



SMART
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HIMax[®]

Release Notes



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HI 801 525 D, Rev. 1.00 (1925)	German original document
HI 801 526 E, Rev. 1.00.00 (1934)	English translation of the German original document

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1 HiMax Operating System V11

This chapter describes the improvements and new functions of the following HiMax operating system V11 compared to the previous ones:

OS version	File name	Description
V11.8	HIMAXCPU_HA1_OS_V11.8.ldb	Safety-related operating system for X-CPU 01 processor modules
V11.8	HIMAXCPU31_HA1_OS_V11.8.ldb	Safety-related operating system for X-CPU 31 processor modules
V11.6	HIMAXCOM_HA2_OS_V11.6.ldb	Operating system for X-COM 01 communication modules
V7.48	HIMAXIO_HA3_OS_V7.48.ldb	Safety-related operating system for the I/O modules

Table 1: Current Operating System Versions

The operating system versions not mentioned in Table 1 are listed in the previous release notes.

2 New Functions

- **MultiForcing**
This new access mode allows up to 5 users to write force data (force values and force switches) for global variables.
The access permission can be denied or granted using the enable switch in the project during a download or online, and using a system variable at runtime.
- **For Modbus slave V2**, up to 20 TCP connections to one Modbus master can be configured. The total number of TCP connections to all the masters may not exceed 20. The number of currently used TCP connections to a Modbus master, is displayed in the online view.
- **HART**
The HART command filtering for X-HART 32 01 can now not only be configured at module level, but also on a per channel basis.
The HART command filtering on a per channel basis can be used for HART write commands (universal/common practice write commands) and for specific HART device commands.
If the HART command filtering on a per channel basis is not used, full compatibility with previous versions of the X-CPU and X-HART modules is ensured.

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In order to use the parameter settings of the permitted HART commands on a per channel basis, the following operating system versions must be used:

- I/O operating system as of V7.48 for the X-HART module
- CPU operating system as of V11.8 for the processor modules

To upgrade the operating system to V7.48 and V11.8, first upgrade the I/O modules, then the processor and communication modules.

With respect to the X-HART 32 01 module, the parameter settings of the permitted HART commands may only be activated on either a per channel or per module basis. Concurrent parameter settings on a per module and per channel basis are not possible.

3 Firmware Improvements

- The configuration download and reload have been optimized so that a significant time saving can be expected in most cases, especially in conjunction with larger projects.
- Communication error in conjunction with unconfigured module, was still present after the module was removed.
The error has been removed.
If an unconfigured module is removed, the system temporarily reports a communication error that disappears again once the communication timeout for the removed module is achieved. So far, in very rare cases, the error could still be present, e.g., when a new CPU module was inserted directly after a system bus module was removed.
- The existing PES user administration is deleted from the persistent memory after a CPU module is reset.
- The restriction concerning synchronization of resources with SOE no longer applies.

The error scenario was as follows:

Synchronization issues could exist in resources with SOE configuration. The client returned error code 1026208, or it left the redundancy group in the 1st cycle after synchronization.

- The access permissions of some PADT commands have been corrected.

The following commands require Administrator access:

- Resetting the module factory settings.
- Changing the mono-redundant start-up switch.

Commands that stop or change the system require at least Write access:

- Transition from RUN to STOP.
- Stop of a user program.
- Stop of system operation.
- Transition to Test Mode and Single Cycle.
- Reload, despite set ReadOnly system variable.

Commands that maintain the system in operation require at least Operator access

- All force commands, despite set ReadOnly system variable.
- P2P statistics reset.

The changed permissions are only active if all CPUs are running in system operation with V11.

4 Firmware Restrictions

- In very seldom cases, if one or more communication protocols such as Modbus or ComUserTask are used under load control and the controller or COM module change from RUN to STOP, the COM module may reboot.
- Restriction concerning the reload licenses:
If only a demo license is available to load a feature required by a module, it may occur that the demo licence is not updated properly when a reload with a regular license is performed. The message displayed in the license management of the CPU module indicates that a regular license is available, but a demo license is being used.
This behavior occurs when the module itself is not subject to reload or cold reload.
The new license is only used and properly reported after a new restart, reload or cold reload of the module.
- Restriction concerning the reload of I/O modules with an operating system version \leq V5:
Reload of I/O modules with operating system version \leq V5 must not be performed in conjunction with a protocol change, a change to the X-COM or the deletion of modules.
Workaround:
If I/O modules with operating system version \leq V5 are to be changed or added to the configuration by performing a reload, the reload must not include any additional changes.
- Restriction concerning the event transmission priority:
In redundant systems, only select the value 1 for the Events priority, or problems may occur during synchronization.

4.1 References

- HIMax system manual, HI 801 001 E
- HIMax safety manual HI 801 003 E
- Communication manual, HI 801 101 E
- HIPRO-S V2 manual, HI 800 723 E

4.2 Zstandard License Conditions

The CPU operating systems contain the *Zstandard* decompression algorithm provided with the following license conditions:

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Release Notes

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