



JetSym
Versions Update
from V4.13 to V4.20



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1 Introduction

Overview of Version Update			
Version	Function	expanded	corrected
V4.2.0	Expansions in Hardware Manager	✓	
	Expansions in Oszilloscope Window	✓	
	Expansions in Motion/Setup Wizard	✓	
	Communication over CAN Interface	✓	
	Upload of STX Programs including Libraries	✓	
	Improved Communication Speed in Setup Window	✓	
	New Function in JetSym Object Model	✓	
	Bug-ID #1060		✓
	Problem with STX Variables of 1 Byte Size		
	Bug-ID #1064 + #1072		✓
	Display of %rI Variables		
	Bug-ID #1065		✓
	Commenting out Array Variables in Setup Window		
	Bug-ID #1066		✓
	Error Message after Restart of a STX-Program		
	Bug-ID #1067		✓
	Different Display of Floating Point Values		
	Bug-ID #1069		✓
	Wrong Display of Callstack		
	Bug-ID #1071		✓
	Wrong Date Format in Transfer Dialogs		
	Bug-ID #1073 + #1074 + #1078 + #1163 + #1170		✓
	Command „Go to Definition“ is disabled mistakenly		
	Bug-ID #1075		✓
	Hang-up using Find/Replace in Motion Command		
	Bug-ID #1081 + #1100 + #1118 + #1142		✓
	Errors at the Conversion		
	Bug-ID #1082		✓
	Display of Unknown Variables in Monitor Windows		

Bug-ID #1086 + #1105	✓
Error Message when Opening Command „MotionReadValue“	
Bug-ID #1089	✓
Error Message when Loading the .ini File of an MC Axis	
Bug-ID #1090	✓
Empty JetMove Error Message „M21“	
Bug-ID #1091	✓
No Motion Setup after Loading „old“ Projects	
Bug-ID #1095	✓
Version Number in Controller Definition	
Bug-ID #1096	✓
Problems using expanded Oscilloscope File	
Bug-ID #1102	✓
No Wraparound in a Tooltip	
Bug-ID #1104	✓
Wrong Units with a Motion Control Axis	
Bug-ID #1108	✓
Parameter „Thermal Time Constant“ is not saved	
Bug-ID #1110	✓
Download of Project Files does not work all the time	
Bug-ID #1114	✓
Crash of JetSym after several Offlines	
Bug-ID #1116	✓
Watching Arrays and Structures in Setup Window	
Bug-ID #1117	✓
LEDs inside Motion Setup in Offline Mode	
Bug-ID #1120	✓
Compiler Error at „MotionClearError“ Command	
Bug-ID #1121 + #1130	✓
Transfer Problems with STX Data Dump Files	
Bug-ID #1124	✓
Display of STX Constants in Setup Window	
Bug-ID #1133	✓
Access to Bits of STX Variables	

Bug-ID #1138	✓
Error Message with Trigger of Oscilloscope Function	
Bug-ID #1140	✓
Faulty Example in Online Help	
Bug-ID #1141	✓
Faulty Intellisense at Constructors	
Bug-ID #1148	✓
Breakpoint in ST Programs at a „Case“-Statement	
Bug-ID #1149 + #1150 + #1165	✓
Errors in Monitor Window	
Bug-ID #1151	✓
Project Files under Subversion	
Bug-ID #1156	✓
Error Message at Program Download	
Bug-ID #1157 + #1158	✓
Automatic Addressing in Axis Modules	
Bug-ID #1167	✓
Script Error at Motion Wizard	
Bug-ID #1172 + #1175	✓
Problems with Command „Save Project as“	

2 Expansions

2.1 Expansions in Hardware Manager

There is now the possibility to define and to configure axis module, which can be accessed over Ethernet and not just over the CAN bus as it used to be before. The axis' operating system can be updated out of the Hardware Manager directly. The location description is now identical to the one used in the operating system update. Additionally the axis' address numbers are now generated automatically.

2.2 Expansions in Oscilloscope Window

In compatible mode a continuous recording can be performed. A pre-trigger can be defined. A register bit can now be used as a trigger. From now on the unit of the sampling time is always milliseconds. The default settings of a new oscilloscope window were expanded. At a module change the according default values are loaded.

2.3 Expansions in Motion/Setup Wizard

The modules „JetMove108“ as well as „JetMove225“ are now supported.

2.4 Communication over CAN Interface

Using a USB adapter from the vendors Peak or IXAAT it is now possible to communicate over CAN with Jetter controllers in case they are supporting this interface as well.

2.5 Upload of STX Programs including Libraries

When uploading a STX program out of the controller all libraries linked to it are now transferred to the hard disk as well, if the controller does support this new feature as well.

2.6 Improved Communication Speed in Setup Window

Using communication interface Ethernet or CAN the communication speed of the setup window has been improved, so the values should now be updated more quickly.

2.7 New Function in JetSym Object Model

In the JetSym object model there is now a new function called "RemoveDocument" available giving the possibility to remove a project's document with the help of a script program.

3 Eliminated Software Bugs

3.1 Problem with STX Variables of 1 Byte Size

Platform: JetSym Bug-ID #1060

STX variables having a size of one byte like the ones of type char and which are declared one after another at „%r!“ addresses were mistakenly marked as “overlaps” in the map file.

3.2 Display of %r! Variables

Platform: JetSym Bug-ID #1064 + #1072

The data of a %r! variable are sometimes not displayed in the tooltip. Using a setup window it could happen, that value of the same variable type were not displayed after a project build had been performed.

3.3 Commenting out Array Variables in Setup Window

Platform: JetSym Bug-ID #1065

Even an array variable was commented out using command „Comment Selection” to be found in menu “Edit/Advanced”, the values of its elements were still displayed and updated.

3.4 Error Message after Restart of a STX-Program

Platform: JetSym Bug-ID #1066

After restarting a STX program occasionally the setup window displayed the text „Invalid STX protocol parameter“ instead of the variable values.

3.5 Different Display of Floating Point Values

Platform: JetSym Bug-ID #1067

Floating point values were displayed differently in the tooltip compared with the setup or the monitor window.

3.6 Wrong Display of Callstack

Platform: JetSym Bug-ID #1069

After changing a function's signature or one of its parameters and transferring it to the controller without rebuilding the project the old as well as the new parameters showing wrong values were displayed in the callstack window.

3.7 Wrong Date Format in Transfer Dialogs

Platform: JetSym Bug-ID #1071

Starting JetSym in a German Windows environment the date inside the transfer dialogs were displayed in the American instead of the German Format

3.8 Command „Go to Definition“ is disabled mistakenly

Platform: JetSym Bug-ID #1073 + #1074 + #1078 + #1163 + #1170

In some cases the command „Go to Definition“ was disabled in the context menu and could therefore not be used. It occasionally worked incorrectly right after the source code had been changed. Additionally Intellisense offered incorrect variable names to be selected. In a rare case it happened that at the execution of command “Go to Definition” caused the cursor to jump into the right document, but not to the correct line. Sometimes the command did not work at all after the project had been rebuilt.

3.9 Hang-up using Find/Replace in Motion Command

Platform: JetSym Bug-ID #1075

Replacing a text in motion commands using command „Find/Replace“ could sometimes end in a hang-up of JetSym.

3.10 Errors at the Conversion

Platform: JetSym Bug-ID #1081 + #1100 + #1118 + #1142

The conversion of a Sympas program to JetSym did sometimes not translate the complete program. A value of type “numeric” was converted to an “int” instead of a “const int” one. An included file in the symbol file was not transferred correctly, because the file extension was adjusted from “.ssf” to “.std”. At the conversion from JetSym ST to a STX project a warning is now displayed telling the user to check the time base of all “DELAY” and “START_TIMER” commands, because under STX the time base is constantly 1 ms and not depended from a special register value, as is used to be under ST.

3.11 Display of Unknown Variables in Monitor Windows

Platform: JetSym Bug-ID #1082

Sometimes unknown variables like „mem[0]“ were displayed in the monitor window.

3.12 Error Message when Opening Command „MotionReadValue“

Platform: JetSym Bug-ID #1086 + #1105

Opening the wizard for the motion command “MotionReadValue” created in an older version of JetSym an error message could be mistakenly displayed. It also happened that the wizard dialog showed different values than the ones displayed in the program document.

3.13 Error Message when Loading the .ini File of an MC Axis

Platform: JetSym Bug-ID #1089

As soon as a parameter file (.ini file) of a MC Axis is loaded (online or offline does not matter), an error message is shown on screen.

3.14 Empty JetMove Error Message „M21“

Platform: JetSym Bug-ID #1090

The JetMove error message „M21“ was always displayed without text.

3.15 No Motion Setup after Loading „old“ Projects

Platform: JetSym Bug-ID #1091

After loading some of the „old“ projects it could happen that it was not possible to open the motion setup window.

3.16 Version Number in Controller Definition

Platform: JetSym Bug-ID #1095

If a specific version number (not "Automatic") was selected in the version field of the controller definition dialog, it was saved correctly. But after reloading the project, this parameter setting was gone.

3.17 Problems using expanded Oscilloscope File

Platform: [JetSym Bug-ID #1096](#)

After opening a particular oscilloscope file the error message „No sufficient memory“ appeared on screen. Closing this message followed by saving the document then always ended then with the crash of JetSym.

3.18 No Wraparound in a Tooltip

Platform: [JetSym Bug-ID #1102](#)

Up to now there was no wraparound implemented in a tooltip. Therefore some functions with many parameters caused the tooltip window to be very wide, so that it could not be displayed completely on screen.

3.19 Wrong Units with a Motion Control Axis

Platform: [JetSym Bug-ID #1104](#)

In the settings of a motion control axis there were places where wrong units were displayed (° instead of mm).

3.20 Parameter „Thermal Time Constant“ is not saved

Platform: [JetSym Bug-ID #1108](#)

When changing the motor type inside the motion setup the parameter „Thermal Time Constant“ was not saved correctly.

3.21 Download of Project Files does not work all the time

Platform: [JetSym Bug-ID #1110](#)

The transfer of the project files onto the controller did not work, if the destination's file system did not contain a folder called „src“.

3.22 Crash of JetSym after several Offlines

Platform: JetSym Bug-ID #1114

JetSym with an open setup and monitor window could crash occasionally after the communication with the controller went on- and offline several times in a row.

3.23 Watching Arrays and Structures in Setup Window

Platform: JetSym Bug-ID #1116

As soon as the index value of an array was changed in the setup window, it could not be opened anymore to watch the index values. The same happened with arrays and structures after a build was performed with an open and active setup window.

3.24 LEDs inside Motion Setup in Offline Mode

Platform: JetSym Bug-ID #1117

Even the motion setup was in offline mode, the LEDs were still displayed with green instead of grey color.

3.25 Compiler Error at „MotionClearError“ Command

Platform: JetSym Bug-ID #1120

Command „MotionClearError“ with a JetMove225 caused the compile error 1910/6019 (Wizard code was created with a different axis type).

3.26 Transfer Problems with STX Data Dump Files

Platform: JetSym Bug-ID #1121 + 1130

If a STX data dump file containing some variable values was transferred to the controller, it could happen, that the transfer was aborted with error message “Invalid STX protocol parameter”. Using the data dump file containing the default values and generated by JetSym there were trouble with the special characters like the German umlauts.

3.27 Display of STX Constants in Setup Window

Platform: [JetSym Bug-ID #1124](#)

Constants defined in a STX program were displayed in the setup window with wrong values.

3.28 Access to Bits of STX Variables

Platform: [JetSym Bug-ID #1133](#)

If individual bits of SRAM variable of type „Byte“, „Int8“, „Word“ and „Int16“ were accessed on a controller of type JetControl3xx, bits of neighbour addresses were read or overwritten mistakenly.

3.29 Error Message with Trigger of Oscilloscope Function

Platform: [JetSym Bug-ID #1138](#)

The error message „Trigger value 2 < Trigger value 1“ appeared, even two different registers were defined for Trigger 1 and 2, which should be allowed.

3.30 Faulty Example in Online Help

Platform: [JetSym Bug-ID #1140](#)

There was a program example to be found in the online help over index „Constructors“, which could not be compiled.

3.31 Faulty Intellisense at Constructors

Platform: [JetSym Bug-ID #1141](#)

If a STX program contained a constructor, then Intellisense sometimes did not work properly by offering wrong parameters for selection.

3.32 Breakpoint in ST Programs at a „Case“-Statement

Platform: [JetSym Bug-ID #1148](#)

The debug session of a JetSym ST program did not stop at a breakpoint defined right at a „Case“ statement.

3.33 Errors in Monitor Window

Platform: JetSym Bug-ID #1149 + #1150 + #1165

The status textes shown in the monitor window were not always correct and were also not uniform between JetSym ST and JetSym STX projects. Locale not localized STX variables were additionally not updated anymore after the restart of the controller connected.

3.34 Project Files under Subversion

Platform: JetSym Bug-ID #1151

All project files located outside of the project directory were not supported by Subversion.

3.35 JetSym Crash at Conversion

Platform: JetSym Bug-ID #1153

If a Sympas project was converted to JetSym and the target project overwrote an existing project with the same name and was also under version control, then JetSym crashed.

3.36 Error Message at Program Download

Platform: JetSym Bug-ID #1156

During an active debug session with an open monitor window monitoring the status of all tasks a program was downloaded to the controller with the option to restart the debug session right after the transfer. Repeating this procedure several times could cause an abortion of the program download with error message "IP – invalid parameter".

3.37 Automatic Addressing in Axis Modules

Platform: JetSym Bug-ID #1157 + #1158

At the automatic addressing of axis module the virtual axis were looked upon as they would be real ones. The following axis therefore received a wrong address number. After a definition change of a virtual axis there was a faulty calculation of the addresses, which caused error messages at the compilation of the program.

3.38 Script Error at Motion Wizard

Platform: JetSym Bug-ID #1167

The attempt to open a motion command, where the axis of its technology group were deleted right beforehand, always ended with a script error. Now instead of this behaviour there is a selection with the existing axis offered to the user.

3.39 Problems with Command „Save Project as“

Platform: JetSym Bug-ID #1172 + #1175

When using command „Save Project as“ to gain a copy of a project the controller type was not taken over properly in case a controller offering several models like JetControl-24x (JC241, JC243,..) was defined. If a project was copied the same way to another location without changing its name and the new project was added to the current workspace, then the Hardware Manager did not work properly anymore, because it was confused by the two projects having the same name.