

Jetter

**Technical Information
Version Update**

July 10, 2006

JX6-CON-Move Modifications from Version 3.001 to Version 3.035

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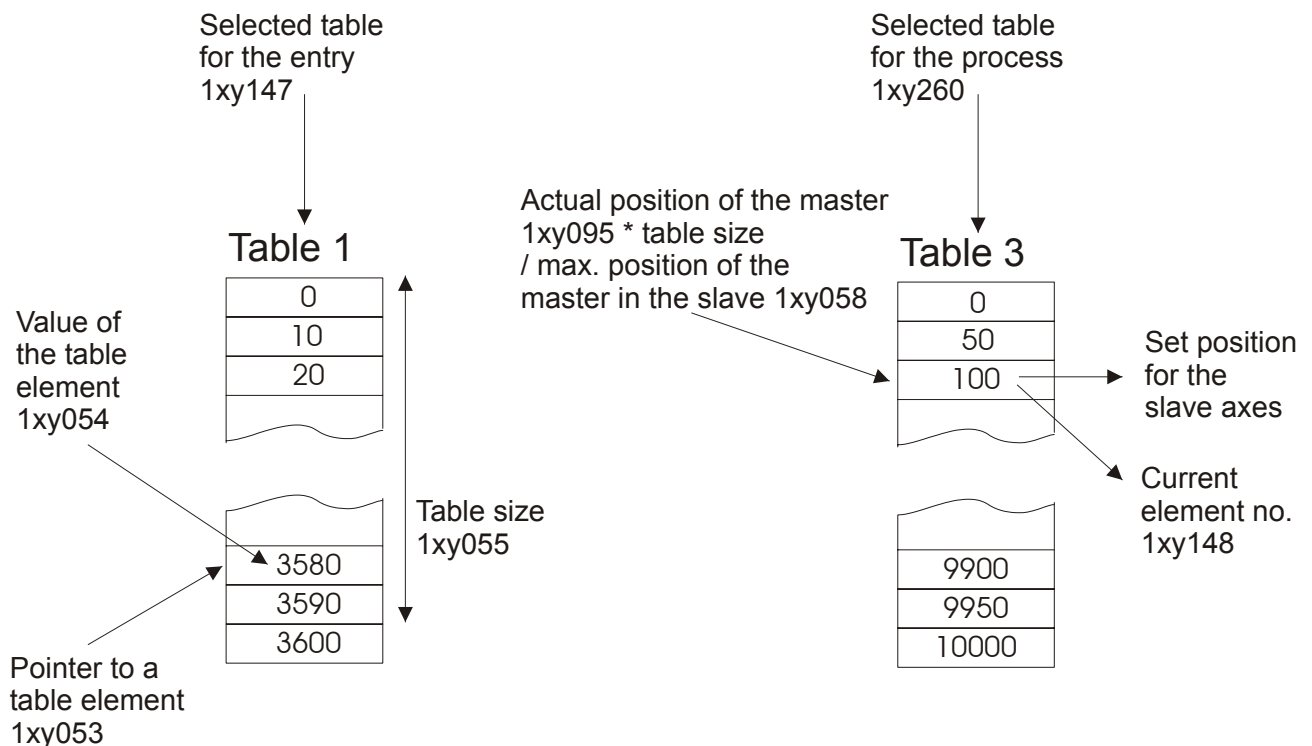
The numbers in parenthesis indicate the version numbers.

1 Modifications / New Functions

1.1 Axis Control

- (3.004) Starting from this version, the tables can be entered and processed separately. This means that it is possible to enter another table while a table is being processed. The new register 1xy260 serves to select the table for the process.

The following diagram illustrates the entry and process of various tables:



As in previous versions, different table sizes are allowed. As long as register 1xy260 is not written, register 1xy147 is used as selected table for the process.

- (3.013) From this version onwards, the Capture mode (fast storing of the actual position at the digital input) is available for JetMove200 and JetMove600 as of this version:
 - the Capture mode is activated in JetMove by giving command 154.
 - the stored values can be read out from registers 1xy262 through 1xy265. The values must be read out, though, before a position overflow of the axis takes place.
 - The Capture mode is configured via output stage registers 1xy300 through 1xy399.
- (3.016) From this version onwards, the revised board DELREGA3 can be applied.
- (3.019, 3.020) From this version onwards, an optional filter for set positions will be available. The amount of former set positions that are to be averaged can be defined via register 1xy266. Possible values are: 0 (filter switched off), 2, 4 and 8.

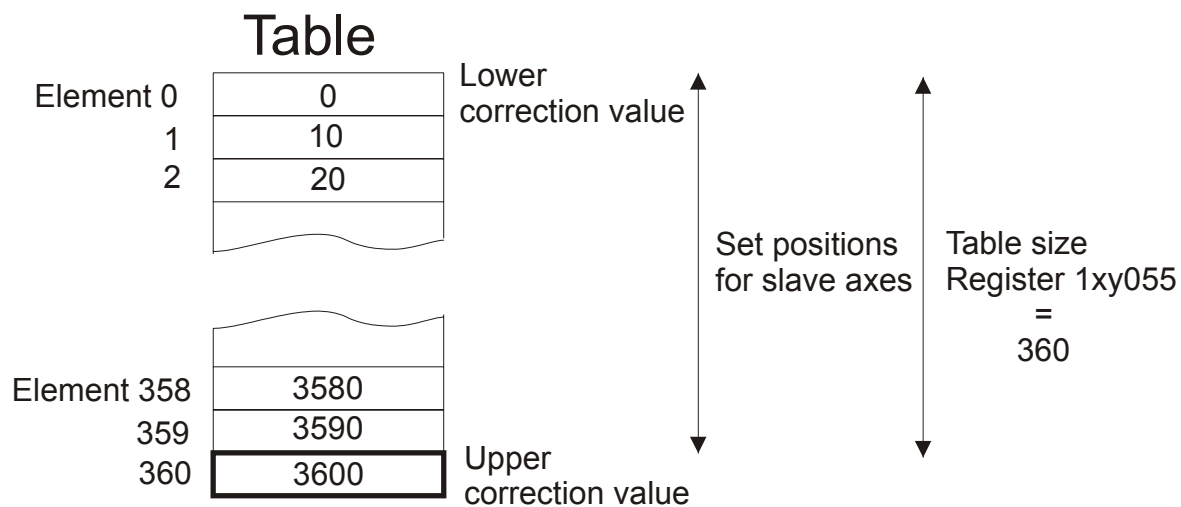
- (3.020) The register 1xy246 for output of the actual position set points is now display with all position offsets.
- (3.022, 3.023) For special applications, averaging of the set position values has been provided now:
This means that always the average of the actual position value and the defined number of former set position values will be found.

Register 1xy266:	
Function	Description
Lesen	Actual averaging
Schreiben	New averaging
Wertebereich	0, 1, 2, 4, 8
Wert nach Reset	0

2 Bug Fix

2.1 Axis Control

- (3.002) When recording the actual position in JetSym or Sympas oscilloscope mode, the values might have been incorrect.
- (3.003) Starting from version 2.900, an error might occur when creating a table if a table was written before using a too extensive table pointer.
- (3.004) Starting from version 2.900, the correction value during table mode overflow applied to the last table element. Starting from this version, the correction value must be entered again as additional element:



The correction value in case of table overflow is calculated as follows:

Correction value

= Value of the table element (register 1xy055) – value of the table element (0)

= 3600 increments – 0 increments = 3600 increments

- (3.004) The function for shifting a table slave to the master (starting from version 2.907) via register 1xy248 did not work properly.
- (3.004) Due to the intermediate interpolation in table mode (starting from version 2.900) position jumps in the slaves occurred if the values of the table elements differed significantly. After having corrected this error, it is now possible to carry out the overflow of endless axes exactly at the value defined in register 1xy058.
- (3.005) The timeout during register access at the system bus has been incremented to 6 ms.
- (3.005) By shifting the release of the interrupt, the starting behavior in connection with the JetMove600 has been improved.
- (3.005) When the turning direction was converted (register 4, bit 3), some internal parameters would not be negated. The axis would not cause an AXARR any more.

- (3.005) When the table mode had been activated by issuing command 46, the actual master position (register 95) would be calculated wrongly when master offset register 248 was applied; this could lead to a tracking error.
- (3.007) During quick changes of direction (automatic reference run), there could occur minor jumps (300 increments) of the virtual axis.
- (3.008) After the reference run, occasionally AXARR would not be set any more.
- (3.009) When command 42 was issued after interpolation, a tracking error could occur.
- (3.009, 3.010, 3.011, 3.012, 3.014, 3.017, 3.019, 3.020) Various bugfixes regarding interpolation with supplements:
 - Speed correction for linear interpolation with various encoder resolutions (command 150) did not function when the calculation was being carried out during a circular interpolation.
 - If certain sections of interpolation are so short that, at the actually driven speed, the deceleration ramp will already start at the beginning of the interpolation section, the deceleration ramp must not be programmed before the last section of interpolation. For the other sections, a very short deceleration ramp must be programmed.
- (3.015, 3.016) Starting from version 2.900, a special function for the winding mode didn't work.
- (3.016) Upload of an SSI encoder at the third axis would not work.
- (3.019) When a JetControl647 was being used and the "AXARR" instruction had been given, JX6-CON would not carry out the instruction in absolute mode.
- (3.020) There could happen an overflow in the internal function for position set point correction in interpolation mode.
- (3.020, 3.021) In case of frequent communication to register in the JetMoves, jumps in the position set point could occur.
- (3.026) When an axis was not used during an interpolation, and if a speed that was below a certain speed value was modified, the speed value would suddenly jump after having been zero. Starting from the speed value the device had jumped to, it would accelerate to the new speed value by the set acceleration ramp.
- (3.029) Regarding the new layout of the LEDs, the way of handling the channel readout (Register 1x1023 = 1) would not be correct: all red LEDs would be lit.
- (3.035) An update of the operating system for a JetMove doesn't work, if the JX6-SB-Module had the version 2.14 or higher.

2.2 Processing analog values

- (3.012) JX6-AD8: For analog input voltages or currents that were significantly higher than the specification, the input value occasionally exceeded the limit of +/-15 Bit. This way, a value opposite to the specified value was displayed.