

# **PCD2.M480 FW 1.08.53 Release Note**

## **1 Summary of Firmware versions**

The under summary presents a short description of all firmware versions which are set on PCD2M480 at the production (official versions and exceptionally some intermediate versions \$).

### **Concerning corrected / known bugs:**

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

## **2 Features or restrictions specification**

### **2.1 General**

- Needed Programming Tool  
To program a PCD2.M480 a PG5 V 1.2.100 or newer has to be used.
- Register extension:  
Up to 16383 Registers with PG5 V \$1.3.005 or newer.
- FBox library  
The Fbox of the analogue modules W1, W2 & W5 only working from PG5 \$1.2.018 or newer.
- FW update  
The FW can be updated with the FWdnld.exe program located in the PG5 V1.2 directory.  
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:  
There is no CPLD programming.
- Default PGU mode is S-BUS parity

## 2.2 Memory

- User memory:

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

Note:

- At first memory configuration the FW makes an allocation with the maximum space available depending on the RAM/EPROM/FLASH chip.
- With Flash card PCD2.R400 production date ≥ Mai 2010 the FW 1.08.53 or newer 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.
- Registers:
  - Up to 16383 Registers with PG5 V \$1.3.001 or newer **010**

## 2.3 Instructions

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## 2.4 Communication

- New Serial port 6
  - The port 0 has no more RS 232/RS485 switch **010**
  - The port 6 is implemented in the Fboxes. in \$1.2.050 **010**
- Serial communication:
  - Baudrates up to 115k Baud on port 0,1 & 6 **010**
  - No Baudrates < 1200 on all port **010**
- S-Bus:
  - Baudrates up to 115k Baud on port 0,1 & 6 **010**
  - No break modes as master and slave. **010**
  - No parity modes as master (SM1) on port 1. **010**
- S-Bus-RIO as master. not supported
- PROFIBUS FMS with PCD7.F700 not supported
- PROFIBUS DP:
  - Transfer of signed values possible, with PG5 SP1.4.120 or newer **030**
  - master mode with PCD7.F750. **010**

slave mode with PCD7.F77x	not supported
Slave mode with MPI/S-Net port 10.	<b>010</b>
• Profi-S-IO:	
Transfer of signed values possible, with PG5 SP1.4.120 or newer	<b>030</b>
Master mode with MPI/S-Net port 10.	<b>020</b>
Slave mode with MPI/S-Net port 10.	<b>010</b>
• MPI for Terminal R/W OP (please contact SAIA-Burgess Controls for more information)	<b>010</b>
• LON with PCD7.F80x	not supported
• Communication on TCP_IP with PCD7.F650/F652:	
- S-Bus over IP	<b>010</b>
- S-Bus over IP with 2 IP-Module	<b>020</b>
- "Open data mode" over IP with <b>max. 32 ports / 32 connections</b>	<b>010</b>
- "Open data mode" over 2 IP-Module ( <b>new include file needed</b> )	<b>020</b>
- S-Bus GWY Master over IP	<b>020</b>
• PCD7.F650 TCPIP Module FW	
- A FW Version \$0g or higher is required to use TCPIP with the new FW	<b>010</b>
• LAN2:	not supported
• WEB server	<b>010</b>
• PGU switches automatically to 115 kBds (requires PG5 V1.2).	<b>010</b>
• No limitation with the baudrate configured/assigned.	<b>010</b>
• Mode D	not supported
• Mode MM4	not supported
• Profi-S-Bus:	
Master & Slave mode with MPI/S-Net port 10.	<b>020</b>
Master & Slave mode with PCD7.F750.	<b>020</b>
Profi-S-Bus GWY Master.	<b>020</b>
• Multi PGU (incl. modem)	<b>020</b>
• S-Bus over USB	<b>020</b>

## 2.5 Miscellaneous

• IL code of analogue modules W1, W2 & W5 must change (see manual).	<b>010</b>
• New features for PG5.	<b>010</b>
- 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 20-23: interrupt inputs XOB's	<b>010</b>

- XOB 14, 15, 25-29 Time Cyclic Alarm **010**
  - can be executed from 1 ms to 1000s with 1ms steps **010**
  - can be executed only one time with SYSWR 41xx **010**
- XOB 17, 18, 19: User XOB's **010**
  - 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 **010**
- XOB 1 and 2 Status call (see manual) **010**
- XOB 1 and 2 Status call (see manual) **010**
- New XOB handling. **010**
  - The XOB's are split in 4 priorities. A higher prior XOB can interrupt the lower prior XOB. (see manual)
- Calculation of week and day number **010**
  - 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. **010**
- Alarm DB **039**
  - Number of parameters changed **039**

## ***Information for FW updating.***

If the Bootloader does not support the FW download via SBUS network the Download Fails. Please try then with the RUN/STOP switch.

### **FW update on old FW**

The old FW of the PCD2.M480 can be updated only via serial line port 0 in PGU mode. Before starting the FW update the FW must be set in the Loaderstate:



1. PLC power on
2. Switch the RUN/STOP switch two times up and down while RUN LED is blinking. The LEDs indicate that there is no FW.

Please read the chapter 7.5.19 of the PCD2.M480 manual before updating the FW.

! 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.



**Remark: HW production date 2003/50 or older clear the medias after a FW download!**