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PCD2.M170 / PCD4.M170 SUMMARY OF FIRMWARE VERSIONS

This document summarizes the changes of all firmware versions that are liberated on the PCD2.M170 / PCD4.M170 for production.

Concerning corrected / known bugs:

Only important bugs are listed here. For other bugs, please refer to the file COMSWER.XLS that contains more information about known bugs.

FEATURES OR RESTRICTIONS SPECIFIC TO PCD2/4.M170

General

- **FW update:**
 The FW can be updated with the FW downloader. To start this program click "PCD FW downloader" in the "tools" menu from the PG5 Saia Project Manager. After the completion of a FW download, shown by the FW downloader taskbar, the code is then copied from the RAM to the FLASH. During this procedure, which takes about 30 sec, the RUN, HALT and ERROR LED's blink in a certain sequence.
- **CPLD programming:**
 At first power up after a firmware update the CPLD will be reprogrammed if its version is different.
 Do not interrupt this programming sequence which take about 30 seconds, but in some case it can take until 2 min. (LED's are all off while programming, and blinking in the normal start-up sequence when finished)
 At power line cuts during CPLD programming the PCD may have to be returned to SBC.

FW Version history ↔ CPLD Version

FW Version	\$0B	\$0C	\$0D..\$0K	\$0L	\$0M..\$0Q	\$0R..\$0Z	B0{..010	017...
CPLD Version	mF71	mF73	MF75	m700	m701	m702	m703	M704

- **PGU**
 Default PGU mode is S-BUS parity therefore PG5, PG4 from version V1.3 upward or PG3 from version β2.0 upwards have to be used.

Memory

- User memory:

User prg mem.	HW	System Memory	FW	Default Memory configuration
None		1MBytes e.g.: 512+512kBytes		96k prg lines, 128k txt, 512k extended txt/db
Flash card (only back-up)		1MBytes e.g.: 512+512kBytes		96k prg lines, 128k txt, 512k extended txt/db

Note:

- Extended txt/db (txd/db number ≥ 4000) use fast indexed access and support binary zero insertion, lower range txt/db have a slower access and do not support binary zero insertion.
 - **Both** the extended and lower range txt/db are in RAM and have read/write access by default.
 - At flash card use both lower and higher range txt/db values are flashed together with the user program at the flash copy command from the PG5 as backup.
 - The user program as well as the lower and higher txt/db range are copied to the PCD7.R400 backup module with the PG5 command "copy program to FLASH".
 - With PCD7.R400 produced after January 2010 (with the new Macronix A29800B FLASH) the new FW V0F0 is needed.
- EEPROM:
 - The S-Bus configuration is automatically saved in the EEPROM, this means that even if the battery becomes discharged the S-Bus configuration will be safe.
 - There are 50 non-volatile user registers.

Instructions

- NOP
 - Instruction set to $\sim 5\mu s$ for FB's compatibility V010
- LD=/LDX=
 - FB's parameters can be use on the LD and LDX instructions. V020
- SASI
 - Text accepts \$R parameters. V010
 E.g: "UART:\$Ra,\$Rb,\$Rc,\$Rd;MODE:\$Re,\$Rf;DIAG:F\$Rg,R\$Rh;"
 - a Baudrate 110...38400 (numerical value)
 - b Bits 7,8 (numerical value)
 - c Parity E,O,N (ASCII coded)
 - d Stop 1 or 2 (numerical value)
 - e Mode 'MC0', 'SM2', etc. (ASCII coded)
 - f Station Reg. with S-Bus station (numerical value)
 - g Diagnostic flags Reg. with the base diag. flag nbr (0..8191 num. value)
 - h Diagnostic register Reg. with the diag. register nbr (0..4095 num. value)

- SYSRD/SYSWR
 - SYSRD/SYSWR/SYSCMP/DEFTR instructions. V010
 - SYSWR 1000: System watchdog V010
 - SYSRD 660x for serial port mode read back added V020
 - SYSRD/SYSWR 7050 to 7081 V010
 - to read and write the different elements of the clock.
 - SYSRD 7090 V010
 - Function that returns the number of seconds elapsed since 00:00:00;
January 1; 1970 (coordinated universal time), according to the system clock.
- SF
 - IP library V010
 - Added SF "ReadIPConfig" V030
 - Application library V020
 - including SFs "CopyText", "InitDB", "CopyDB2Registers", "CopyRegisters"
 - New "CopyBytes" SF V0F0

Communication

- Serial communication:
 - MC0/1/2/4, MD/SD, MM4 V010
 - MC5 mode that deactivate RS-485 drivers directly after completion of transmission. V010
 - Freeze function for the MC mode to ensure that no inter-character delay take place during the transmission of a frame. V0F0
- S-Bus:
 - Parity and break modes as master and slave. V010
 - Data-Mode V010
 - S-Bus Secure data mode. V030
 - Option to disable the S-Bus secure data mode V0F0
 - Modem+ V010
 - Gateway (GM/GS). V010
- S-RIO as master and slave. V010

The S-RIO master task assumes the communication and the refresh of the process image. The RIO task is activated by a SASI instruction. The SAIA configurator automatically generates the SASI text, the configuration and messages DB. For more information please read the document "Remote I/O with SAIA S-Bus" 26/751 F2.
- PROFIBUS FMS with PCD7.F700:
 - Base functionality V010
 - 10 channels (10...19) and 100 objects (100...199).
 - Extension (at least SPROF \$137 is needed) V010
 - possibility to map objects on DBs, read/write indicator, multicast/broadcast link, watchdog.
 - Extension for profile GA V010
- PROFIBUS DP: V010
 - master mode with PCD7.F750.

- slave mode with PCD7.F77x. V030
- Introduced signed values V030
- LON with PCD7.F80x:
 - Base functionality V010
 - LON enhancement with new functionality poll and alias (LON 1.5). V010
- Communication on TCP_IP with PCD7.F650/F652: V010
 - S-Bus over UDP/IP
 - "Open data mode" over TCP or UDP
 - SMTP E-Mail support
 - DHCP / UDP with the PCD7.F655
- WEB server V010
 - S-Web Alarming V030
- PGU switches automatically to 38.4 kBds (requires PG5 V1.2). V010
- Up to 2 ports could be configured/assigned at 38.4 kBds at the same time. V010
- It is possible to configure/assign port 0 (or 1) at 38.4 kBds and port 1 (or 0) at 19.2 kBds. V010

Miscellaneous

- New features for PG5. V010
 - New OUTL and OUTLX instructions
 - New synchronization for a bloc downloads in mode "RUN"
 - Possibility to upload data (SEdit and SFUP) in a synchronized manner.
- XOB
 - XOB 20, 25: interrupt inputs XOB's V010
 - XOB 17, 18, 19: User XOB's V010
 - This XOB's which can be provoked via S-BUS telegram (STXM chan, 0, k 4000, k 17..19) or SYSWR command (K4017..K4018). The XOB's are only executed if the CPU is in RUN or CONDITIONAL RUN.
 - XOB 7: System overload XOB V010
 - XOB 14/15: Cyclic XOB's
 - can be executed from 5 ms to 1000s with 1ms steps V010
 - New XOB handling. V010

During the execution of a XOB other XOBs are queued and executed at the end of the first one.
- Calculation of week and day number V010

The PCD compute the day and the week number based on the date using the same algorithm as in the PG. The command 'Write Clock' corrects automatically the week number or day number if they are wrong.
- Password mechanism. V010

V0F1

Major corrections and changes

- IP communication doesn't work anymore.

Modifications realized by SWER number

1554

Serial communication: If a PCD port is bombarded by an external source, the "DUART HW ERROR" may occur after a restart cold of system.

1553

IP: IP communication doesn't work anymore.

Information for FW update.

FW update file	Checksum	Label
PCD2_4M170_0F0.blk	---	PCD2_4M170 ex work: - BOOTER V0A4 - FW V0F0

OFO

Major corrections and changes

- Add the new Macronix A29800B FLASH type for PCD7.R400 module.
- New option to deactivate the S-Bus secure data mode.
- Freeze function for the MC mode to ensure that no inter-character delay takes place during the transmission of a frame.

Modifications realized by SWER number

1551

WEB: In a specific Web application "WEB stack overflow" occurs (KR-PC-09-034). Web stack size is now about twice as big.

1549

Flash: New 1MB Macronix A29800B FLASH type for PCD7.R400 module.

1548

Interpreter: If the INI/DEI operand is outside the valid range, the index register is not incremented/decremented and the ACC is set. This can result in an endless loop. ACC has to be reset in this case.

Example: INI R xxxx [>8191]
 JR H -1

1547

Serial communication: Introduce a new option to deactivate the S-Bus secure data mode.

1546

Interpreter: Get instruction doesn't work when the source is a text and the destination is the last register (R 4095).

1545

Interpreter: Add a new SF to transfer byte between Register, DBs or Texts (the number of DB and Texts has to be bigger than 4000).

1544

Serial communication: In an S-Bus data mode request telegram, special characters (=>B5 and C5) in the "secure" header are not replaced by the DLE sequence. This result that on 2 / 255 telegrams no response is send back + some specific telegrams with length B5 or C5.

1543

Crash: The PLC crashes (bus error) when a user attempts to read 255 elements from DB over S-Bus.

Note: Rcount is now limited to 0x64.

1533

Serial communication: New freeze function to ensure that no inter-character delay takes place during the transmission of a frame using STXD instructions in MC mode. The transmission of characters is stopped if the freeze flag (optional parameter in the mode definition) is set and restarted once it is reset.

Eg: UART:115200,8,N,1;MODE:MC0,Fnn;DIAG:Fnn,R10;TBUF:512"

Note: This option flag has no effect for STXT.

Information for FW update.

FW update file	Checksum	Label
PCD2_4M170_0F0.blk	---	PCD2_4M170 ex work: - BOOTER V0A4 - FW V0F0

V0E6

Major corrections and changes

- Write text not possible through the Web interface

Modifications realized by SWER number

1542

WEB: The PLC crashes (68k address error) when a user attempts to write a text >= 4000 from the WEB interface.

1538

Serial communication: Exceptionally, on some CPU, it happens, on a channel assigned in MC mode, that characters are not sent. This occurs if an internal variable is no more correctly initialised after a RAM lost (eg. After deficient battery).

1536

Interpreter: Some SFs don't clear the error flag if executed successfully.

Information for FW update.

FW update file	Checksum	Label
PCD2_4M170_0E6.blk	---	M170 EX WORK BOOTER: V013 FW: V0E6

V034/V0E3

Major corrections and changes

- Web server improvement

Modifications realized by SWER number

1530

WEB: Sometimes it's impossible for the browser to continue to load the pages because the web server is blocked, the response is always "NR"(not ready).

1529

WEB: At first Web server access after a PLC restart (or Web reset) the Web server keeps the hand much longer than specified in the configuration (20..300ms depending of the RAM disk size and the system).

1528

WEB: An "active and non ack" display filter is wanted.

1527

Communication DP: Allow to reassign the DP slave in order to reset and reinitialise the module.

1526

WEB: On the default WEB pages the new SAIA logo should be displayed (Control Systems and Components and no more Smart solutions for comfort and safety).

1525

Communication S-Rio: On S-Rio, the communication stops after the 1st XOB 30 call. The error occurs only if the XOB is programmed.

1524

Interpreter / SF:

In the Application library the SFs ClearMem/ReadMem/WriteMem crash if the parameter is a DB instead of a Register.

Information for FW update.

FW update file	Checksum	Label
PCD2_4M170_0E3.blk	---	M170 EX WORK BOOTER: V013 FW: V0E3

V030

Major corrections and changes

- Alarming has been added
- S-Bus Secure data mode has been added
- Profibus-DP supports now signed value
- Improvement of the PCD immunity against bus error
- Ethernet broadcast telegrams salvo could block the IP communication

Modifications realized by SWER number

1523

System / CSF: If the SF function doesn't exist then the system crashes (e.g.: IP library, function IPSend).

1522

IP Library: Add a SF "Read IP Config." (19) into the IP library.

1518

Serial communication: S-BUS PGU is no more reassigned when the timing interval between SASI off on assigned port and the SASI off on S-BUS PGU port is smaller than 1second.

1517

Graftec: System crashes by going step by step with Graftec editor when no CSB is used in the user program. The bug occurs with PG5 SP1.4.130 but not with PG5 1.3

1515

IP communication: IP communication is blocked when the server is bombarded by the clients. Especially with broadcast telegrams.

Note: this bug only occurs on the IP module F655 but not on F650.

The F655 "forgets" to generate again the interrupt when the new message is not got out of the mailbox by the PCD.

1511

System / Flash card: After restart cold the back-upped DB are erased.

1509

Interpreter: In the SF Copytext by interpreting a \$F or a \$I bit 7 was always 0 (not read)

1505

Interpreter: In the SF Copytext, indirect addressing is wanted for source and destination parameters.

1503

System: No more possible to go on line with PGU on a PCD without IP-Module but with an IP configuration when the RAM is lost (bad battery)

1499

Interpreter: If a crash occurs in the XOB 0, the CPU goes in HALT even if the SW_Wachtdog is active.

1498

Alarming: Alarming has been added

1497

S-Bus: S-Bus Secure data mode has been added.

1496

Profibus DP: Signed value transfer on Profibus-DP protocol has been implemented.

1495

Web: Text PPOs are limited to 32 characters. 64 is wanted.

1493

Interpreter: On PCDx.M170 the instruction SOCL 4, 1 with ACC high (Set DTR on port 4) is not executed and sets the error flag.

1492

Interpreter / SF: SF Copy text [6, 0] doesn't work correctly when the included text is empty. The converted text contains other characters.

1491

System: At bus error a retry is wanted before getting in halt.

Information for FW update.

Hex file	Checksum	Label
PCD2_4M170_030.blk	---	M170 EX WORK BOOTER: V013 FW: V030

V022

Major corrections and changes

- The web server and e-mail function have been corrected for instabilities at special user cases.
- A LON alias problem is solved. Customers using LON Alias should update.
- A new booter is used that correct overwriting problem at special error reporting (error reporting at errors with a restart or halt).

Modifications realized by SWER number

1489

Interpreter: Access to text/DB with number $\geq 32\ 768$ are not check correctly and in few case this could crash the CPU. Normal text/DB range is 0..5999/6999/7999 and such accesses never occur with SAIA tools but are possible with specific applications (e.g. a supervision system).

1485

Web server: Not all HTML form values are written to the PLC media.

1484

LON: At LON alias use LON transmission is slow, blocking, or blocks the whole PCD.

1483

Web server: Access to the default web pages some times cases a system crash.

1481

E-Mail: The CSF "convert text" doesn't work if an including text (\$L mechanism) is empty. The PCD interpreter stops working.

Information for FW update.		
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FW update file	Checksum	Label
PCD2_4M170_022.blk		M170 EX WORK
If booter update is needed	---	BOOTER: V013
D2M170_022_BOOT_013.exe		FW: V022

V020**Major corrections and changes**

- Several extensions and corrections were done on the IP communication and in the Web Server.

Windows CE use, S-Bus / UDP use, SMTP mail use, IP Module EEPROM access extensions, open data mode use for direct IP access, extended text parsing for mail use, TCP handing optimizations.

New DHCP V.4 / UDP support has been added.

- LON transmit buffer overflow protection has been added and the interrupt handling for LON and the serial interface have been further optimized.

Serial interface handling generally has been optimized.

LON message and alias handling has been enlarged for multiple addressing use.

- New SF functions for text copying and DB copying have been added and a SYSRD for serial mode port check has been added.

New S-Bus telegrams and IL/AWL extension have been added.

Modifications realized by SWER number**1476**

Interpreter: CSF copy text parameter 3, K 0 use caused the PCD to malfunction.

1475

Interpreter: A CSF function for production and fabrication information reading from EEPROM is wanted.

1474

Interpreter: LD= and LDX= is wanted.

1473

Interpreter: Register indexed RSB for Graftec is wanted.

1472

IP communication: Introduced DHCP Client support with the PCD7.F655

1471

S-Bus: Multiple read and write medias (R,T,C,I,O,F) S-Bus telegrams are wanted, in "reduced" and broadcast mode not to be supported.

1469

Web Server didn't response anymore after some time (Either NAK or Content not ready is displayed in Web Connect).

1468

IP communication: In S-BUS UDP, the SRXM special function calls with K 2000, 3000 and 6000 did not work.

1467

IP communication: Error when moving DBs with STXM and SRXM in S-BUS UDP.

1466

IP communication: In S-BUS UDP, the STXM special function call with K 4000 did not work.

1464

S-Bus: If on a S-Bus slave ports two telegram are received directly one after another after the response of the first S-Bus telegram 3 or more byte junk data has been sent as second response (with correct checksum).
The deactivation of the transmitter in polled mode directly after telegram finishing has been added and the "receive converter" has been deactivated.
This works only if ONE telegram is sent during the response sending.

1463

Web server: After downloading a new program, the web server got unreachable and the PCD had to be restarted. The RAM disk access got corrupted by the reset.

1462

Web server: The web server got unreachable after a long time usage. The file handler on the RAM disk did not reset properly

1461

PCD start-up: A new start-up LED signalisation with detail information for production testing is wanted.

1454

IP communication: After the CSFs "GetEEPROM" and "SetEEPROM" for the PCD7.F650, the mailbox between PCD and PCD7.F650 got blocked. No further telegrams could be sent from PCD7.F650 to the PCD.

1451

IP communication: In Open Data Mode: when calling "addSap", "connect" and "disconnect" functions on the PCD7.F650, the error return value got ignored on the PCD. The NEXE flag had not been set.

1430

S-Bus: For S-Bus read / write register and text/DB external access the upper register and db / text number limits have to be adapted to the higher NT limits.

1423

Web server: Webpages did not correctly display on Windows CE.

1419

Interpreter New CSF [lib 6, function 1&2] to copy byte by byte from a DB to registers and vice versa.

1416

S-Bus / MC mode: The CPU performance at the use of the asynchronous serial communication (S-Bus, MC) has been optimised.

1411

Interpreter: New SYSRD 660x instruction to read mode of port [0..6] which is assigned or configured on PCD. The mode is returned in a register in ASCII format.

1405

LON: At very heavy LON loading and using in parallel serial ports at 38,4 kBd / 19,2 kBd (2ports, PGU included), LON did not start up properly getting repeatedly in resynchronisation (this could not be reproduced on the M170). On the 38,4 kBd port frame / break errors occurred (this happened also on the M170).

1404

LON: At very heavy LON loading and with using 38,4 kBd / 19,2 kBd in parallel on the serial ports a buffer overrun occurs and LON got stuck with TBSY hanging for all NV that are transmitted. On fast CPU (e.g. M170) the stuck problem could not be reproduced but the overrun error happened.

1400

Interpreter: New CSF "Copy Text" implemented:
The function CopyText copies a text into a text or db. The formats (@,\$,...) are supported in a source text as well.

1390

LON: At LON broadcast domain wide use a second and all further message were only sent once.

1389

LON: At LON broadcast / alias use a binding problem with multiple selector use (tool error) causes loss of transmission. All second and further NV on a single selector were only sent once.

1381

Web server: With the Web-Server Text 4000 could not be used in the PDP TAG. The error message "AREA OVERFLOW" returned.

1367

Web server: Memory allocation problem for Web-Server could happen when restarting it through a modem.

1359

Communication: With high baudrates (especially 38.4kBd) it happened that communication made retries due to overrun error.

1356

Web server: When using the Web-Server through TCP/IP and that the PGU port is also use in the same time, send buffer got corrupted.

1353

Webserver: In the Web-Server the function to parse TEXT and replace the Tag from media value, was not working properly with indexed addressing.

Information for FW update.

FW update file	Checksum	Label
PCD2_4M170_020.blk If booter update is needed D2M170_020_BOOT_012.exe	---	M170 EX WORK BOOTER: V012 FW: V020

V01A

Major corrections and changes

- Modem applications (Fupla Modem library) don't work correctly if the PCD also contains a modem configuration (SWER 1459).

Modifications realized by SWER number

1459

Modem applications (Fupla Modem library) don't work correctly if the PCD also contains a modem configuration.

Undo and redo on S-Bus PGU modem works on the same way that in a full modem program.

To use an undo/redo on S-Bus PGU modem, the user has to do an " SASI diag after doing an SASI off with option ("MODE:OFF,x,y,z" z: is not used by FW) in order know when the SASI off is done.

1458

The read/write text S-Bus commands should also be supported in S-Bus reduced mode.

1456

Read EEPROM from S-Bus over IP through a gateway fails.

1455

In CSF for "E-mail" or "Copy texts", text >= 4000 containing @@ or \$\$ result in a text that is 1 character to long.

1450

In CSF for "E-mail" or "Copy text", text >= 4000 including formatting information are not handled correctly. The formatting information is ignored. E.g.: "\$%08dREGISTER 10: \$R0010<10><13>".

1448

If the user program is in FLASH or EPROM, the S-Bus station number, written using SYSWR 6000, is overwritten by the configuration after a restart.

1447

S-Bus communications (configured) fails after a few minutes if DP slave communication is assigned but no master is on the bus.

1446

Fatal errors (e.g. "bus quit failure", "68k address error", etc) can occur if using SYSWR 70xx.

1425

In mode MC1 during STXT / STXD the XBSY /TBSY flag is sometimes cleared though the port is still sending characters.

Information for FW update.

Hex file	Checksum	Label
PCD2_4M170_01A.blk	---	M170 EX WORK BOOTER: V010 FW: V01A

V017

Major corrections and changes

- A lot of corrections and improvement was done on IP (see SWERs 1428, 1427, 1426, 1418, 1391, 1388, 1375, 1363, 1362, 1354, 1352, 1342, 1334)
- Introduced a CSF for the Ethernet PHY-Chip configuration.
- Many corrections were done in the WEB server (see SWERs 1420, 1415, 1412, 1382, 1378, 1371, 1357, 1344).

Modifications realized by SWER number

1428

Implemented the CSF for IPSetLocalConfig incl. update of the Extended Header. Introduced the function IpAddrToStrConfig for the case that a register with value 0 is passed as an IP-parameter.

1427

Lose data in Open Data Mode when more data is read from the socket than memory is available to save the data.

1426

Problem with detecting the end of a serial line test on the PCD7.F650.

1424

Mode MC0, STXT/STXD:

XBSY/TBSY was sometimes cleared even though the port was still sending characters.

1422

SASI off on port S-BUS PGU (slave) is possible.

1421

If the 1st or the 4th character of the projects name is a special character (ASCII code greater than 127) then the checksum is not correctly calculated:
With Flash/EPROM memory: PC goes in HALT and Sbug displays "checksum fail".

With RAM: PCD is not in Halt, but there is a history entry: "Modified Program".

1420

"Ram disk overflow" is displayed instead of requested PDP values.

1418

The gateway on S-BUS UDP responds to requests even if the addressed station in the S-BUS serial network is not present. This issue generates some kind of "phantom" telegrams.

1417

After XOB 0 execution the RESI /RST pin is not pulled. LON did not restart.

1415

Web Server stack overflow causes PCD Halt (only FW M170 >\$13; PCS1 >x99).

Web Server history entries only appear in the last status and not in the history list.

1412

Using WEB server the DB 4000 can not be used in the PDP TAG, because always say "AREA OVERFLOW".

1407

EEPROM access over gateway failed.

1403

PCD4.M170 only: An S-Bus or MC4/5 SASI on port 0 should be directly directed to the PGU port (for the moment a SOCL is necessary).

1401

Introduced the possibility to have a serial number and mechanism related with (e.g. "check license" CSF).

1391

In TCP Open Data Mode, the commands "SendData", "SendDataRev", "ConnectTCP" and "DisconnectTCP" use the same intern variable for the Port & Node. Conflicts and phantom telegrams can result.

1388

In S-Bus over IP, the special SRXM call k5xxx is not working.

1383

Add function code 3000 for flash, this one has exactly the same functionality than the 9000 for PCD2M170 or PCD4M170 system.

However, the functions codes 9000 and 3000 have not the same functionality when they are used for PCS1C8xxxx system! In fact the fct code 9000 is reserved for leds functionality and the function code 3000 is not valid.

For these reasons it's better to use the fct code 3000 when working with flash for a M170.

1382

When using the RAM disk of the WEB-Server and doing many download of the program and restarting the PCD, a crash happened, as an "address error", "bus quit failure".

1378

When a file that needs to be downloaded from the WEB-Server, as its size exactly divisible by the number size of the send buffer, then the last telegram is not transmitted correctly.

1376

CSF set-/getEEPROM doesn't detect that the EEPROM is missing on the PCD7.F650.

1375

The E-mail CSF has today the interpreted function, but only for the content field of the E-mail. IT would be nice to have it also for the subject and the recipient of the email.

1373

Especially with external interrupts (e.g. XOB 20/25), in some circumstances the system indicates a system overload (XOB 7) even if this is not the case.

1372

Some SYSWR instructions (7000, 7001, 7050...) expect a register as 2nd parameter. If that parameter is a constant (K) various failures are possible, for example:

- Program stops, RUN LED remain turned on.
- Communication is lost.
- A valid result is not available (no register for the return value).

1371

A new TAG format for the WEB-Server is necessary to show the time clock of the FBOX CVC setting and to modify them.

1370

PCD4.M170 only: Mode MC1, Parity None on ports 2 and 3, PCD4.M170 only: Reading characters causes parity error, when reading characters with an even number of bits (for example 'f' = 1100110b).

1366

Problem with the extension of the Sequential block. The number of sequential block has been increased from 32 to 96. The instruction RSB was not supporting the extended numbers.

1364

Implemented a CSF for PHY-Chip configuration of the PCD7.F650.

1363

On S-Bus and Open data mode over IP an indication, if the physical link is present, is wished (for example with XBSY flag).

1362

Give the possibility to send e-mail on PCD2.M150 and PCDx.M170.

1358

With S-Rio if XOB 30 is programmed the communication stops after the 1st call to the XOB 30.

A diagnostic DB < 4000 gives an error during execution of the SASI.
Another assignation mode than RM1 gives an error.

1357

From the web-server, it should be possible to read a text formatted with TAG, to include in it media value or clock. Like in the Mode C send text.

1355

Flags 0 to 1600 change during a FW download.

1354

In Open Data mode over IP, it should be possible to send a text formatted with TAG, to include in it media value or clock.

1352

In Open Data mode over TCP/IP if an Accept should done it can happen that a new telegram is received during process the accept. Then the accept gives an error and the communication does no more work correctly.

1351

Control Signals COM, RTS and DTR are not correctly handled especially on port 4.

1350

The master SRIO task does not work with baudrates other than 38.4 and 76.8 kBauds.

1345

With PROFIBUS FMS transferring Floating point objects blocks the PCD. If the PCD is client then it stays stuck in the STXM/SRXM and if it is server then it stay stuck somewhere.

1344

The handling of the Text from the web-server is incorrect. Texts are not written correctly in the Text memory.

1343

If an S-Bus (DATA mode) response telegram is corrupted that the last byte is equate to C5 then a retry is done but the answer will not be correctly interpreted. (B5 will be put in the msB of the answer).

1342

STXM/SRXM on S-Bus over IP: destination (for STXM) or source (for SRXM) media is tested with the limit of the station and if it doesn't fit, the command isn't executed and error flag is set.
i.e. PCD1 cannot send to outputs > 63.

1341

1) After execution of instruction TEST 20 (serial channels) the gateway (configuration) doesn't work until a restart cold.
2) The PCD goes off line if TEST 20 is executed continuously.
To reproduce this bug: configure S-BUS at 38400baud on port 0 or 1 and after a few seconds the system goes to offline.

1335

New DBX SEG to hide functions or a whole user program.

1334

Limit the TCP/IP Open Data mode ports to 32 (PCD1=16).

Information for PROM programming.

Hex file	Checksum	Label
PCD2_4M170_017.blk	---	M170 BOOT:V010 FW:V017

V017

This is the first official version for PCD2.M170 and PCD4.M170

Information for PROM programming.

Hex file	Checksum	Label
D2_4M170_010.blk	---	M170 BOOT:V010 FW:V010