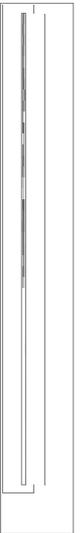


# 1 History

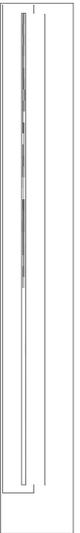
Supported Plattformes	
	PCD3.M5447
	PCD3.M5547
	PCD3.M6347 (CAN)
	PCD3.M6547 (DP Master)
	PCD3.M2137V6 (Compact)
	PCD3.M9K17 (Kardex)
	PCD3.M9K37 (Kardex)
	PCD3.M9A17 (Angelantoni)

V1.16.61		09.03.2012
<b>New Features</b>		
<b>Bug fixes</b>		
	<b>MPI-Port</b> Ending resistors on MPI PCD3.M5340 not working, as well as the 24V on MPI port of PCD3.M5540 not working	
	<b>SFC255</b> Read FW-String with S7 Program,"New Function in the SFC255, to return the FW-Version String. ",	
	<b>MODBUS ASCII</b> reception error,"In case of line perturbation, e.g. parity error, loss of character, the MODBUS ASCII reception stops working properly and the communication can not be re-established. ",	
	<b>MPI protocol</b> Support for CP5711 xx7 communication adaptor,"With the new CP5711 communication adaptor for xx7 devices"	
	<b>AlarmDB PLC</b> acknowledge flags never triggered,"Alarm data base PLC acknowledge flags change never the status, when a alarm is acknowledged via the web. "	
	<b>SFC245</b> Adapt SFC245 Interface to the SAIA- Library. Time Stamp and Header Version doesn't fit to the SAIA- Librarry. So it was not possible to watch online a Function with the SFC245 inside!!	

V1.16.56		16.01.2012
<b>New Features</b>		
	expand the <b>PLC FileSystem Functions</b> "New PLC FileSystem Function: - PlcFileDelete: Delete a File at End of Cycle - PlcFileRead: Read a Plc File"	
	Integration of digital I/O module <b>B160</b> into firmware	The firmware now supports the new digital I/O module B160
	Allow <b>WebServer CGI</b> requests on all directory levels	When projects are



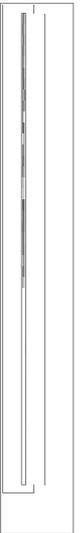
	stored sub directories on a system, the CGI requests are also send to the sub directory. This requests are rejected by the WebServer. This patch enables CGI requests on all directory levels. An new configuration tag allows to change the behaviour. CFG-Http,LazyCgi (Default:1).
	<b>PHY</b> drivers - configurable
	Implementation of a new interface in HAL_NT to <b>read device FW version</b> .
	<b>USB VendorRequest:</b> Read/write flash nitron and get flash module information.
	<b>ConfigNT</b> - implement SaveAll registry - Add a function to get the ConfigNT status
<b>Bug fixes</b>	
	<b>FW Download</b> of multiple files      The FW download NAK on the second file if more than one FW file is downloaded to the PCD
	<b>Modbus</b> in ASCII mode on Port 2 with RS-485 does not work for baudrates <9600 bps      Modbus in ASCII mode on Port 2 with RS-485 did not work for baudrates <9600 bps, now it is corrected. <b>MODBUS IP Client</b> error with wrong MODBUS IP header      When acting as client (sending read and/or write request) and processing responses with malformed MODBUS IP header (length field does not correspond to the MODBUS data), the PCD makes a reboot and remains in HALT.
	<b>FTP</b> password and group are not tested correctly over the HTTP access      FTP password and access group are not tested correctly over the HTTP WEB CGI access. FTP user name is not tested correctly over the HTTP access      FTP user name is not tested correctly over the HTTP WEB CGI access. FTP cgi DIR command      In an error case the cgi ftp DIR command returns a bad formatted text. FTP File list error (length is 0) if filename has exactly 24 characters "When a file name in the file system is exactly 24 characters (maximum allowed size), the FTP list will return a size of 0 for these files. However, it is still possible to copy the file from the SD card with the correct size. Import get buffer timeout modification from test branch into trunk." FTP Transfer error over slow connections, e.g. GPRS      When a slow connection is used to upload (PCD to PC) a big file, the connection may be closed before the end of the transfer due to a timeout in the send process. FTP user and password not taken into account when 10 users are specified in the configuration      If 10 users are specified in the configuration, the last one is ignored and the PCD can not be accessed by FTP with the account
	<b>SD card</b> format from user program increases the PCD cycle time      During SD card formatting, the PCD cycle time is increased too much (typically up to 100 ms). Depending on the used SD card and the number of accesses performed on the card, the cycle time is increased till a SWTO error is generated.
	<b>Bus Error with FDL</b> The PCD crash with a Bus Error in the FDL driver.
	Time zone processing errors      "In the time zone definition, it shall be accepted that the offset to/from UTC time is between -15 and +15 (included). The UTC Offset returned from the <b>RTC_Local_Get</b> function is wrong in case of daylight saving zone (the current offset shall be returned instead of utc offset)"



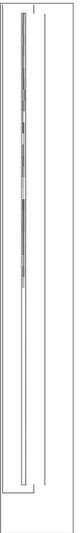
	Module <b>W745</b> causes "No Response" If the module is configured over the Device Configurator, but is not inserted into the slot, at restarts of the PCD no response (timeout).
	<b>Ethernet</b> Phy reset on transmit collision "If a transmit collision is detected on the Ethernet Phy the PCD does not execute the cyclic programs for 100ms. However it is not possible to send Ethernet telegrams for 100ms. Ethernet Driver does not re-open interrupts correctly after burst of data no user doku <b>TCP/IP</b> Stack ProtocolMaxTelSize
	<b>PLC Blocks File upload</b> with <b>HTTP Direct CGI FTP</b> is not working (anymore) In the HTTP File Upload Request is a wrong contents length if the file is in the PLC/Blocks directory. System Crashing During Power Up if an <b>WebAccess to PLC media</b> occurred
	<b>Web Pages</b> on PLC_SYS/WEBPAGES Unkown <b>HTTP Cookies</b> are not skipped correctly When a PCD Webserver is connected over a forward proxy and the proxy is adding cookies, these cookies hide the cookies send of the PCD webserver. <b>HTTP</b> chunked dynamic zero content A cgi request generating no content at all, sends a wrong chunk header (trailing 2 bytes). <b>HTTP</b> range with negative value When a HTTP request with a negative range request is send, one byte of data to much is send to the requester.
	TBSY, XBSY flags never reseted during data transmission With MC mode running on <b>F2xx module</b> (version \$09, 020) and sending big amount of data (bigger than 250 bytes), it has been seen that the TBSY and/or XBSY flags remains high indefinitely. The data sending is stopped and can only be resumed after a PCD restart is executed.
	<b>SFB440 E-Mail</b> : default MTA timeout. since MTA timeout of 0 is not allowed for connect socket timeout, a default value of 30 sec is set if 0 is passed <b>E-Mail</b> sending remains blocked. The EMail sending remains blocked with a TBusy equals to 1 and never exits.
	<b>CAN</b> Queue problem by priories sending of messages Sending of priority inserted CAN messages by using the CAN Basic services can result in telegram loss in very rare cases.
	<b>Remanent Timer</b> are not correctly working after Power Up
	<b>H114</b> Media Mapping The Media Mapping with the H1 14 does not work. However the direct access works well.
	Change Power down
	Unprotected USPI transfert in PBiosSpiBoard
	Alarming Event CSV file contains wrong alarmType The generated event csv file contains the wrong alarm type.

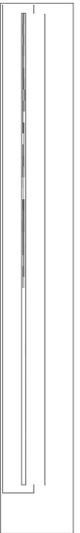
<b>V1.16.09</b>	<b>16.12.2010</b>
<b>New Features</b>	
	Handling of <b>PCD3.F270</b> and <b>PCD2.F2700</b> (M-BUS) communication

	modules Module identifiers shall be added in the processing of serial communication modules.
	<b>H222</b> integration Support of H222 Module
	<b>DNS resolver</b> missing time-out configuration The DNS resolver is missing a time-out configuration. The 1s default time-out may be too short on WANs.
	Write Clock should set the ms to 0 <b>Setting the PCD</b> clock without indication of the millisecond, as it is done with the WTIME instruction, should set the ms to 0.
	add event ZyclusNotProtected I need a trigger in the cycle that is not protected in any way. RemBlocks functions hook to this event because they have to be able to sleep in case of FS_BUSY....
	SNTP CSF for status Create a CSF to get SNTP status information. Create corresponding xx7 FB
	Allow <b>DNS</b> negotiation during LCP / PPP link initialisation When the PPP connection is established, it is possible to request the DNS server from the peer. The DNS are then automatically updated within the IP stack and can be used for DNS hostname resolution over PPP
<b>Bug fixes</b>	
	<b>H114</b> Media Mapping The Media Mapping with the H114 does not work. However the direct access works well.
	<b>ConfigNT</b> : "PCD.SCFG is saved with space before and after ""="" - Add a function to get the ConfigNT status - Null-terminated string errors - Increase the buffer size for saving tags - setup config directory error - file parse bug - '\' character deleted - File system errors management - Config files management
	<b>MODBUS</b> use with F2xx module(s) When MODBUS RTU is used over an F2 module, the SPI events are too close to allow cyclic state machine to be executed. In the RX state machine, the end of transition shall be checked before processing the new received frame. MODBUS error when setting ""Idle Disconnect Time"" to 0 When the given parameter is set to 0 (immediate close of the connection when response is received), the handling of the received response generates a PCD error
	Corrupted values in <b>media mapping</b> Values (analogue) from the media mapping could be corrupt if in parallel those values are read from interrupt OBs with direct periphery access instructions.
	<b>USB</b> bus-power mode is wrong USB communication break during vendor write "In the production we got the situation of broken USB connection. - can happen if a vendor write command is executed with more than 8 bytes of data (I could it just see with a pc hw used in production (a complete request is transmitted in about 100us (all other pc's I saw needs about 3ms))" USB Descriptor change USBVendorRequest: Read/write flash nitron and get flash module information.



	<p>Extention on USB Vendor Request interface                  No USB connection after firmware download after a firmware download the USB connection can't be opened in some cases.</p>
	<p><b>AlarmDB</b> logging, monthly and weekly files mixed A monthly and weekly files configuration creates always a daily file.                  Sorted SWeb alarm list does not display all alarms When a alarm list is sorted without any filter empty alarms are not displayed.                  AlarmDB AckAll CSF does not work A call to AckAll in CSF has no effect.</p>
	<p><b>WEBServer</b> error when loading a new configuration "If the WEBserver is started with both servers (80,81) disabled and a new configuration is received with at least one server enabled, the PCD is generating a Bus Error.                  WebServer ReadFile CGI command passes password check The password protection has no impact on the Readfile CGI command.                  WebServer Http Direct active sessions "A new tag has been defined which displays the current active web sessions of HttpDirect: SYS-HttpDirect,ActiveSessions, SYS-HttpDirect,CmdActiveSessions                  By accessing the web server, at least one session will active."                  WebServer Http Direct localhost access "Disable external access to the WebServer, but allow localhost access. An new configuration tag allows to activate localhost only access: CFG-HttpDirect,LocalOnly (Default:0), CFG-HttpDirect,CmdLocalOnly (Default:0)                  Send HTTP errors as HTML page "Send HTTP errors as a HTML formated page containing the server name.                  The is feature must be activated by the tag CFG-Http,SendHtmlError=1."                  Web server: modify the page search priority Modify in the Web server the default search page priority. New priority is Web (=&gt; selected pages im Web builder),INTFLASH, M1_FLASH, M2_FLASH, SLOFLASH, SL1FLASH, SL2FLASH, SL3FLASH, SLOFLASH.</p>
	<p><b>FTP</b> command CWD should return the code 250 and not 200 "As described in RFC 959, the FTP command CWD (Change Working directory) should return the code ""250 Requested file action okay, completed"" and not ""200 Command okay"". "</p>
	<p>FW Download on dedicated <b>SPI</b> slotIt shall be possible to download FW on a dedicated SPI slot.                  USPI Read Data - Retries bug                  QSPI Delays (QCD and DTL) are always set to default</p>
	<p><b>TCP/IP stack</b> initialisation global variable  <b>PHY</b> config status shows a wrong status for LS80225 No user doc.                  PHY registers mapping                  Nexgen header files  <b>ARP</b> request-buffer queue size initializationARP request-buffer queue size was incorrectly initialized. We have modified the initialization of the ARP protocol such that upon an ARP request, 32 packets due to be sent are buffered while waiting for the ARP reply. Before only 1 packet was buffered. Thus in case more packets were pending the receipt of an ARP reply, only the latest would be buffered, the rest being discarded.</p>
	<p>Read System Info <b>SBus</b> telegram return wrong FW version</p>
	<p>RTC milliseconds badly initialised When a set RTC command is issued, the ms shall be taken into account and the regulation shall be completely reseted.                  When a set RTC command is issued and the command specifies milliseconds,</p>

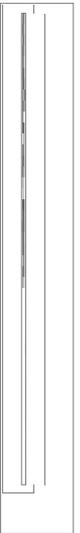




	<p>these are not taken into account. Write Clock should set the ms to 0 Setting the PCD clock without indication of the millisecond, as it is done with the WTIME instruction, should set the ms to 0.</p>
	<p><b>PING</b> data size low limit It shall be possible to limit the ping data size down to 0 bytes</p>
	<p><b>CAN</b> communication problems with low baudrates In some CAN receive object configuration cases (Direct Access Mode), telegrams might be lost when using lower baudrates or fast receive cycles times (overrun situations).</p>
	<p><b>File System</b></p> <ol style="list-style-type: none"> <li>1. Support of block size 1KB also for SD Flash file systems</li> <li>2. Malloc sector size is 64K or block size if bigger than 64K</li> <li>3. Compress location is not saved before writing busy list so the compress entry can be written at correct location even if new header is required.</li> <li>4. When an entry shall be cleaned, not only the VALID part is cleaned, but the complete entry is zeroed.</li> <li>5. Add timeout while waiting busy pattern from SD card. Timeout is set to 1 second. Max measured time during test is 35 ms.</li> <li>6. The return value from the FLASH functions (read/write) shall be converted to file system error codes (FS_FAILED_FLASH_OPERATION).</li> <li>7. Review code formatting when FLASH functions are called.</li> <li>8. PIT access review for "LastAccessTime?" (use "-" operation to avoid problems with overflow / positive - negative transitions.</li> <li>9. The compress entry is immediatly written when created. This avoids reserving the entry and never write it in case of compression error</li> <li>10. CheckEOFMark(): Try parsing as far as possible, even in case of intermediate -11 error code</li> <li>11. File System auto compression error "When the file system issues an auto compression command and an error occurs during the device compression, the device state is set to ""DEVICE_OK_FILESYS_ERROR"", disabling further access to other compression or re-format commands."</li> <li>12. Reformat the File System if the size doesn't match. The File System has to be reformatted when the size doesn't match with the size define for this PCD (e.g. 1MB Internal File system but the PCD should have a 2MB Internal File System).</li> <li>13. Deleting a directory and its content returns an error Deleting a directory and its content returns sometimes -76. This comes only if a file or directory within the current directory was previously deleted.</li> <li>14. Accessing a file through CSF - FBOXES and at the same time deleting the file with another process (e.g. FTP or HTTP) causes a PCD crash</li> <li>15. Compression never ends if a file remains open In case a file remains open in the file system, the compression will never stops (waiting for the file to be closed)</li> </ol>
	<p><b>SD card</b> read only property not handled correctly by the file system "When an SD card is write protected (either through the R6xxx switch or through the SD WP switch) the information is not forwarded to the file system. The read only property shall be read each time an SD event occurs." On <b>PCD3.R600</b> the switch position =&gt; Read/Write, Write protected should be taken into account when the cover is put on and not only by SD-card insertion.</p>

	<b>E-Mail</b> sending connect timeout      Currently the TCP connection uses a default connect timeout. This can block the system for a long time. This change sets the connection timeout to the reception timeout.
	E-Mail sending connect timeout      Currently the TCP connection uses a default connect timeout. This can block the system for a long time. This change sets the connection timeout to the reception timeout.
	<b>SNMP</b> Corrections      "The HW Modification and week number are not displayed correctly when using SNMP get requests. Additionally, the documentation shall be updated"

<b>V1.14.10</b>		<b>31.03.2010</b>
<b>New Features</b>		
	<b>SNTP</b> development for xx7 platforms. Implement SNTP for xx7	
	Implementation of <b>PING</b> Development of CSF and WEB access to execute ping from a PCD	
<b>Bug fixes</b>		
	<p><b>SD</b> controlled power OFF sequence                  When a power OFF occurs on a system accessing an SD card (especially write access), the executing SD access sequence shall be finished as part of the power OFF interrupt service routine.                  Loss of data on SD-card. When an SD card is filled with file data and the total size of data is bigger than about 70% of the Saia file system size and the SD card is removed and re-inserted or a power OFF/ON sequence is performed, all SD card files are lost.</p>	
	<p><b>ARP initialization</b> with 32 request-buffer queue entries. We have modified the initialization of the ARP protocol such that upon an ARP request, 32 packets due to be sent are buffered while waiting for the ARP reply. Before only 1 packet was buffered, so that in case more packets were pending the receipt of an ARP reply, only the latest would be buffered, whilst the rest were discarded.</p>	
	<p>Reformat the <b>File System</b> if the size doesn't match. The File System has to be reformatted when the size doesn't match with the size define for this PCD (e.g. 1MB Internal File system but the PCD should have a 2MB Internal File System).                  File system device status shall return DEVICE_BUSY. As soon as a device compression job is required on FLASH devices, the device status shall be BUSY, even if the compression is not yet stated (queued, but not started)</p>	
	<p><b>FTP</b> command CWD should return the code 250 and not 200 As described in RFC 959, the FTP command CWD (Change Working directory) should return the code "250 Requested file action okay, completed" and not "200 Command okay".</p>	
	<p><b>USB communication</b> break during vendor write In the production we got the situation of broken USB connection. - can happen if a vendor write command is executed with more than 8 bytes of data (I could it just see with a pc hw used in production (a complete request is transmitted in about 100us (all other pc's I saw needs about 3ms))</p>	

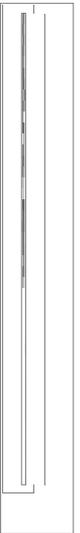


<p><b>MODBUS</b> error when setting "Idle Disconnect Time" to 0. When the given parameter is set to 0 (immediate close of the connection when response is received), the handling of the received response generates a PCD error. Reference ticket #1699 for trunk/release modifications MODBUS error when assigned port does not exist on the platform. After an port initialisation on a not existing port, a send request will provoke a severe PCD error.</p>
<p><b>File System</b> Compression never ends if a file remains open In case a file remains open in the file system, the compression will never stops (waiting for the file to be closed) Creation of file with name identical to directory name shall be refused "If a file is created and the name already exists and it is a directory, the creation shall return an error. The same processing shall be applied for links and aliases." File System size increased Device not mounted if PCD powered OFF while compressing</p>
<p><b>RTC</b> module updated The correction factor of the RTC is read at start-up from the backup memory (SRAM). At power-on, the value of this factor shall be checked before use. RTC goes back after successive read.</p>
<p><b>FTP</b>Server user name processing</p>
<p>Blocked transmission over <b>PCDx.F2xx</b></p>
<p><b>PPP</b> stop should set back the configured GWY address Depending of the configuration, a PPP start overwrites the IP GWY address and set the default route to PPP. On PPP stop the configured GWY address should be set back.</p>
<p><b>Compact IO Board</b> - digital output 4..7 always '0' using direct access On the Compact IO Board the digital output are always set to '0' when using the Word Direct Access function (RDPW - Read Peripheral Word). Media Mapping and Byte Direct Access function work fine. Compact IO Board Interrupts don't work.Incoming interrupt from the Compact IO Board called the related OB only the first time. Interrupts coming later doesn't call the related OB.</p>
<p>Heap Size increased</p>
<p><b>ConfigNT</b>: Configuration file not parsed if deleted and reloaded</p>
<p>Empty <b>WebServer</b> login passes check. Instead of inserting a valid password, a simple send passes the page protection. This occurs when only the file protection level is configured. WebServer password protection. The WebServer protection mechanism does not work correctly, when setting all protections levels to a password.</p>
<p><b>USPI</b> Write Data - retries bug</p>
<p><b>BIOS</b>: Remove BIOS_EnableAllInterrupts</p>

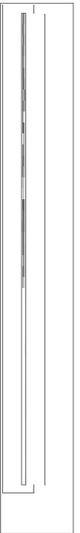
**V1.10.49**

**8.04.2011**

**New Features**



<b>Bug fixes</b>	
	PCD3.M5/6 extension are no more functional after a reboot In case of PCD reboot (e.g. SW WD, user WD), it appends that the features of the PCD3.M5/6 extension (serial ports 1 & 3/10, PCD3.Rxxx, ...) are no more available.
	<b>ConfigNT:</b> The byte tags in config NT has not the correct initialisation values because in the type declaration there are used as BYTE but the table initialise them as SDWORD!
	<b>Modbus:</b> "Init Server TCP" on a PCD without IP add. An "Init Server TCP" on a PCD without IP address will result in "Bus Error" at next PCD Restart.
	<b>Modbus:</b> data in the response to Write Single Coil/Register requests are not right If the modbus slave receives a write single coil/register request, the data in the response are not right.
	<b>Modbus:</b> switch from Client to Server on same port leads to dysfunction In RTU, when a switch is done from Client to Server (Modbus off on Client and the Start Server) on a serial port leads to dysfunction.
	<b>Modbus:</b> error flag on modbus OFF not correct. The error flag appears if the Modbus OFF is performed on a non configured port.
	<b>PPP</b> over GSM/GPRS modem: With a PCD3.M2337 A4T5 station, configured to run PPP over the GSM modem, an address error has been reported. This behavior is not systematic The same error can eventually happen on other stations running PPP.
	<b>VAC IO-Board</b> Direct WriteDigital Byte wrote two byte to the IO-Board The write Periphery byte (direct Access) wrote in the SPI-Command a length of two byte instead of one byte. (with Mapped media the SPI-Command is correct)
	<b>Web Alarming</b> responses slow In some cases a response to alarm cgi request requires a long time.
	<b>Inter-Character delay on some serial port</b> There is a inter-character delay on some serial port. This delay is specially noticed in RS-485 mode. Port concerned: port 0, port 3. The protocol S_IO/DP is not concerned by this bug.
	<b>Loss of data on SD-card</b> When the total size of data on a SD-card is bigger than about 70% of the Saia file system, all files will be lost if a power OFF/ON sequence is performed or the SD-card is removed and re-inserted.
	Device not mounted if PCD powered OFF while compressing
	<b>On Compact IO-Boards</b> Invalid Values while using Media mapping and reading direct Periphery in Interrupt OB's: While using an Time OB and reading direct Periphery (analogue or digital Values), the media Mapped Inputs have sometimes invalid values. If the OB is not loaded, the media mapped Inputs have always the correct values. This Problem is only on the.



<b>V1.10.33.3</b>		<b>04.03.2013</b>
<b>New Features</b>		
	<b>PLC_xx7</b>	Support of the Backup Partition on R551 Flash.
<b>Bug fixes</b>		

<b>V1.10.33.1</b>		<b>04.03.2011</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<b>RTC / PLC_xx7</b>	The RTCAvail field of the HW_Status global variable shall be 0 if RTC is present and -1 if not. The error was a RTC_Avail is TRUE (1) if available and FALSE (0) if NOT. In the PLC_xx7, the <b>SeekRtc?</b> call was returning 1 (TRUE) were a 0 was expected. Due to this, the regular RTC update function was not executed and a RTC difference according to PIT was noticed.
	<b>PLC_xx7</b>	Remanent Timer are not correctly working after Power Up

<b>V1.10.33</b>		<b>17.07.2009</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<b>MPI protocol</b>	During PLC start-up phase, the OPRead MPI telegrams are not answered because the ""end-of-cycle"" event is not generated. This implies timeout event on some MPI display, the closing of the associated SAP and the creation of a new connection. When the "end-of-cycle" event is generated (user program has been compiled), all inserted jobs are executed over original SAP, which has been closed in-between. This can provoke errors, especially if the used SAP has been re-open. The re-opening can even be done on another interface, e.g. F750x HW or serial driver. In this case, the sending may lead to unpredictable

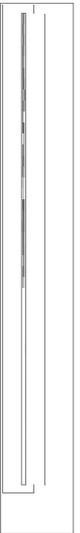
	results."
	<b>MPI protocol</b> Implement the MPI OpWrite buffer for DB, Merker, Input, Output and Peri Output for the SaiaNT PCD's.
	<b>MODBUS over TCP</b> error with buffer pool empty access. When high number (more than 50 ?) of MODBUS telegrams are coming "simultaneously", the buffer pool is empty and can generate unexpected errors. Additional checks shall be added when accessing the buffer pool while almost empty.

<b>V1.10.32.6</b>		<b>04.12.2013</b>
<b>New Features</b>		
	<b>WEB-Server</b> New Default Start WebPages corresponding to the new CI-Rules.	
<b>Bug fixes</b>		

<b>V1.10.32</b>		<b>10.07.2009</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<b>Web Server</b> setvalues does return readonlyDone. When calling setvalues cgi command does not reponse "Done". An error message is prettached to the message.	
	HTTP Direct response: The requested URI was too long Any HTTP GET request send by an application longer than 2kB is rejected.	
	<b>W340</b> in NI1000 Mode returns wrong values.	

<b>V1.10.30</b>		<b>19.06.2009</b>
<b>New Features</b>		
<b>Bug fixes</b>		
#825	<b>Modbus</b> SFB parameter type modified The parameter "StartAddr" in the SFBs 492 (SendReadReq) and 493 (SendWriteReq) is changed from WORD to DINT for an easier use. Moreover, it is yet unified with the server SFB 503 (InitMap).	
	<b>MODBUS TCP</b> Error processing MODBUS frames over TCP. When a MODBUS frame is not	

	received completely or when 2 MODBUS frames are together in a IP buffer, it can lead to MODBUS processing errors and/or to PCD BERR/SWTO.
	<b>MODBUS Serial</b> Error handling if used in multi-master network In case of wrong MODBUS serial network (.e.g. if two MODBUS masters are connected), a better handling of MODBUS processing shall be done. Especially, a FW crash shall be avoided.



<b>V1.10.28</b>		<b>28.05.2009</b>
<b>New Features</b>		
<b>Bug fixes</b>		
#817	<b>Fetch/Write over Iso-on-TCP closed the connection after 10 s.</b> The first Fetch/Write Telegramm will reset the timeout timer. The ISO Connection will only close if no Fetch/Write telegrams will be send during the timeout time.	

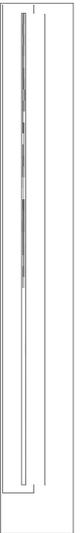
<b>V1.10.20</b>		<b>08.04.2009</b>
<b>New Features</b>		
<b>Bug fixes</b>		
#731	<b>"HTTP 404 File Not Found" while file system is compressing.</b> While a flash device is compressing HTTP 404 status error (File Not Found) is responded. The file is probably on the device compressing - an new 503 Service Unavailable is issued.	
#733	<b>Web Server Status page not available.</b> The status.htm page is not available and can therefore not be displayed.	

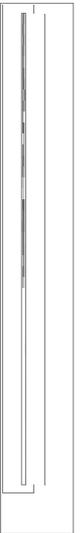
<b>V1.10.17</b>		<b>12.03.2009</b>
<b>New Features</b>		
<b>Bug fixes</b>		
#728	For some SD 512 cards inserted in a PCD3.R600/PCD2.R6000 devices and the PCD is powered OFF for a long time, the files on the SD cards were lost after a new power ON sequence.	

#730	The read of the live list does not work in FW 1.10.15!

<b>V1.10.15</b>		<b>23.02.2009</b>
<b>New Features</b>		
#622	<b>DHCP/DNS development for xx7 platforms</b> The DNS/DHCP functionalities shall be introduced for xx7 platforms.	
<b>Bug fixes</b>		
#676	<b>Files not found in web server</b> The web server may not find a flash device including a lot of files. It seems as there are no files at all available.	
#708	<b>Web-Server does not find M2 flash device</b> When a M2 flash is inserted, the Web-Server does not find the device.	
#711	<b>PPO s - string format unsupported</b> A PPO DB web access with the format s (string) results ins a "ppo format unkown" response.	
#713	<b>PPO counter values - read/write error</b> Writing counter values via web does not result in correct values in the PLC. Reading counter values via web does not correspond to the values in the PLC.	

<b>V1.10.12 (in Production for PCD3.Compact)</b>		<b>26.01.2009</b>
<b>New Features</b>		
<b>Bug fixes</b>		
#667	<b>PCD3.Compact Old IO Board: Counter does not work when Analogue Inputs are mapped</b> If the Old Compact IO Board it is not possible to use periphery mapping on the analogue inputs and to use the Encoder / Counter at the same time. If the status information of the analogue inputs are read, the IO-Board is doing somehow strange things, and not only giving an error back that the command is not supported	
#668	<b>PCD3.Compact: Wrong Parsing of "old" Configuration</b> Parsing an old Configuration doesn't accept the Nbr of Analogue Inputs without Status Information.	



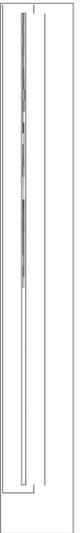


<b>V1.10.11</b>		<b>20.01.2009</b>
<b>New Features</b>		
#653	<b>password feature</b> Redesign of the password feature in the new WebServer.	
<b>Bug fixes</b>		
#656	<b>W610 analog output max value does not give 10V in SIMATIC Format</b> When W610 configured as Simatic unipolar format, it gives only 7.5 volts for maximum value of 27648. If it is configured as row format it works properly and gives 10V for maximum value of 4095.	
#400	<b>WEBSocketConfig.txt configuration file</b> The new PCD Web-Server does not load the configuration file (WEBSocketConfig.txt)	

<b>V1.10.10</b>		<b>09.01.2009</b>
<b>New Features</b>		
#637	<b>Modbus UID 0 yet allowed</b> To be compatible with new version of FBoxes which allow to use UID 0, UID 0 must also be allowed in concerned functions (InitUID, InitMap).	
<b>Bug fixes</b>		
#641	<b>After Reparsing the ISO/IP Connection the IP Connections disappeared</b> If the old IP-ISO Configuration contains IP and ISO connection, the parsing routine parses only the ISO Connections in the new configuration, if the IP-Connections remains.	
#636	<b>only Know How Protected Function Blocks in Flash /S7Prog are visible.</b>	

<b>V1.10.08</b>		<b>18.12.2008</b>
<b>New Features</b>		
#612	<b>Support of new Compact IO-Board</b> Support of the new Compact IO-Board with the Resistor and Temperatur inputs. Also Integration of the Status information for the analog modules.	
<b>Bug fixes</b>		
#627	<b>Modbus Server: All UIDs must react to broadcast UID</b> In case a Modbus braodcast request (Serial) is received, it is treated by the default UID. It should be treated by all UIDs.	

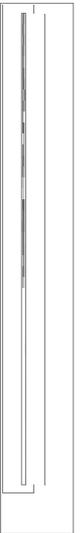
<b>V1.10.07</b>		<b>12.12.2008</b>
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<b>New Features</b>	
#609	<b>WAC: Integration of read Status from Analog Inputs</b> The analog Inputs generate also Status information (over- or underrange).
#386	<b>FTPServer extensions</b> The FTPserver shall be extended to support new commands, e.g. NLST, PWD, SIZE. If changing two or more directory levels up in one command, the PCD is crashing. (Ex. cd ../../) If changing only one directory level up, no problems occurs. (Ex. cd ..)
<b>Bug fixes</b>	
#615	<b>CGI setValues with empty value ignored</b> An empty value with the setValues cgi command does nothing instead of resetting the value.
#611	<b>RTC</b> The RTC is not set to the default value if the battery is bad.
#588	<b>MPI OPRead telegram</b> wrong answer when accessed DB does not exist When a terminal is issuing commands on the MPI, using the OPRead command, accessing a not existant DB, the returned telegram does not comply with the telegram issued by a Siemens PCD.

<b>V1.10.06</b>		<b>28.11.2008</b>
<b>New Features</b>		
#599	<b>Modbus OFF</b> Development of a "Modbus OFF" function that enables the user to close a Serial Port	
#506	<b>Support Modbus Client</b>	
<b>Bug fixes</b>		
#607	<b>PLC Texts written via Web PPO contains null string and old text content</b> A text configured via a web PPO is terminated with a null string and the rest of old string is still in memory. This causes STXT to send a null string and old strings. Strings are not terminated anymore automatically by the web server and the rest of the string is wiped with spaces. In the case the user requires a null string it must be done explicitly with null escape sequence %00 at the sting end (no space wiping is done).	

<b>V1.10.05</b>		<b>25.11.2008</b>
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<b>New Features</b>	
<b>Bug fixes</b>	
#531	<b>Modbus Server xx7 swap words for 32bits access</b> It must be possible to access media as 32 bits and to swap the 2 words of the 32bits media accessed
#571	<b>Serial Modbus Client crashes if 2 masters present</b> If 2 Modbus masters are present on the bus in serial mode, PCD crashes after some requests.
#585	<b>Check for Busy in CAN OKI Chip</b>
#592	<b>Modbus: all serial ports closed, not just those used for Modbus</b> When all the serial Modbus ports have to be closed (Init, Restart,...), all the serial ports are closed, not only those used for Modbus communication
#593	<b>xx7 SFC 245 error with F2xx(x) modules</b> When the user program is changing from one protocol to another or when the line parameters are changed, the SFC 245 (B_INIT) is returning an error.
#594	<b>PPP and BInit commands incompatibility</b> When the PPP tries to reserve a serial line, an error shall be returned if the serial line is already in use.
#596	<b>Config device order</b> Change the Config device order to Int, M1,M2, SL0 to SL3 Internal Flash has the highest priority

<b>V1.10.04</b>		<b>12.11.2008</b>
<b>New Features</b>		
#567	<b>Kernel delete task,queue,signal</b> Add Kernel functions for TaskDelete, QueueDelete and SignalDelete.	
<b>Bug fixes</b>		
#549	<b>PLC Crash with S5-Access to not supported Media</b> If trying to read or write with S5 Fetch or S5 Write telegrams to not supported PLC Media (PI/PQ, Timer or Counter) the PLC crashes.	
#552	<b>After Reopening S5Fetch Connection: No Answer to a S5Fetch request</b> After opening / closing / opening ... a S5-Fetch Connection, the plc is not answering to S5 Fetch requests.	
#563	<b>Increase ARP table size</b> In the IP stack, increase the ARP table size from 32 to 255 entries	
#569	<b>SPI Module on IO-Slot</b>	

	If there is a not programmed SPI module (ex. PCD3.Fxxx) on a IO Slot the FW does no more recognize the rest of the modules.
#570	<b>File system error when SD card can not be correctly accessed</b> Depending on the used SD cards (PCD3.R600 or PCD2.R6000), the read or write access may fail (new technology, additional protocol or timing required). When such access fails, the file system may raise an un-wanted error.

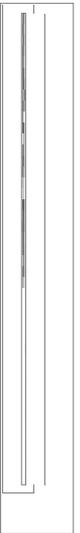
<b>V1.10.01</b>		<b>16.10.2008</b>
<b>New Features</b>		
#257	<b>Support new Communication Modul: PCD3.F28x</b>	
#133	<b>Implement MODBUSDriver and MODBUSShell</b> Refer to related documents: "MODBUSDriver", "ModbusShell_xx7", "ModbusShell_Classic"	
#425	<b>Support New WebServer2</b>	
#524	<b>PPP functionalities</b>	
<b>Bug fixes</b>		
#344	<b>DP-Master SFC's</b> SFC14 & SFC15 Read/Write to DP-Slave doesn't show a DP-Slave fail.	
#358	<b>Internal SRAM overflow if CPU crash</b> If the CPU crash and make the log and the Stack is in the internal SRAM (interrupt) then it can happen that the stack log buffer wants to copy more bytes than the internal SRAM size and the CPU crash once again with a bus error.	
#420	<b>Ethernet Interrupt processing in case of burst IP packets</b> In case of the burst IP packets on the Ethernet, the PCD can not absorb all received packets, but the ISR is still trying to process them. This implies that the PCD is doing nothing else than Ethernet IT processing.	

<b>V1.08.50</b>		<b>06.10.2008</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<b>W340 Inputs without conversion returns wrong values.</b>	

	<p>In the Version 1.08.39 we changed that the 12bit value is written to bit 4..15. In the old (Not SAIA-NT based xx7 Systems) all analogue Input Modules returned the Values from bit 15..xx). In SAIA-NT based Systems the analogue Input Values returns from bit 0 .. xx.</p> <p>→ In Version 1.08.39 was a wrong correction.</p>

<b>V1.08.49</b>		<b>02.10.2008</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<p><b>File system format error</b>                  When a file system is formatted, the FLASH is completely erased. During this operation, a process was still executed to check if the FLASH is present. During the FLASH erase, the check is returning as if the FLASH has been removed, the FLASH format check timer is killed, resulting in a deadlock in the format operation.</p>	

<b>V1.08.46</b>		<b>19.08.2008</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<p><b>SD Card not accessible</b>                  If the SD card present signal is disturbed (glitch, perturbations) and the SD card is accessed at regular interval, the file system is unmounted but is not re-mounted when the glitch / perturbation is away.                   The time between the unmount event and the mount event is too short according to the unmount time of the file system.</p>	
	<p><b>Error processing communication with PCD3.F2xx modules</b>                  Processing the F2xx events can lead to errors (F2xx not ready to process new data for sending). If this occurs, the message shall be sent again when the next F2xx event is received.</p>	
	<p><b>File system asynchronous calls error when PCD restarts</b>                  During a PCD restart (restart cold, program download), the asynchronous file system calls where not correctly finished, leading to inconsistent file system</p>	



job state or PCD error.
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<b>V1.08.45</b>		<b>05.08.2008</b>
<b>New Features</b>		
	<p><b>User delete of SRAM on system startup</b>                      Added the possibility of User-delete SRAM at system startup from power-on. After a power-on hold the push button during system start until the run/halt LED is flashing red (4Hz) for around 4s. If the button is released in this section the SRAM will be deleted and the system starts like no battery and empty SuperCAP.</p>	
<b>Bug fixes</b>		

<b>V1.08.43</b>		<b>17.07.2008</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<p><b>Error communication with PCD3.F2xx modules</b>                      The processing of message sending for the F2xx modules can lead to infinite loop or even to PCD crash if errors are detected during data transfer.                       If such an error is detected, the current message shall be discarded until the StopTransmit is called by the higher level driver and the current data transfer shall be aborted. Do not wait for TxLevel or TxEmpty interrupt).</p>	
	<p><b>FTP connection problem when loading FTPConfig.txt with WEB-Builder project</b>                      When a FTPConfig.txt file is part of the WEB-Builder project and the project is downloaded, the FTP server does NOT accept connection anymore. The parsing is done at start-up, but when a new (or same) FTPConfig.txt is loaded, the FTP server is not closed / re-open correctly.</p>	
	<p><b>Serial Line in Transparent Mode: Calling SFB13 doesn't return the number of Bytes in the receive Buffer.</b>                      Calling SFB13(BRecv) with LEN=0, shall return the number of Bytes in the Recv buffer. The NDR-Flag shall only be set when at least one Byte is copied into the user buffer.</p>	
	<p><b>CAN Initialisation routine error</b>                      An error may be returned during the CAN OKI initialization if the CAN busy</p>	

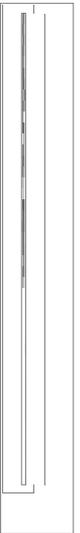


	bit is high during the first call. In that case, no CAN SFB's are available.

<b>V1.08.39</b>	<b>25.06.2008</b>
<b>New Features</b>	
<b>Bug fixes</b>	
	<p><b>W340Z Inputs without conversion returns wrong values.</b></p> <p>In the old peripheral BIOS the 12bit value was written to bit 4...15. With the new Implementation the value was written from bit 0...11.</p>

<b>V1.08.37</b>	<b>13.06.2008</b>
<b>New Features</b>	
<b>Bug fixes</b>	
	<p><b>FTPServer Connection handling</b></p> <p>Depending on the FTP client (explorer / Internet explorer from Windows), the connection is not always properly closed, implying that the FTP session is kept open and used buffers are not freed. New sessions can NOT perform new connections for e.g. file list, file retrieve or file store because no buffers are available.</p>
	<p><b>FileSeek function does not handle correctly ReadOnly seek for DAS file</b></p> <p>For Direct Access File, the FileSeek function with the RW or RD_ONLY attribute crash if the file was open RD_ONLY.</p>
	<p><b>Memory overwrite by file system</b></p> <p>For unknown reason, the file system device block list can be corrupted. It can then happen that the asking for a new block provoke a memory write outside of the file system allocated memory. In the studied case, the interpreter was overwritten and a BUS_ERROR or INV_OPCODE error was raised.</p>

<b>V1.08.36</b>	<b>28.05.2008</b>
<b>New Features</b>	

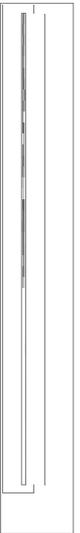


<b>Bug fixes</b>	
	<p><b>DP-Master extension</b></p> <p>A PCD3.M654x (644x) can crash on power on depends on the programmed ID.</p>
	<p>Change SFC 244 (E-mail) name and family to SAIA naming standard.</p>

<b>V1.08.34</b>		<b>23.05.2008</b>
<b>New Features</b>		
	<p><b>File system on SD</b></p> <p>Allow to overwrite data on a SD card PCD3.R600) file system.</p>	
	<p><b>Support Platform with 4M SRAM</b></p> <p>New PCD3 Plattform with 4M SRAM Support up to 4M S7-Memory / or USER SRAM.</p>	
<b>Bug fixes</b>		
	<p><b>Configuration files (e.g. for FTP / WEBServer) not accessible if FLASH file system compression is required at power on</b></p> <p>At power on, the FLASH file system(s) is(are) mounted within the start-up sequence. After successful mount, it is checked if a compression is required. If yes, the compression is started, the file system is marked as busy. If a FW module (e.g. FTP / WEBserver) requires a configuration file, the file can not be open during start-up sequence (device is busy) and the configuration will not be taken into account. Default values will be used instead.</p>	

<b>V1.08.33</b>		<b>21.05.2008</b>
<b>New Features</b>		
<b>Bug fixes</b>		
	<p><b>RTC can return invalid Datas.</b></p> <p>The RTC V3021 can return invalid Time format.</p>	
	<p><b>IP-Connection</b> after AG_LRecv the AG_Recv doesn't return any received data anymore.</p>	

<b>V1.08.32</b>		<b>05.05.2008</b>
<b>New Features</b>		



<b>Bug fixes</b>	
	<p><b>Configuration files (e.g. for FTP / WEBServer) not accessible if FLASH file system compression is required at power on</b></p> <p>At power on, the FLASH file system(s) is(are) mounted within the start-up sequence. After successful mount, it is checked if a compression is required. If yes, the compression is started, the file system is marked as busy.</p> <p>If a FW module (e.g. FTP / WEBserver) requires a configuration file, the file can not be open during start-up sequence (device is busy) and the configuration will not be taken into account. Default values will be used instead.</p>

<b>V1.08.30</b>	<b>17.04.2008</b>
<b>New Features</b>	
<b>Bug fixes</b>	
<b>#360</b>	<b>RK and DK are not sending with RS485 on Port 1 and Port 2</b>
<b>#361</b>	<p><b>RTS signal is kept high after transmission (autoRTS) if high system load</b></p> <p>In RS485 mode (autoRTS), the RTS is kept high after transmission is finished if the system load is high (many system interrupts, e.g. ethernet iSR processing).</p>
<b>#366</b>	<p><b>WEBServer stops handling requests on port 80</b></p> <p>On high system load PCD's using the new Kernel technology (e.g. Kardex), the WEBserver task handling port 80 is no more responding to received requests.</p>
<b>#369</b>	<p><b>Lost Interupts on M9K17 IO-Board</b></p> <p>On the M9K17 Peripherie Board it is possible to lose interrupts. Set the ISR callback also to the Spurious Interrupt -&gt; if it is relay a spurious Interrupt the user will get no Interrupt Source while reading the IO-Interrupt source.</p>
<b>Special remarks</b>	

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**V1.08.27 (FW-Version in Production)**

**27.03.2008**

