



OS version updates

as of September 10, 2020

This document has been compiled by Jetter AG with due diligence, and based on the known state of the art. Revisions and further development of our products are not automatically mentioned in a reviewed document. Jetter AG shall not be liable for errors in form or content, or for missing updates, as well as for damages or disadvantages resulting from such failure.



Jetter AG
Graeterstrasse 2
71642 Ludwigsburg
Germany

Phone

Switchboard	+49 7141 2550-0
Sales	+49 7141 2550-531
Technical Hotline	+49 7141 2550-444

E-mail

Technical Hotline	hotline@jetter.de
Sales	sales@jetter.de

Translation of the original User Manual

Revision	1.01
Date of issue	9/23/2020

Table of contents

1	Introduction	5
2	New Enhancements	7
2.1	General Enhancements.....	7
2.1.1	More usable data memory for STX variables	7
2.2	Industrial automation controllers - Enhancements	7
2.2.1	JX3-COM-PND - Revision and new features	8
2.2.2	More HTTP types supported	8
2.2.3	Timeout before the first publication received.....	8
2.3	Enhancements for MCX	9
2.3.1	Automatic coupling of an electric gearbox can be set	9
2.3.2	Internal position setpoint can be used in Scope function	9
2.3.3	EtherCAT© controllers: Important change	9
2.3.4	EtherCAT© controllers: Touch Probe Function	10
2.3.5	EtherCAT© controllers: Torque cut-off.....	10
2.3.6	EtherCAT© controllers: JetMove 1008/1005 can be used	10
2.3.7	EtherCAT© controllers: String objects can now be read.....	10
2.3.8	EtherCAT© controllers: External axis.....	10
2.4	Extensions for CANopen®	11
2.4.1	New STX API functions for CANopen®.....	11
2.4.2	New STX function CANopenExit(CANNo:int).....	11
2.4.3	STX function CanOpenAddObject() enhanced	12
2.4.4	STX function CANopen_SetCommand enhanced	12
2.4.5	STX access to own object directory via SDO command with own NodeID as target.....	12
2.4.6	STX DLC of PDO TX messages shortened to effective length	12
2.4.7	Emergency message if PDO size is smaller than the mapped size	12
2.4.8	CANopen® object types in object table.....	12
2.4.9	CANopen® support for node guarding	12
2.4.10	CANopen® new registers for retrieving the runtime of PDOs	12
2.5	Mobile automation controllers - Enhancements	13
2.5.1	J1939 SAEJ1939AddTx	13
2.6	HMI enhancements	13
2.6.1	Windows embedded Compact 2013 (WEC2013) for HMIs of the JV-10xx series	13
2.6.2	Jv-10xx HMIs - Reading out information about installed expansion modules	14
2.6.3	CANopen® modules for JV-10xx	14
2.6.4	PROFIBUS slave module for JV-10xx.....	14
2.7	Enhancements for specific controllers.....	16

2.7.1	JC-440 EXT: MQTT	16
2.7.2	JC-440 MC/EXT: Integration Gratuitous ARP	16
3	Bug Fixes	17
3.1	General Bug Fixes	17
3.1.1	Try_catch is not allowed in classes	17
3.1.2	Rename() with empty string	17
3.2	Bug Fixes for MCX	17
3.2.1	Geo group - Interruption and resumption	17
3.2.2	Offset of the position display of virtual axes	17
3.2.3	Incorrect error message 6200	18
3.2.4	MCX with JM-2xx/JM-1xx axes	18
3.2.5	JC-945MC and JC-975MC: Initializing more than 27 axes	18
3.2.6	Configuration of JM-122xx/JM-14xx: PTC motor temperature sensor	18
3.2.7	EtherCAT® controllers: Download of incomplete axis configurations	18
3.3	Bug Fixes for CANopen®	18
3.3.1	CANopen® CanOpenDownloadOS()	19
3.3.2	RTR for PDO is not supported	19
3.3.3	CANopen® PDOTX blocks control	19
3.4	Bug fixes for HMIs	19
3.4.1	New and revised registers	19
3.4.2	CANopen® initialization without CAN module (JV-10xx)	20
3.5	Bug fixes for specific controllers	20
3.5.1	JX3-COM-PND: Modules with position greater than 9	20
3.5.2	JC-340/JC-350: Blocked task when querying the NTP time	20
3.5.3	JC-365MC: Crash when starting the oscilloscope	20
3.5.4	JC-365MC: No Ethernet communication after repeated loading of an HTML page ..	20
3.5.5	JC-97X: Cyclical tasks do not maintain cycle	20

1 Introduction

This document describes the enhancements and bug fixes released in the following OS versions:

OS versions per product line:

Product	Version	CAN-Open®	J1939	MQTT	OPCU A	Ether-CAT®	MC / MCX	Type
JC-340	1.32.0.00							Industrial Automation
JC-350	1.32.0.00							Industrial Automation
JC-365	1.32.0.00	Yes						Industrial Automation
JC-365MC	1.32.0.00	Yes					Yes	Industrial Automation
JC-360	1.32.0.00	Yes						Industrial Automation
JC-360MC	1.32.0.00	Yes					Yes	Industrial Automation
JC-940MC	1.16.0.00						Yes	Industrial Automation
JC-945MC	1.16.0.00					Yes	Yes	Industrial Automation
JC-970MC	1.16.0.00						Yes	Industrial Automation
JC-975MC	1.16.0.00					Yes	Yes	Industrial Automation
JC-440MC	1.08.0.00	Yes				Yes	Yes	Industrial Automation
JC-440EXT	1.08.0.00	Yes		Yes	Yes	Yes	Yes	Industrial Automation
JCM-501	4.08.0.00	Yes	Yes					Mobile Automation
JCM-511	4.08.0.00	Yes	Yes					Mobile Automation
JCM-521	4.08.0.00	Yes	Yes					Mobile Automation
JCM-529	4.08.0.00	Yes	Yes					Mobile Automation
JVM-104	2000-10-04	Yes	Yes					Mobile Automation
JVM-407B	2000-10-04	Yes	Yes					Mobile Automation
JVM-507B	2000-10-04	Yes	Yes					Mobile Automation
JVM-604B	2000-10-04	Yes	Yes					Mobile Automation
JV-1004	2000-10-04							Industrial Automation
JV-1005	2000-10-04							Industrial Automation
JV-1007	2000-10-04							Industrial Automation
JV-1010	2000-10-04							Industrial Automation
JCM-350	1.32.0.00							Mobile Automation

Product	Version	CAN-Open®	J1939	MQTT	OPCU A	Ether-CAT®	MC / MCX	Type
JC-310-JM	1.32.0.00							Industrial Automation
JM-200-ETH	1.32.0.00							Industrial Automation
JX3-COM-PND	1.06.0.00							Industrial Automation

Tab. 1: OS versions per product line

Added controllers:

- JC-975MC
- JCM-631
- JC-440EXT
- JV-1004, JV-1005, JV-1007, JV-1010

No longer supported after this version:

- JC-360
- JC-360MC

Prerequisites

JetSym version 5.6.0 is required to use the JetSym-dependent enhancements and bug fixes.

2 New Enhancements

2.1 General Enhancements

The enhancements mentioned here apply to the OS versions of all [products \[▶ 5\]](#).

2.1.1 More usable data memory for STX variables

Up to now, the STX application program could use a maximum of 16 MB of data memory for variables, even if the controller had more than 16 MB of RAM. Thanks to an extension in the operating system, more than 16 MB can now be used if a corresponding controller is used.

The maximum size is shown in the following table:

Controller	Maximum memory available for APP
JC-310	2 + 1 MB
JC-340	2 + 1 MB
JC-350	2 + 1 MB
JC-360	4 + 0.5 MB
JC-365	24 + 1 MB
JC-440	32 + 1 MB
JC-940MC	64 + 1 MB
JC-970MC	64 + 1 MB
JC-945MC	64 + 1 MB
JC-975MC	64 + 1 MB
JV-1005/7/10	15 + 1 MB
JCM-350	4 + 1 MB
JVM-407B	8 + 1 MB
JVM-507B	8 + 1 MB
JCM-501	8 + 1 MB
JCM-511	8 + 1 MB
JCM-521	8 + 1 MB
JCM-529	8 + 1 MB
JVM-630	8 + 1 MB

Tab. 2: Use of data memory in STX larger than 16 MB

2.2 Industrial automation controllers - Enhancements

The enhancements mentioned here apply to the following OS versions of the industrial automation controllers:

OS version	Product
1.32.0.00	<ul style="list-style-type: none"> ■ JC-340 ■ JC-350 ■ JC-365/JC-365MC ■ JC-360/JC-360MC ■ JC-310-JM ■ JC-200-ETH

OS version	Product
1.16.0.00	<ul style="list-style-type: none"> ■ JC-940MC ■ JC-970MC ■ JC-945MC ■ JC-975MC
1.08.0.00	<ul style="list-style-type: none"> ■ JC-440MC ■ JC-440EXT
1.06.0.00	<ul style="list-style-type: none"> ■ JX3-COM-PND

2.2.1 JX3-COM-PND - Revision and new features

1. Up to now it was necessary to enter the name of the device in JetSym under "Configuration → PROFINET IO DEVICE". This is no longer necessary. Names entered are ignored.
2. Under "Diagnostics → PROFINET IO Device Stack" it was so far necessary to set the "4: Bus On" command in the command box. This is no longer necessary and a set command has no effect.
3. Under "Diagnostics → PROFINET IO Device Stack", the lines "Station name X of 10" no longer contain the name assigned in JetSym, but the name assigned by the PROFINET supervisor and saved in the JX3.

2.2.2 More HTTP types supported

Now, the HTTP server supports the following file types:

- .map
- .tff
- .woff
- .woff2

2.2.3 Timeout before the first publication received

The Jetter Ethernet system bus now has a new register for monitoring the timeout period for receiving a publication for a subscription.

- **Index:** 250005
- **Name:** Start timeout in milliseconds
- **Description:** Timeout for the start of communication

Until now, a subscription had to receive at least one publication before timeout monitoring via register 250x27 became active. If the first publication already exceeded the timeout period, this was not registered as an error.

For this purpose, there is now the additional function "Start-Timeout" via register 250005. This register monitors the receipt of publications for all subscriptions. Detected timeout errors are displayed in the following registers:

- 250000
- 250002
- 254001 through 254003

After the start timeouts have expired, register 250005 is reset to 0. The register can be written to again and again and thus timeout monitoring can be triggered manually.

2.3 Enhancements for MCX

The enhancements mentioned here apply to the following OS versions of the controllers with Motion Control. As of the OS versions listed below, the operating system uses MCX version 1.20.0.98:

OS version	Product
1.32.0.00	<ul style="list-style-type: none"> ■ JC-365MC ■ JC-360MC
1.16.0.00	<ul style="list-style-type: none"> ■ JC-940MC ■ JC-970MC ■ JC-945MC (EtherCAT® controller) ■ JC-975MC (EtherCAT® controller)
1.08.0.00	<ul style="list-style-type: none"> ■ JC-440MC (EtherCAT® controller) ■ JC-440EXT (EtherCAT® controller)

2.3.1 Automatic coupling of an electric gearbox can be set

Up to now, in a technology group involving an electric gearbox, the follower axis was automatically coupled as soon as the group was activated. Since this is not useful in all applications, the function "configGearing" can now be used to set whether the coupling should be automatic or not.

To configure an axis so that it is not automatically coupled, the following command must be sent to the technology group:

```
AV_Techno.Coupling.Gearing.Configure (
AX_Follower, 1, 1, MCTechnoGearingActivationModes.Decoupled
);
```

For this purpose, the technology group must be activated once at the beginning of the program.

2.3.2 Internal position setpoint can be used in Scope function

For special diagnostic purposes, the internal setpoint position value and the current actual position value can now be recorded in the internal scope function of the controller. The setpoint and actual position values are sent cyclically from the controller (MCX) to the servo amplifier.

The setpoint position value is displayed in register 50xxx9230. The actual position value is displayed in register 50xxx9320. The values are transmitted in a 32-bit integer in which the low word represents the angular position and the high word the number of revolutions.

2.3.3 EtherCAT® controllers: Important change

If the controller OS version for JetSym 5.6 is used, it is absolutely necessary to use JetSym version 5.6.0 (or a more recent one) when using axes. In an existing project, which was created with JetSym V5.5.1, for example, the project must be opened in JetSym 5.6.0 after the controller has been updated and the following actions must be carried out:

- Change the OS version on the CPU side
- Download the hardware configuration using the "Compare and Download" dialog

- Delete the old Motion API from the library and include Motion API 2.0.0.3
- Recompile and transfer the program

2.3.4 EtherCAT® controllers: Touch Probe Function

Starting with this version, the controllers JC-440MC, JC-945MC and JC-975MC have a touch probe function. This function enables the actual position of the axis to be recorded and stored very accurately on the basis of the signal at a fast digital input. This function lets you program compensation operations or make accurate length measurements of moving objects.

Properties:

- 1 or 2 channels depending on the inverter type
- Once-only or continuous recording
- Rising, falling or both edges can be parameterized
- Position recording in user-defined units
- Programming via Motion API functions

i INFO

This function cannot be used in axis groups!

2.3.5 EtherCAT® controllers: Torque cut-off

EtherCAT controllers now feature the special function "torque cut-off", which is primarily used in screwing applications. The main function is the parameterization of the load-torque that triggers a fast braking of the drive. This function was integrated into the servo amplifiers of the JetMove 200 series and is used here again in its proven form. The function can be used with the help of Motion API functions.

i INFO

The screwing process cannot be carried out by a controller several times at the same time.

2.3.6 EtherCAT® controllers: JetMove 1008/1005 can be used

The JetMove 1008 and JetMove 1005 servo amplifiers can now be connected and used with a compatible controller via EtherCAT®.

2.3.7 EtherCAT® controllers: String objects can now be read

Special CANopen objects of the servo amplifiers can be read and written in EtherCAT® controllers via motion API access. As of this version, this is also possible for string objects (type: visible strings).

2.3.8 EtherCAT® controllers: External axis

For EtherCAT® controllers, "external axes" can now be used. For this purpose, an encoder can be used on a second encoder interface of an axis module. The position value of this encoder can be used in the MCX as the master axis in a technology group. The external axis is created and configured in the Hardware Manager in JetSym.

2.4 Extensions for CANopen®

The extensions mentioned below apply to the following OS versions of CANopen®-capable controllers:

OS version	Product
1.32.0.00	<ul style="list-style-type: none"> ■ JC-365/JC-365MC ■ JC-360/JC-360MC ■ JCM-350
1.08.0.00	<ul style="list-style-type: none"> ■ JC-440EXT ■ JC-440MC
4.08.0.00	<ul style="list-style-type: none"> ■ JCM-501 ■ JCM-511 ■ JCM-521 ■ JCM-529
4.10.0.00	<ul style="list-style-type: none"> ■ JVM-104 ■ JVM-407B ■ JVM-507B ■ JVM-604B

2.4.1 New STX API functions for CANopen®

New functions for bit-by-bit sending and receiving of PDO messages:

```
CanOpenAddPDORxBit (
    CANNo:int,
    CANID:int,
    BitPos:int,
    BitLength:int,
    dataType:int,
    DataLength:int,
    ref VarAddr,
    EventTime:int:=100,
    InhibitTime:int:=10,
    Paramset:int:=CANOPEN_ASYNC PDO|CANOPEN_NORTR
):int;
```

```
CanOpenAddPDOTxBit (
    CANNo:int,
    CANID:int,
    BitPos:int,
    BitLength:int,
    dataType:int,
    DataLength:int,
    ref VarAddr,
    EventTime:int:=100,
    InhibitTime:int:=10,
    Paramset:int:=CANOPEN_ASYNC PDO|CANOPEN_NORTR
):int;
```

2.4.2 New STX function CANopenExit(CANNo:int)

This function can be used to close the CAN interface. Then, no more messages are sent or received on the bus. Access by JetSym to the closed interface is also no longer possible.

```
CanOpenExit (CANNo:int) :int;
```

2.4.3 STX function CanOpenAddObject() enhanced

The data type CANOPEN_VISIBLE_STRING can now be used for the object directory.

2.4.4 STX function CANopen_SetCommand enhanced

New command for changing the own heartbeat time available:

```
#define CMD_HEARTBEAT_TIME 4
```

Example: Changing the heartbeat from can 0 to 2 seconds

```
CanOpenSetCommand(0, CMD_HEARTBEAT_TIME, T#_2s)
```

2.4.5 STX access to own object directory via SDO command with own NodeID as target

With the functions CanOpenUploadSDO() and CanOpenDownloadSDO() the own object directory can now be accessed. For this, the own NodeID must be specified as the target.

2.4.6 STX DLC of PDO TX messages shortened to effective length

As of this version, only the actual used/registered length for a CAN message is sent. So far, all PDOs were sent with a DLC of 8.

2.4.7 Emergency message if PDO size is smaller than the mapped size

When messages are received that are smaller than the mapped size, an emergency message is now sent with the code 0x8210.

ManufacturerError[0] = 2

ManufacturerError[1 - 4] = CAN ID little endian of the affected PDO

2.4.8 CANopen® object types in object table

Object index 1 ... 27 is now supported. The size of the type in bytes is returned as unsigned32.

2.4.9 CANopen® support for node guarding

If the heartbeat time is set to 0 ms, Node Guarding can be used. So far, 0 ms was not a valid value.

2.4.10 CANopen® new registers for retrieving the runtime of PDOs

Register	Description
40x900	Current propagation time RX list
40x901	Minimum propagation time RX list
40x902	Maximum propagation time RX list
40x903	Number of calls RX list
40x910	Current propagation time TX list
40x911	Minimum propagation time TX list
40x912	Maximum propagation time TX list
40x913	Number of calls TX list

2.5 Mobile automation controllers - Enhancements

The enhancements mentioned here apply to the following OS versions of the mobile automation controllers:

OS version	Product
4.08.0.00	<ul style="list-style-type: none"> ■ JCM-501 ■ JCM-511 ■ JCM—521 ■ JCM-529
4.10.0.00	<ul style="list-style-type: none"> ■ JVM-104 ■ JVM-407B ■ JVM-507B ■ JVM-604B
1.32.0.00	<ul style="list-style-type: none"> ■ JCM-350

2.5.1 J1939 SAEJ1939AddTx

If PGN, BytePos, Bitpos, and variable type are identical, a passed variable, the RepetitionTime, and InhibitTime can be changed by logging on the message again.

2.6 HMI enhancements

The enhancements mentioned below apply to the following HMI OS versions:

OS version	Product
4.10.0.00	<ul style="list-style-type: none"> ■ JVM-104 ■ JVM-407B ■ JVM-507B ■ JVM-604B ■ JV-1004 ■ JV-1005 ■ JV-1007 ■ JV-1010

2.6.1 Windows embedded Compact 2013 (WEC2013) for HMIs of the JV-10xx series

The following devices can also be ordered with the WEC2013 operating system: JV-1005, JV-1007, JV-1010. The order number code is: -B9

WEC2013 is not available for the JV-1004 HMI.

2.6.2 Jv-10xx HMIs - Reading out information about installed expansion modules

With all HMIs of the JV-10xx series (JV-1004, JV-1005, JV-1007 and JV-1010) information about expansion modules can now be read out via the following registers.

Register	Description
111xx0 ... 111xx5	Name of the expansion module
111xxx+10 ... 111xxx+13	Bit-coded function of the expansion module Bit1: CAN Bit6: PROFIBUS

i INFO

xx = Number of the expansion module (0 ... 3) * 50
→ Name of the expansion module 2 = 111100

2.6.3 CANopen® modules for JV-10xx

All JV-10xx HMIs (JV-1004, JV-1005, JV-1007, JV-1010) now support up to two CAN modules.

2.6.4 PROFIBUS slave module for JV-10xx

One PROFIBUS module can now be connected to JV-1004, JV-1005, JV-1007, and JV-1010 HMIs.

Register	Description
135100	<p>Status</p> <p>Lower byte (1) is number-coded:</p> <p>0: No error</p> <p>5: Timeout in PROFIBUS communication</p> <p>7: Timeout in communication CPU → PROFIBUS module</p> <p>8: No cable connected, no response</p> <p>9: Bus not in data exchange mode</p> <p>The next byte (1) is bit-coded:</p> <p>Bit 8: Status of the consistent input words</p> <p>0 = Basic state or input words are being sent.</p> <p>1= Input words sent completely.</p> <p>Bit 9: Status of the consistent output words</p> <p>0 = Basic state or output words are being sent.</p> <p>1= Output words sent completely</p>

Register	Description
135101	Command register 11: Start cyclic communication 15: Send consistent inputs 16: Receive consistent outputs
135107	Station address
135108	DPID code default: 0x2DC
135118	IO length
135119	IO length
135132	Status of the DP state machine 0 = RESET Chip (boot-up state) 1 = RESET Chip Wait 2 = OFFLINE 3 = OFFLINE WAIT 4 = WAIT PRM (Parametrization) 5 = WAIT CFG 6 = DATA EXCHANGE
135133	Current baud rate 0000 = 12 MBaud 0001 = 6 MBaud 0010 = 3 MBaud 0011 = 1.5 MBaud 0100 = 500 kBaud 0101 = 187.5 kBaud 0110 = 93.75 kBaud 0111 = 45.45 kBaud 1000 = 19.2 kBaud 1001 = 9.6 kBaud
135135	Watchdog status 00 = 'Baud_Search' state 01 = 'Baud_Control' state 10 = 'DP_Control' state
135300 ... 135399	Receive buffer
135400 ... 135499	Send buffer
135500 ... 135599	Receive buffer consistent
135600 ... 135699	Send buffer consistent

Setting the station address:

The station address is written to station address register R135107.

→ The status of DP state machine R135132 changes from 0 = RESET chip to 3 = OFFLINE WAIT.

2.7 Enhancements for specific controllers

2.7.1 JC-440 EXT: MQTT

As of this version, the JC-440EXT can be used as MQTT client. STX configuration functions are available for this purpose.

2.7.2 JC-440 MC/EXT: Integration Gratuitous ARP

As soon as an IP-based interface becomes active, the own IP address is made known to the other bus nodes without being requested. This happens when the node is reset and also when the IP address of the respective node changes. Thus, any bus node that is already active can update its ARP table. An active request for new IP nodes is therefore not necessary. This will speed up initial contact with new nodes if necessary.

3 Bug Fixes

3.1 General Bug Fixes

The bug fixes mentioned below apply to the OS versions of all [products \[► 5\]](#).

3.1.1 Try_catch is not allowed in classes

When calling virtual methods through interfaces in connection with try/catch, the this pointer could be lost in certain cases which could cause the task to stop. This bug has been fixed.

3.1.2 Rename() with empty string

If an empty string ("") is entered as name when renaming by the rename() function, the function now returns "FALSE".

3.2 Bug Fixes for MCX

The bug fixes mentioned below apply to the following OS versions of the controllers with Motion Control. As of the OS versions listed below, the operating system uses MCX version 1.20.0.98:

OS version	Product
1.32.0.00	<ul style="list-style-type: none"> ■ JC-365/JC-365MC ■ JC-360/JC-360MC
1.16.0.00	<ul style="list-style-type: none"> ■ JC-940MC ■ JC-970MC ■ JC-945MC (EtherCAT® controller) ■ JC-975MC (EtherCAT® controller)
1.08.0.00	<ul style="list-style-type: none"> ■ JC-440MC (EtherCAT® controller) ■ JC-440EXT (EtherCAT® controller)

3.2.1 Geo group - Interruption and resumption

If any of the following actions were performed in a geo group with a buffered motion, an MCX error was reported on the third resume:

- The movement is interrupted
- The axes are mechanically removed from their stopping point
- The movement is resumed
- While the mechanical system is being moved back to the original path, another interrupt command is issued.

The bug is fixed in that 25 interruptions (JC-440MC, JC-9xxMC) or 10 interruptions (JC-365MC) are now possible before the error is signalled.

3.2.2 Offset of the position display of virtual axes

So far, it could happen that the target and actual positions of a virtual axis did not exactly match. Under certain circumstances, this slight offset could also be effective in a follower axis. This bug has been fixed.

3.2.3 Incorrect error message 6200

If in a technology group with a shadow axis as the master axis a superpose command for the follower axis was issued, the error "6200: PTP target position outside limits" was output.

This bug has now been fixed. If a real axis is used as the master axis, the superpose command works correctly.

3.2.4 MCX with JM-2xx/JM-1xx axes

If the STO (or hardware enable) is requested frequently in connection with Clear Error and Drive Disable/Drive Enable commands from different STX tasks, it may happen that drive error F15 (hardware enable missing) can no longer be acknowledged on the servo amplifier.

Workaround: Issue all commands for controlling an axis only in one STX task.

3.2.5 JC-945MC and JC-975MC: Initializing more than 27 axes

The JC-945MC and JC-975MC controllers failed to initialize more than 27 axes. The motion control kernel (MCX) was not properly initialized. This bug has been fixed.

3.2.6 Configuration of JM-122xx/JM-14xx: PTC motor temperature sensor

For some motors with PTC as temperature sensors, when connected to the servo amplifiers JM-12xx or JM-14xx, an error could be displayed in the controller which incorrectly signalled a short circuit of the PTC. This error occurred with a resistance of less than 50 Ω . The monitoring is now set to less than 5 Ω , so that a functioning PTC sensor cannot cause an error message.

3.2.7 EtherCAT® controllers: Download of incomplete axis configurations

If the axis configuration of an incompletely configured shadow axis (source axis not assigned) was transferred to the controller despite a warning, it could no longer be accessed after the restart.

Workaround: Before transferring the configuration, check whether it is complete. To do so, check the axes in the hardware tree for yellow triangles and observe the information in the "Compare and Download" dialog.

3.3 Bug Fixes for CANopen®.

The bug fixes mentioned below apply to the following OS versions of CANopen®-capable controllers:

OS version	Product
1.32.0.00	<ul style="list-style-type: none"> ■ JC-365/JC-365MC ■ JC-360/JC-360MC ■ JCM-350
1.08.0.00	<ul style="list-style-type: none"> ■ JC-440EXT ■ JC-440MC
4.08.0.00	<ul style="list-style-type: none"> ■ JCM-501 ■ JCM-511 ■ JCM-521 ■ JCM-529

OS version	Product
4.10.0.00	<ul style="list-style-type: none"> ■ JVM-104 ■ JVM-407B ■ JVM-507B ■ JVM-604B

3.3.1 CANopen® CanOpenDownloadOS()

The status provided is now better calculated, e.g. when updating a JXM-IO-E2. The other controllers are not affected (identical to JetEasy Download Console Application 1.01.0.00)

3.3.2 RTR for PDO is not supported

A query via RTR is not implemented on Jetter controllers. Therefore, this function now passes the value -1 (invalid parameter) when called. So far, this parameter was ignored and the entry was created as CANopen_ASYNC PDO.

3.3.3 CANopen® PDOTX blocks control

If TX messages were entered with eventTime = 0 and inhibitTime = 0, the controller could no longer be addressed. This bug has been fixed.

3.4 Bug fixes for HMIs

The bug fixes mentioned below apply to the following HMI OS versions:

OS version	Product
4.10.0.00	<ul style="list-style-type: none"> ■ JVM-104 ■ JVM-407B ■ JVM-507B ■ JVM-604B ■ JV-1004 ■ JV-1005 ■ JV-1007 ■ JV-1010

3.4.1 New and revised registers

The following registers have been revised or added in this OS version:

Register	Description
107003	Free memory on the SD card in MB
107004	Available memory on the SD card in MB
107005	Used memory on the SD card in MB
109003	Free memory on the USB mass storage device in MB
109004	Available memory on the USB mass storage device in MB
109005	Used memory on the USB mass storage device in MB

In previous versions, memory sizes above 4GB were not displayed correctly. This bug has been fixed.

3.4.2 CANopen® initialization without CAN module (JV-10xx)

With the HMIs JV-1004, JV-1005, JV-1007 and JV-1010, CANopen® initialization could lead to a crash if no CAN module was plugged in. This bug has been fixed.

3.5 Bug fixes for specific controllers

3.5.1 JX3-COM-PND: Modules with position greater than 9

So far, the JX3-COM-PND could not be used as a module with a position greater than 9. This bug has been fixed.

3.5.2 JC-340/JC-350: Blocked task when querying the NTP time

So far, it could happen that the task that performs the query of the NTP time was permanently blocked if the NTP time was already queried during the boot phase. This was due to a bug in the BSD interface of netX which is now fixed.

3.5.3 JC-365MC: Crash when starting the oscilloscope

If with OS version 1.30.0.00 a register on an unconnected drive was used as trigger, the controller crashed when the oscilloscope was started. This bug has been fixed.

3.5.4 JC-365MC: No Ethernet communication after repeated loading of an HTML page

So far, it could happen that after loading an HTML page several times, the Ethernet communication was disrupted because the transmit packet buffers were used up. This could occur if "send" or "sendto" was called with a length to be sent of "0". In this case, an error message occurred and the function aborted without releasing the transmit packet.

This bug has been fixed.

3.5.5 JC-97X: Cyclical tasks do not maintain cycle

With JC-970 and JC-975, it could happen that the time slice of a user task was not kept. This could lead to the execution of one or more tasks being aborted too early within a program cycle.

This bug mainly affected cyclic tasks with a short cycle time, which then did not exactly keep their cycle and were possibly even aborted by the time monitoring.

This bug has been fixed.

Jetter AG
Graeterstrasse 2
71642 Ludwigsburg
www.jetter.de

E-mail info@jetter.de
Phone +49 7141 2550-0

We automate your success.