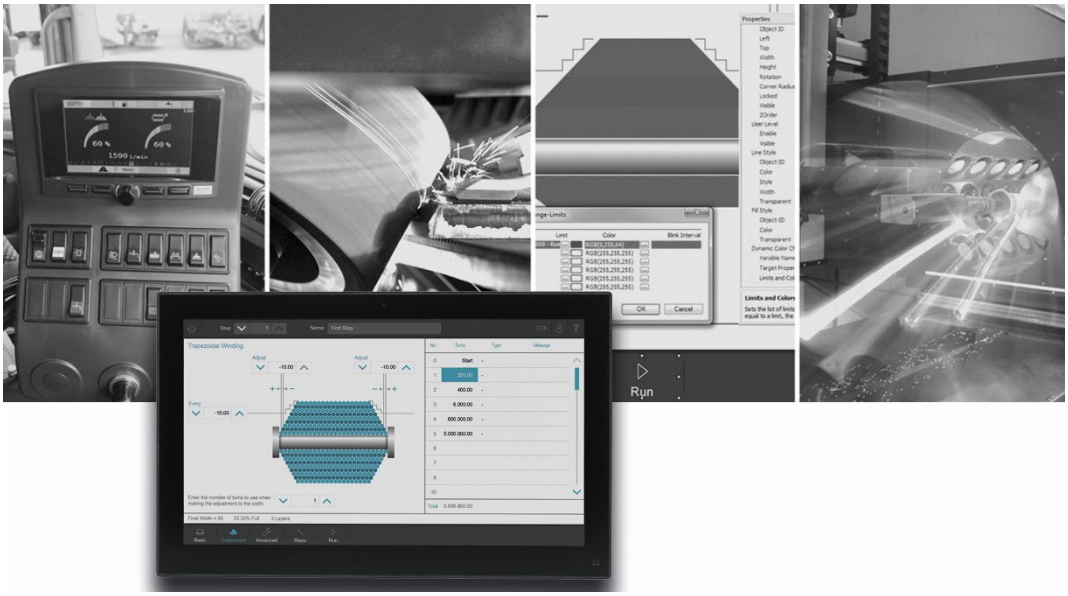

JetSym

Version Update from V. 5.6.4 to V. 5.7.0

We automate your success

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1 New Features

Below, all features that are new in this version, as well as the enhancements are listed.

1.1 General Information

1.1.1 Updated Packaging Library

As of this version, the Packaging Library version 1.1.0.0 is included in the delivery.

1.1.2 Distributed synchronous operation

A distributed synchronous operation is an isochronous motion of axes distributed to several controllers. A controller (sender controller) has a sender axis that sends position data to another controller (receiver controller). The controller that receives the position data (receiver controller) must have a receiver axis. The receiver axis must be the master axis in a technology group and then travels in isochronous mode.

1.2 Motion Setup

1.2.1 Motion Control cycle time

For the JC-975MC controller, the cycle time setting option on the **MC Global** motion setup page has been extended by the options **1 ms** and **0.5 ms** .

1.3 Hardware Manager

1.3.1 Synchronous mode JX3-BN-EC

Synchronous mode is the default mode for the JX3-BN-EC. The synchronous mode can be activated up to an Ether-CAT bus cycle of 1 ms. If faster bus cycle times are set, e.g. 500 µs for JC-975MC, then the synchronous mode must be deactivated.

1.3.2 Error registers for JX3-COM-PND and JX3-COM-EIPA

When exchanging data via publisher and subscriber, error and status registers can now also be transmitted for JX3-COM-PND and JX3-COM-EIPA modules.

1.4 Motion API

1.4.1 MCAxisModes added to Motion API 1.2.0.0

For the distributed synchronous operation the enumeration the two values **sender** and **receiver** have been added to MCAxisModes.

2 Fixed Software Bugs

This chapter describes the software bugs which have been fixed in the new software release. Please also refer to the **Open Issues** page in the online help.

2.1 General Information

2.1.1 Adding STX library files (.lb*)

Adding STX library files (.lb*) via context menu of the library folder was not possible.

2.1.2 Incorrect communication port when port number is set individually

If no default settings were used for the port numbers, then the PCOM communication used the port number of the XCOM communication. This could lead to delays in establishing the connection.

2.1.3 Crash in ST projects when searching for references

Searching for references could cause a crash in ST projects if timer variables were used in the source code that were not registers.

2.1.4 Changing the active configuration during build or download process

During a build or download process, changing a hardware configuration can now only be done after the build or download process has been canceled or terminated. If an attempt is made to change the configuration during a build or download process, a dialog appears.

2.2 Compiler

2.2.1 Stack overflow by constructor call

In rare cases with %VL register passing to object constructors, a stack frame may be required for the application startup code. In this case, no space was previously reserved on the stack and an overflow could occur.
Now the compiler reserves the required space on the stack automatically. The compiler also generates an error message if the stack size of 8 KBytes dedicated for the startup task is exceeded.

2.2.2 No error message for stack size > 256 kB

So far, there was no error message when the maximum stack size was exceeded. If now an attempt is made to declare a stack > 256 kB, the compiler generates the following error message:
Maximum supported stack size is 262144 bytes.

Example:
task t_init stack 300000, autorun
end_task;

2.2.3 STX compiler generated wrong bytecode

In certain cases the STX compiler generated incorrect bytecode when array constants were used in expressions.

2.3 Setup and Monitor

2.3.1 Incorrect value display of bit variables in setup and monitor

The value of bit variables declared in a class was displayed incorrectly.

2.3.2 Value column in setup was not deleted

If several lines in an active setup were selected and deleted using the delete key, the content in the value line remained.

2.3.3 Content of the "Name" column was not deleted

If everything was marked in the setup with **Ctrl+A** and then deleted using the **Delete key**, the entries in the **Name** column remained.

2.3.4 Incorrect communication port when port number is set individually

If no default settings were used for the port numbers, then the PCOM communication used the port number of the XCOM communication. This could lead to delays in establishing the connection.

2.4 Motion Setup

2.4.1 Buttons did not work

If the IP address was changed in the CPU window, e.g. the **Release** button did not work anymore. Then, open motion setup windows had to be closed and reopened so that communication with the controller was possible again.

2.5 Motion API

2.5.1 Motion API 1.x UserPositionReset

The Motion API 1.x has been extended by the function MCAxisStateTransitions.UserPositionReset().

2.5.2 Motion API 1.x: DefineSegment again with all enum options

For compatibility reasons, the auto polynomial options recently removed from the **MCTechnoCamSegmentTypes** enum have been added back.

2.6 Oscilloscope

2.6.1 Crash during recording fixed

A crash that could occur during oscilloscope recording was fixed. There could also be effects for setup documents and the monitor.

2.6.2 No recording of non-localized bit variables

In live mode of the oscilloscope, variables declared as **bits** and not localized could not be recorded.

2.6.1 Forced type resets after start

In live mode of the oscilloscope, if a register was specified directly, no variable, and forced type, e.g. float, the type was changed back to auto after start of the oscilloscope.

2.7 Tooltip

2.7.1 Parameter tooltip for functions

The parameter tooltip did not appear for a function entered after a keyword such as **if**.

2.7.2 Incorrect tooltip display

In the tooltip of a program file a bits variable was displayed as enum variable.

2.8 Debugger

2.8.1 Debugger toolbar was grayed out

If the debugger was started while oscilloscope recording was running and the program execution came to a stop at a breakpoint, individual buttons of the associated toolbar were grayed out. This meant that no further debug steps could be executed.

3 Important notes

3.1 JetSym installation

The JetSym installer must be started with administrator rights to be able to license JetSym during the installation process.

3.1.1 .NET Framework 4.7.2

This version of JetSym requires .NET Framework 4.7.2.