Release Notes for MotionWorks IEC

Release 3.1.0 Build 58
Yaskawa America, Inc.
September 10, 2015

1. New Features

Number	Summary	Release Notes
1518	Support multiple Ethernet adapters on the MP2600iec in Hardware Configuration	Hardware Configuration now supports configuration of IP address for CN11B network port on MP2600iec controller.
7921	Support for Fixed Format Ladder Editor (FFLD)	Fixed Format Ladder Diagram (FFLD) is a new language option available for programming POUs.
8916	Linear Motor units not correct in Hardware Configuration's Hardware tab	Linear motors now display linear user units instead of rotary user units
9069	Change movement of Modbus I/O from %I/%Q to %M memory to an optional feature	MP3200iec and MP3300iec controllers now have option to configure either %I and %Q memory space or %M memory space for Modbus holding registers rather than a forced change when upgrading to or starting new projects in MotionWorks IEC v3.x

2. Bug Fixes

The following issues were identified and fixed for this release.

Number	Summary	Release Notes
7783	ControllerInfo structure at %MD3.66560 gets removed when changing controller type	ControllerInfo structure at %MD3.66560 was being removed when changing controller type and pressing save in the Hardware Configuration.
8527	Checkbox "Generate Bootproject During Compile" is not turned on for older projects - Archive.ZIP does not work	The file BootProject.Pro was not being created, therefore the Archive.Zip created when using the Icon on the Hardware Configuration toolbar was not creating the correctly updated archive. This was only an issue when opening older projects created before the feature was added in version 2.5.0. When right clicking on the Project Tree Window's Resource Settings, there is a checkbox which the user can confirm and set manually to correct this issue in previous versions.
8661	Improve conversion between 2.x and 3.x Modbus memory maps for 3000 series controllers	Automated conversion between 2.x and 3.x Modbus memory maps for MP3x00iec controllers has been improved. Variables addresses are now auto recalculated when converting from %I & %Q to %M memory.

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8783	Unable to use ENDIAN conversion blocks on project with MP23xxiec resource	Endian functions for MP2000_Series controllers now execute at runtime instead of throwing a compile error. The function blocks do the following for MP2000_Series targets: * TO_LITTLE_ENDIAN: Pass input to output unchanged since target is little endian. * TO_BIG_ENDIAN: Returns and error (ENO = false, no output) as endian conversion is not supported.
8788	SIZEOF, UPPER_BOUND, and LOWER_BOUND documentation shows DINT, but should be UDINT	Output type for functions SIZEOF, UPPER_BOUND, and LOWER_BOUND has changed from DINT to UDINT. Projects created in earlier versions of MotionWorks IEC that used these affected functions must be modified to compile correctly in latest software version.
8920	Pro converts 'new' Express project to Pro project without user confirmation	The conversion of Express projects to Pro format took place automatically during project open without warning in MotionWorks IEC Pro 3.0.3. Behavior has been restored to wait for user confirmation is to convert an Express project to Pro format.
8925	Hardware Configuration Rotary axis default units are inconsistent	User Units value when changed through 'All Parameters' tab was "Degrees" but when changed in 'Configuration' tab it was "Revolutions".
8961	%M Modbus variables disappear when MP3200 project is converted to MP3300	Fixed address allocation error during conversion problem.
8998	To_Little_Endian function block byte-swaps data only up to a certain array index	TO_LITTLE_ENDIAN function has been fixed to correctly byte-swap data for every array index of a data array. Previously the byte-swap only executed up to the 8th array index.
9035	Missing Tasks dialog incorrectly lists I/O devices	Missing Tasks dialog in Hardware Configuration now correctly displays individual EtherNet/IP assembly instances and Modbus server blocks for the controller.
9036	Hardware Configuration freezes when launched	After installation, if the Hardware Configuration freezes during launch, reinstall MotionWorks IEC with the option checked to reinstall prerequisites enabled in the installation setup screen.

3. Known Issues

Number	Summary	Release Notes	Workaround
825	Increase max Project filename size of from 24 to 64 characters	File name length is limited to 24 characters	Make filename less than 24 characters.
875	Hardware Configuration does not run when launched by a user who did not install it and who does not have Administrator privileges	Administrative privileges are required to install on Windows Vista or higher	Login with Administrative privileges before installing.
1034	Cannot connect to the controller from the Hardware Configuration if DNS reverse and forward lookups contain mis-matching entries	If the DNS reverse lookup for the controller IP address returns a host name that has a forward lookup to a different IP address, then connection with the Hardware Configuration will fail.	Use a different IP address for the controller or fix the DNS entries on the DNS server.
1041	Cannot create a MotionWorks IEC project using the Project Wizard – Hardware Configuration fails to launch because configfiles directory is missing.	Cannot launch Hardware Configuration for project created with the project wizard	Create a project with one of the predefined templates for a controller model.
1165	Single Step debug does not always work	On MP2300Siec and MP2310 only, single step debug mode does not work if multiple instances of a function block exist. The editor will display the wrong instance with incorrect debug values.	If other instances are unused, delete those instances of function blocks before debugging. Otherwise, debugging can proceed if you click on the correct tab for the proper instance after each time the code stops at a breakpoint.
1516	Project source code stored on controller has wrong extension in express (ZipFile.zwt, should be .zwe)	Issue: Project source code is saved with wrong extension for MotionWorks IEC Express usage. (ZipFile.zwt, should be .zwe) when downloading the source code to the controller.	After uploading from the project archive from the web interface, extract ZipFile.zwt, change file extension to .zwe, then open it with MotionWorks IEC Express.
1593	Function block outputs are not retained on warm start	The outputs of function blocks like CTU (counter up), CTD, TON etc do not get retained on a warm start even though they are checked to be retained.	
1693	Slow compilation when Symantec Antivirus is enabled	Compiler runs slowly when Symantec Antivirus is enabled.	Exclude MotionWorks IEC file types from virus scan. File types: cic, dbd, dip, dit, diw, st1, sto
5753	MP2600iec logging does not upload data when "stop" is pressed.	MP2600 Logic Analyzer will not upload data after pressing the stop button. The log buffer must fill up first for the data to be transferred.	
5833	I/O group address range does not match text in global variables I/O group name	Editing the name of EtherNet/IP or Modbus device, or adding and deleting devices with the same settings can cause a disconnect between I/O Groups and Variable Groups that can cause the variable addresses to be unrelated to I/O group address range.	Save the Hardware Configuration between deleting a device and re entering it.

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5916	Hardware Configuration logging fixes the sample time at 10ms, should use the Mechatrolink cycle period		If faster sampling is desired, Create a task in the IEC application that runs at the same rate as the Mechatrolink cycle, add MC_ReadParameter function blocks to that task, and use the Logic Analyzer to record data.
5922	Zipped project size is larger than necessary	Page Layouts increase the zipped project or downloaded source size by about 1MB. These files are not necessary to be included.	1) Go to C:\Documents and Settings\All Users\Documents\MotionWorks IEC Pro\Pagelayouts Delete all the .bmp files EXCEPT logo.bmp AND all three .plt files.

2) When Save/Zipping a project, UNCHECK "Zip Pagelayouts", that will stop the bitmaps from getting included in a new zip archive.

3) When download source code to a controller, UNCHECK "Include page layouts." |
| 6029 | The toolbar is slow to display and flashes with every mouse click in the editor | When running MotionWorks IEC 2 on Windows XP SP3, the toolbar can be slow to repaint and repaints on every mouse click, even in the ladder editor. | It has been found that on Windows XP machines using the NVIDIA Quadro video chips this problem is more likely to occur. A workaround in this case is to go to: Control Panel->Display->Settings Tab->Advanced->Troubleshoot tab->Hardware Acceleration. Change this setting from "Full" to "Disable cursor and bitmap accelerations". This is one step down from full. Press Apply and Ok. |
| 6163 | Error Message: "Drive may be offline" for deleted drive | An Error message may be displayed indicating that parameters cannot be read when the Hardware Configuration connects to the controller. The drive may be listed in the controller's configuration files yet it cannot be found by the controller. It may be disconnected (the Mechatrolink cable could be unplugged or not seated properly), or it may be powered off. | Either connect or power up the missing drive, or remove the configuration files by choosing "Controller Configuration Utilities" from the Online menu and then selecting "Restore controller to factory defaults and reboot the controller". Note: this will remove the configuration from the controller, so ensure a backup copy exists. |

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6180	Error - cannot read drive parameters	This is believed to be related to CPU load when the axis count is high and the Mechatrolink rate is fast.	Turn off the RUN DIP switch, which will stop the IEC application code from executing, which will free up the CPU for other lower priority tasks such as handling requests from the Hardware Configuration software for reading drive parameters. Increase the Mechatrolink update rate.
6203	Old project with ProConOS firmware library included may not compile	ProConOS firmware library had a minor change. Older projects using this library may not compile.	Remove the ProConOS firmware library, compile the project and re-add the library. After this, the project should compile correctly.
6245	Status variable already exists message shows up even though it has been removed and the currently saved configuration does not have that variable	Status variable already exists message shows up even though it has been removed and the current saved configuration does not have that variable	Whenever information for a communication data block is deleted, save before reentering the information.
6278	All firmware libraries not extracted when set to include in ZWT project	When a project contains a user library, library A, which contains an additional user library, library B, where library B is not directly referenced in the project. A compiler message indicates a that user libraries must be recompiled. At this point, it may be the case, that library B is not in the project.	Manually import the missing user library
6480	Cannot install MotionWorks IEC if multiple "All Users" folders exist	Sometimes a computer has an "All Users.Windows" folder or "All Users_Windows" folder in addition to the original "All Users" folder within "Documents and Settings" parent folder, which may cause the installer to abort and uninstall itself. when there are multiple "All Users" folders, the original folder is usually no longer active and is a backup used by Windows. Error message near installation's end says: Unable to complete MotionWorks IEC Pro installation. Please rerun setup from the beginning.	1. While error message is still opened, save a backup copy of the "Yaskawa\MotionWorks IEC Pro\[#_#_#_#]" application data folder from "All Users.Windows" or whichever is the active folder (e.g. C:\Document and Settings\All Users.Windows\Application Data\Yaskawa\MotionWorks IEC Pro\1_2_3_14_481) 2. Close the error message -> installer will uninstall 3. Copy the backed up folder to "All Users" 4. Install again -> installer passes check for MWIEC application data folder and finishes
6622	Project Wizard does not behave as expected.	In MotionWorks IEC 2 Express, the Project Wizard will not create a new project.	For new projects, use the project templates instead of the Project Wizard.

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6628	Continuous trace mode shows a value of -1.#QNAN0 if debugging mode is stopped and restarted	Continuous trace mode cannot guarantee that samples will not be dropped. When samples are dropped due to cpu overload or other reasons, a value of "-1.#QNAN0" will appear when the data is exported. For a more accurate trace use non-continuous mode.	
6795	Unidentified Unicode text strings when using "Language for non-Unicode programs" setting	This occurs when the MotionWorks IEC language is set to Japanese or Simplified Chinese on an English language OS. There are some situations where the displayed text is unidentifiable; a series of question marks are displayed instead.	To display the correct Japanese characters in Windows 7 do the following 3 things: 1. Install all the Asian language packs (Japanese, Chinese Traditional, Chinese Simplified) Do this using windows update. 2. Set the language for non-Unicode programs to Japanese (Settings->Control Panel->Region and Language->Administrative->Change my system locale... set to Japanese and restart) 3. Use Japanese formats: Settings->Control Panel->Region and Language->Formats, Select Japanese.
7049	Maximum size of a POU or global variables for MP3200iec is 4MB	The MP3200iec controller has 20 MB of non-retain data memory, however the maximum amount of data in one POU or the global variables table is 4MB.	
7052	After Communication Time out - Controller Utilities is Unavailable	When online, if communication to the controller is lost the Online Menu has items enabled and disabled as if the controller is still online.	This can corrected by attempting to go online again. Using the invalid menu items does not produce any negative result.
7444	Axis is switched offline after trying to enable it during an alarm	This issue applies to the Hardware Configuration. When on the Tuning or Test Move tabs, and the Enable Axis icon is pressed while there is a servopack alarm, the axis will be switched to "Offline" status in the Configuration Tree.	Switch the Hardware Configuration offline and then back to online. Clear the servopack alarm before attempting to enable the axis.
7657	Invalid watchdog value message displayed if task settings are changed without first connecting to controller	When a cyclic task setting is set below the previous Mechatrolink update interval, MotionWorks IEC does not know what the minimum cyclic task time can be set to until it has connected with the controller.	Connect to the controller, disconnect (offline), then change Cyclic task settings.
8758	MotionWorks IEC crashes when removing unused variables or performing Global Search and Replace	Repeatedly building Cross References every couple of minutes may cause MotionWorks IEC to crash every hour or two, particularly on large projects.	