Overview over the changes and new functionality of Motion Controller V3.0 firmware revision I.

Changes and fixes

No.	Affected Component	Change Description
1	Switch between OpModes	Change to PP was not possible, while Homing still unfinished
2	Re-configuration of motor-encoder	No longer needs a device reset to become effective
3	Hardware error detection	Thresholds for detection of a current measurement error or of a missing hall-sensor optimized
4	A-Hall adaption	Improved parameters
5	Tuning for big inertias	Big inertias did sometimes leave the specified pos range and needed to be stopped, which is now done without the speed control loop
6	Scripting environment	In order to use the load command for variables, these needed to be initialized first. Which is no done initially by the firmware updater
7		Up to 15 nesting levels for IF/ELSE supported
8	Following Error	Is now updated in non-position OpModes too. This is necessary in combination with a PLC which tries to restart CSP after a following error occurred.
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New Functions

No.	Affected Component	Description
1	Extended Support of 3rd part motors	Support of non FAULHABER D-Hall sequences • for block commutation • combined with an encoder for sinusoidal commutation Parameter range of the current control enhanced to support a wider range of non FAULHABER motors. See 0x2318.xx
2	Block detection	The actual current can now be filtered internally which allows for simpler scripting to detect a blocking condition See 234B.xx
3		Tolerance time added for block detection used for homing modes -1 … -4 See 0x2324.02
4	Speed feedback	The additional ref encoder can now be used for speed feedback too
5	CAN communication	Improved auto baud detection
7		Support of TxPDO event timer to automatically resend asynch PDOs
8	Device control	When CAN or EtherCAT are operational when the drive state machine is started any state change of the communication will automatically trigger the treatment according to 0x6007.
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