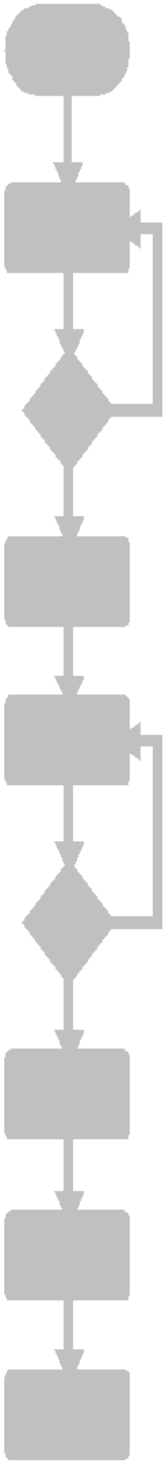

JetSym
Versions Update
from V4.00 to V4.10

Jetter

Auflage 1.00

04.06.2008 / Printed in Germany

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2 Expansions

2.1 Hardware Manager

The new Hardware Manage offers a comfortable possibility to configure the project's hardware. Inside the docking Window "Workspace" there are two new tabs named "System" and "Setup" introduced.

2.2 Integration of Version Management Software

JetSym now also supports the use of the source control software "MS Visual SourceSafe® " as well as "Subversion®". Over "Tools/Options" the software required can be selected. The source control commands are located in menu "File". More information on this can be found inside the JetSym's online help.

2.3 Version Management of STX Projects

From this version onwards a STX project can be compiled for a specific controller's operating system. All platform files will then be adjusted accordingly. Besides the relevant version numbers the option "Automatic" can be selected as well, which is actually the default setting. In this case the operating system version of the controller connected will be evaluated first and then used for the compilation. If there is no controller online, then the must current version number will be taken over. When transferring a STX program to a controller its operating system will be checked and compared with the required one by the program. If there is a incompatibility detected, an error message will be displayed and the program is not transferred.

2.4 Tracing Mode

Besides the setup, monitor and the debug mode there is now the tracing mode available. After its activation all trace messages of one ore several selectable controllers can given out in the debug window. Additional information can be retrieved from the online help. To use the new tracing mode properly it is necessary to have a controller online, which supports at least STX protocol version 4.

2.5 New Configurations Combo Box in Toolbar

The „Build" toolbar contains now an additional combo box, where the current configuration can be selected. If JetSym has already been installed it might be possible, that this combo box is not visible first. If this is case, it can be made visible by opening dialog over "Tools/Customize" and then by selecting entry "build" inside property page "Toolbar" followed by clicking button "Reset".

2.6 Project Down-/Upload

From this version onwards all relevant files belonging to a JetSym project can be zipped to a file. Additionally such a zipped file can be transferred to the file system of a controller

connected for backup purpose. From there it can be uploaded and unzipped again before including it into a JetSym workspace.

2.7 New Project Type „STX Library“

A new project type called “STX Library” is now available. Inside such a project functions can be defined and implemented followed by building a library file, which then can be included into several STX projects. Inside the “Tools/Options” dialog at property page “Directories” there is now also the possibility to declare predefined directories, where library should be looked for in case not being located in the same directory as the project’s one.

2.8 Expansions in Monitor and Setup Mode

Timer variables can now be displayed and altered in a monitor and in a setup window. Optionally complete compressions can be displayed when having a STX project. A combo box inside the grid can now be opened by pressing F4 key. Arrays and structures can be displayed with the possibility to expand the showing all their indices and members. The monitor mode now also works, if the program loaded does not match the one lately build on the computer and even if it does not match with the one running on the controller. In both cases a red/black blinking warning message is displayed in the header of the monitor window. The user should be aware of the fact then the values displayed could be incorrect, because the address of a STX variable might have changed.

2.9 Expansions in Using Intellisense

Intellisense can be used in setup windows as well by pressing key combination CTRL-Space. It is updated on a regular base during editing inside a program. This automatic update can be disabled inside property page “Editor” of the “Tools/Options” dialog.

2.10 Expansions inside Program Editor

A double click on a motion command inside the program editor now opens the wizard to alter it. As soon as debug mode is activated the tooltip window also displays the variables current value. A commentary is shown even if it was added or edited with a standard text editor. Inactive Code is now shown with a different user-selectable color, its default is gray. The path containing the platform files is now added automatically to the directory list (“Tools/Options/Directories) at the start-up of JetSym, if it has not been entered already. Therefore the declaration of the platform file does not need to contain the directory path.

2.11 Additional Features using STX Projects

With STX projects .jde as well as .map files can be created too. The .jde file is the export file containing the project’s variables which can then be imported into “JetViewSoft”. The .map files contains all register ranges used, where possible overlapping can be checked. After activation of the debugger, the recent exceptions thrown will be displayed. An exception has an additional string parameter

2.12 Function Tree: Fading out System Functions

The STX system functions are not listed in the function tree window anymore. Over the context menu they can be made visible again, if so requested.

2.13 Expansions Performing Transfers from and to Controllers

When performing a partial program download of a data dump file containing the default values is not transferred to the controller anymore. Within STX projects the name of the project folder in the controller's file system can now be declared by the user. If not declared the project name will be taken for this parameter. The performance of the down- and upload of a data dump file has been improved.

2.14 New STX Macros

The following new STX macros are now available:

__DATE__:
Date string of compiler translation, e.g. '05.06.2008'

__TIME__ :
Time string of compiler translation, e.g. '13:30:21'

__FILE__:
Complete path of file, in which this macro is written to (Type String).

__LINE__:
Line number, in which this macro is located (Type Integer).

These new macros are useful especially in trace or assert messages.

3 Eliminated Software Bugs

3.1 Disappearance of Register Number When Using Binary Display

Platform: **JetSym Bug-ID #697**

Within a setup window a register value is displayed in binary format. After loosing the focus the register number of in the specific row disappears and reappears only if the setup mode is deactivated followed by a reactivation.

3.2 Comparing JetSym(ST) Projects

Platform: **JetSym Bug-ID #604**

There is no difference between quick and expanded mode of a program comparison of a JetSym(ST) project. The behaviour is just the same, after the first detected difference the according program line is displayed.

3.3 Definition of an Array Having Size Zero

Platform: **JetSym Bug-ID #597**

Within a STX project up to now it was possible to define an array with size zero. Now the compile checks this and gives out an error message in case there is one.

3.4 Global Constants Used in STX Functions

Platform: **JetSym Bug-ID #596**

Global constants used within STX functions are not displayed in the monitor window.

3.5 Symbols with Commentary inside STX Declaration File

Platform: **JetSym Bug-ID #515**

If symbols in STX declaration files had commentaries, the compilation was aborted showing error message: „Error 2001: Illegal symbol value“.

3.6 Confusing Dialog Displayed at Operating System Update

Platform: **JetSym Bug-ID #588**

At the update of a some module’s operating systems it is possible, that there is only one slot number selectable. Nevertheless the edit field to enter the slot number was enabled and if a wrong slot number has been entered, then an error message like “Please enter a

value between 1 and 1" appears on screen. Now in this case the edit field will be read only containing the correct slot number value.

3.7 JetSym Crashes Using Monitor Mode

Platform: **JetSym Bug-ID #552 + #553**

Because of the ability to monitor complete expressions in the monitor window it is possible that JetSym crashed because of a division by zero. This misbehaviour is now corrected.

3.8 „+/-„ Keys used inside Monitor and Setup Window

Platform: **JetSym Bug-ID #544 + #546 + #532**

Pressing the „+/-„ keys toggles a boolean value monitored in the monitor window, which actually should not be happening. Inside the setup window pressing the same key does not change a floating point value. At now even in STX projects a value monitored can be incremented/decremented by 10 pressing "SHIFT-+/-" keys, by 100 with "CTRL-+/-" and by 1000 by "CTRL-SHIFT-+/-".

3.9 STX Monitor: „Go to Source Code"

Platform: **JetSym Bug-ID #535**

Above command is now disabled, if the program on the controller is stopped and not running.

3.10 Troubles at Display Update of Monitor Window

Platform: **JetSym Bug-ID #534**

Under certain circumstances the display in the monitor window was not updated correctly.

3.11 No Taking Over of a new Value inside Monitor Window

Platform: **JetSym Bug-ID #533**

Some changes mode over the dialog in the monitor window of a STX project were not taken over.

3.12 Oscilloscope: Automatic Type Recognition at STX Projects

Platform: **JetSym Bug-ID #524**

In the oscilloscope mode of a STX project the type of a floating-point variable was not detected correctly, if automatic type recognition was activated. If the type was set to “float”, the scaling of the axis still showed integer numbers.

3.13 Error at Data Dump File Download

Platform: **JetSym Bug-ID #720**

If a string containing a carriage-return is saved in a data dump file it is not possible to download it to a controller. The transfer is then aborted showing error message “Illegal file format”.

3.14 Incorrect Export of Register Bit Variables

Platform: **JetSym Bug-ID #624**

Exporting variables of a ST project to an export file (*.jde) the ones of type register bit were saved having type integer instead of boolean.

3.15 STX Project: Located Variable Shown in Tooltip

Platform: **JetSym Bug-ID #614**

The address of declared, located variable inside a STX project (n_test : int at %vl 100;) is not displayed in a tooltip window.

3.16 Compiler Error with Old Projects Containing Motion Commands

Platform: **JetSym Bug-ID #561**

Older projects containing motion commands, which were compiled with a JetSym version 3.11 without any error could not be compiled with version 4.0. The compile process is then aborted showing error message “Fatal error 8001”.

3.17 STX Monitor: Possible Change of Constant’s Value Using Dialog

Platform: **JetSym Bug-ID #529 + #530 + #531**

In the monitor window it was possible to change the values of constants declared in a STX project using the dialog, which is actually nonsense. Even if column “Monitor2” did not display any value, the dialog could be opened and the new value was taken over for the value shown in column “Monitor1”. The appearance of the dialog to change monitored values at STX projects is now adapted to the one shown at ST projects.

3.18 Using „mem[xxx]“ inside Motion Commands

Platform: **JetSym Bug-ID #543**

If the expression „mem[xxx]“ was used in a motion wizard command instead of a literal or variable the following problems occurred.

ST project:
An error message appeared on screen (java script alert) in case of an expression like „mem[200]/10.0“ was in use. However the code generated by the wizard was correct and could be compiled.

STX project:
Using expression „mem“ inside a motion wizard command generated an invalid code fragment which was unable to be compiled.

3.19 JetSym Crash when Opening Motion Wizard

Platform: **JetSym Bug-ID #512**

In case of having Internet Explorer Version 6 installed on a PC, JetSym crashes as soon as the motion wizard is opened.

3.20 Oscilloscope: Recording in Compatible Mode

Platform: **JetSym Bug-ID #519**

The recording in compatible mode does not start neither in the old nor in the new oscilloscope. Using the new oscilloscope the error message appears: “No module or no oscilloscope module”.

3.21 Controller Crash at Monitor Mode Usage

Platform: **JetSym Bug-ID #609**

If monitor mode in a STX project is activated and the cursor is set to the line where a local variable is declared, then the controller operating system crashed.

3.22 No Special Characters in File Names

Platform: **JetSym Bug-ID #590**

Eprom file and project names must not have any special characters including ‚ä’, ‚ö’ and ‚ü’, because these are not supported by the Jetter controllers file system. Principally the entry of such a character should be suppressed, which did not happen in all cases. If a “Save As” dialog is used it is not possible to suppress the entry. But in this case an error message appears when clicking button “OK”, the dialog is not closed and therefore the name is not taken over.

3.23 STX: Wrong Alignment of Object Variables

Platform: **JetSym Bug-ID #608**

Variable instances could be aligned incorrectly in the memory in case only byte, word or string types were used in the lowest structure level, but structures derived from were containing integer and long members.

3.24 STX: No Connection over Serial Interface

Platform: **JetSym Bug-ID #550**

Up to now it was not possible to establish a connection to a STX controller using the serial interface. From now on this is enabled excluding the possibility to transfer a program to a controller.

3.25 Performance of Task Monitor

Platform: **JetSym Bug-ID #536**

The performance of the task monitor was not too good. This could be noticed especially when the monitor mode was activated and deactivated several times in a row. Then JetSym hung up for a few seconds. The performance has now been improved on the condition that the operating system of the STX controller connected supports STX protocol version 4 or later.

3.26 Script Error in Oscilloscope's Wizard

Platform: **JetSym Bug-ID #538**

If a JetSym workspace was changed after a oscilloscope graph had been recorded including some motion scope variables, then the wizard call at a new start of the scope recording failed. This also happened in case of creating a new workspace.

3.27 Oscilloscope: Switching Time Unit (µs/ms)

Platform: **JetSym Bug-ID #527**

The module type is changed in the oscilloscope causing a change of the time unit. Now the new type is not displayed correctly.

3.28 Disappearance of Breakpoints

Platform: **JetSym Bug-ID #717**

Under certain circumstances it was possible that some breakpoints suddenly vanished completely. This happened especially when starting a debugger after a change of the active configuration which caused an activation and deactivation of similar looking code fragments cause by compiler directives.

3.29 Incompatibility of Communication Libraries

Platform: **JetSym Bug-ID #616**

Ater the installation of JetSym version 4.0 followed by the one of the „JetViewSoft“ software version 2.21 it was not possible to connect to a controller over ethernet because of some incompatibilities between the communication libraries. This should now happen anymore using this JetSym version 4.1.