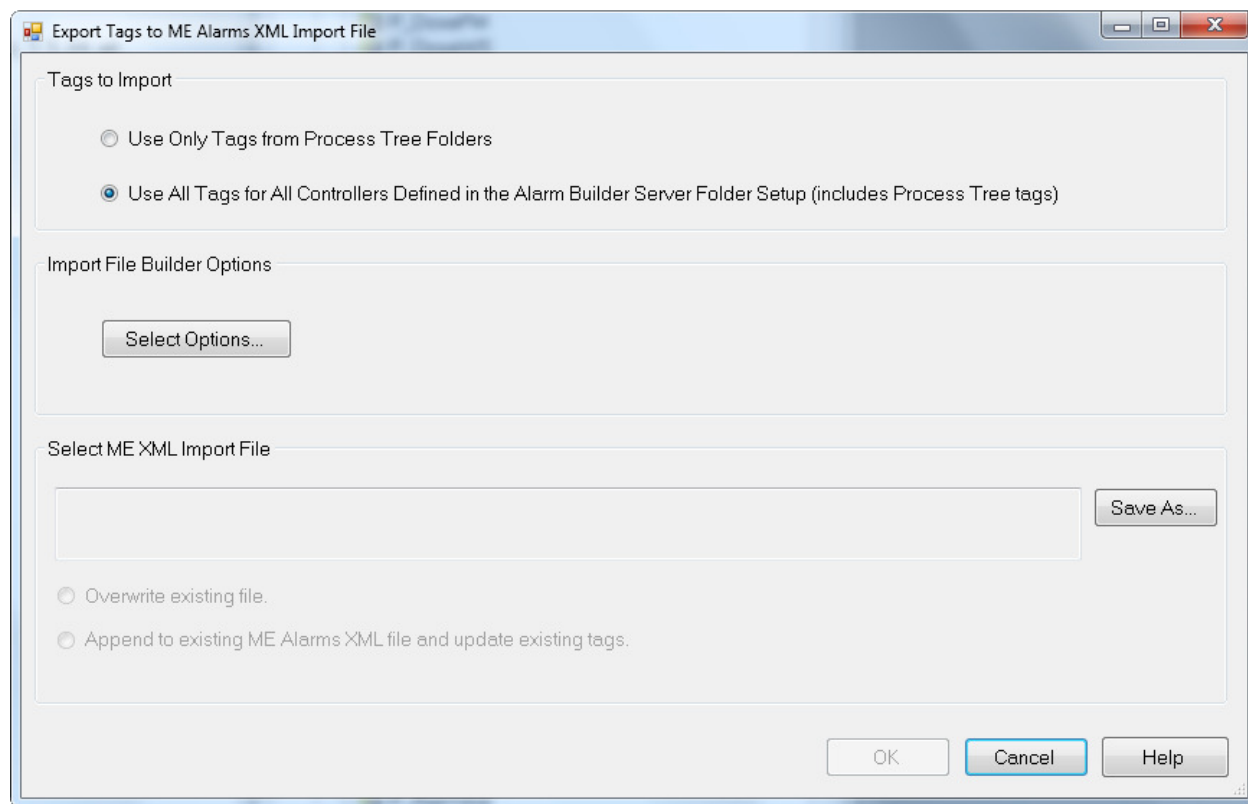
Only the Add-On Instruction definition and the backing tag type are changed. The HMI components and the other associated User-Defined Types (UDTs) and Tags are unchanged.

### 3. Alarm Builder Features (Version 5.5.5 of the Alarm Builder)

#### *Updated ME Alarms XML Import File Builder Tool*

Previous versions provided two methods for building the ME alarms XML import file: a Quick Build that uses all Logix tags to build ME tags, and a “Long Method” where the user selects the Logix tags to use.

The new version provides a single user interface for building the ME alarms XML import file. Options are provided to use only tags from the Process Tree folders or to use all controller tags. This single user interface is consistent with the AE alarm builder interface.

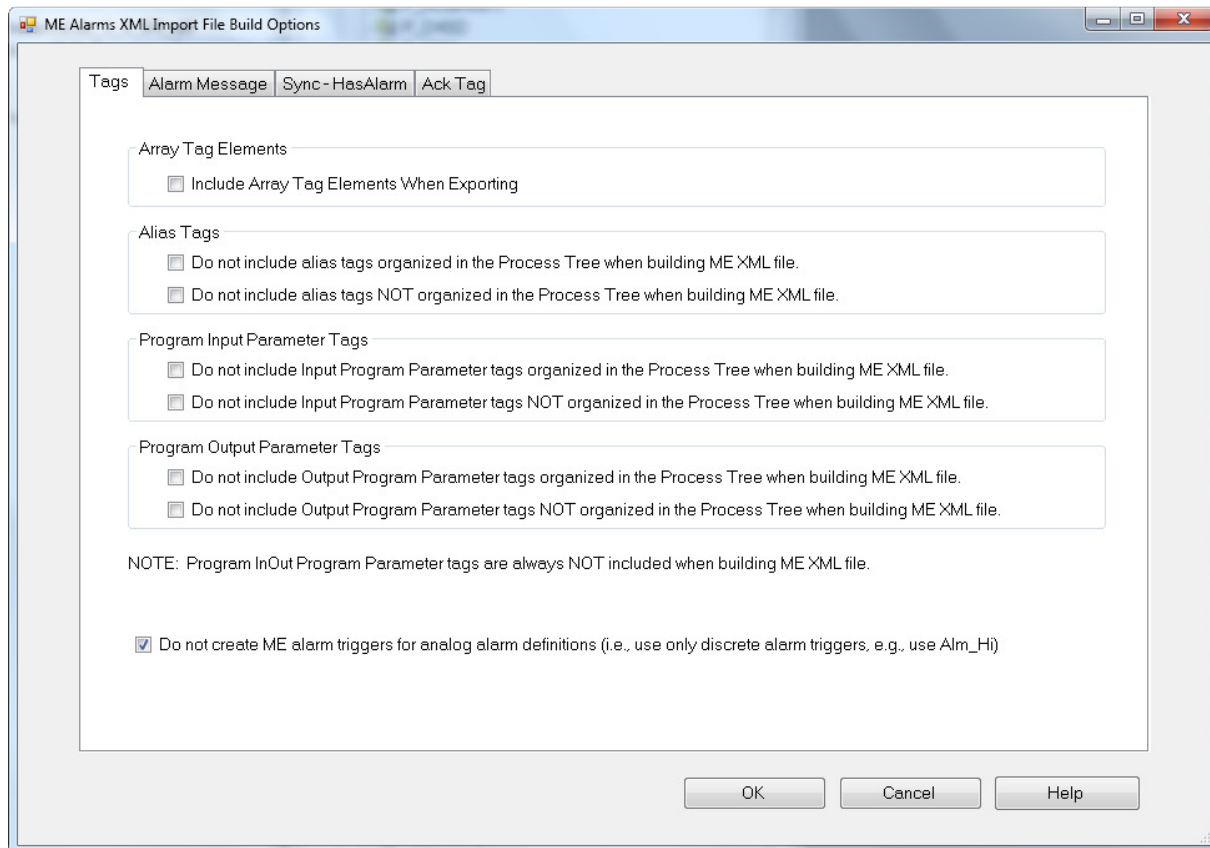


#### *New ME Alarms XML File Builder Options*

New options are provided to exclude alias tags and Input/Output program parameter tags when building the ME XML file. These options are useful if alias tags are aliased to base tags with the same data type – this prevents building multiple ME tags with the same alarm triggers.

If the “Include Array Tag Elements” option is not selected, and alias tags are aliased to array tag elements, then these new exclude options should not be used. These options should also not be used if the alias tags are aliased to UDT elements and alarm definitions are not configured for the UDT.

Note InOut program parameters tags are now always excluded from the export.





New options are provided for building the ME alarm messages:

The ME alarm message contains the following components: NAME, DESCRIPTION, CONDITION  
Use the following options to define the component content

**NAME**

- ☐ Use Logix Tag Name (e.g., "TIC\_123")
- ☐ Use Full Path Logix Tag Name (e.g., "Controller1.ProgramA.TIC\_123")
- ☒ If available, use value configured in AOI local tag label string (e.g., "TIC-123")  
AOI local tag label element name:

Use P\_Alarm.Cfg\_Tag as the NAME for AOI tags using P\_Alarm local tags.  
This option takes precedence over the above naming options if P\_Alarm.Cfg\_Tag exists.

☐ If P\_Alarm.Cfg\_Tag exists but is set to "P\_Alarm" or the default AOI alarm tag string value, or if it has already been used in another tag, then NAME is set using the above selected options.  
Examples of P\_Alarm.Cfg\_Tag: TAHH-123, TAL-123, etc.

**DESCRIPTION**

- ☐ Use Parsed Logix Description
- ☒ Use value configured in AOI local tag description string  
AOI local tag description element name:

**CONDITION**

- ☐ Use the alarm trigger element name (e.g., "Alm\_HiHi")
- ☒ Use P\_Alarm.Cfg\_Cond for AOI tags using P\_Alarm local tags (e.g., "High-High PV")

OK Cancel Help

#### 4. Process Library Migration Tool Features (Version 1.3 of the Migration Tool)

##### *Execution Time Reduction*

Coding changes made to reduce execution time for updating ACD files. The amount of time reduction depends on the number of AOIs, IREFs and tag data changes. For some test files, conversion time is reduced by about 40% compared to the last version.

##### *Migration Tool Options*

The ACD file migration tool uses Logix Services to import AOIs and other file changes. Logix Services locks up when the importing AOIs for ACD files containing IREFs that are linked to AOI tag parameters aliased to AOI local tags. So far, this problem has only been found when converting Process Library AOIs version 3.0 and older. As a workaround, the migration tool can check for these types of IREFs and replace them with blank references before using Logix Services to import the new AOIs. After the AOIs are imported to the ACD file, the IREFs are restored with their original references and the ACD file updated again using Logix Services. For this version, options are added to allow the user to select when to run the workaround method. In the previous version, the workaround was hidden and always executed regardless of library version.

## Startup Window Enhancements

New description added to the startup window to make clear which process library versions are supported:

The following Process Library AOI versions are supported:

V1.1, V1.5, V2.0, V3.0, V3.1 to V3.5  
V3.5-mm to V3.5-nn

The following Process Library SE/ME versions are supported:

V1.1 to V3.5 (only SE was available in V1.1)  
V1.5 to V3.5  
V2.0 to V3.5

Note: V3.x to V3.y does not need a HMI migration tool - simply use FactoryTalk View Studio to update the Process Library components (image files, global object files, faceplate displays)

## Functional Changes

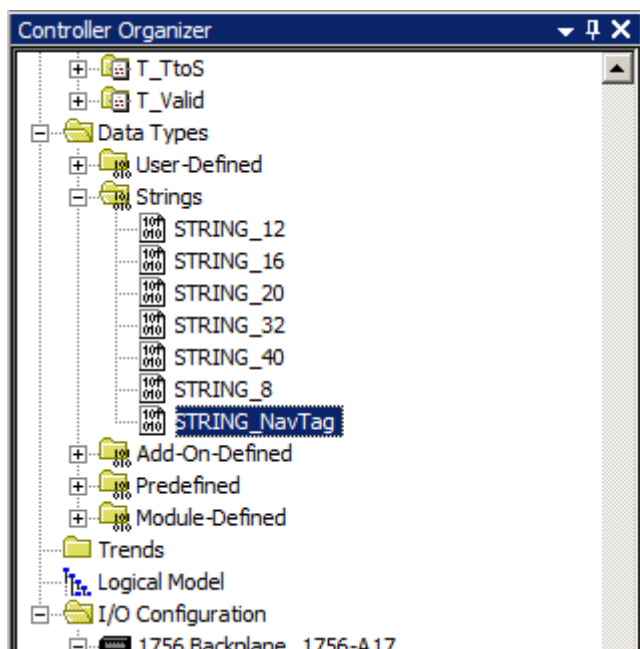
The following functional changes were made in the library for this release.

### 1. Navigation Tag User-Defined STRING Type

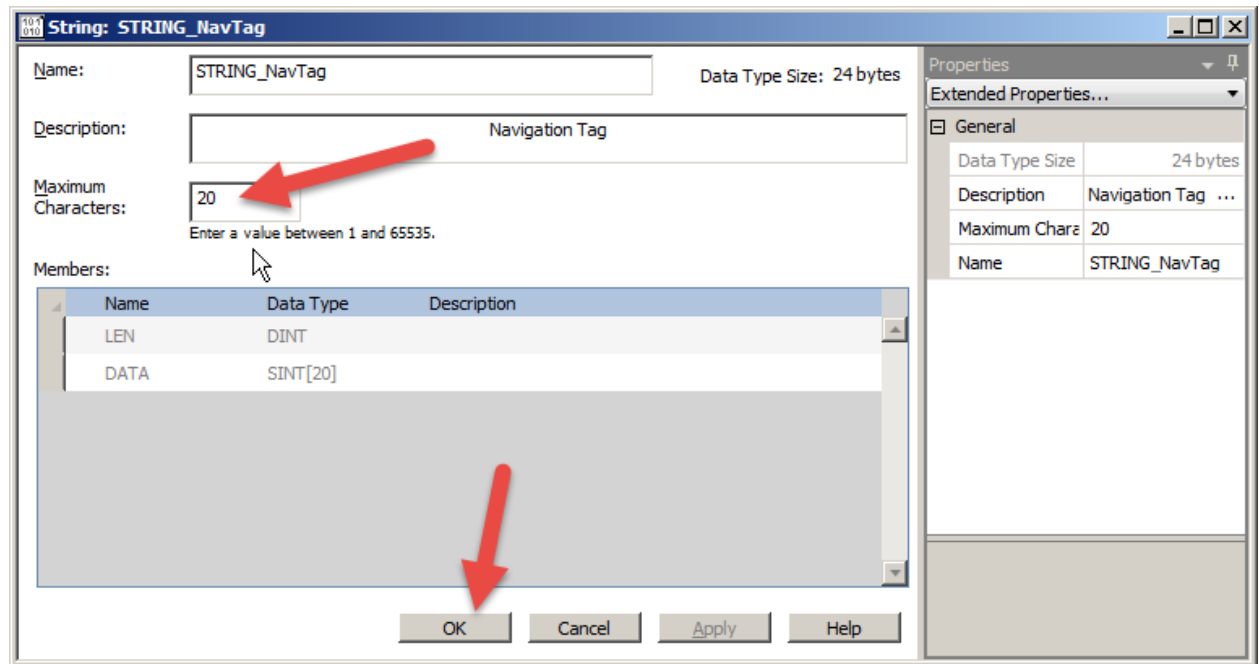
In order to aid customers who use a tag naming convention with tag names that exceed 20 characters, the type of Navigation Tag ("NavTag") configuration parameters was changed. Previously these were fixed at 20 characters (type "STRING\_20"). The type of all **Cfg\_\*NavTag\*** items (examples: Cfg\_NavTag, Cfg\_PVNavTag, Cfg\_CVNavTag[0], etc.) has been changed to "STRING\_NavTag". The default size of this type has been set to 20 characters, the same as the "STRING\_20" type previously used, in order to work with the existing graphics.

The number of characters for the STRING\_NavTag User-Defined STRING Type can be changed, without needing to change the definitions of the Add-On Instructions that use it. To do so:

1. Double-click the STRING\_NavTag entry in the Strings Data Types folder in the Controller Organizer to open the definition.



2. Modify the Maximum Characters entry to the required size and click “OK”.



Note that the size of the backing tag for each instruction that uses this Type will be affected. Especially note that some instructions use several NavTag parameters: P\_Intlk and P\_Perm each use 16 of them. So if you make this value larger, check your tag naming convention and use a value less than the maximum tag name size (40 characters).

The following Add-On Instruction definitions were updated to include this change:

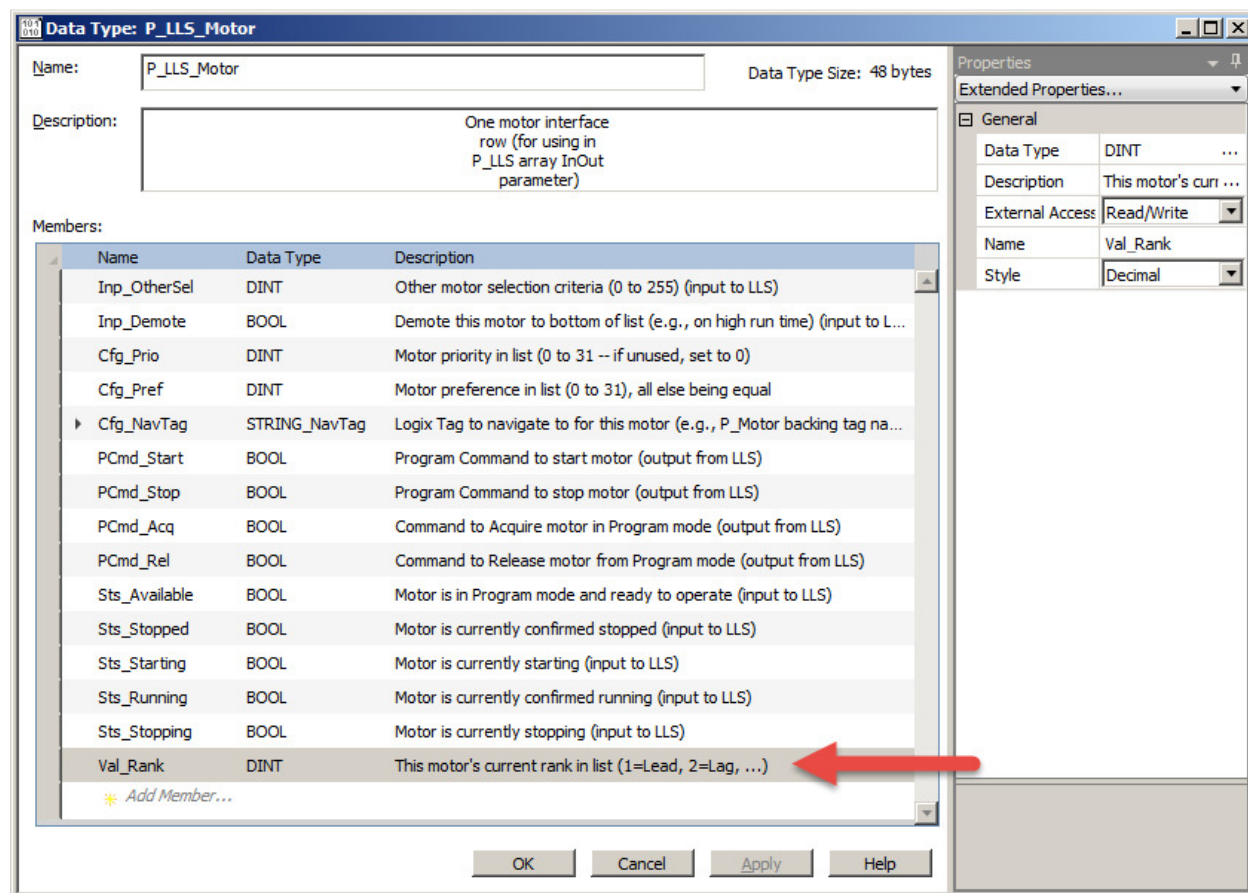
- P\_AOut Analog Output
- P\_AOutHART HART Analog Output
- P\_DBC Deadband Controller
- P\_Fanout Analog Fanout
- P\_HiLoSel Analog High- or Low-Select
- P\_Intlk Interlocks with First-Out
- P\_LLS Lead / Lag / Standby Motor Group
- P\_Logic User-Configured Logic
- P\_Perm Permissives
- P\_PIDE Enhanced Proportional + Integral + Derivative
- P\_Seq Simple Sequencer
- P\_ValveC Analog Control Valve

The Online Configuration Tool spreadsheets were updated in the headings to indicate this change. However, the cell formatting which turns the cell red when a NavTag entry exceeds 20 characters was NOT changed. This does not interfere with the tool sending configuration values to the controller or getting configuration values from the controller.

Only the Add-On Instruction definitions have been changed. Changes to the graphics may have to be made to support the longer strings.

## 2. Lead / Lag / Standby Rank Value

The Lead / Lag / Standby Motor Group Add-On Instruction was modified to generate an additional value, “Val\_Rank”, which was added to the P\_LLS\_Motor User-Defined Type.



Logic was added to P\_LLS so that each motor will now have its rank within the sorted motor list made available for use in application logic. A value of 1 is given to the motor assigned as Lead, a value of 2 to the first Lag, and so on, through the number of motors in the group.

Notice that this Value is provided in the “Ref\_Motors” array and not as a parameter on the Add-On Instruction itself, and the array index is “zero-based”. So the rank of Motor 1 in the P\_LLS instance named “MyP\_LLS” would be found at the address “MyP\_LLS\_Motors[0].Val\_Rank” (using the required naming convention for the motor interface array tag).

## Anomalies

The following anomalies were resolved in this release.

### 3. FactoryTalk View ME Analog Input limit correction

In the global object file “(RA-BAS-ME) Process Faceplate Analog Objects.ggfx”, corrected GO\_LimitConfigNoOSet. These are used for the threshold configuration for the analog input and P\_PIDE faceplates. The tag for the limit numeric entry contained two extra “}” at the end. These were removed.

### 4. FactoryTalk View ME P\_Seq tag correction

In the Sequencer (P\_Seq) Faceplate and Quick Display, changed the tags for the Quantity Reset button from OCmd\_DefQtyReset and Rdy\_DefQtyReset to OCmd\_StdQtyReset and Rdy\_StdQtyReset

### 5. Simple Sequencer (P\_Seq) Start Button

The P\_Seq (Simple Sequencer) Add-On Instruction logic was modified to correct the operation of the Rdy\_SeqStart bit. This bit enables the sequence Start button on the Faceplate and Quick Display. Previously, the button, which issues the Operator Start command (OCmd\_Start) was being enabled, rather than grayed-out, in Program Mode.

### 6. Alarm Builder Anomalies fixed in this Release (Version 5.5.5 of the Alarm Builder)

#### *Error Generating OPC Excel Workbook for IO Data Types*

The OPC Excel workbook tool creates Excel worksheets using data type names. Since IO data type names can contain “.” characters and Excel does not allow “.” as part of a worksheet name, an error is generated when generating OPC Excel workbooks for ACD files containing IO data types. This version replaces “.” characters with “\_” when creating worksheets.

#### *AE View Command Not Correct for Array Tags when Using “/t” Option*

Array tags must be enclosed in {brackets} when creating AE display command using “/t” option.

#### *Missing “::” Prefix for ME Tag Address for Program Scoped Tags*

For program scoped tags, the ME tag address must be prefixed with “::”, for example, “::[DeviceShortcutName]Program:MyProgramName.MyProgramScopedTag.Alm\_Hi”. The “::” is missing from program scoped tags in the ME alarm import file generated by Alarm Builder versions 5.4.7 to 5.5.3 – it was removed to be consistent with ME tag address for controller scoped tags (for example, “[DeviceShortcutName]MyControllerScopedTag.Alm\_Hi”).

#### *SILAlarm Import File*

In previous versions, Alarm Builder creates the SILAlarm import file as a tab delimited text file without using text qualifier characters. Text qualifier characters were not needed since the tool makes sure that each exported field does not contain tab characters, new-line, or carriage return characters. This allows the file to be imported as a tab delimited file without any special parsing of the individual fields.

However, the SILAlarm import function uses double-quote (”) as the text qualifier character when importing text files. For example, if a tag’s engineering unit is configured as one “ (to denote inches), then the field must be configured as four consecutive double-quotes (””) in the text

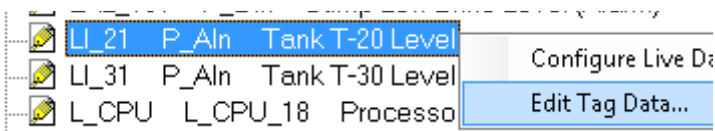
qualified format text file (the single double-quote is replaced with two double-quotes and the string must be enclosed with leading and ending double-quotes for a total of four double-quotes). The import function parses fields enclosed with leading and ending double-quotes (for example, it converts four consecutive double-quotes to return a single double-quote as the actual field value).

To be consistent with the SILAlarm import function, Alarm Builder now generates the SILAlarm import file as a tab delimited text file using double-quote as the text qualifier character. When Alarm Builder imports SILAlarm results text file, it now assumes the results text file uses double-quote as the text qualifier character.

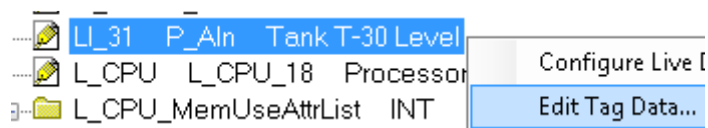
### *Edit Tag Data Window Shows Same Tag Values for Different Tags*

When more than one tag data window is opened for different tags of the same data type, all the tag windows show tag data for the last window opened.

For example, open tag edit window for LI\_21 (a P\_Aln tag):



Then open the tag edit window for LI\_31 (another P\_Aln tag):



The LI\_21 tag data edit window shows the tag values for LI\_31:

Edit Tag Data - RSL5k\_24\_Mosquito\_ProcessLib\_3\_5\_01.LI\_21 [P\_AIn]

Program	
Tag Name	LI_21
Data Type	P_AIn
Select Filter	Cfg_String

Type in the "Value" cells to make changes. Make sure to press the Enter key after changing the value.

	Element Name	Data Type	Value
▶	Cfg_Desc	STRING_40 (LEN=40)	T-30 Oil Receiving Tank Level
	Cfg_EU	STRING_8 (LEN=8)	%
	Cfg_Label	STRING_20 (LEN=20)	T-30 Tank Level
	Cfg_Tag	STRING_20 (LEN=20)	LI_31
	Fail.Cfg_Cond	STRING_20 (LEN=20)	Input Failure
	Fail.Cfg_Tag	STRING_20 (LEN=20)	LAF_31
	FailGate.Cfg_GateCond	STRING_20 (LEN=20)	Gating Condition
	FailGate.Cfg_InpCond	STRING_20 (LEN=20)	Input Failure

## 7. Process Library Migration Tool Anomalies fixed in this release (Version 1.3 of the Migration Tool)

Corrected problem where the IREF references to AOI parameters must match the case of the parameters in the AOI definition. Error is generated if the IREF reference does not match the AOI definition exactly. The IREF reference checks are no longer case sensitive in this version.



## Revision 3.5-06 (April 17, 2017)

### Summary of Changes

The following items were changed for this version of the library.

### System Features

The following features were added for this version of the library.

#### 1. Motor Operated Valve: New Configurable Coast to Limit Switch Feature

The P\_ValveMO Add-On Instruction and Faceplate were modified to add a new Configuration parameter, Cfg\_CoastToLS. The default value of 1 for this parameter results in the P\_ValveMO instruction operating in the same manner as previous revisions:

- If the valve actuator is moving and a Stop command is issued (OCmd\_Stop or PCmd\_Stop), the Out\_Stop output is energized to stop valve motion. (This is usually done by triggering a relay that breaks the seal-in for the valve motor.) The valve status is shown as “Stopped” (Sts\_Stopped = 1).
- If the Stop has been issued, but the valve actuator “coasts” into a limit switch, the valve status is changed to “Opened” or “Closed” to reflect the actual position of the valve. Sts\_Stopped goes to 0 and Sts\_Opened or Sts\_Closed goes to 1.

When the Cfg\_CoastToLS parameter is set to 0, coasting into a limit switch in the Stopped state is ignored, and the valve status will remain “Stopped.”

The Process Library Online Configuration Tool spreadsheet P\_ValveMO tab and Setup tab have been modified to add this new parameter. This includes the Online Configuration Tool spreadsheet included with the Mosquito Station sample application.

The new parameter Cfg\_CoastToLS was added to both the FactoryTalk View ME and SE P\_ValveMO faceplates.

#### 2. New Bulletin 1719 HART I/O Module Add-On Instructions (V24 or later)

Add-On Instructions were added to the Library of Premier Integration objects for HART analog inputs and analog output for Bulletin 1719 Intrinsically Safe I/O.

The following instructions were added:

- I\_1718\_1719\_AI4H is used with the 1719-IF4H and the 1719-IF4HB HART analog input modules, and with the 1719-CF4H configurable HART analog module when configured as analog input.
- I\_1718\_1719\_AO4H is used with the 1719-CF4H configurable HART analog module when configured as analog output.

These instructions are designed to be used with both the Bulletin 1719 (Zone 2) modules and the Bulletin 1718 (Zone 1) modules; however, at the time of this release, Bulletin 1718 modules were not released or available for testing. The instructions have only been tested with the Bulletin 1719 devices.

As with the other HART I/O module objects, there are no HMI graphics for these instructions; the instructions provide arrays of channel data for use with the P\_AInHART and P\_AOutHART instructions and their corresponding graphic symbols and faceplate.

**IMPORTANT:** For the 1719 devices, channels are numbered starting with 01! These are four-channel modules, so the channels are numbered 01, 02, 03 and 04, both in the device and in the Add-On Profile for the Input and Output data assemblies (the “:I” and “:O” tags). But the ChanData array tag uses indices [0], [1], [2], and [3], like the other HART module AOIs. **Be aware of this when you map the input data!** Notice how the examples in the Premier Integration Samples application use the second channel, Channel 02, on the device ( :I.Ch02.Data, for example ) and use ChanData[1] (the second member of the array) to link to the P\_AInHART instruction!

**IMPORTANT:** The Add-On Profile for these modules requires Studio 5000 Logix Designer revision 24 or later. These instructions do not appear in the Premier Integration Samples app for V23 and earlier.

### 3. Process Library Migration Tool Features (Version 1.4 of the Migration Tool)

In order to aid customers who use a tag naming convention with tag names that exceed 20 characters, the type of Navigation Tag (“NavTag”) configuration parameters was changed in Version 3.5-05 Process Library. Previously these were fixed at 20 characters (type “STRING\_20”). The type of all Cfg\_\*NavTag\* items (examples: Cfg\_NavTag, Cfg\_PVNavTag, Cfg\_CVNavTag[0], etc.) has been changed to “STRING\_NavTag”. The default size of this type has been set to 20 characters, the same as the “STRING\_20” type previously used, in order to work with the existing graphics.

Since the data type for the local navigation string tags is changed from STRING\_20 to STRING\_NavTag, a data type collision occurs when manually importing the AOI using Logix Designer. As a result, the navigation tag parameters are reset to the default NULL string values when the AOI tags are updated (i.e., the original navigation tag configuration is lost).

For example, the following Version 3.5-01 P\_Intlk tag has the following navigation tag configuration:

Add-On Instruction Definition - P\_Intlk v3.5 01 Release

General Parameters Local Tags Scan Modes Signature Change History Help

Name	Data Type
+ Cfg_CondTxt	STRING_20[16]
+ Cfg_Desc	STRING_40
+ Cfg_Label	STRING_20
+ Cfg_NavTag	STRING_20[16]

Data Context: P50\_Intlk (Controller)

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[0] 'G40\_Intlk'

Dest Cfg\_NavTag[1] 'G40\_Intlk'

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[2] 'EAL\_P50'

Dest Cfg\_NavTag[3] 'IAH\_P50'

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[4] 'VAH\_P50'

Dest Cfg\_NavTag[5] 'FAL\_P50'

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[6] 'TIS\_P50'

Dest Cfg\_NavTag[7] 'P50\_HiBearingTemp'

If the above AOI is updated to version 3.5-05 using Logix Designer, then the updated tag contains the following AOI definition and navigation tag values:

Add-On Instruction Definition - P\_Intlk v3.5 05 Release

General Parameters Local Tags Scan Modes Signature Change History Help

Name	Data Type
+ Cfg_CondTxt	STRING_20[16]
+ Cfg_Desc	STRING_40
+ Cfg_Label	STRING_20
+ Cfg_NavTag	STRING_NavTag[16]

Data Context: P50\_Intlk (Controller)

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[0]

Dest Cfg\_NavTag[1]

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[2]

Dest Cfg\_NavTag[3]

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[4]

Dest Cfg\_NavTag[5]

Tagnames for destinations of Navigation buttons

LOWER Lower Case

Source Cfg\_NavTag[6]

Dest Cfg\_NavTag[7]

This version of the migration tool checks for STRING\_20 to STRING\_NavTag changes in the AOI definitions. If a change is found, the tool stores the original navigation tag configuration prior to updating the AOIs. After the AOIs are updated, it restores the original navigation tag parameters in the updated AOI tags.

## Anomalies

The following anomalies were resolved in this release.

### 1. 1715-OF8I Module (Add-On Profile) – Defined Data Types (V20 or later)

The first release of the I\_1715OF8I\_FW3 Redundant I/O HART Analog Output Module Add-On Instruction was tested with pre-release Add-On Profiles. At final release of the 1715 I/O Firmware 3.x and associated Add-On Profiles, the Output and Configuration data types (and their names) were corrected. In this Library release, the I\_1715OF8I\_FW3 instruction has been modified to align with the data types and type names in the final product release.

If you were testing the 3.5-04 version of this Add-On Instruction with pre-release firmware and Add-On Profile, you will need to perform these steps:

- Install the updated firmware in the 1715-AENTR and in the I/O modules.
- Install the updated Add-On Profile for the 1715-AENTR. (You must shut down RSLogix 5000 or Studio 5000 Logix Designer software to do this.
- Open the controller application and save it as .L5K (export)
- Import the unmodified .L5K file and save it as a new application. This removes the old Module-Defined Types from the application and creates the :O and :C tags with the new types.
  - You will have error indications in the I\_1715OF8I\_FW3 Add-On Instruction definition for the Ref\_Cfg and Ref\_Out parameters.
  - The :C tag associated with the analog output card should now be of type “AB:1715\_AO8\_V3:C:0”, and the :O tag associated with the analog output card should now be of type “AB:1715\_AO8\_V3:O:0”.
- Import the 3.5-06 version of the I\_1715OF8I\_FW3 Add-On Instruction.
- Check the instance of the instruction in the code to verify the alignment of the operands of the instruction. The errors introduced on import may have cause the Ref\_Cfg and Ref\_Out parameters to be left unassigned and the other references shifted down. You can drag each operand up to its proper place, then delete the last “unknown” entries to correct.

**IMPORTANT:** The I\_1715IF16\_FW3 and I\_1715OF8I\_FW3 instructions are for use with Firmware major revision 3 with redundant modules, with SIL “disabled”, and with HART “enabled” in the module connection type.

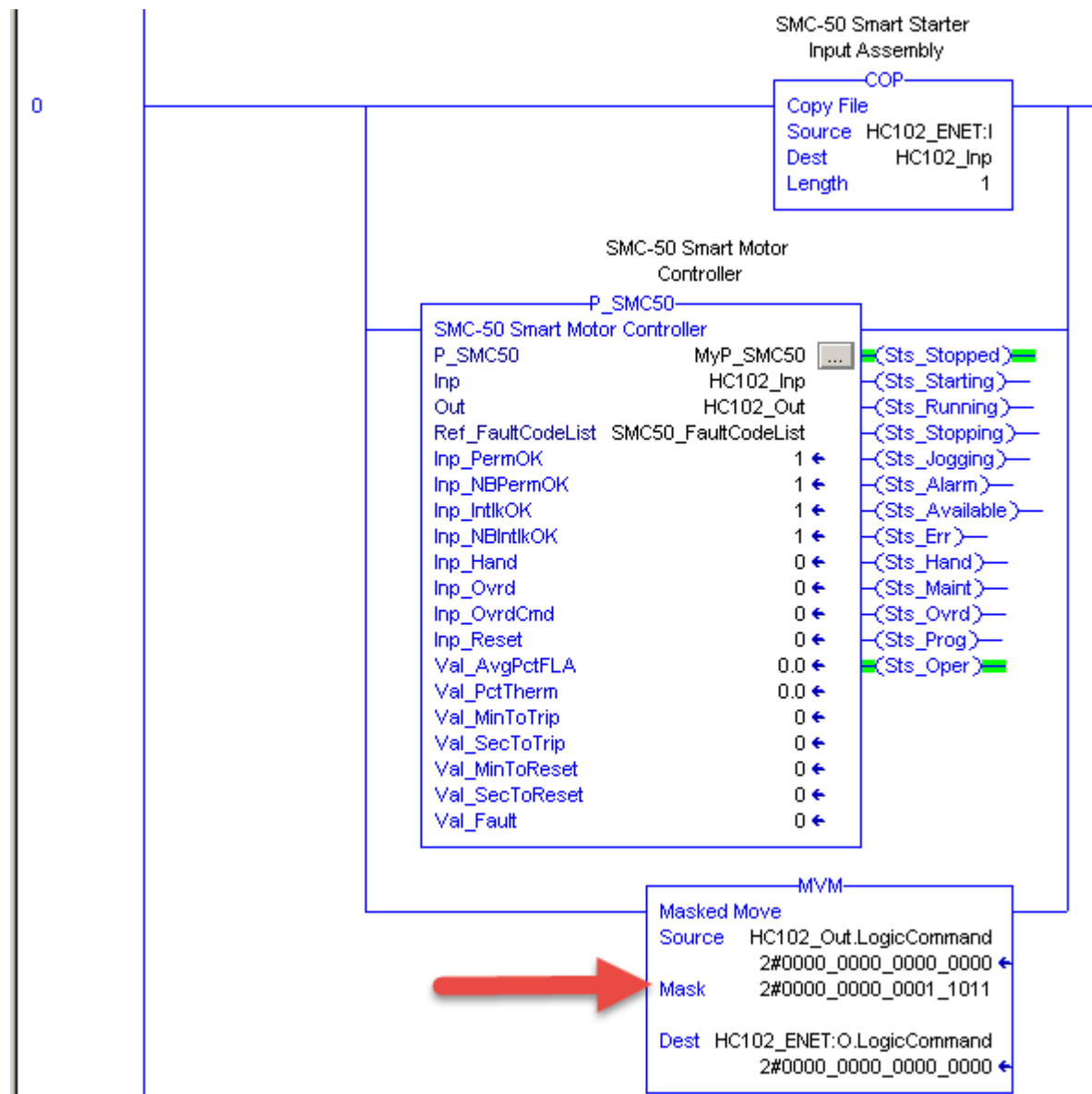
**IMPORTANT:** The Add-On Profile for these modules requires RSLogix 5000 or Studio 5000 Logix Designer revision 20 or later. These instructions do not appear in the Premier Integration Samples app for V18 and V19.

## 2. SMC-50 Smart Motor Controller Jog Function

The P\_SMC50 Add-On Instruction and its associated Output User-Defined Type (P\_SMC50\_Out UDT) were modified to correct operation of the “jog” (slow speed) function.

Previously, the Output UDT had “Jog” assigned to Bit 2 of the LogicCommand word. The correct function of this bit is the “Stop Option”. The jog function uses Bit 4 (“SlowSpeed”) of the LogicCommand.

This release includes an updated UDT definition and updated Add-On Instruction logic to use Bit 4, SlowSpeed, to execute the Jog function. Along with this, the mask used in the MVM (Move with Mask) instruction on the rung for the P\_SMC50 instruction must be modified. This is reflected in the RUNG import file included with the library, but if you are updating an existing application, you must modify the mask in the MVM instruction!



Notice the Mask value has been changed to have Bit 2 = 0 and Bit 4 = 1. This ties the “SlowSpeed” bit (Bit 4) to this Add-On Instruction and frees up the “StopOption” bit (Bit 2) for other code to manipulate if needed.

It is interesting to note that the SlowSpeed command bit functions like the Jog bit in most Allen-Bradley drives, but the SlowSpeed function is configurable for a speed of -15.0% to + 15.0%. **The negative values mean motor rotation is in the reverse direction!** However, this Add-On Instruction does not read the value of the SlowSpeed configuration and it cannot change the symbol of the Jog button on the faceplate if configured to jog reverse. Be sure to specifically let your operators know if this “jog” function on the SMC-50 will be used to run the motor backwards!

### 3. E300 Overload Relay Examples

In sample applications containing an E300 Overload Relay (193-ECM-ETR in the I/O Configuration tree), the configuration of the E300 was modified to align with the requirements of the P\_E300Ovld Add-On Instruction. The firmware revision was set to 5.1, and the assignments of the user-defined values (datalinks) in the input assembly were set to those required by the AOI.

In previous sample apps, the E300 was left at firmware 1.1 and the datalinks at their default values. If you dragged or copied this device into your own application, it would not be configured correctly for use with the P\_E300Ovld instruction. Now the example module configuration is usable with the code sample.

### 4. Navigation Buttons in the P\_ValveHO and P\_MotorHO Quick Displays

Modified the visibility in the navigation button for the Valve Stats display in the P\_ValveHO Quick Display so it is not affected by Cfg\_HasTrip.

Modified the visibility in the navigation button for the Runtime and Restart Inhibit displays in the P\_MotorHO Quick Display so it is not affected by Cfg\_HasTrip.

These changes affected the following files:

- (RA-BAS) P\_MotorHO-Quick.gfx
- (RA-BAS) P\_ValveHO-Quick.gfx
- (RA-BAS-ME) P\_MotorHO-Quick.gfx
- (RA-BAS-ME) P\_ValveHO-Quick.gfx

### 5. P\_Prompt Select Display Title Bar

Changed the tag parameter used for the title bar from #3 to #4 in the ME Prompt Select Display “(RA-UI-ME) P\_Prompt-Select.gfx”.

## 6. Alarm Builder Anomalies fixed in this Release (Version 5.5.6 of the Alarm Builder)

### Added Maximum String Length Checking When Reading String Tags

The software reads Logix string tags by reading the array of characters. In previous versions, the number of characters read is based on the string length value (LEN) set in the tag. When using Logix Services to update AOIs and local string tag data type has changed, Logix incorrectly sets the tag string length to 196 even though the maximum string length allowed is less than 196. For example, when updating Process Library AOIs to Version 3.5-05, the string data type used for navigation tags is changed from “STRING\_20” to “STRING\_NavTag”. As a result, all the navigation tags are reset with LEN equal to 196 even though the maximum string length allowed is 20. In previous versions, the software attempts to read 196 string characters in the DATA array – this results in an array out-of-bound error (maximum array size is 20). This version checks the maximum array size defined in the data type when reading string tags (e.g., it will only read 20 array elements even if the LEN is set erroneously to 196).

[-] Cfg_NavTag	Local	{...}	{...}		STRING_NavTag[16]
[-] Cfg_NavTag[0]		*\$00\$00\$00\$00\$00\$00\$00\$...	{...}		STRING_NavTag
[+] Cfg_NavTag[0].LEN		196		Decimal	DINT
[-] Cfg_NavTag[0].DATA		{...}	{...}	ASCII	SINT[20]
[+] Cfg_NavTag[0].DATA[0]		*\$00*		ASCII	SINT
[-] Cfg_NavTag[0].DATA[1]				ASCII	SINT

### Auto Reset Control Tags Configuration in Alarm Definition Builder

Digital	Status Tags	Control Tags
Control Tag Elements (Read Logix Tag Value from Controller and Sets Corresponding AE Tag)		
Acknowledge Tag:	.In	<< X <input type="checkbox"/> Auto Reset
Disabled Tag:		<< X <input type="checkbox"/> Auto Reset
Enable Tag:		<< X <input type="checkbox"/> Auto Reset
Suppress Tag:		<< X <input type="checkbox"/> Auto Reset
Unsuppress Tag:		<< X <input checked="" type="checkbox"/> Auto Reset
Shelve Tag:		<< X <input type="checkbox"/> Auto Reset
Unshelve Tag:		<< X <input type="checkbox"/> Auto Reset

Fixed the error where changing the Unshelve Tag’s Auto Reset check box changes the Unsuppress Tag’s Auto Reset value.

### Replicate “Alm\_\*” Configuration

In previous versions, there is a “PlantPAX Auto Config” button used for copying alarm configuration from one alarm element to all other alarm elements in the data type’s alarm definition.

Current Digital Alarm Element: Alm\_HiHi

Digital Status Tags Control Tags

Control Tag Elements (Read Logix Tag Value from Controller and Sets Corresponding AE Tag)

Acknowledge Tag:	.HiHi.Com_AE.1	<< X	<input type="checkbox"/> Auto Reset
Disabled Tag:	.HiHi.Com_AE.10	<< X	<input checked="" type="checkbox"/> Auto Reset
Enable Tag:	.HiHi.Com_AE.11	<< X	<input checked="" type="checkbox"/> Auto Reset
Suppress Tag:	.HiHi.Com_AE.7	<< X	<input checked="" type="checkbox"/> Auto Reset
Unsuppress Tag:	.HiHi.Com_AE.8	<< X	<input checked="" type="checkbox"/> Auto Reset
Shelve Tag:	.HiHi.Com_AE.4	<< X	<input checked="" type="checkbox"/> Auto Reset
Unshelve Tag:	.HiHi.Com_AE.5	<< X	<input checked="" type="checkbox"/> Auto Reset
Shelve Duration Tag:	.HiHi.Cfg_MaxShelfT	<< X	

Shelve Duration: (minute)  Specify Shelve Duration or Tag or blank (not both)

Select Data Type Elements...

Copy... Search/Replace PlantPax Auto Config

There is also a separate PlantPax auto configuration tool in the alarm definition builder used for automatically configuring the AE status and control tags for all PlantPax AOIs.

Configure Alarm Definitions for Logix Data Types in Controller V28\_LT400

Tools

Configure AE Status and Control Tags for PlantPax Process Library AOIs...

To avoid confusion between the two functions, the “PlantPax Auto Config” button has been renamed to “Replicate ‘Alm\_’ Config”. The function has been updated to copy the tag configuration and the Auto Reset configuration (the previous version did not copy the Auto Reset configuration).

Current Digital Alarm Element: Alm\_HiHi

Digital Status Tags Control Tags

Unsuppress Tag: .HiHi.Com\_AE.8

Shelve Tag: .HiHi.Com\_AE.4

Unshelve Tag: .HiHi.Com\_AE.5

Shelve Duration Tag: .HiHi.Cfg\_MaxShelfT

Shelve Duration: (minute)  Specify Shelve Duration or Tag or blank (not both)

Select Data Type Elements...

Copy... Search/Replace Replicate "Alm\_\*" Config



## Revision 3.5-07 (August 9, 2017)

### Summary of Changes

The following items were changed for this version of the library.

### System Features

The following features were added for this version of the library.

#### 1. Alarm Builder Features (Version 5.5.8 of the Alarm Builder)

The following Alarm Builder import/export functions for SILAlarm enhancements have been added:

- Added ability to write SILAlarm rationalization results to online controller tags using RSLinx Classic OPC/DA. In previous versions, the rationalization results could only be used for updating the offline ACD files.
- Option to use SILAlarm rationalization results with “Approved” status or any status. In previous versions, only “Approved” results were used. There may be cases where the user has already applied the desired export filters in SILAlarm and these filters may include results with different status.
- To support future SILAlarm versions, the import/export functions support numeric priority values. SILAlarm Version 2.9.1 uses string priority values. The PlantPax AOIs use numeric severity values. When creating import files for Version 2.9.1 and older, the software converts the numeric severity values to string priority levels. New options are provided to use AOI numeric severity values directly.

#### 2. Process Library Migration Tool Features (Version 1.5.0.02 of Migration Tool)

The tag data memory size for Version 3.5 AOIs are typically much larger than the memory size for Version 1 and Version 2 AOIs. Hence, the converted file will require more memory and may require changing to a controller with more memory. The user should use Logix Designer to check memory usage.

Version 1.5 includes a new tag data memory usage change value in the migration status table. For example:

File Name	Migration Status	Tag Data Memory Change
MosquitoStation_1_1_01_V24_Emulator.ACD	Success	+61132 bytes (+177%)
ProcessObjects_1_5_V24_Emul_20101001.ACD	Success	+20888 bytes (+152%)
RSL5k_18_Mosquito_PlantPaxLib_3_0_10.ACD	Success	-812 bytes (-1%)
RSL5k_18_Template_PlantPaxLib_2_0_10.ACD	Success	+3336 bytes (+41%)

The results log includes a tag data change summary for each data type updated. For example:

Tag Data Memory Summary:				
DataTypeName	TagCount	OldSize	NewSize	Change
P_Alarm	1	44	156	112
P_Mode	0	4	48	0
P_Aln	27	548	1868	35640
P_Dln	36	224	496	9792
P_Motor	2	368	932	1128
P_MotorHO	1	320	696	376
P_ValveHO	2	280	828	1096
P_ValveMO	15	412	948	8040
P_Intlk	4	412	932	2080
P_Perm	4	400	920	2080
P_Reset	1	20	148	128
P_ResInh	2	172	304	264
P_RunTime	3	68	200	396
T_ADD	0	56	84	0
Total Tag Data Memory Usage for Data Types Updated:				
Old version = 34516				
New version = 95648				
Change = +61132 bytes (+177%)				

### 3. Control Strategies for Low Voltage Motor Control Centers

Five new Control Strategy Routine Imports were added for common Configure-to-Order (CtO) Centerline Motor Control Center buckets using full voltage non-reversing and reversing starters and E300 Overload Relays. The new strategies are:

**PS\_LVMCC\_FVNR\_HOA\_E300Ovld\_OpMode2:** Full-voltage non-reversing starter with E300 Overload Relay in Operating Mode 2 (Overload Relay only), with hardwired Hand-Off-Auto (H-O-A) switch, start and stop pushbuttons, and run pilot light. (Ref. drawing D-10002839139 v00.)

**PS\_LVMCC\_FVNR\_E300Ovld\_OpMode3:** Full-voltage non-reversing starter with E300 Overload Relay in Operating Mode 3 (FVNR, with or without feedback, network only). (Ref. drawing D10002839145 v00.)

**PS\_LVMCC\_FVR\_E300Ovld\_OpMode5:** Full-voltage reversing starter with E300 Overload Relay in Operating Mode 5 (FVR, with or without feedback, network only). (Ref. drawing D10002839133 v00.)

**PS\_LVMCC\_FVNR\_E300Ovld\_OpMode11:** Full-voltage non-reversing starter with E300 Overload Relay in Operating Mode 11 (FVNR, with or without feedback, network plus E300 operator station). (Ref. drawing D10002839143 v00.)

**PS\_LVMCC\_FVR\_E300Ovld\_OpMode13:** Full-voltage reversing starter with E300 Overload Relay in Operating Mode 13 (FVR, with or without feedback, network plus E300 operator station). (Ref. drawing D10002839131 v00.)

These control strategies are implemented in Function Block Diagram language and include the following blocks on three sheets:

- P\_Motor or P\_MotorRev as appropriate
- P\_E300Ovld
- P\_RunTime
- P\_ResInh
- P\_Perm (Sheet 2)
- P\_Intlk (Sheet 3)

Strategies are pre-populated with IREFs and OREFs for I/O to match the MCC bucket wiring from the factory. To use these strategies:

1. Add the E300 Overload Relay to the I/O configuration and configure it for your application to match the MCC bucket wiring, as specified in “Note 2” on the drawing.
2. Select the appropriate Program and import the Routine for the control strategy. On import, go to the Tags item in the tree on the dialog and use the Search/Replace function to change the Tag Names to match your application.
3. Add the appropriate graphic symbols to your PlantPAx FTVIEW application and link them to the Tags in your application in the usual manner.
4. Verify, Save, Download and Run the application in your controller.
5. Call up the faceplate and run your motor! (For the Operating Mode 2 strategy with HOA, you can put the H-O-A switch in the HAND position and use the start and stop buttons to run the motor; the P\_Motor Add-On Instruction will track the operation in HAND mode.

## Anomalies

The following anomalies were resolved in this release.

### 1. Alarm Builder Anomalies fixed in this Release (Version 5.5.8 of the Alarm Builder)

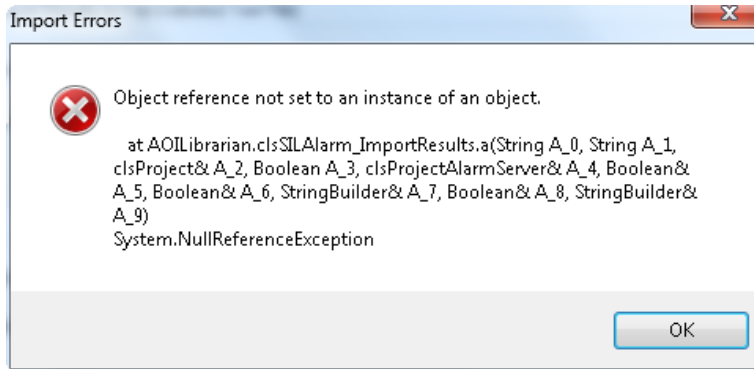
The following errors have been fixed in this version.

#### *Individual Array Tag Elements Not Loaded into Process Tree*

A project is saved with a Process Tree folder containing individual array tag elements. The error is that the array tag elements do not appear when the project is reloaded.

#### *Create SILAlarm Response Files with Data Not “Approved”*

The following error is generated when importing the SILAlarm rationalization results and the create SILAlarm response file option is used and a data row contains “Current Status” value that is not “Approved”:



### ***SILAlarm Import File Does Include Array Tag Elements***

When creating SILAlarm import file for projects containing array tags with alarms, the import file does not contain alarm tags for the individual array elements.

### ***AE and ME Alarm Builder with “Sync – HasAlarm” Disabled***

Consider the following steps:

1. Load project in Alarm Builder.
2. Use the Alarm Builder default options or have the “Sync – HasAlarm” option checked.
3. Run Alarm Builder to create AE XML import file or ME XML import file. The file contains only alarms with corresponding Logix HasAlarm set to 1. This is the correct behavior.
4. Now change the builder option with “Sync – Has Alarm” unchecked and “Use Default Options” unchecked.
5. Run Alarm Builder again to create the AE XML import file or ME XML import file. The error is that the XML file contains the same alarms as generated in Step 3 – the file was supposed to contain all alarms that are enabled in the alarm definitions. The error is caused by the program not resetting an internal alarm export flag to the default alarm definition enabled value.

The AE/ME XML file would have been created correctly if the following steps were used:

1. Load project in Alarm Builder.
2. Change the builder option with “Sync – Has Alarm” unchecked and “Use Default Options” unchecked.
3. Run Alarm Builder. The AE XML import file contains all possible alarms regardless of the HasAlarm value.

## **2. Process Library Migration Tool Anomalies Fixed (Version 1.5.0.02 Migration Tool)**

### ***AOI Size***

The software includes a configuration file (LogixViewAOIs.xml) used for storing the AOI size for the AOIs that the software encounters. The AOI size is used for reading array tags from raw binary hex data in the XML export for Logix versions 27 and older.

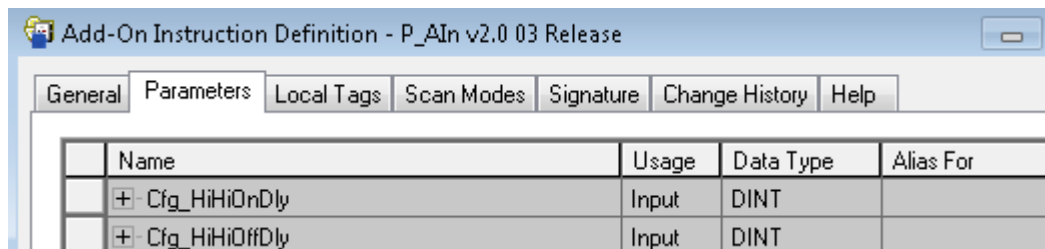
In previous versions, the software calculates the AOI size by determining the number of raw binary hex data bytes contained in a tag XML export. Logix versions 28 and higher no longer includes raw data

format in the tag XML export. As a result, the calculated AOI size was incorrect for Logix versions 28 and higher. The software has been updated to use another method for determining AOI size that works for all Logix versions.

### ***Logix Does Not Maintain Certain Tag Values After AOI Update***

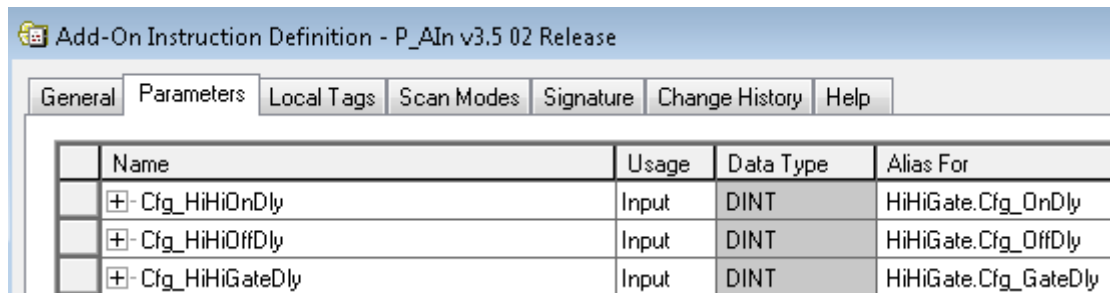
When an AOI definition is updated, the affected AOI tags are updated by Logix with the new data structure. Logix copies tag element values from the old tag to the updated tag for element names that do not change. However, Logix does not copy the old values if the AOI parameter alias property has changed – this is true even if the element data type has not changed. As a result, those tag element values are reset to the updated AOI definition’s default parameter values.

For example, the gating parameters used in Version 2 AOIs are not aliased to local tags. The gating logic is incorporated within the AOI logic:



Name	Usage	Data Type	Alias For
+ Cfg_HiHiOnDly	Input	DINT	
+ Cfg_HiHiOffDly	Input	DINT	

Version 3.x AOIs use P\_Gate local tags for gating calculations. The gating parameters are aliased to the P\_Gate local tags:



Name	Usage	Data Type	Alias For
+ Cfg_HiHiOnDly	Input	DINT	HiHiGate.Cfg_OnDly
+ Cfg_HiHiOffDly	Input	DINT	HiHiGate.Cfg_OffDly
+ Cfg_HiHiGateDly	Input	DINT	HiHiGate.Cfg_GateDly

When the V2 AOI tags are updated to V3.x, the gating parameter values (e.g., Cfg\_HiHiOnDly and Cfg\_HiHiOffDly) are reset to the default V3.x AOI definition values and do not maintain their original values.

As a work around, the Migration Tool checks if there are AOI definitions with parameter aliasing changes. If there are, it stores the original tag element values for the changed parameters and then restores the original values after the ACD file has been updated with the migrated AOIs.

### 3. Two-Speed Motor (P\_Motor2Spd) and Reversing Motor (P\_MotorRev) Add-On Instructions

The logic of the Two-Speed Motor and Reversing Motor Add-On Instructions was changed to correct the enumeration values used for Override Mode operation.

In previous versions, the values of Inp\_OvrCmd used by the instructions did not match the values documented in the Reference Manuals for the instructions. The AOI logic was changed to use the correct values:

Instruction	Inp_OvrCmd = 0	Inp_OvrCmd = 1	<b>Inp_OvrCmd = 2</b>	<b>Inp_OvrCmd = 3</b>
P_Motor2Spd	No command	Stop	Start Fast	Start Slow
P_MotorRev	No command	Stop	Start Forward	Start Reverse

The bold text indicates the corrected values as reflected in Version 3.5-07 of these instructions.

This is the only change made to these AOIs for this release. If you are using these AOIs in an existing application, it should not be necessary to update solely for this change. Still, whether or not you update the definitions of these AOIs in your project, you should inspect any code that uses Override Mode (Inp\_Ovr = 1) on these instructions. For version 3.5-07, use the values above for the Override Mode Command input. For previous versions, verify the enumeration values you are using against the source code of each AOI to be sure you are using the correct command.

There are no HMI changes associated with this AOI change.

### 4. Motor-Operated Valve (P\_ValveMO) Add-On Instruction

The logic of the Motor-Operated Valve Add-On Instruction was modified to change the handling of the Full Stall and Transit Stall conditions. The Full Stall condition occurs when the valve is commanded to move (say, open) but the valve does not move from its original position (closed) within a set time. The Transit Stall condition occurs when the valve is commanded to move (open), and the valve moves from its original position (closed) but does not reach the commanded position within a set time.

Previously, if one of these conditions occurred and the valve was configured to shed on a position failure, a reset of the failure would cause the valve outputs to energize and retry the move. The AOI logic was corrected so that the reset condition does not trigger valve motion; after a reset of the failure, the valve must be commanded to move in order for the Open or Close output to energize. As part of this correction, now when a Full Stall or Transit Stall condition occurs, it is always latched in and the valve cannot be moved until a Reset is received.

**IMPORTANT:** If the valve is in Program or Override Mode and a valid command is being sent to the valve by the Program or Override Logic, the valve WILL still move after being reset because the automation logic IS commanding the move. Program or Override logic should not issue commands for motion immediately upon reset until some other action (e.g., Phase Restarting logic) has been commanded by the operator.

There are no HMI changes associated with this AOI change.

### **5. Simple Sequencer (P\_Seq) Add-On Instruction and Graphics**

The Simple Sequencer logic and parameters were modified to allow a Step Time greater than 24.85... days. Previously, the Step Timer was a simple TON, with a maximum preset of  $2^{31}-1$  milliseconds, which is 24.855134 days. The instruction and associated displays were changed to allow a single step of a sequence to run longer than 24.85 days and be shown correctly on screen.

## Revision 3.5-08 (October 13, 2017)

### Summary of Changes

This update includes patches that were issued since the last Maintenance Release (Revision 3.5-07) of the Library, plus new updates for this release (Revision 3.5-08).

### Patches since Revision 3.5-07

The following patches were issued since Revision 3.5-07 and are included in this update.

#### 1. n-Position Device (P\_nPos) 3.5-07 Patch01

The n-Position Device Add-On Instruction (P\_nPos) was patched (August 6, 2017) to rework the internal state machine logic to:

- Ensure that only one state transition can take place each scan.
- Ensure that it is not possible to get the state machine to loop back, resulting in excessive scan time, or, in a particular configuration, a loop resulting in watchdog timeout.

#### 2. Common Alarm (P\_Alarm) 3.5-07 Patch01

The Common Alarm (P\_Alarm) Add-On Instruction was patched (August 6, 2017) to remove a timing issue that affected FactoryTalk View ME applications where it was possible to get the alarm acknowledgement out of sync between the state of the Add-On Instruction and the state of the FactoryTalk View ME terminal's alarm summary when acknowledging a "chattering" (frequently recurring) alarm.

### Functional Changes

The following functional changes were made in the library for this release.

#### 1. PowerFlex 7000 Medium Voltage Drive Messaging

The logic of the PowerFlex 7000 Medium Voltage Drive Add-On Instruction (P\_PF7000) was modified to reduce the number of MSG instruction executions required to get all the data needed from the drive. Previously, a single Parameter read instruction was used several times to read non-real-time parameters from the drive. Now the instruction uses a "DPI Scattered Read" MSG to read multiple parameters from the drive at once. Twenty-four parameters from the drive are now read twelve at a time with two MSGs. Also, logic has been modified to throttle the MSG execution to no more than one MSG triggering per second.

Previously, if the Add-On Instruction were executed in a Continuous Task or a Task with a very short period, it was possible to overwhelm the drive or the network with MSG instructions, to the point that other drive communications could be impacted.

**IMPORTANT:** When updating existing instances of the P\_PF7000 instruction, it is best to delete the existing instance and its MSG tags, then use the RUNG import method to create the new instance and its MSG tags. This ensures that the parameter MSG configuration is updated to use the DPI Scattered Read



service. Before bringing the changes online, double-check that the PATH of the MSG has been set correctly. If the PATH is incorrect, it may require a RUN / PROGRAM / RUN cycle of the controller to make the PATH correction take effect.

## **2. Drive Fault Code Lookup Tables: Fault Ordering**

The tags for drive fault code to text lookup were modified. The same fault codes and descriptions are listed, but the codes are arranged to help reduce the scan time bump encountered in searching the table when drives are faulted. In most configurations, drives attached to a controller via EtherNet/IP (e.g., 20-COMM-E interface) will fault when the controller goes to PROGRAM mode or on an I/O communication fault. The fault codes for these common cause faults (across multiple drives simultaneously) were moved to the beginning of each lookup table to reduce search time. Next are the application faults (e.g., overcurrent trip), then drive hardware faults; finally, the tables have the drive configuration faults and drive hardware incompatibility faults, which are extremely unlikely to be encountered once a drive has been commissioned.

The process library online configuration tool (in Microsoft Excel) has been updated to include the new arrangements of fault codes (the last several sheets in the file).

To use the new fault code lookup tables (save your existing project first!):

- If modifying the project offline: Open the controller tags list and select the Edit Tags tab. Delete the old tag. Open one of the Template or Samples applications, go to the controller tags, and copy the updated tag from one that application into your offline project. Save the updated project and download to your controller.
- If modifying the project online (you need an activated copy of RSLinx Classic): Open the process library online configuration tool in Microsoft Excel. Go to the Setup (first) tab and enter the OPC Topic Name of the controller. Then go to the tab for the fault code lookup table you want to send and click the “Send to CLx” button. **IMPORTANT:** You will be writing to an online controller! Save the project, uploading tag values, when finished.

## **3. New and Updated HART Diagnostic Lookup Tables**

The Premier Integration Samples application and the Premier Integration online configuration tool spreadsheet contain new and updated HART instrument diagnostic code lookup tables.

Updated diagnostic tables (all HART) include:

- Endress + Hauser Promag 300 and Promag 500 (rev. 1.x and 2.x)
- Endress + Hauser Promass 300 and Promass 500 (rev. 1.x and 2.x)
- Endress + Hauser Promag 400 (all revisions)

Newly supported instruments (all HART) include:

- Endress + Hauser Liquiline M CM42 Conductivity (rev. 4.x)
- Endress + Hauser Liquiline M CM42 Oxygen (rev. 4.x)
- Endress + Hauser Liquiline M CM42 pH/ORP (rev. 4.x)

- Endress + Hauser Micropilot FMR6 (rev. 1.x)
- Endress + Hauser TrustSens TM37x (rev. 1.x)
- Endress + Hauser TMT162 (rev 4.x)
- Endress + Hauser Prosonic Flow 100 (rev 1.x)

## Anomalies

The following anomalies were resolved in this release.

### 1. Built In Ramp/Soak Faceplate Status Display

Corrected the animation expression in the Global Object GO\_RMPSModeDisplay to accurately display the "Hold" used on the Ramp/Soak built-In faceplate. The following ME and SE global object files were modified:

- (RA-BAS) BuiltIn Faceplate Objects.ggfx
- (RA-BAS-ME) BuiltIn Faceplate Objects.ggfx

### 2. Lead/Lag/Spare ME Faceplate Corrections

The following FactoryTalk View ME Anomaly Corrections are included in this release:

- (RA-BAS-ME) Process Faceplate Motor Objects.ggfx - Corrected the checkbox button tag in object GO\_MSet\_MotorOoS
- (RA-BAS-ME) P\_LLS-Faceplate.gfx - Changed the number of decimal places in ndd\_Val\_Demand on the home tab from 1 to 0
- (RA-BAS-ME) P\_LLS-Config.gfx - Corrected the checkbox button tag in object GO\_Cfg\_HasNav

### 3. Analog Output CV Rate Limiting

The analog output Add-On Instruction logic for configuring and executing the CV Rate of Change Limits was modified to correct an issue with having a non-zero CV rate of change limit in one direction only (increasing, or decreasing, but not both). The logic now correctly handles a "zero" value for a rate of change limit, which is used to indicate that the rate is "unlimited" (changes are made fully in the same scan, not ramped).

Now:

- When the increasing or decreasing MAXIMUM rate of change configuration is set to zero ("unlimited"), the operator- or program-set rate of change limit can be set to zero (unlimited) or any positive value. When the MAXIMUM rate of change configuration is set to a positive (non-zero) value, the operator- or program-set rate of change limit can be set to any NON-ZERO value less than or equal to the maximum.
- When the set rate of change limit is zero (unlimited), a change in CV is propagated to the output immediately, without ramping.
- The limit for increasing can be set to zero independently of the limit for decreasing.

Previously, rate of change limiting was only skipped if BOTH limits were set to zero.

Affected objects:

- P\_AOut (analog output)
- P\_AOutHART (HART analog output)
- P\_ValveC (control valve)

#### **4. Valve Statistics Reset of Stop/Other Count**

The logic of the valve statistics (P\_ValveStats) Add-On Instruction was corrected to reset the count of Stop/Other operations on the valve. Previously, none of the count reset commands cleared this count.

#### **5. Discrete Output State and Timing Logic**

The internal state machine logic and timing logic of the Discrete Output (P\_DOut) Add-On Instruction was corrected. Previously, there was a missing transition which could have prevented going from another state to the Pulse Continuous state. Also, the timing logic could prevent certain transitions from happening until the “next” scan. These issues may not have been evident unless the instruction was executed in a fairly slow task. The issues would have been seen as a command, feedback, pulse start or pulse complete not being acted upon until one scan later.

In addition, the state logic was modified to ensure that when the Cfg\_CompletePulse configuration is set to 1, any pulse (on, off or continuous) in progress is properly completed before executing the next command. Previously, it was possible that a pulse-on or pulse-off pulse was not properly completed if a pulse continuous command were received and vice-versa.

Finally, the logic was modified to not allow pulse commands when the related pulse time is configured to zero, and to not set the Ready bit for the disallowed command (Rdy\_OnPulse, Rdy\_OffPulse, or Rdy\_ContPulse), thus graying out the button on the faceplate, if the pulse is configured with a zero duration.

## SUMMARY OF FILES IN THIS RELEASE

This release includes the following Add-On Instructions, Global Object files and Graphics files:

***RSLogix 5000 Add-On Instructions (L5X import files)*** (Object names in bold are new for Version 3.5 of the Library; Revisions and Dates in bold have been updated since the previous revision):

Object	Description	Revision	AOI Edit Date
<b>I_1715IF16_FW3</b>	<b>Allen-Bradley 1715-IF16 Module (FW 3.x)</b> (Rung and AOI exports both included) (Logix V20 or later)	3.5-04	September 16, 2016
<b>I_1715OF8I_FW3</b>	<b>Allen-Bradley 1715-OF8I Module (FW 3.x)</b> (Rung and AOI exports both included) (Logix V20 or later)	3.5-06	February 22, 2017
<b>I_1718_1719_AI4H</b>	<b>Allen-Bradley 1718 and 1719 series 4-channel HART Analog Input Modules</b>	3.5-06	March 28, 2017
<b>I_1718_1719_AO4H</b>	<b>Allen-Bradley 1718 and 1719 series 4-channel HART Analog Output Modules</b>	3.5-06	March 28, 2017
<b>I_1734scIE2CH</b>	<b>Spectrum Controls 1734sc-IE2CH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1734scIE4CH</b>	<b>Spectrum Controls 1734sc-IE4CH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1734scOE2CIH</b>	<b>Spectrum Controls 1734sc-OE2CIH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1756IF16H</b>	<b>Allen-Bradley 1756-IF16H Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1756IF8H</b>	<b>Allen-Bradley 1756-IF8H Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1756IF8IH</b>	<b>Allen-Bradley 1756-IF8IH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1756OF8H</b>	<b>Allen-Bradley 1756-OF8H Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1756OF8IH</b>	<b>Allen-Bradley 1756-OF8IH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1769scIF4IH</b>	<b>Spectrum Controls 1769sc-IF4IH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1769scOF4IH</b>	<b>Spectrum Controls 1769sc-OF4IH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1794IF8IH</b>	<b>Allen-Bradley 1794-IF8IH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016
<b>I_1794IF8IHNFXT</b>	<b>Allen-Bradley 1794-IF8IHNFXT Module</b> (Rung and AOI exports both included) <b>NOTE: available for Logix V24 or later only!</b>	3.5-02	March 22, 2016
<b>I_1794OF8IH</b>	<b>Allen-Bradley 1794-OF8IH Module</b> (Rung and AOI exports both included)	3.5-01	January 29, 2016

Object	Description	Revision	AOI Edit Date
I_EH_Flowmeter	Endress+Hauser Flowmeter Faceplate AOI (use with Promass / Promag AOIs)	3.5-01	January 29, 2016
I_EH_Promag53_FW1	Endress+Hauser Promag 53 Magnetic Flowmeter (firmware 1.x) on EtherNet/IP	3.5-01	January 29, 2016
I_EH_Promag100_FW2	Endress+Hauser Promag 100 Magnetic Flowmeter (firmware 2.x) on EtherNet/IP	3.5-01	January 29, 2016
I_EH_Promag400_FW3	Endress+Hauser Promag 400 Magnetic Flowmeter (firmware 3.x) on EtherNet/IP	3.5-01	January 29, 2016
I_EH_Promass83_FW2	Endress+Hauser Promass 83 Mass Flowmeter (firmware 2.x) on EtherNet/IP	3.5-01	January 29, 2016
I_EH_Promass100_FW3	Endress+Hauser Promass 100 Mass Flowmeter (firmware 3.x) on EtherNet/IP	3.5-01	January 29, 2016
I_EH_Sensor	Endress+Hauser Memosens™ Sensor	3.5-01	January 29, 2016
L_ChangeDet	Change Detector (Rung and AOI exports both included)	3.5-01	January 29, 2016
L_CPU_18	Processor Utilization (FW 18.x) (Rung and AOI exports both included)	3.5-01	January 29, 2016
L_CPU_19	Processor Utilization (FW 19.x) (Rung and AOI exports both included)	3.5-01	January 29, 2016
L_CPU_20	Processor Utilization (FW 20.x) (Rung and AOI exports both included)	3.5-01	January 29, 2016
L_CPU_21	Processor Utilization (FW 21.x) (Rung and AOI exports both included)	3.5-01	January 29, 2016
L_CPU_23	Processor Utilization (FW 23.x) (Rung and AOI exports both included)	3.5-01	January 29, 2016
L_CPU_24_up	Processor Utilization (FW 24.x and Later) (Rung and AOI exports both included)	3.5-05	January 6, 2017
L_Redun	Redundant Controller Monitor (Rung and AOI exports both included)	3.5-01	January 29, 2016
L_TaskMon	Task Monitor	3.5-01	January 29, 2016
P_AIChan	Analog Input Channel Diagnostics	3.5-03	May 23, 2016
P_AIn	Analog Input	3.5-02	March 28, 2016
P_AInAdv	Advanced Analog Input	3.5-02	March 28, 2016
P_AInDual	Dual Analog Input	3.5-02	March 28, 2016
P_AInFFR	Foundation Fieldbus Analog Input on 1788-EN2FFR	3.5-01	January 29, 2016
P_AInHART	HART Analog Input (use with HART Module AOIs)	3.5-04	September 16, 2016
P_AInMulti	Multiple Analog Input (up to 8)	3.5-01	January 29, 2016
P_AInPAR	Profibus PA Analog Input on 1788-EN2PAR/B	3.5-01	January 29, 2016
P_AInPAR_A	Profibus PA Analog Input on Hiprom Technologies 1788HP-EN2PA-R (Series A)	3.5-01	January 29, 2016
P_Alarm	Alarm (sub-block)	<b>3.5-07 Patch01</b>	<b>September 6, 2017</b>
P_AOut	Analog Output	<b>3.5-08</b>	<b>September 29, 2017</b>

Object	Description	Revision	AOI Edit Date
<b>P_AOutHART</b>	<b>HART Analog Output (use with HART Module AOIs)</b>	<b>3.5-08</b>	<b>October 3, 2017</b>
P_D4SD	Discrete 2-, 3- or 4-State Device	3.5-04	August 30, 2016
<b>P_DBC</b>	<b>Deadband (on/off or bang/bang) Controller</b>	3.5-05	December 13, 2016
P_DIn	Discrete Input	3.5-01	January 29, 2016
P_DoseFM	Dosing with Flowmeter	3.5-01	January 29, 2016
P_DoseWS	Dosing with Weigh Scale	3.5-01	January 29, 2016
P_DOut	Discrete Output (with pulsing)	<b>3.5-08</b>	<b>October 11, 2017</b>
P_E1PlusE	E1 Plus Overload Relay (EtherNet/IP) (Rung and AOI exports both included)	3.5-01	January 29, 2016
P_E300Ovld	E300 Overload Relay (EtherNet/IP) (Rung and AOI exports both included)	3.5-01	January 29, 2016
P_E3Ovld	E3 / E3Plus Overload Relay (Rung and AOI exports both included)	3.5-01	January 29, 2016
P_Fanout	Analog Fanout (up to 8 CVs)	3.5-05	December 13, 2016
P_Gate	Threshold Status/Alarm Gate	3.5-01	January 29, 2016
P_HiLoSel	High- or Low-Select	3.5-05	December 13, 2016
P_Intlk	Interlocks with First-Out	3.5-05	December 13, 2016
<b>P_LLS</b>	<b>Lead / Lag / Standby Motor Group</b>	3.5-05	December 13, 2016
P_Logic	Boolean Logic with Snapshot	3.5-05	December 13, 2016
P_Mode	Mode (sub-block)	3.5-01	January 29, 2016
P_Motor	Single-Speed Motor	3.5-04	September 16, 2016
P_Motor2Spd	Two-Speed Motor	3.5-07	June 22, 2017
P_MotorHO	Hand Operated Motor	3.5-01	January 29, 2016
P_MotorRev	Reversing Motor	3.5-07	June 22, 2017
P_nPos	n-Position (up to 8) Device	<b>3.5-07 Patch01</b>	<b>September 6, 2017</b>
P_Perm	Permissives	3.5-05	December 13, 2016
P_PF52x	PowerFlex 523 / 525 Variable Frequency Drive (Rung and AOI exports both included)	3.5-04	September 16, 2016
<b>P_PF6000</b>	<b>PowerFlex 6000 Medium Voltage Variable Frequency Drive (Rung and AOI exports)</b>	3.5-05	December 14, 2016
<b>P_PF7000</b>	<b>PowerFlex 7000 Medium Voltage Variable Frequency Drive (Rung and AOI exports)</b>	<b>3.5-08</b>	<b>September 29, 2017</b>
P_PF753	PowerFlex 753 Variable Speed Drive (Rung and AOI exports both included)	3.5-04	September 16, 2016
P_PF755	PowerFlex 755 Variable Speed Drive (Rung and AOI exports both included)	3.5-04	September 16, 2016
P_PIDE	PlantPAx Mode/Alarm Wrapper for PIDE built-in instruction	3.5-05	December 13, 2016
P_PIDE_only	Container for PIDE built-in instruction	3.5-01	January 29, 2016
P_Prompt	Manual Prompt	3.5-01	January 29, 2016
P_PTComp	Pressure/Temperature Compensated Flow	3.5-02	March 22, 2016
P_Reset	Reset	3.5-01	January 29, 2016

Object	Description	Revision	AOI Edit Date
P_ResInh	Restart Inhibit	3.5-01	January 29, 2016
P_RunTime	Run Time and Starts	3.5-01	January 29, 2016
P_Seq	Simple Sequencer (Rung and AOI exports both included)	3.5-07	July 31, 2017
P_SMC50	SMC-50 Smart Motor Controller (Rung and AOI exports both included)	3.5-06	February 22, 2017
P_SMCFlex	SMC-Flex Smart Motor Controller (Rung and AOI exports both included)	3.5-04	September 16, 2016
P_StrapTbl	Tank Strapping Table	3.5-01	January 29, 2016
P_ValveC	Control Valve	<b>3.5-08</b>	<b>September 29, 2017</b>
P_ValveHO	Hand Operated Valve	3.5-01	January 29, 2016
P_ValveMO	Motor Operated Valve	3.5-07	August 2, 2017
P_ValveMP	Mix-Proof Valve	3.5-04	September 16, 2016
P_ValveSO	Solenoid Operated Valve	3.5-04	September 16, 2016
P_ValveStats	2-State Valve Statistics	<b>3.5-08</b>	<b>October 3, 2017</b>
P_VSD	Variable Speed Drive	3.5-04	September 16, 2016

*Library Release Version 3.5-08 Add-On Instruction Revisions and Dates*

*NOTE: The same Add-On Instructions are used by both FactoryTalk View SE and FactoryTalk View ME.*

*NOTE: This Release includes Release 3.5-01 of the Library of Steam Table Objects:*

- *P\_PSat Saturated Steam Pressure given Temperature*
- *P\_TSat Saturated Steam Temperature given Pressure*
- *P\_Steam Steam Properties given Pressure and Temperature*
- *P\_Steam\_hs Steam Properties given enthalpy and entropy*
- *P\_Steam\_ph Steam Properties given pressure and enthalpy*
- *P\_Steam\_ps Steam Properties given pressure and entropy*

*NOTE: For your convenience, additional sets of Add-On Instructions, not part of the Rockwell Automation Library of Process Objects, are included in the distribution. These include Time and Date Math, and LINT (64-bit Integer) / LTIME (64-bit Time) Math.*

***FactoryTalk View SE Global Object Files*** (Object names in bold are new for Version 3.5 of the Library; Revisions and Dates in bold have been updated since the previous revision):

Object	Revision	Date
(RA-BAS) BuiltIn Faceplate Objects.ggfx	<b>3.5-08</b>	<b>October 13, 2017</b>
(RA-BAS) BuiltIn Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) BuiltIn Help Objects.ggfx	3.5-01	January 29, 2016
(RA-BAS) Common Faceplate Objects.ggfx	3.5-01	January 29, 2016
(RA-BAS) Logix FacePlate Objects.ggfx	3.5-04	October 7, 2016



Object	Revision	Date
(RA-BAS) Logix Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_Aln Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_D4SD Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_D4SD Motor Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_DOut Graphics Library.ggfx	3.5-01	January 29, 2016
<b>(RA-BAS) P_LLS Graphics Library.ggfx</b>	3.5-01	January 29, 2016
(RA-BAS) P_Motor Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_Motor2Spd Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_MotorHO Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_MotorRev Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_nPos Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_PID Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_SMC Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveMP Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) P_VSD Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) Process Alarm Objects.ggfx	3.5-01	January 29, 2016
<b>(RA-BAS) Process Diagnostic Objects.ggfx</b>	3.5-05	January 6, 2017
(RA-BAS) Process Faceplate Analog Objects.ggfx	3.5-03	June 3, 2016
(RA-BAS) Process Faceplate Misc Objects.ggfx	3.5-01	January 29, 2016
(RA-BAS) Process Faceplate Motor Objects.ggfx	3.5-04	October 7, 2016
(RA-BAS) Process Faceplate Valve Objects.ggfx	3.5-01	January 29, 2016
(RA-BAS) Process Graphics Library.ggfx	3.5-01	January 29, 2016
(RA-BAS) Process Help Objects.ggfx	3.5-01	January 29, 2016
(RA-BAS) Process Interlock Objects.ggfx	3.5-01	January 29, 2016
(RA-BAS) Process Mode Objects.ggfx	3.5-01	January 29, 2016
(RA-EH) Instrument Faceplate Objects.ggfx	3.5-03	June 3, 2016
<b>(RA-MPC) MPC Faceplate Objects.ggfx</b>	3.5-01	January 29, 2016
<b>(RA-MPC) MPC Graphics Library.ggfx</b>	3.5-02	March 29, 2016
(RA-Seq) Standard Objects.ggfx	3.5-01	January 29, 2016
(RA-UI) Prompt Objects.ggfx	3.5-01	January 29, 2016

*Library Release Version 3.5-08 FTView SE Global Object File Revisions and Dates*

**FactoryTalk View SE Graphics Files** (Object names in bold are new for Version 3.5 of the Library; Revisions and Dates in bold have been updated since the previous revision):

Object	Revision	Date
(RA-BAS) Built-In Autotune-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In CC Autotune-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In CC-Faceplate.gfx	3.5-01	January 29, 2016



Object	Revision	Date
(RA-BAS) Built-In CC-Quick.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) Built-In Family-Help.gfx</b>	3.5-01	January 29, 2016
(RA-BAS) Built-In IMC Autotune-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In IMC-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In IMC-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In MMC Autotune-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In MMC-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS) Built-In MMC-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In PIDE-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In PIDE-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In RMPS-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In Totalizer-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Built-In TotalizerTgt-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Common-AnalogEdit.gfx	3.5-01	January 29, 2016
(RA-BAS) L_CPU-Faceplate.gfx	3.5-04	October 7, 2016
(RA-BAS) L_Redun-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) L_TaskMon-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) L_TaskMon-Summary.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) Logix Family-Help.gfx</b>	3.5-04	October 7, 2016
(RA-BAS) Logix-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) Logix-Help.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AIChan-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AIChan-Help.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInAdv-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInAdv-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInDual-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInDual-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AIn-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInFFR-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInFFR-Quick.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) P_AInHart-Faceplate.gfx</b>	3.5-03	June 3, 2016
<b>(RA-BAS) P_AInHart-Quick.gfx</b>	3.5-01	January 29, 2016
(RA-BAS) P_AInMulti-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInMulti-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInPAR-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AInPAR-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AIn-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Alarm-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Alarm-Help.gfx	3.5-01	January 29, 2016
(RA-BAS) P_AOut-Faceplate.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) P_AOutHart-Faceplate.gfx</b>	3.5-03	June 3, 2016
<b>(RA-BAS) P_AOutHart-Quick.gfx</b>	3.5-01	January 29, 2016
(RA-BAS) P_AOut-Quick.gfx	3.5-01	January 29, 2016

Object	Revision	Date
(RA-BAS) P_D4SD-Config.gfx	3.5-01	January 29, 2016
(RA-BAS) P_D4SD-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_D4SD-Quick.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) P_DBC-Faceplate.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) P_DBC-Quick.gfx</b>	3.5-01	January 29, 2016
(RA-BAS) P_DIn-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_DIn-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_DoseFM-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_DoseFM-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_DoseWS-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_DoseWS-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_DOut-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_DOut-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_E1PlusE-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_E300OvId-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_E3OvId-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Fanout5-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS) P_Fanout-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS) P_Gate-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_HiLoSel-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Intlk-Faceplate.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) P_LLS-Config.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) P_LLS-Faceplate.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) P_LLS-Quick.gfx</b>	3.5-01	January 29, 2016
(RA-BAS) P_Logic-Config.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Logic-Faceplate.gfx	3.5-04	October 7, 2016
(RA-BAS) P_Logic-Help.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Mode-Config.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Mode-Help.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Motor2Spd-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Motor2Spd-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Motor-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_MotorHO-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_MotorHO-Quick.gfx	3.5-06	April 17, 2017
(RA-BAS) P_Motor-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_MotorRev-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_MotorRev-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_nPos-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_nPos-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_Perm-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_PF52x-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_PF52x-Quick.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) P_PF6000-Faceplate.gfx</b>	3.5-05	January 6, 2017

Object	Revision	Date
<b>(RA-BAS) P_PF6000-Quick.gfx</b>	3.5-05	January 6, 2017
<b>(RA-BAS) P_PF7000-Faceplate.gfx</b>	3.5-04	October 7, 2016
<b>(RA-BAS) P_PF7000-Quick.gfx</b>	3.5-04	October 7, 2016
(RA-BAS) P_PF753-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_PF753-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_PF755-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_PF755-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_PIDE-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_PIDE-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ResInh-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_RunTime-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_SMC50-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_SMC50-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_SMCFlex-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_SMCFlex-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveC-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveC-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveHO-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveHO-Quick.gfx	3.5-06	April 17, 2017
(RA-BAS) P_ValveMO-Faceplate.gfx	3.5-06	April 17, 2017
(RA-BAS) P_ValveMO-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveMP-Config.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveMP-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveMP-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveSO-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveSO-Quick.gfx	3.5-01	January 29, 2016
(RA-BAS) P_ValveStats-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_VSD-Faceplate.gfx	3.5-01	January 29, 2016
(RA-BAS) P_VSD-Quick.gfx	3.5-01	January 29, 2016
<b>(RA-BAS) Process Analog Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) Process AnalogIn Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) Process Discrete Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) Process Dose Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) Process Interlock Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) Process Motor Family-Help.gfx</b>	3.5-04	October 7, 2016
<b>(RA-BAS) Process Ovld Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) Process PID Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-BAS) Process Valve Family-Help.gfx</b>	3.5-01	January 29, 2016
<b>(RA-EH) I_EH_FlowMeter-Config.gfx</b>	3.5-01	January 29, 2016
<b>(RA-EH) I_EH_FlowMeter-Detail.gfx</b>	3.5-01	January 29, 2016
<b>(RA-EH) I_EH_FlowMeter-Faceplate.gfx</b>	3.5-03	June 3, 2016
<b>(RA-EH) I_EH_Flowmeter-Quick.gfx</b>	3.5-01	January 29, 2016
<b>(RA-EH) I_EH_Sensor-Faceplate.gfx</b>	3.5-03	June 3, 2016

Object	Revision	Date
<b>(RA-EH) I_EH_Sensor-Quick.gfx</b>	3.5-01	January 29, 2016
<b>(RA-MPC) CV-Faceplate.gfx</b>	3.5-02	March 29, 2016
<b>(RA-MPC) DV-Faceplate.gfx</b>	3.5-02	March 29, 2016
<b>(RA-MPC) MPC Family-Help.gfx</b>	3.5-02	March 29, 2016
<b>(RA-MPC) MPC-Faceplate.gfx</b>	3.5-02	March 29, 2016
<b>(RA-MPC) MV-Faceplate.gfx</b>	3.5-02	March 29, 2016
<b>(RA-MPC) TF-Faceplate.gfx</b>	3.5-04	October 7, 2016
(RA-Seq) P_Seq-Config.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-Config-MultiStep.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-Config-Step.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-DeleteStep-Confirm.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-Detail.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-Faceplate.gfx	3.5-07	August 9, 2017
(RA-Seq) P_Seq-Help.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-InputForce.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-InsertStep-Confirm.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-Quick.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-Test.gfx	3.5-01	January 29, 2016
(RA-Seq) P_Seq-TimerForce.gfx	3.5-01	January 29, 2016
(RA-UI) P_Prompt-Config.gfx	3.5-01	January 29, 2016
(RA-UI) P_Prompt-Response.gfx	3.5-01	January 29, 2016
(RA-UI) P_Prompt-Select.gfx	3.5-01	January 29, 2016

*Library Release Version 3.5-08 FTView SE Graphics File Revisions and Dates*

*NOTE: The pop-up data entry screen for the FTView SE library '(RA-BAS) Common-AnalogEdit.gfx' uses version 11.0.8000.0 of the DLL 'FM20.DLL'. If you have a newer version of the 'FM20.DLL', no action is required; however, you will receive a warning in the diagnostic log upon use. This situation can be resolved by importing (RA-BAS) Common-AnalogEdit.gfx into your project again. On Distributed FTView SE systems, Client Stations should have the same version of the 'FM20.DLL' as the Server.*

**FactoryTalk View ME Global Object Files** (Object names in bold are new for Version 3.5 of the Library; Revisions and Dates in bold have been updated since the previous revision):

Object	Revision	Date
(RA-BAS-ME) BuiltIn Faceplate Objects.ggfx	<b>3.5-08</b>	<b>October 13, 2017</b>
(RA-BAS-ME) BuiltIn Graphics Library.ggfx	3.5-03	June 3, 2016
(RA-BAS-ME) BuiltIn Help Objects.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) Common Faceplate Objects.ggfx	3.5-03	June 3, 2016
(RA-BAS-ME) Logix FacePlate Objects.ggfx	3.5-04	October 7, 2016
(RA-BAS-ME) Logix Graphics Library.ggfx	3.5-03	June 3, 2016
(RA-BAS-ME) P_Aln Graphics Library.ggfx	3.5-02	March 29, 2016

Object	Revision	Date
(RA-BAS-ME) P_D4SD Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_D4SD Motor Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_DOut Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_LLS Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Motor Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Motor2Spd Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_MotorHO Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_MotorRev Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_nPos Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PID Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_SMC Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveMP Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_VSD Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) Process Alarm Objects.ggfx	3.5-04	October 7, 2016
(RA-BAS-ME) Process Diagnostic Objects.ggfx	3.5-05	January 6, 2017
(RA-BAS-ME) Process Faceplate Analog Objects.ggfx	3.5-03	June 3, 2016
(RA-BAS-ME) Process Faceplate Misc Objects.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) Process Faceplate Motor Objects.ggfx	<b>3.5-08</b>	<b>October 13, 2017</b>
(RA-BAS-ME) Process Faceplate Valve Objects.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) Process Graphics Library.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) Process Help Objects.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) Process Interlock Objects.ggfx	3.5-02	March 29, 2016
(RA-BAS-ME) Process Mode Objects.ggfx	3.5-02	March 29, 2016
(RA-EH-ME) Instrument Faceplate Objects.ggfx	3.5-03	June 3, 2016
(RA-Seq-ME) Standard Objects.ggfx	3.5-02	March 29, 2016
(RA-UI-ME) Prompt Objects.ggfx	3.5-02	March 29, 2016

*Library Release Version 3.5-08 FTView ME Global Object File Revisions and Dates*

**FactoryTalk View ME Graphics Files** (Object names in bold are new for Version 3.5 of the Library; Revisions and Dates in bold have been updated since the previous revision):

Object	Revision	Date
(RA-BAS-ME) Built-In Autotune-Faceplate.gfx	3.5-04	October 7, 2016
(RA-BAS-ME) Built-In CC Autotune-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In CC-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In CC-Quick.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Built-In Family-Help.gfx</b>	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In IMC Autotune-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In IMC-Faceplate.gfx	3.5-02	March 29, 2016

Object	Revision	Date
(RA-BAS-ME) Built-In IMC-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In MMC Autotune-Faceplate.gfx	3.5-03	June 3, 2016
(RA-BAS-ME) Built-In MMC-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In MMC-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In PIDE-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In PIDE-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In RMPS-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In Totalizer-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Built-In TotalizerTgt-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) L_CPU-Faceplate.gfx	3.5-04	October 7, 2016
(RA-BAS-ME) L_Redun-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) L_TaskMon-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) L_TaskMon-Summary.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Logix Family-Help.gfx</b>	3.5-04	October 7, 2016
(RA-BAS-ME) Logix-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) Logix-Help.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AIChan-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AIChan-Help.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnAdv-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnAdv-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnDual-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnDual-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Aln-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnFFR-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnFFR-Quick.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) P_AlnHart-Faceplate.gfx</b>	3.5-03	June 3, 2016
<b>(RA-BAS-ME) P_AlnHart-Quick.gfx</b>	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnMulti-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnMulti-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnPAR-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AlnPAR-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Aln-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Alarm-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Alarm-Help.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_AOut-Faceplate.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) P_AOutHart-Faceplate.gfx</b>	3.5-03	June 3, 2016
<b>(RA-BAS-ME) P_AOutHart-Quick.gfx</b>	3.5-02	March 29, 2016
(RA-BAS-ME) P_AOut-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_D4SD-Config.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_D4SD-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_D4SD-Quick.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) P_DBC-Faceplate.gfx</b>	3.5-02	March 29, 2016



Object	Revision	Date
<b>(RA-BAS-ME) P_DBC-Quick.gfx</b>	3.5-02	March 29, 2016
(RA-BAS-ME) P_DIn-Faceplate.gfx	3.5-03	June 3, 2016
(RA-BAS-ME) P_DIn-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_DoseFM-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_DoseFM-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_DoseWS-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_DoseWS-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_DOut-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_DOut-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_E1PlusE-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_E300Ovld-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_E3Ovld-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Fanout5-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Fanout-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Gate-Faceplate.gfx	3.5-03	June 3, 2016
(RA-BAS-ME) P_HiLoSel-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Intlk-Faceplate.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) P_LLS-Config.gfx</b>	<b>3.5-08</b>	<b>October 13, 2017</b>
<b>(RA-BAS-ME) P_LLS-Faceplate.gfx</b>	<b>3.5-08</b>	<b>October 13, 2017</b>
<b>(RA-BAS-ME) P_LLS-Quick.gfx</b>	3.5-02	March 29, 2016
(RA-BAS-ME) P_Logic-Config.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Logic-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Logic-Help.gfx	3.5-04	October 7, 2016
(RA-BAS-ME) P_Logic-SnapShot.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Mode-Config.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Mode-Help.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Motor2Spd-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Motor2Spd-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Motor-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_MotorHO-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_MotorHO-Quick.gfx	3.5-06	April 17, 2017
(RA-BAS-ME) P_Motor-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_MotorRev-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_MotorRev-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_nPos-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_nPos-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_Perm-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PF52x-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PF52x-Quick.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) P_PF6000-Faceplate.gfx</b>	3.5-05	January 6, 2017
<b>(RA-BAS-ME) P_PF6000-Quick.gfx</b>	3.5-05	January 6, 2017
<b>(RA-BAS-ME) P_PF7000-Faceplate.gfx</b>	3.5-04	October 7, 2016
<b>(RA-BAS-ME) P_PF7000-Quick.gfx</b>	3.5-04	October 7, 2016

Object	Revision	Date
(RA-BAS-ME) P_PF753-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PF753-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PF755-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PF755-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PIDE-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_PIDE-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ResInh-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_RunTime-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_SMC50-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_SMC50-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_SMCFlex-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_SMCFlex-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveC-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveC-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveHO-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveHO-Quick.gfx	3.5-06	April 17, 2017
(RA-BAS-ME) P_ValveMO-Faceplate.gfx	3.5-06	April 17, 2017
(RA-BAS-ME) P_ValveMO-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveMP-Config.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveMP-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveMP-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveSO-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveSO-Quick.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_ValveStats-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_VSD-Faceplate.gfx	3.5-02	March 29, 2016
(RA-BAS-ME) P_VSD-Quick.gfx	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Process Analog Family-Help.gfx</b>	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Process AnalogIn Family-Help.gfx</b>	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Process Discrete Family-Help.gfx</b>	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Process Dose Family-Help.gfx</b>	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Process Interlock Family-Help.gfx</b>	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Process Motor Family-Help.gfx</b>	3.5-04	October 7, 2016
<b>(RA-BAS-ME) Process Ovld Family-Help.gfx</b>	3.5-04	October 7, 2016
<b>(RA-BAS-ME) Process PID Family-Help.gfx</b>	3.5-02	March 29, 2016
<b>(RA-BAS-ME) Process Valve Family-Help.gfx</b>	3.5-02	March 29, 2016
(RA-EH-ME) I_EH_FlowMeter-Config.gfx	3.5-02	March 29, 2016
(RA-EH-ME) I_EH_FlowMeter-Detail.gfx	3.5-02	March 29, 2016
(RA-EH-ME) I_EH_FlowMeter-Faceplate.gfx	3.5-03	June 3, 2016
(RA-EH-ME) I_EH_Flowmeter-Quick.gfx	3.5-02	March 29, 2016
(RA-EH-ME) I_EH_Sensor-Faceplate.gfx	3.5-03	June 3, 2016
(RA-EH-ME) I_EH_Sensor-Quick.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-Config Input.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-Config Output.gfx	3.5-02	March 29, 2016



Object	Revision	Date
(RA-Seq-ME) P_Seq-Config Real.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-Config-Step Real.gfx	3.5-04	October 7, 2016
(RA-Seq-ME) P_Seq-Config-Step.gfx	3.5-04	October 7, 2016
(RA-Seq-ME) P_Seq-Config-Step-Confirm.gfx	3.5-04	October 7, 2016
(RA-Seq-ME) P_Seq-DeleteStep-Confirm.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-Detail.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-Faceplate MaintenancePage3.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-Faceplate.gfx	3.5-07	August 9, 2017
(RA-Seq-ME) P_Seq-Help.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-InputForce.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-InsertStep-Confirm.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-Quick.gfx	3.5-05	January 6, 2017
(RA-Seq-ME) P_Seq-Test.gfx	3.5-02	March 29, 2016
(RA-Seq-ME) P_Seq-TimerForce.gfx	3.5-02	March 29, 2016
(RA-UI-ME) P_Prompt-Config.gfx	3.5-02	March 29, 2016
(RA-UI-ME) P_Prompt-Response.gfx	3.5-02	March 29, 2016
(RA-UI-ME) P_Prompt-Select.gfx	3.5-06	April 17, 2017

*Library Release Version 3.5-08 FTView ME Graphics File Revisions and Dates*

## ADD-ON PROFILE INFORMATION

The following Add-On Profiles were used in developing this release:

Description	Revision
Anybus Configuration Manager / Communicator and EDS (for EDS AOP)	4.4.1.3
Endress+Hauser Analysis Device Profiles	1.17
Endress+Hauser Flow Device Profiles	1.59
Rockwell Automation E1Plus Device Profile	1.01.00
Rockwell Automation E300 Device Profile	2.0.011
Rockwell Automation PowerFlex 5-Class Device Profiles	1.04
Rockwell Automation Drives Device Profiles	4.06
Rockwell Automation Hiprom 1788-EN2FFR Device Profile	1.002
Rockwell Automation Hiprom 1788-EN2PAR Device Profile	2.005
Hiprom Technologies 1788HP-EN2PA-R Device Profile	1.13.06
Rockwell Automation 1715 Redundant I/O FW V3.xxx	5.01.12
Rockwell Automation 1719 Intrinsically Safe I/O (Zone 2)	2.00.01
Rockwell Automation 1756 HART RA1756HART_Rel_Ver_4.01.012	4.01.012
Spectrum Control 2050327-01 rev A AOP,1734sc-IExCH,1.20	1.20
Spectrum Controls 1769sc-OF4IH AOP Rev 1.6 (includes IF4IH)	1.6

*Library Release Version 3.5-08 Add-On Profiles Used*

**NOTE:** *Reference Manuals for the Rockwell Automation Library of Process Objects are posted on the Rockwell Automation Literature Library:*

*([http://literature.rockwellautomation.com/idc/groups/public/documents/webassets/browse\\_category.hcst](http://literature.rockwellautomation.com/idc/groups/public/documents/webassets/browse_category.hcst)).*

*Shortcuts to the Reference Manuals are included in the Documents folder of the Rockwell Automation Library of Process Objects ZIP file. The Reference Manuals are also available as a bulk download of the PDF documents from the Product Compatibility and Download Center (the same download site as the Library itself).*