

Release Notes for SigmaLogic™ Software Package

Release Date 02/28/2019

Yaskawa America, Inc.

LogicWorks Configuration Utility 2.3.0.91

1. New Features

Number	Summary	Release Notes
612	Ping test stays green even after new project	In previous versions, the results of a Ping test to a controller would remain latched until LogicWorks was closed or another attempt was made. This caused some confusion. Starting in LogicWorks version 2.3.0, The Ping test result will be displayed for approximately 3 to 5 seconds before clearing.
1445	Logicworks does not support 12-bit serial converters for linear motors	In previous versions, LogicWorks only supported 8-bit linear encoder serial converter modules for linear motors. Starting in v2.3.0, support has been added for other Yaskawa serial converters with higher resolutions. LogicWorks now supports the following resolutions: 8-bit, 9-bit, 10-bit, 12-bit, and 13-bit. The serial converter resolution can be selected on the Configure-->Options page.
1458	Logicworks does not support Pn603 - Regen resistance for Sigma7-based products	In previous versions, LogicWorks supported only configuration for External Regen Wattage (Pn600) on SigmaLogic units. The SigmaLogic7 units have an additional setting for External Regen Resistance (Pn603) that must also be set for proper operation of the regen circuit. Starting in v2.3.0, On the Configure - Options page, LogicWorks now contains a field in the Power Settings section for setting External Regen Resistance when configuring SigmaLogic7 Compact or SigmaLogic7 Modbus units. Range is 0 to 655.35 Ohm.
1595	Support Sigma7Siec-400v platform in LogicWorks	Starting in LogicWorks v2.3.0, support has been added to configure SigmaLogic7 Compact and SigmaLogic7 Modbus units that are based on the 400v hardware platform. This platform has a significantly different form factor although the internal parameter settings of the servopack are nearly identical to the Sigma7-200 volt versions. New product images have been added into the program to help visually identify which unit is being configured. When creating a New project, the user will now have an additional selection choice for Voltage (100/200v or 400v). When connecting to a SigmaLogic unit, the hardware will be checked against the configuration file and will report an error if it does not match.
1651	LogicWorks does not accept a value of 0 for Multi-turn limit settings	In previous versions, the entry for Configure - Options - Motor Settings - Multi-turn Limit Setting was improperly restricted from 1 to 65535 if an absolute encoder was used. A setting of 1 did not cause issues with Direct Drive motors on the SigmaLogic platform. However, for the SigmaLogic7 hardware platforms, a setting of 0 is required for proper configuration of Absolute Single-Turn encoders. Starting in v2.3.0, the valid range for this field has been expanded to include settings of 0 to 65535.
2358	Add Display for servopack rated Power to the Configure-Options page of LogicWorks	In previous versions, the setting for External Regen wattage was restricted by the discovered wattage of the connected SigmaLogic unit, however the discovered wattage was not displayed to the user. Since the discovered wattage was not saved for the project, reopening a saved project without connecting to a SigmaLogic unit would result in the wattage limit being initialized to 0. thus the previously saved setting for External Regen Wattage would be lost. Starting in v2.3.0, once discovered from a connected unit, the maximum wattage level will be stored in the project file and will therefore be returned to its previous value if the project is closed and reopened. The setting for External Regen Wattage will similarly be preserved.

2. Bug Fixes

Number	Summary	Release Notes
1446	LogicWorks does not	In previous versions, LogicWorks restricted the entry for Linear Encoder Pitch to a much stricter range

allow full data entry range for linear encoder pitch - Pn282

than the actual servopack parameter would allow. This led to users being unable to properly configure certain lower-resolution linear encoders. Starting in version 2.3.0, LogicWorks now allows the full range of data entry for this servopack parameter (Pn282) which equates to 0.01 to 65536 micron.

2425	Regen Wattage of saved file will get limited to 0 if changed without connecting first	In previous versions, when opening a previously stored configuration file, the setting for External Regen Wattage would be initialized back to zero. This is because the setting is capped by the discovered wattage of a connected SigmaLogic unit. But after launching LogicWorks, and before a connection is established, the discovered wattage is zero - thus limiting the setting for External Regen Wattage to zero. Starting in LogicWorks v2.3.0, the discovered wattage of the last-connected SigmaLogic unit will be stored with the project file and retained until the next connection. This will allow the setting for External Regen Wattage to remain as previously set.
2750	Regen Wattage setting of 10watts sets Pn600 to zero	In previous versions, setting a value of exactly 10w into External Regen Wattage field would instead transfer a setting of 0w to the SigmaLogic unit. This is fixed starting in LogicWorks v2.3.0.87. Remember that since the base units in the Sigmalogic servopack are in units of [10w], the actual wattage setting will be in multiples of 10w.

3. Known Issues

Number	Summary	Release Notes	Workaround
595	No project compare on Connection	The offline file contents are not automatically compared to the actual configuration when Connection is made to a SigmaLogic axis. This can result in a difference between what the user sees in the configuration utility screens and what is stored in the axis.	Establish a Best Practice procedure to manually compare the file name to the current configuration name or to always Receive the current configuration immediately after Connection to a SigmaLogic unit.
638	LogicWorks does not display the values for CN13 Analog I/O	Support for monitoring and controlling the CN13 Analog I/O points from the PLC was added in SigmaLogicEmbeddedCode v1.2.0 and SigmaLogic_AOI v1.2.0. However these values are not currently displayed on the LogicWorks Status and I/O monitoring pages.	Use PLC to monitor and control the CN-13 Analog I/O using Tags 'AxisRef'.I.AnalogInput and 'AxisRef'.O.AnalogOutput.
1150	LogicWorks Setup does not support user-defined installation locations.	For LogicWorks v2.0 and earlier, only the default installation location is supported during Setup. This issue will be addressed in a future version of LogicWorks.	Use the default installation location
1163	Saving project during File - Exit process will not add the project name to the Recent Projects List	There are many opportunities provided to save the LogicWorks project to a file on the PC. The last occurs during File->Exit process. If "Save Project" is chosen during the exit process, the project will be saved properly to the specified location, but the Recent Projects listing will not be updated.	Save the project first as a separate procedure before starting the Program Exit process.
1168	LogicWorks v2.0 cannot connect to SigmaLogic units with 3.0.0.173 firmware	LogicWorks v2.0 and above requires firmware version 3.3 or higher. There are several configuration files that have changed format between these firmware versions. Use the SigmaLogic web interface to update firmware. For more assistance, please discuss with your Yaskawa vendor.	None

SigmaLogic Embedded Software v2.3.0.12

4. New Features

Number	Summary	Release Notes
1596	Add Instances to support MicroLogix Direct Control	New 128-byte Ethernet/IP instances have been added to support direct control over E/IP using smaller host PLCs that may not support 256-byte instance sizes. Data from the original 256-byte Input Instance #112 (Host PLC to SigmaLogic) has been mapped into 128-byte Input instance #111 and #113. Data from the original 256-byte Output Instance #102 (SigmaLogic to Host PLC) has been mapped into 128-byte Output instance #101 and #103. All three Output Instances will be written in parallel. On powerup, the SigmaLogic unit will look at the Input instances to determine if the Heartbeat signal is coming from Input Instance #112 or #111. Once determined, then either #112 or (#111 + #113) will be used for Host PLC commands until power is again cycled.

5. Bug Fixes

None

6. Known Issues

Number	Summary	Release Notes	Workaround
600	HSI does not wait for move to be In Position	For all other moves, move complete status is sent to the PLC when the commanded profile is finished AND when the motor position is within the range specified by the LogicWorks configuration under Configure - Options - Position Completion Window. In v1.1.0, the High Speed Index moves do not wait to be in the position completion window. Move complete is set when the commanded profile is finished.	Add external delay for subsequent processes/actions that depend on the motor being settled into its final position.
650	Sequence Table execution resumes in certain cases where servo is disabled, then re-enabled	In SigmaLogic AOI v1.2.0, MSF_Yaskawa (Motion Servo OFF) is allowed to execute even though another AOI could be active, such as MSQR_Yaskawa (Motion Sequence Run). Disabling the axis during motion will cause an application fault which normally would abort the sequence. However, if the sequence was waiting for a flag either Before or After motion, then no fault would be generated and the sequence table would still be executing even though the servo would not be capable of motion.	The user should issue MAS_Yaskawa (Motion Axis Stop) prior to issuing MSF_Yaskawa (Motion Servo OFF) to properly stop an axis and abort sequence execution. Alternatively, the user could set the Cancel input on MSQR_Yaskawa. Canceling the sequence will also stop motion.
1184	Function Block Error ID 4422 shows up as "Unknown Error".	Application ErrorID 4422 is a new function block error code most relevant to SigmaLogic7 and Sigma-7Siec based products. ErrorID 4422 means "Position Offset Update Failed" and occurs when not enough time is given to the function for setting motor position. In the Sigma-7Siec-based family of products, the absolute encoder offset is stored in EEPROM memory instead of battery-backed RAM as with other products. Writing the offset to flash takes more time than writing to RAM. If the process is interrupted, ErrorID 4422 will be reported.	Set Incremental Encoder Mode OR avoid the rapid Move-Set Position sequence when programming applications for Sigma-7Siec-based products where absolute encoder is required.

SigmaLogic AOI for RSLogix 5000 v2.3.0

7. New Features

Number	Summary	Release Notes
2441	AOI: Create new AOI - MSTL_Yaskawa: Motion Set Torque Limit	A new Add-on Instruction has been created that allows torque/force limits to be changed on demand. Upon Execute, the AOI will apply the Specified limit to the Forward Direction, the Reverse Direction, or Both. The change is held in SigmaLogic RAM and will be not be retained if the axis is rebooted. This AOI will operate in parallel with nearly all other AOIs except MAH_Yaskawa or MAHSP_Yaskawa. The Homing process applies torque/force limits that are specified separately, but that access the same registers in the SigmaLogic unit as does MSTL_Yaskawa. FLT_BSY will be returned if MSTL_Yaskawa is executed while a Homing process is active.

8. Bug Fixes

Number	Summary	Release Notes
2707	MAG_Yaskawa IP output doesn't turn OFF even after disabling the AOI. Therefore preventing the user from re-executing the block.	An issue was discovered where the MAG_Yaskawa - Motion Axis Gear AOI was not properly commanding the SigmaLogic unit to stop gearing. When power to MAG_Yaskawa.EN was removed, the IP output would remain latched and the SigmaLogic unit would not report MotionIdle. Subsequent motion commands would be ignored until an MAS_Yaskawa - Motion Axis Stop was issued. Starting in AIO version 2.3.0, this bug has been fixed.

9. Known Issues

None