

Overview of the changes and new functionality of Motion Controller V3.0 firmware revision O (compared to N).

Changes and fixes

No.	Affected Component	Change Description
1	Current measurement of MC3001 controller	When a MC3001 controller was used to operate a motor at high speeds or with high dynamics the current measurement delivered incorrect values which could cause a device shutdown. (Effected firmware: N, only.) This is corrected.
2	Update of Bit 14 and 15 in statusword (0x6041)	When the source of bit 14 or 15 of the statusword (0x6041) is modified the new content is immediately reflected in the statusword.
3	Relative Positioning	When certain factor group settings were used this could cause a rounding issue when commanding a chain of relative moves. This is corrected.

New Functions

No.	Affected Component	Description
1	IoT Ready	Capturing data can now be synchronized with the start of a positioning.
2	Stepper motor operation MC3602 and MC3606	Stepper motors (FAULHABER and third party NEMA) are supported in Open loop and Closed loop mode.
3	Stepper motor identification MC3602 and MC3606	Stepper motor parameters can be identified.
4	Stepper motor thermal protection	Thermal stepper motor protection is provided by <ul style="list-style-type: none">• using a I²t model (in closed loop mode)• reducing the motor current at standstill (in open loop mode)