



## BaseLine\_11.06.14\_ReleaseNotes

Version 11.06.14, Public Document

## General Index.

<b>1. Introduction</b> .....	<b>6</b>
<b>2. General Information</b> .....	<b>7</b>
<b>2.1 BaseLine Installation</b> .....	<b>7</b>
2.2 Linux installation.....	8
2.3 Update uboot.....	9
<b>3. Release notes</b> .....	<b>10</b>
<b>3.1 Release Summary</b> .....	<b>10</b>
<b>BaseLine_11.06.14</b> .....	<b>11</b>
coreDb.....	12
IEC60870-5-101 Slave (i1eBinC).....	12
IEC60870-5-104 Slave (i4eBinC).....	12
IEC60870-5 library (i870Lib).....	12
Supervision.....	12
THM.....	12
webApp.....	13
<b>BaseLine_11.06.13</b> .....	<b>14</b>
Channels module.....	15
CSBrick.....	15
IEC61850 Ed.2.....	15
webApp.....	16
Linux.....	16
<b>BaseLine_11.06.12</b> .....	<b>18</b>
BLApp.....	19
ewServices.....	19
IEC61850 Ed.2.....	19
webServer.....	20
Linux.....	20
libSys.....	21
SM_DI32_C0.....	21
<b>BaseLine_11.06.11</b> .....	<b>22</b>
coreDb.....	23
ewServices.....	23
IEC61850 Ed.2.....	23

Sequence of Events (SOE2).....	24
Supervision module .....	24
webApp .....	24
SM_DO16R_C0.....	25
<b>BaseLine_11.06.10.....</b>	<b>26</b>
ewServices .....	27
IEC61850 Ed.2 .....	27
laqPfbM .....	27
ModBus Master STD .....	27
supBinC.....	27
watchdog.....	28
Linux.....	28
SM_DO16R_C0.....	29
<b>BaseLine_11.06.09.....</b>	<b>30</b>
coreDb .....	31
CSBrick .....	31
IEC61850 .....	31
THM.....	32
Linux.....	33
SM_SER_C0 .....	33
SM_DO32T_C0 .....	33
SM_DI32_C0 .....	33
SM_AI16_C0 .....	34
SM_AI8AO4_C0.....	34
SM_DO16R_C0.....	34
<b>BaseLine_11.06.08.....</b>	<b>35</b>
laqPfbM .....	36
<b>BaseLine_11.06.07.....</b>	<b>37</b>
BLApp.....	38
CSBrick .....	38
formBinC .....	38
i870Lib .....	38
i1mBinC.....	39
i4mBinC.....	39
mdbeBinC.....	39






thm.....	39
webApp .....	39
Lnx.....	40
<b>BaseLine_11.06.06.....</b>	<b>42</b>
chan .....	43
coreDb .....	43
CSBrick .....	43
ewServices.....	43
i3m .....	44
IEC61850 .....	44
sepamBinC.....	45
Sequence of Events.....	45
supBinC.....	46
watchdog.....	46
webApp .....	46
<b>BaseLine_11.06.05.....</b>	<b>47</b>
BLMon .....	48
coreDb .....	48
CSBrick .....	48
ewServices.....	48
formBinC .....	49
IEC61850 .....	49
isg5BinC.....	52
laqPfbM .....	53
mdbm_STD.....	53
mdbmBinC .....	53
sepamBinC.....	53
supBinC.....	54
thm.....	54
watchdog.....	54
webApp .....	55
webServer .....	56
Linux.....	56
<b>BaseLine_11.06.04.....</b>	<b>57</b>
IEC61850 .....	58

coreDb .....	59
BaseLine_11.06.03 .....	60
IEC61850 .....	61
BaseLine_11.06.02 .....	63
BaseLine_11.06.01 .....	65
Thm .....	66
Linux .....	66
BaseLine_11.06.00 .....	68
BLApp .....	69
BLMon .....	70
Chan .....	71
coreDb .....	72
CSBrick .....	73
dnpe .....	73
dnpLib .....	73
dnpm .....	75
ewServer .....	76
ewT300 .....	76
form .....	76
i1e .....	77
i1m .....	78
i4e .....	79
i4m .....	80
i870Lib .....	81
idUtilLib .....	83
mdbe_STD .....	85
mdbe .....	85
soe2 .....	86
sup .....	86
t300ConfModules .....	86
thm .....	86
watchdog .....	87
webServer .....	87
Linux .....	87

# 1. Introduction

---

This document describes features or corrections that have been added to **BaseLine\_11.06.14**. Symbols on the left of each revision are used to define the different types of revisions made:

-  This symbol identifies that there is new information such as compatibility, compilation dates, etc.
-  This symbol indicates that there are new upgrades or new functionalities.
-  This symbol indicates that there are bugs or errors that have been corrected.
-  This symbol identifies known problems that have not been corrected on the last release.
-  This symbol identifies a brief reference to a compilation tool.

According to this document's organization, the information on the last release is shown at the beginning of the document.

## 2. General Information

---

In this chapter, the load structure and folders for the executable files.

### 2.1 BaseLine Installation

---

- For CPU\_866e platform lib.X.X.X.so files will be placed the target file system at /mnt/flash/lib directory. It will be necessary set exec permission. These libraries will be dynamically linked with the “main process”.
- For CPU\_866e platform the XXXBinC\_e500V2.so file will be placed the target file system at /mnt/flash directory. It will be necessary set exec permission. This library will be dynamically loaded with the “main process” who will call the coreDbLoad API function

Also one can install the release by copying the "BaseLine\_11.06.14\_XXXX\_866e.tar.gz" file to the /mnt/flash target file system, one must reboot the CPU afterwards. (Linux version must be Lnx\_14.07.22.10.39.09 or later).

**Note:** when "/mnt/flash/netConfig.xml" file is not present, the device ETH2 is assigned a default IP address (10.1.1.1) and netmask (FF000000).

Only for Linux version Lnx\_15.12.15.13.53.26 or later:

If DIP-SWITCH-10 is ON and the CPU is rebooted, restores users from factory\_db, the existing netConfig.xml file is renamed old\_netConfig.xml and the following IP addresses are assigned;

ETH 1: 192.168.1.1 (mask: 255.255.255.0)

ETH 2: 10.1.1.1 (mask: 255.0.0.0)

ETH 3: 192.168.3.1 (mask: 255.255.255.0)

ETH 4: 192.168.2.1 (mask: 255.255.255.0)

Default users:

USER	PASSWORD	ROLES
SecurityAdmin	Security1!	SECADM
Engineer	Engineer1!	ENGINEER
Operator	Operator1!	OPERATOR

<b>Installer</b>	<b>Installer1!</b>	<b>INSTALLER</b>
<b>Viewer</b>	<b>Viewer1!</b>	<b>VIEWER</b>
<b>SecAud</b>	<b>Secaud1!</b>	<b>SECAUD</b>
<b>RbacMnt</b>	<b>Rbacmnt1!</b>	<b>RBACMNT</b>

## 2.2 Linux installation

---

To save the Linux ulmage-sm\_cpu\_dct.bin on the SM\_CPU866e board, we need to use the SM\_CPU866e u-Boot and a TFTP server.

The Linux ulmage can be found on:

- SM\_CPU866e/build\_sm\_cpu\_dct\_release/tmp/work/sm\_cpu\_dct-fsl-linux-gnuspe/linux-qoriq-sdk-3.0.48-r5

First, from the u-Boot console, set up the environment variables netmask, ipaddr and serverip.

See the next example:

```
-> setenv netmask 255.255.248.0
```

```
-> setenv ipaddr 172.19.5.124
```

```
-> setenv serverip 172.19.4.167
```

If you want to save these values run the “saveenv” command.

Start the TFTP server on your PC (this is supposed to have the IP address specified on the serverip environment variable), this must be pointing to the “ulmage-sm\_cpu\_dct.bin” file to be flashed.

From the u-Boot console run the command:

```
-> run update_kernel
```

At the end the Linux BSP should have been flashed successfully on the SM\_CPU866e board.



In addition to the ulmage file, we also need to save a file named ulmage-sm\_cpu\_dct.dtb. This binary file contains a hardware description used by the Linux kernel to know the drivers to be loaded as well as their parameters. This file can be found on:

- SM\_CPU866e/build\_sm\_cpu\_dct\_release/tmp/work/sm\_cpu\_dct-fsl-linux-gnuspe/linux-qoriq-sdk-3.0.48-r5

Use the same procedure to save this file but this time, from the u-Boot console, run the command:

-> run update\_dtb

## 2.3 Update uboot

---

In this case, the file to download via the TFTP server will be called "u-boot.bin" and to run from the command console u-boot will be:

=>run update\_uboot

### 3. Release notes

---

#### 3.1 Release Summary

---

A brief description of every release is given.


Version	Brief release description
BaseLine_11.06.14	coreDb update. IEC60870-5-101 Slave update. IEC60870-5-104 Slave update. IEC60870-5 library update. Supervision module update. THM module update. webApp update.


Table 1: Release Summary.


## BaseLine\_11.06.14



BaseLine_11.06.14		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.03
	BLMon	BLMon_01.01.04
	libchan_e500V2.so	chan_03.00.20
	<b>libcoreDb_e500V2.so</b>	<b>coreDb_10.01.11</b>
	CSBrick	CSBrick_02.03.00.08
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServices	ewServices_01.00.15
	formBinC_e500V2.so	formBinC_10.00.13
	<b>i1eBinC_e500V2.so</b>	<b>i1eBinC_10.01.02</b>
	i1mBinC_e500V2.so	i1mBinC_10.01.02
	i3mBinC_e500V2.so	i3mBinC_10.00.07
	<b>i4eBinC_e500V2.so</b>	<b>i4eBinC_10.01.02</b>
	i4mBinC_e500V2.so	i4mBinC_10.01.02
	i61scBinC_e500V2.so	i61g2BinC_10.02.33
	<b>libi870_e500V2.so</b>	<b>i870Lib_10.01.04</b>
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.08
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.15
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.12
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	micomBinC_e500V2.so	micomBinC_10.00.01
	sepamBinC_e500V2.so	sepamBinC_10.00.05
	soeBinC2_e500V2.so	soeBinC2_10.00.07
	<b>supBinC_e500V2.so</b>	<b>supBinC_10.01.21</b>
	<b>libthm_e500V2.so</b>	<b>thm_06.00.02</b>
	watchdog_e500V2	watchdog_01.00.07
	<b>webApp</b>	<b>webApp_01.00.27</b>
	libwebServer_e500V2.so	webServer_03.03.02
Linux	Lnx_20.01.24.12.26.34	
Devices	ST_SER_C0.bin	SM_SER_C0_01.00.08
	ST_DO32T_C0.bin	SM_DO32T_C0_01.00.04
	ST_DI32_C0.bin	SM_DI32_C0_01.00.06
	ST_AI16_C0.bin	SM_AI16_C0_01.00.03


	ST_AI8AO4_C0.hex	SM_AI8AO4_C0_01.00.03
	ST_DO16R_C0.bin	SM_DO16R_C0_01.00.02



<b>coreDb</b>	
	Includes support for bonding devices.





<b>IEC60870-5-101 Slave (i1eBinC)</b>	
	New configuration parameter for not sending class 1 data when no class 2 data is available.

<b>IEC60870-5-104 Slave (i4eBinC)</b>	
	New function to check if the clients have an ASDU to transmit.

<b>IEC60870-5 library (i870Lib)</b>	
	For IEC-101 slave, new configuration parameter for not sending class 1 data when no class 2 data is available.
	For IEC-104 slave, new function to check if the clients have an ASDU to transmit.

<b>Supervision</b>	
	Includes support for bonding devices


<b>THM</b>	
	The bonding network interfaces are not supported by the thm module, either as PTP synchronization devices (MODE = "SLAVE") or as PTP servers (MODE = "MASTER"). This version solves this issue.
	The SNTP active server does not work with bond interfaces. This version solves this flaw.





webApp	
	<i>NO_SEND_CLASS1_WHEN_NO_CLASS2</i> attribute in LINK_PARAM element for i1e can be viewed and edited in Settings page.
	TCP traffic associated to bonding interfaces can be monitored.
	IP and netmask correctness checking improved.
	Some missed translations are added.









## BaseLine\_11.06.13



BaseLine_11.06.13		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.03
	BLMon	BLMon_01.01.04
	<b>libchan_e500V2.so</b>	<b>chan_03.00.20</b>
	libcoreDb_e500V2.so	coreDb_10.01.10
	<b>CSBrick</b>	<b>CSBrick_02.03.00.08</b>
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServices	ewServices_01.00.15
	formBinC_e500V2.so	formBinC_10.00.13
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.02
	i3mBinC_e500V2.so	i3mBinC_10.00.07
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.02
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.02.33</b>
	libi870_e500V2.so	i870Lib_10.01.03
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.08
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.15
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.12
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	micomBinC_e500V2.so	micomBinC_10.00.01
	sepamBinC_e500V2.so	sepamBinC_10.00.05
	soeBinC2_e500V2.so	soeBinC2_10.00.07
	supBinC_e500V2.so	supBinC_10.01.19
	libthm_e500V2.so	thm_06.00.00
	watchdog_e500V2	watchdog_01.00.07
	<b>webApp</b>	<b>webApp_01.00.25</b>
	libwebServer_e500V2.so	webServer_03.03.02
	<b>Linux</b>	<b>LnX_20.01.24.12.26.34</b>
Devices	ST_SER_C0.bin	SM_SER_C0_01.00.08
	ST_DO32T_C0.bin	SM_DO32T_C0_01.00.04
	ST_DI32_C0.bin	SM_DI32_C0_01.00.06
	ST_AI16_C0.bin	SM_AI16_C0_01.00.03



	ST_AI8AO4_C0.hex	SM_AI8AO4_C0_01.00.03
	ST_DO16R_C0.bin	SM_DO16R_C0_01.00.02





<b>Channels module</b>	
	Allow IP addresses to contain '255'.

<b>CSBrick</b>	
	Compatible with OpenSSL 1.0.2j 26 Sep 2016.
	Built with cs brick 2.3.0
	csLauncher must check if there's any interface with assigned IP before launching CSApp. The bonding devices must also be considered.
	IED Name in CAE will be only 'Saitel' regardless is DP or DR



<b>IEC61850 Ed.2</b>	
	Sensitive data is removed
	61850 server was not handling INT64 correctly
	SBOs sCtl11b test case failed.
	Client side max dataset members increase from 256 to 320 for GE Agile C264 BCU.
	Hash table api add prefix 'i61'
	Client side command queue
	Client sets RCB.BufTm if required
	Client asynch writes exhausting ACT module resources.

	Klocwork warnings.
	<p><b><u>Brick Changes</u></b></p> <p>IP4 address for an IED not in subnet.</p> <p>Function wrapControlParametersToASN1 must respect server maxpend_req</p> <p>Add Ic_ACT_dump function to help debug the Brick ACT module.</p> <p>Exhausting circular buffer array for large server data models with many BRCBs. Fix: libC_lib.a circular_buffer.c MAX_BUFFERS 1024 for CPU866e only.</p>

<b>webApp</b>	
	Bonding network interfaces edition.
	Solved bug when variable value is set and enter button is pressed.

<b>Linux</b>	
	<p>The “version” command shows the next information:</p> <p>Linux 3.0.48-rt70 #6 SMP Fri Jan 24 12:26:34 CET 2020</p>
	<p>This version includes support for network bonding devices. Bonding is a generic name for a method of aggregation or bonding of multiple physical links to form a single logical link. These devices will be configured using the name “bondx”, where x corresponds to the device index.</p> <p>These devices will work in the active-backup mode: only one slave in the bond is active. A different slave becomes active if, and only if, the active slave fails.</p> <p>For SM_CPU866e up to two bond devices can be configured:</p> <p>bond0: eth0 &amp; eth1 bond1: eth2 &amp; eth3</p>
	This Linux version upgrades the OpenSSH package to 8.1p1 version.
	<p>Includes the iproute2 package.</p> <p>The /bin/ip command will be a link to /sbin/ip.iproute2.</p>







	<p>The BusyBox version v1.19.4, currently installed in the SM_CPU866e, is affected by the CVE-2018-20679 vulnerability. This vulnerability is solved in BusyBox v1.30.1.</p> <p>This Linux version upgrades the BusyBox package from 1.19.4 to 1.30.1.</p>
	<p>This Linux image includes the next Baseline modules:</p> <ul style="list-style-type: none"><li>libsys_01.02.19</li><li>sysApplnit_01.02.17</li><li>libXML_01.01.00</li><li>sysLog_01.00.00</li></ul>









## BaseLine\_11.06.12



BaseLine_11.06.12			
	binary file	Release module	
Target	<b>BLApp_e500V2</b>	<b>BLApp_01.01.03</b>	
	BLMon	BLMon_01.01.04	
	libchan_e500V2.so	chan_03.00.19	
	libcoreDb_e500V2.so	coreDb_10.01.10	
	CSBrick	CSBrick_02.03.00.05	
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00	
	libdnp_e500V2.so	dnpLib_10.01.03	
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00	
	<b>ewServices</b>	<b>ewServices_01.00.15</b>	
	formBinC_e500V2.so	formBinC_10.00.13	
	i1eBinC_e500V2.so	i1eBinC_10.01.00	
	i1mBinC_e500V2.so	i1mBinC_10.01.02	
	i3mBinC_e500V2.so	i3mBinC_10.00.07	
	i4eBinC_e500V2.so	i4eBinC_10.01.00	
	i4mBinC_e500V2.so	i4mBinC_10.01.02	
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.02.25</b>	
	libi870_e500V2.so	i870Lib_10.01.03	
	libidUtl_e500V2.so	idUtlLib_10.01.00	
	isg5BinC_e500V2.so	isg5BinC_10.00.05	
	laqBinC_e500V2.so	laqBinC_10.00.02	
	liblaqPfbM_e500V2.so	laqPfbM_04.04.08	
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09	
	mdbeBinC_e500V2.so	mdbeBinC_10.00.15	
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.12	
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16	
	micomBinC_e500V2.so	micomBinC_10.00.01	
	sepamBinC_e500V2.so	sepamBinC_10.00.05	
	soeBinC2_e500V2.so	soeBinC2_10.00.07	
	supBinC_e500V2.so	supBinC_10.01.19	
	libthm_e500V2.so	thm_06.00.00	
	watchdog_e500V2	watchdog_01.00.07	
	webApp	webApp_01.00.21	
	<b>libwebServer_e500V2.so</b>	<b>webServer_03.03.02</b>	
	<b>Linux</b>	<b>LnX_19.06.24.12.22.30</b>	
	Devices	ST_SER_C0.bin	SM_SER_C0_01.00.08
		ST_DO32T_C0.bin	SM_DO32T_C0_01.00.04
		<b>ST_DI32_C0.bin</b>	<b>SM_DI32_C0_01.00.06</b>
		ST_AI16_C0.bin	SM_AI16_C0_01.00.03


	ST_AI8AO4_C0.hex	SM_AI8AO4_C0_01.00.03
	ST_DO16R_C0.bin	SM_DO16R_C0_01.00.02





<b>BLApp</b>	
	Compatible with webServer 03.03.02 or greater. Older versions cannot close webserver socket.
	webserver socket must be closed when BLApp is stopped or restarted ( <i>BLApp_shutdown</i> )

<b>ewServices</b>	
	Events log with correct date and hour when time is manually adjusted.
	Firewall configuration file could be read/write from client (webApp) when logged user has enough rights.

<b>IEC61850 Ed.2</b>	
	GOOSE ID maximum length is 129
	GOOSE Retransmission curve variables, deprecated.
	BinController entry time is 50 ms
	GOOSE performance enhancements
	Solved: Client failed to send direct commands for integers or enumerations
	Solved: Client did not update coreDb with correct values for enumerations, Mod, Beh, PhyHealth
	Remove unnecessary log message for client side commands.
	Increase max RCB / IED to 13.

	Response to GetXRCBValues(RptID) can be NULL.
	<p><b>Brick Changes</b></p> <p>lcETHER_Posix.c, use different pcap interfaces and 10ms timeout.</p> <p>Solved: Parser problems with Log Control Block and Enums without text.</p> <p>Remove some unnecessary log message, change some log messages.</p>

<b>webServer</b>	
	Socket is closed correctly when system is stopped or restarted.

<b>Linux</b>	
	<p>The “version” command shows the next information:</p> <p>Linux 3.0.48-rt70 #318 SMP Mon Jun 24 12:22:30 CEST 2019</p>
	<p>Currently, the /mnt/flash device has a size of 64Mb. This version includes support for /mnt/flash devices up to 128Mb.</p> <p>In order to support this new feature, the ulmage-sm_cpu_dct.dtb and u-boot.bin files have been modified. The version command issued from the u-boot console shows the next information:</p> <p>U-Boot 2011.12-00025-gc6d9d50-dirty (Apr 29 2019 - 10:03:14) SM_CPU866e - Schneider Electric</p>
	The microcontroller P1021 has a chip errata that affects the nand flash bus controller. The /mnt/nflash file system is not going to be mounted anymore.
	<p>This Linux image includes the next Baseline modules:</p> <p>libsys_01.02.18 sysAppInit_01.02.15 libXML_01.01.00 sysLog_01.00.00</p>




<b>libSys</b>	
↻	For the platforms that supports redundant configurations, the ONLINE CPU may stop responding, during a short period of time, to its floating IP (additional IP at ONLINE state) when the STANDBY CPU is rebooted. This version solves this flaw.



<b>SM_DI32_C0</b>	
↻	When there are changes in some digital input between the closing of a DI buffer and the ACK reception, this message is not sent to the CPU
↻	If the BIST process it's active the STDIS is not refreshed, so that when there is an error in a board the STDIS remains with the DIAG LED on, as if there is no firmware working.






## BaseLine\_11.06.11




BaseLine_11.06.11		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.02
	BLMon	BLMon_01.01.04
	libchan_e500V2.so	chan_03.00.19
	<b>libcoreDb_e500V2.so</b>	<b>coreDb_10.01.10</b>
	CSBrick	CSBrick_02.03.00.05
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	<b>ewServices</b>	<b>ewServices_01.00.14</b>
	formBinC_e500V2.so	formBinC_10.00.13
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.02
	i3mBinC_e500V2.so	i3mBinC_10.00.07
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.02
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.02.19</b>
	libi870_e500V2.so	i870Lib_10.01.03
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.08
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.15
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.12
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	micomBinC_e500V2.so	micomBinC_10.00.01
	sepamBinC_e500V2.so	sepamBinC_10.00.05
	<b>soeBinC2_e500V2.so</b>	<b>soeBinC2_10.00.07</b>
	<b>supBinC_e500V2.so</b>	<b>supBinC_10.01.19</b>
	libthm_e500V2.so	thm_06.00.00
	watchdog_e500V2	watchdog_01.00.07
	<b>webApp</b>	<b>webApp_01.00.21</b>
	libwebServer_e500V2.so	webServer_03.03.01
Linux	LnX_19.01.18.13.19.26	
Devices	ST_SER_C0.bin	SM_SER_C0_01.00.08
	ST_DO32T_C0.bin	SM_DO32T_C0_01.00.04
	ST_DI32_C0.bin	SM_DI32_C0_01.00.05
	ST_AI16_C0.bin	SM_AI16_C0_01.00.03


	ST_AI8AO4_C0.hex	SM_AI8AO4_C0_01.00.03
	ST_DO16R_C0.bin	SM_DO16R_C0_01.00.02




coreDb	
	When a file does not exists, parseFile() function should log INFO message.
	Function dbTarg_baselineShowVer modified to add the functions zbgpShowVer and cmonShowVer
	<p>IHMweb support: External point reading and alarm management.</p> <ul style="list-style-type: none"> <li>• <b>External point reading</b> includes the possibility of offering the time stamp together with the information of the points (value and quality) already provided.</li> <li>• <b>Alarm management</b> consists of creating, updating, querying, and resetting a quality bit indicating active and not acknowledged alarm for all status configured for that alarm to be triggered by rising edge, falling edge, or both, and of maintaining a counter of the number of active alarms.</li> </ul>






ewServices	
	Local/Remote filter updated with SAITEL policy
	Removed several warning messages related with SSL

IEC61850 Ed.2	
	OperTm clarifications received from the Editor of IEC61850-7-2 Ed2.
	Solved issue when server supports TimeActivatedOperate but client does not. OperTm encoding
	Downstream setpoint did not work
	LGOS data was not being updated
	Solved problem with TapChg\$valWTr\$posVal coordinate, server side



	Boolean TRUE can be encoded as any 8-bit non-zero value.
	Use GOOSE frame timestamp if 't' not mapped in dataset.
	<p><b><u>Brick Changes</u></b></p> <p>Don't log 'Status Indication received'</p> <p>More logging if addDelayedCallback fails</p> <p>EENName.name Ic_OBJNAME encode</p>

<b>Sequence of Events (SOE2)</b>	
	New fnPut option to return latest event formatted in short mode.

<b>Supervision module</b>	
	Includes a new supervision source point to indicate when HMI puts the system in Local or Remote.
	Includes a new fnPut function to put the system in Local/Remote mode.
	Modifies the under warning limit for the AC Voltage power supply. The new under limit will be 5,2 volts.

<b>webApp</b>	
	Error popup with correct message when writing is not allow on points (mainly related with Local/Remote filter)
	LAQ signals was shown with incorrect values when their order was changed on point tables files (db_status.xml, db_analog.xml, db_command.xml and db_setpoint.xml) or on profiXXX.xml file.
	Diagnostic – TCP view and page controller recovered
	Solved: Browsers (IE and Firefox) compatibility problems in acquisition page
	Solved: Special characters allowed in settings page (when needed).






<b>SM_DO16R_C0</b>	
	The index of an array related with the polarization over the upper range limit was wrong.
	The variables related with the sink was modified from an interrupt and used in the main loop. The read values has been protected disabling the interrupts.


## BaseLine\_11.06.10


BaseLine_11.06.10		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.02
	BLMon	BLMon_01.01.04
	libchan_e500V2.so	chan_03.00.19
	libcoreDb_e500V2.so	coreDb_10.01.08
	CSBrick	CSBrick_02.03.00.05
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	<b>ewServices</b>	<b>ewServices_01.00.13</b>
	formBinC_e500V2.so	formBinC_10.00.13
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.02
	i3mBinC_e500V2.so	i3mBinC_10.00.07
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.02
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.02.13</b>
	libi870_e500V2.so	i870Lib_10.01.03
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	<b>liblaqPfbM_e500V2.so</b>	<b>laqPfbM_04.04.08</b>
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.15
	<b>libmdbm_STD_e500V2.so</b>	<b>mdbm_STD_10.00.12</b>
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	micomBinC_e500V2.so	micomBinC_10.00.01
	sepamBinC_e500V2.so	sepamBinC_10.00.05
	soeBinC2_e500V2.so	soeBinC2_10.00.06
	<b>supBinC_e500V2.so</b>	<b>supBinC_10.01.16</b>
	libthm_e500V2.so	thm_06.00.00
	<b>watchdog_e500V2</b>	<b>watchdog_01.00.07</b>
	webApp	webApp_01.00.20
	libwebServer_e500V2.so	webServer_03.03.01
<b>Linux</b>	<b>LnX_19.01.18.13.19.26</b>	
Devices	ST_SER_C0.bin	SM_SER_C0_01.00.08
	ST_DO32T_C0.bin	SM_DO32T_C0_01.00.04
	ST_DI32_C0.bin	SM_DI32_C0_01.00.05
	ST_AI16_C0.bin	SM_AI16_C0_01.00.03



	ST_AI8AO4_C0.hex	SM_AI8AO4_C0_01.00.03
	ST_DO16R_C0.bin	SM_DO16R_C0_01.00.01


<b>ewServices</b>	
	Solved: Configurations not saved in slot nor PC.










<b>IEC61850 Ed.2</b>	
	Client-side commands, Synchrocheck, Interlock
	Send Status Requests to IEDs is now optional. Reports and GOOSE writes to coreDB with KDM_POLL Add resvTmsCallback for BRCBs.

<b>laqPfbM</b>	
	Solved: The command dpUpgrade <0> <file> used to upload all the same type modules, only updated the first module.

<b>ModBus Master STD</b>	
	The conversion of the double type variable to 32 bits integer, to update a Double Input Register as STATUS in coreDb is included

<b>supBinC</b>	
	Solved: The analog coordinates that are updated in threads do not load the time stamp, and they are dated in 1970.
	Removes control of the hardware Watchdog for SM_CPU866e and HueV2, including conditional compilation by defining the NO_HW_WD symbol. This stops sending ACKs to the watchdog hardware because it leaves this control to the watchdog external software module, and therefore, it also stops checking the existence of an external watchdog software module.

<b>watchdog</b>	
	A new functionality is added to disable the watchdog. If there is more than one max number of reboots (reboot-max-count) in a time interval defined in minutes (reboot-max-interval), then the watchdog will be disabled. These parameters have to be defined in watchdog.conf and be non-zero for this functionality to be enabled.

<b>Linux</b>	
	The “version” command shows the next information:  Linux 3.0.48-rt70 #317 SMP Fri Jan 18 13:19:26 CET 2019
	Rarely, at mount time, some files located on flash can be corrupted. This version solves this flaw.
	The system log files are created on /mnt/bf/log instead of /mnt/nflash/log.
	The script used to deploy a BaseLine release must check its integrity before starting its deployment. In case of fail the release is not deployed and an entry is logged on the sysLog.txt file: “The <Baseline_file> file has not been deployed, data integrity failure”.
	Includes the net-snmp libraries used by the bincontroller snmpmBinC.
	The image generated by the targetImageGen script includes the nvRam content and the system logging files.
	The openssl version 1.0.2j, currently installed in the SM_CPU866e, is affected by CVE-2018-0739 and CVE-2018-0737 vulnerabilities. Both vulnerabilities are solved in openssl 1.0.2p.  This Linux version upgrades the openssl package from 1.0.2j to 1.0.2p.
	The script used to deploy a BaseLine release must exclude the system log files if they are included within the Baseline file.
	This Linux image includes the next Baseline modules:  libsys_01.02.17 sysApplnit_01.02.15 libXML_01.01.00 sysLog_01.00.00

**SM\_DO16R\_C0**












The frequency for the microcontroller peripheral was configured at 21 MHz that makes the serial profibus communication fails. It's been changed to 42 MHz.




## BaseLine\_11.06.09












BaseLine_11.06.09		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.02
	BLMon	BLMon_01.01.04
	libchan_e500V2.so	chan_03.00.19
	<b>libcoreDb_e500V2.so</b>	<b>coreDb_10.01.08</b>
	<b>CSBrick</b>	<b>CSBrick_02.03.00.05</b>
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServices	ewServices_01.00.12
	formBinC_e500V2.so	formBinC_10.00.13
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.02
	i3mBinC_e500V2.so	i3mBinC_10.00.07
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.02
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.02.11</b>
	libi870_e500V2.so	i870Lib_10.01.03
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.07
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.15
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.11
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	micomBinC_e500V2.so	micomBinC_10.00.01
	sepamBinC_e500V2.so	sepamBinC_10.00.05
	soeBinC2_e500V2.so	soeBinC2_10.00.06
	supBinC_e500V2.so	supBinC_10.01.13
	<b>libthm_e500V2.so</b>	<b>thm_06.00.00</b>
	watchdog_e500V2	watchdog_01.00.06
	webApp	webApp_01.00.20
	libwebServer_e500V2.so	webServer_03.03.01
	<b>Linux</b>	<b>LnX_18.10.04.10.55.47</b>
Devices	<b>ST_SER_C0.bin</b>	<b>SM_SER_C0_01.00.08</b>
	<b>ST_DO32T_C0.bin</b>	<b>SM_DO32T_C0_01.00.04</b>
	<b>ST_DI32_C0.bin</b>	<b>SM_DI32_C0_01.00.05</b>
	<b>ST_AI16_C0.bin</b>	<b>SM_AI16_C0_01.00.03</b>


	<b>ST_AI8AO4_C0.hex</b>	<b>SM_AI8AO4_C0_01.00.03</b>
	<b>ST_DO16R_C0.bin</b>	<b>SM_DO16R_C0_01.00.00</b>

<b>coreDb</b>	
	Fixed bug in the activation of the OV_LQF flag of analog points for inverted ranges in conversion to engineering units.
	NVV changes in Tango adapted to Saitel.
	New binControllers showVer functions added.
	New functions to get the destination point or coordinates of a coreDb object that belong to a determined bin controller, used to perform fast actions in laq, claq and iec61850.

<b>CSBrick</b>	
	Compatible with OpenSSL 1.0.2j 26 Sep 2016.
	Built with cs brick 2.3.0
	New users with role ENGINEER only didn't have access to serial port (creating user after updating database with SAT)
	If no ethernet interface is configured CSApp will not start. This is because as the DPWS server included in CS brick does not detect a network interface, it will block the cs brick startup.
	Some ACL warnings are shown. File system permissions are still being set properly





<b>IEC61850</b>	
	Built with i61Brick 3.5.1.0-Ic8503-Plf2769-009
	Vamp comms problems, increase Read/Write timeout and ensure GI Response+ arrives.
	Import the 10_01_57p2 changes made to client side file transfer to support IEDs that report DR files with and without full path.


	Improve operTimeout management
	Ic_ENUM handling
	Acceptance of LDName with length equal to 64
	Client-side handling of EntryID and BufOvfl fixed.
	Check if LD 'SYSTEM' is present in server data model.
	Introduced ability to use any name for the server bin.
	Client-side file transfer, add support for detecting RcdMade events.
	61850 allow user to enable file transfer for each Relay
	Check of DR file size before starting transfer
	Refactor report and goose callbacks to improve efficiency and reduce memory use
	<p><b>Brick Changes</b></p> <p>Implement getIPFromIEDName.</p> <p>Add more logging, error messages for GOOSE subscribe and publish.</p> <p>Compile MMS_mvl lib for CPU866e with define TP0_ENABLED</p> <p>If IPv4=0 don't send Associate Request</p> <p>Ic_ENUM handling</p> <p>Don't filter on AE_Qual, API to set and get Ipv6 interface</p> <p>Modified BRCB callback to provide the application with bufOvfl flag.</p>


<b>THM</b>	
	<p>On Linux platforms, more than two synchronization sources can be configured, as many as the platform supports.</p> <p>For the SM_CPU866e it will be possible to configure up to five synchronization sources: GPS, PROTOCOL, SNTP, IRIG and PTP.</p> <p>In the case of the HUeV2, the sources to be configured will be: GPS, PROTOCOL, SNTP and IRIG.</p> <p>In Linux, the corresponding thm driver must also be compatible with this new functionality. The version of this driver must be v2.0 or greater (Schneider</p>




	Electric - thm driver v2.0).
--	------------------------------

<b>Linux</b>	
	The “version” command shows the next information:  Linux 3.0.48-rt70 #310 SMP Thu Oct 4 10:55:47 CEST 2018
	The thm driver allows to configure more than two synchronization sources, as many as the platform supports.  For the SM_CPU866e it will be possible to configure up to five synchronization sources: GPS, PROTOCOL, SNTP, IRIG and PTP.  The thm driver version showed during Linux start-up is: Schneider Electric - thm driver v2.0.
	Very rarely, during the CPU startup, when the file system is mounted on /mnt/nvRam, an error may occur. This version solves this flaw.
	This Linux image includes the next Baseline modules:  libsys_01.02.14 sysApplnit_01.02.15 libXML_01.01.00 sysLog_01.00.00

<b>SM_SER_C0</b>	
	First inclusion in release

<b>SM_DO32T_C0</b>	
	First inclusion in release

<b>SM_DI32_C0</b>	
	First inclusion in release

**SM\_AI16\_C0**



First inclusion in release

**SM\_AI8AO4\_C0**



First inclusion in release



**SM\_DO16R\_C0**



First inclusion in release


## BaseLine\_11.06.08







BaseLine_11.06.08		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.02
	BLMon	BLMon_01.01.04
	libchan_e500V2.so	chan_03.00.19
	libcoreDb_e500V2.so	coreDb_10.01.06
	CSBrick	CSBrick_02.03.00.04
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServices	ewServices_01.00.12
	formBinC_e500V2.so	formBinC_10.00.13
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.02
	i3mBinC_e500V2.so	i3mBinC_10.00.07
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.02
	i61scBinC_e500V2.so	i61g2BinC_10.01.56
	libi870_e500V2.so	i870Lib_10.01.03
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	<b>liblaqPfbM_e500V2.so</b>	<b>laqPfbM_04.04.07</b>
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.15
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.11
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	micomBinC_e500V2.so	micomBinC_10.00.01
	sepamBinC_e500V2.so	sepamBinC_10.00.05
	soeBinC2_e500V2.so	soeBinC2_10.00.06
	supBinC_e500V2.so	supBinC_10.01.13
	libthm_e500V2.so	thm_05.03.18
	watchdog_e500V2	watchdog_01.00.06
	webApp	webApp_01.00.20
	libwebServer_e500V2.so	webServer_03.03.01
	Linux	LnX_18.07.17.10.42.53


<b>laqPfbM</b>	
	When the DI32 board has an invalid configuration or the received data is invalid the process crashed. Some additional checks have been performed to prevent the process against bad received data.
	With version of SM_DI32_C0 older than 01.00.04 it's possible to have events of not activated DI.




## BaseLine\_11.06.07


BaseLine_11.06.07		
	binary file	Release module
Target	<b>BLApp_e500V2</b>	<b>BLApp_01.01.02</b>
	BLMon	BLMon_01.01.04
	libchan_e500V2.so	chan_03.00.19
	libcoreDb_e500V2.so	coreDb_10.01.06
	<b>CSBrick</b>	<b>CSBrick_02.03.00.04</b>
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServices	ewServices_01.00.12
	<b>formBinC_e500V2.so</b>	<b>formBinC_10.00.13</b>
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	<b>i1mBinC_e500V2.so</b>	<b>i1mBinC_10.01.02</b>
	i3mBinC_e500V2.so	i3mBinC_10.00.07
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	<b>i4mBinC_e500V2.so</b>	<b>i4mBinC_10.01.02</b>
	i61scBinC_e500V2.so	i61g2BinC_10.01.56
	<b>libi870_e500V2.so</b>	<b>i870Lib_10.01.03</b>
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.06
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	<b>mdbeBinC_e500V2.so</b>	<b>mdbeBinC_10.00.15</b>
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.11
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	micomBinC_e500V2.so	micomBinC_10.00.01
	sepamBinC_e500V2.so	sepamBinC_10.00.05
	soeBinC2_e500V2.so	soeBinC2_10.00.06
	supBinC_e500V2.so	supBinC_10.01.13
	<b>libthm_e500V2.so</b>	<b>thm_05.03.18</b>
	watchdog_e500V2	watchdog_01.00.06
	<b>webApp</b>	<b>webApp_01.00.20</b>
	libwebServer_e500V2.so	webServer_03.03.01
	<b>Linux</b>	<b>Lnx_18.07.17.10.42.53</b>




<b>BLApp</b>	
	Solved: wrong information regarding error in libraries in BLStatus



<b>CSBrick</b>	
	Compatible with OpenSSL 1.0.2j 26 Sep 2016.
	Built with cs brick 2.3.0
	Added option -v (or --version) to display the CSApp, CSApi and CS brick versions. Example: #>CSApp -v. If the cs brick is updated, the version string should be updated in the CSApp.c source file.
	File permissions set for /mnt/flash/osc
	If no ethernet interface is configured CSApp will not start. This is because as the DPWS server included in CS brick does not detect a network interface, it will block the cs brick startup.
	Some ACL warnings are shown. File system permissions are still being ser properly


<b>formBinC</b>	
	Solves issue with TEMPO expression when input signal goes several times to a value different to 0 when TEMPO is waiting time to return that value different to 0.


<b>i870Lib</b>	
	Compatible with the following version of openssl library: - openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.
	Scan functionality for IEC-101 master protocol.
	IEC-101 master session activation is checked before open it, depending on scanning state definition.


	In IEC-104, new range (1s..48h) for parameter T3.
---	---





<b>i1mBinC</b>	
	Compatible with the following version of openssl library: - openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.
	Implemented session scan functionality. Two new diagnostics coordinates: DIAG:SCAN (command destination) and DIAG:SCANNING (status source)
	Corrects compatibility checking with i870Lib_10.01.03






<b>i4mBinC</b>	
	Compatible with the following version of openssl library: - openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.
	Compiled with i870Lib_10.01.03 to prevent depending errors with changes in imdrv.h. Compatibility checking values updated.

<b>mdbeBinC</b>	
	Fixed Klocwork software quality issues.




<b>thm</b>	
	When a SNTP synchronization device has been configured, the user can get the status of each of the associated SNTP servers. For this purpose the thmGetSntpServerXstatus() function has been implemented.

<b>webApp</b>	
	Solved: SOE file not shown when soe configuration file has an older format

	Solved: Error message shown when loading system information
	Solved: wrong system information when CPU is NODE B
	Strings fixed
	Solved: If soe configuration file is old (no SOE_BIN tag) then soe logs may not be shown (solution adopted in 01.00.17 didn't solve all cases).



<b>LnX</b>	
	<p>The “version” command shows the next information:</p> <pre>Linux 3.0.48-rt70 #304 SMP Tue Jul 17 10:42:53 CEST 2018</pre>
	<p>A bug has been detected in the BSP firmware that may generate a deadlock of one of the microcontroller cores, causing some processes, network interfaces and even the serial console stop working. It is usually manifested by the appearance of a trace of the type "rcu_sched_state detected stall on CPU". This version solves this issue.</p>
	<p>The system time drift has been improved. In order to achieve this, the RTC clock, with an accuracy of <math>\pm 3.5</math>ppm from <math>-40^{\circ}\text{C}</math> to <math>+85^{\circ}\text{C}</math>, has been used to help correct the system time drift.</p>
	<p>There are published several chip errata for the P1021 microcontroller that can cause a e500 core hang. This version applies the workarounds suggested by NXP.</p> <p>One of this chip errata must be applied to the u-boot firmware, so a new version has been created. The version command issued from the u-boot console shows the next information:</p> <pre>U-Boot 2011.12-00025-gc6d9d50-dirty (Jul 04 2018 - 12:26:11) SM_CPU866e - Schneider Electric</pre>
	<p>The u-boot can be upgraded from the user space, not only by the u-boot itself. To achieve this a new version of the Device Tree Blob file (ulmage-sm_cpu_dct.dtb) has been generated.</p> <p>This feature will be now used by the “BaseLine deployment” procedure to upgrade the u-boot if the image file u-boot.bin is included in the Baseline release file.</p> <p>The u-boot image contained on the Baseline release is not deployed if it is older</p>













	than the current image saved on the CPU
	This version solves CVE-2017-17807 vulnerability, related to The KEYS subsystem in the Linux kernel before 4.14.6.
	The system log files are created on the nflash device instead of non-volatile ram, so the content of these files is maintained after a reboot.
	This Linux image includes the next Baseline modules: libsys_01.02.14 sysAppInit_01.02.15 libXML_01.01.00 sysLog_01.00.00


## BaseLine\_11.06.06









BaseLine_11.06.06		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.01
	BLMon	BLMon_01.01.04
	<b>libchan_e500V2.so</b>	<b>chan_03.00.19</b>
	<b>libcoreDb_e500V2.so</b>	<b>coreDb_10.01.06</b>
	<b>CSBrick</b>	<b>CSBrick_02.03.00.02</b>
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	<b>ewServices</b>	<b>ewServices_01.00.12</b>
	formBinC_e500V2.so	formBinC_10.00.12
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.00
	<b>i3mBinC_e500V2.so</b>	<b>i3mBinC_10.00.07</b>
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.00
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.01.56</b>
	libi870_e500V2.so	i870Lib_10.01.00
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.05
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.06
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.14
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.11
	mdbmBinC_e500V2.so	mdbmBinC_10.00.16
	<b>micomBinC_e500V2.so</b>	<b>micomBinC_10.00.01</b>
	<b>sepamBinC_e500V2.so</b>	<b>sepamBinC_10.00.05</b>
	<b>soeBinC2_e500V2.so</b>	<b>soeBinC2_10.00.06</b>
	<b>supBinC_e500V2.so</b>	<b>supBinC_10.01.13</b>
	libthm_e500V2.so	thm_05.03.16
	<b>watchdog_e500V2</b>	<b>watchdog_01.00.06</b>
	<b>webApp</b>	<b>webApp_01.00.17</b>
	libwebServer_e500V2.so	webServer_03.03.01
	Linux	LnX_18.02.08.12.50.02





<b>chan</b>	
	Harmonize BLMon traces with LF on channel module
	Corrected syslog message when DSR_CONT is invalid




<b>coreDb</b>	
	Blocking COMMANDS allowed only if mode is KDM_SUPER avoiding block propagation from binControllers like formBinC (formulas)



<b>CSBrick</b>	
	Compatible with OpenSSL 1.0.2j 26 Sep 2016.
	Built with cs brick 2.3.0
	CSApp for SM_CPU866e built with cs_brick 2.3.0
	New services to determine if CSApp is started: csApi_isInit (non blocking) and csApi_waitReady (blocking)
	CSApp now linked with thm.
	syslog warning removed
	csLauncher: Restores factory configuration if no configuration is found
	csLauncher: waits for a network interface to be available before launching CSApp
	Some ACL warnings are shown. File system permissions are still being set properly







<b>ewServices</b>	
	61850 log page







	General update from Tango project
	New module: t300CreateFullFirmware. In charge of creating the RTU image
	Service that creates an RTU image. Image is also served to the client
	Maximum number of files check in configuration files enhanced.
	New services for tcp dump capture
	Firmware file creation now includes nvRam
	New service: execute shell command. User with configuration write permission and shell access can execute a shell command.
	Solved: system log not showing when LOG_DIR environment variable is set to something different than "/mnt/nvRam"




<b>i3m</b>	
	Time-tagged message with relative time processes the 'Relative Time' (RET) field.
	Time synchronization command always sends the invalid time bit to zero.
	MICOM ILS-C private ASDUs implementation.
	Fixed bug to write 'extra-information' in type identification 'Time-tagged message with relative time'.


<b>IEC61850</b>	
	61850 Client does not send the configured IntgPd value for Buffered Reports
	After introducing the improvement to check for bad data types mapped in coreDB the controller no longer parsed the EntryIDs correctly
	61850 Ed2 decode analog dataset with daName="mag"










	Solves crash happened on client side command to slow server
	<b>Brick changes</b> Removed some log messages to stop i61.log file filling up. Import some more V3.5 changes.

<b>sepamBinC</b>	
	A frequency equal to zero is allowed for all requests except the check-word request.
	After an out of service, all configured requests are sent.
	Software quality review.
	A maximum length of 32 is allowed for character strings.
	Fixed error when setting the next request to execute.
	Fixed bug when waiting out of service timeout when Check-word request is not defined.

<b>Sequence of Events</b>	
	UTF8 strings support: maximum description size is now 384 (128 x 3) and maximum label size is now 48 (16 x 3)
	Debug messages removed
	If the string “  ” is detected in the point description or in a TAG, then it is replaced for “  “, to avoid event corruption.
	Increased the maximum length of soe bin name to 32 chars.
	Fixed: If file name is 32 chars long, then the file created will truncate the last char.
	Klocwork corrections.


<b>supBinC</b>	
	Solved wrong calculation of CPU usage value
	Solved resending RCAP shared variables if value changes while previous frame ACK is still not received.
	Compilation warnings removed




<b>watchdog</b>	
	If file changes are monitored and the system clock is changed, a system reset can be issued. This version solves this flaw.






<b>webApp</b>	
	IEC 61850 log page.
	Save RTU image button. It downloads an installable tarball containing firmware and configuration
	Synchronization signals in “system information”
	TCP traffic capture page
	Disabled save button in settings page when redundancy is configured
	Added button to delete configuration in different slots
	Strings fixed
	Solved: If soe configuration file is old (no SOE_BIN tag) then soe logs are not shown.
	Solved: coreDbKrunchData error on acquisition page when all AI signals are defined, but not all of them are mapped in database.




## BaseLine\_11.06.05

BaseLine_11.06.05		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.01
	<b>BLMon</b>	<b>BLMon_01.01.04</b>
	libchan_e500V2.so	chan_03.00.18
	<b>libcoreDb_e500V2.so</b>	<b>coreDb_10.01.05</b>
	<b>CSBrick</b>	<b>CSBrick_02.03.00.00</b>
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	<b>ewServices</b>	<b>ewServices_01.00.08</b>
	<b>formBinC_e500V2.so</b>	<b>formBinC_10.00.12</b>
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.00
	i3mBinC_e500V2.so	i3mBinC_10.00.03
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.00
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.01.53</b>
	libi870_e500V2.so	i870Lib_10.01.00
	libidUtl_e500V2.so	idUtlLib_10.01.00
	<b>isg5BinC_e500V2.so</b>	<b>isg5BinC_10.00.05</b>
	laqBinC_e500V2.so	laqBinC_10.00.02
	<b>liblaqPfbM_e500V2.so</b>	<b>laqPfbM_04.04.06</b>
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.14
	<b>libmdbm_STD_e500V2.so</b>	<b>mdbm_STD_10.00.11</b>
	<b>mdbmBinC_e500V2.so</b>	<b>mdbmBinC_10.00.16</b>
	micomBinC_e500V2.so	micomBinC_10.00.00
	<b>sepamBinC_e500V2.so</b>	<b>sepamBinC_10.00.04</b>
	soeBinC2_e500V2.so	soeBinC2_10.00.01
	<b>supBinC_e500V2.so</b>	<b>supBinC_10.01.12</b>
	libthm_e500V2.so	thm_05.03.16
	<b>watchdog_e500V2</b>	<b>watchdog_01.00.05</b>
	<b>webApp</b>	<b>webApp_01.00.12</b>
	libwebServer_e500V2.so	webServer_03.03.01
	<b>Linux</b>	<b>LnX_18.02.08.12.50.02</b>



<b>BLMon</b>	
	When not providing enough arguments to a menu function (accessed by typing, not by hotkey) another function information is displayed (Solved)












<b>coreDb</b>	
	Blocking points allowed only if mode is KDM_SUPER (web service)
	Sanity check in case ONLINE processing HDEP data. (Only possible if both CPUs become ONLINE)
	fnPutS queues names in Linux platforms are different depending on thread name

<b>CSBrick</b>	
	Compatible with OpenSSL 1.0.2j 26 Sep 2016.
	Built with cs brick 2.3.0
	CSApp for SM_CPU866e built with cs_brick 2.3.0
	The superuser (root) is disabled in csLauncher script by setting "nologin" as shell.
	Execution and write permissions for /mnt/flash/sbin and smAutoLoad now limited to root

<b>ewServices</b>	
	Compatible with OpenSSL 1.0.2j 26 Sep 2016 and above
	Can set web directory and port from command line(requested for I+D project 3S-CS): ewServer_[platform] -p [port] -d[directory]
	Solved: error when applying a configuration that contained an ".exi" file.







formBinC	
	Triggered formulas return with the timestamp when the event in the trigger shot it up.
	Empty expressions or only with whitespaces must be checked as error.


IEC61850	
	Compatible with; <b>BaselineM coreDb10</b>
	Correct initialisation of valWTr\$posVal. Correct initialisation of range and rangeAng.
	Correct event handling for valWTr\$posVal, range and rangeAng.
	Check if user decided to map TIMESTAMPS or TEXT STRINGS as values in Status or Analog tables
	Get all nine Report Settings. Make sure PurgeBuffer is sent for Buffered Reports if EntryID is not in analog table.
	Don't use intgPd=30000 if user specifies intgPd=0
	GOOSE wrong value and QF on black start
	Remove commented code
	Improve the way Status Requests are sent out. Improve log messages for clientCommandTermination and clientLastAppError callbacks. Temporary patch for problem with timestamp when client side report dataset maps down to daName, stVal, q, t. Fix Goose decode overwrite when not all points mapped in coreDb. Complete refactoring of client side command management. Remove unused function
	writeCallback() now checks values sboTimeout, operTimeout, ctlModel before allowing the MMS write request to go ahead.
	In my_goingHot, change order, init DE, start server, start client





↻	i61cli_remoteNodeDiag() returns without changing Quality if no RCBs enabled in the Rnode. If there are no RCBs enabled for this RNode then we are not receiving data by Information Reports, could be configured to receive by GOOSE therefore don't write q flags here due to REMOTE_NODE_OFF_LINE, let GOOSE callbacks manage writing to coreDb
↻	i61srv_start() calls i61srvGoEnaAllOn() to turn on all Goose Publishers.
↻	addDelayedCallback() API change V3.4 -> V3.5
↻	I61_MAX_DA_IN_DO change from 128 to 32, remove unnecessary fields from I61SRV_POINT_T struct
↻	Function i61bif_DE_write() deprecated. Function i61scB_event() refactored. Function i61cfg_addSrvPoint() refactored to store DE handles for both Status and Analog points, ready for when coreDb events arrive.
↻	i61cli_proc() reduce sleep between Associate Requests from 100ms to 50ms.
↻	Delete arrays, ms_do_FCs[I61_MAX_DA_IN_DO], ms_do_namesNb, ms_do_read_values[I61_MAX_DA_IN_DO] to reduce memory usage.
↻	Function i61srv_init_DE() overhaul, it never worked properly for Analogs.
↻	For DOns and SBOs commands don't start operateDoneFn timer.
↻	Remove gcov from CPU866e build
↻	Server side management of 2 clients send commands to the same object
↻	KNPC, client not always clearing local NT q flag
↻	Change the way the client sends the Associate Requests to the IEDs. Now it's done every 30 sec in a burst for each IED, ie. If IED is not associated and not waiting for previous association attempt then send a new Associate Request.
↻	GOOSE Interface
↻	Valgrind
↻	RED_ACTIVE_STANDBY only for SM_CPU_DCT


↻	For HU250 always set g_i61cfgDb.redundancy_type = RED_NONE
↻	Fix problem with 'range' and 'rangeAng' decode
↻	Reduce memory usage for HU250, For Direct Operate commands, send Resp before LastApplError. Never send addCause INVALID_POSITION or POSITION_REACHED.
↻	BINC_ST_AN_EVENT_FLAG
↻	SBO stSeld
↻	normal security, no invalid response
↻	DIAG:HEALTH
↻	BRCB.intgPd
↻	Add support for cdc SEQ client side decode
↻	<p><b>Brick Changes</b></p> <p>scl-parserEdTwo.c, Initialise ReportSettings.owner  gensock2.c, Set TCP_USER_TIMEOUT to 30 seconds for calling sockets - Use now for CPU866e also. Had strange problem with Micom relays in AZ project. RTU had a number of sockets open to the Relay, if TCP_USER_TIMEOUT is used then dead sockets should be cleaned up. Suspect Micoms have a bug.</p> <p>client_report.c, Remove some log file messages  server_write.c, comments  scl-parserEdTwo.c, Set DynDataSet.max = 0 and DynDataSet.maxAttributes = 0  gensock2.c, Set TCP_USER_TIMEOUT to 30 seconds for calling sockets</p> <p>struct_alloc.c, In function allocGoCB() change default GOOSE publish, maxTime to 10sec, was 1sec. User can set desired values in SCL if required.</p> <p>goose.c, addPausedDelayedCallback() API change V3.4 -&gt; V3.5  receive.c, addDelayedCallback() API change V3.4 -&gt; V3.5  lcb.c, addDelayedCallback() API change V3.4 -&gt; V3.5  wrapper_common.c, New function ic_get_clock()  report.c, addDelayedCallback(), addPausedDelayedCallback() API change V3.4 -&gt; V3.5  delayed_callback.c, Import from V3.5 Brick and set MAX_LENGTH 2048</p>




	<p>             Ic_DE_SetMultiDataValues(), IC_SetMultiDataValues() new argument added              In BRCBTxMain() reduce sleep time between transmission of buffered reports              from 50ms to 50us.              Ic_DE_URCBSBufTm() and Ic_DE_BRCBSBufTm(), min bufTm = 100ms              In Function np_data_req() print error message if outgoing SPDU queue fills up               mvl_acse.c, ma_get_calling_conn_ctrl() clean up activeCalling List.              allP_Bsd.c, al_select() handle EINTR and EAGAIN              acse2dec.c, u_copp_p_abort_ind() add 10ms delay.              gensock2.c, In sockStartEx() change select timeout to 10sec. sockCtx-              &gt;gs_select_timeout = 10000;              gensock2.c, In sockInitCalling() //sMsSleep (2); /* @SEKAL, comment out */              gensock2.c, In sockSelectResultProcess() comment out second occurrence of              (err == AL_EINTR), already checked in code above.               config.c, Reduce memory usage for HU250.              client_browsing.c, respPack=NULL after free.              client_LNode.c, respPack=NULL after free.              mmswrapper.c, maxDynDS = 0; maxDynDSAttr = 0; Dynamic datasets not              supported.              circular_buffer.c, Reduce memory usage for HU250.              delayed_callback.c, tempCell=NULL after free.               gensock2.c, Import some V3.5 brick code.         </p>
	<p>GOOSE Publish Measures Dataset does not work, See SWTD-IEC61850-Controller.doc.</p>


<b>isg5BinC</b>	
	<p>Calls shutdown process when the goingCold procedure is invoke by coreDb.</p>
	<p>This version solves the isagraf problem in the baseline hot reset. After the reset unexpected behavior occurs because the semaphores and share memories are not properly closed. In this version a new function has been included, isgShutdown, in which all the thread are closed including it share memory and global semaphores.</p>
	<p>This version solves the isagraf problem in the baseline hot reset. After the reset unexpected behavior occurs because the semaphores and share memories are not properly closed. In this version a new function has been included, isgShutdown, in which all the thread are closed including it share memory and</p>




	global semaphores.
	All the platform based in LINUX doesn't support failover.







<b>laqPfbM</b>	
	Solves a problem, the message DDLM_Data_Exchange_con: slave # leaves DATA by bus 1/2 appears with DO boards. The problem was related with a wrong modification to remove compilations warning in the 04.04.04 version.
	Message queue is unlinked before it is created to avoid errors when BLApp is restarted (LINUX).
	The 0-1,25V range for SM_AI16 had an erroneous configuration, it was configured as (-2,5/2,5V).
	The function dpFileVersion crashed when no filename argument was specified.


<b>mdbm_STD</b>	
	A new function has been added to know from the bin controller the online status of a RTU. The current purpose is not to close channels with some RTU online.


<b>mdbmBinC</b>	
	Klocwork warnings resolution
	Fixed a problem when in a channel there are several RTU and the previous is offline, in this situation the channel is closed and after set the request it's reset the indication of the message is ready. In this version, the channel is not closed when there is some online RTU.
	Polling frequency improvement. New requests are sent when they are ready, not waiting the next entry.


<b>sepamBinC</b>	
	Fixed bug when processing on Read Coil and Check-Word response.
















	Use thread-safe functions.
	Warnings removal.
	Fixed bug allocating memory when none points are configured Syslog message set as warning when incompatible link configuration


<b>supBinC</b>	
	With big configuration, slattach won't be killed during BLApp shutdown (supB_goingCold)
	Periodical write to BLAppKeepAlive file. This file modifications are checked by watchdog module to reset the system when no changes are performed in a determined time.  If controller initialization function gets any error, its return is now performed with BC_RETURN_RUN_WITHERROR to modify this keep alive file in case of wrong configuration.
	RCAP serial speed in Linux systems is equal to 115200 bps
	The supB_goindCold function is added for CPU866e, in it the process slattach, created for SLIP control is killed.
	Ethernet interfaces are all present to prevent link initialization errors
	Documentation understanding improvement








<b>thm</b>	
	Daylight saving time for TKR2 GPS hour message is set depending on localtime state and prevents from big date changes (winter to summer date).

<b>watchdog</b>	
	Include support to configure and monitor changes into a file. Two new parameters can be defined in watchdog.conf file are:  file = <filename>, this parameter configures the file to be monitored  change = <mtime>. Set the change interval time, in seconds, for the file.

	If the configured “file” has not changed in “change” seconds, the system will be rebooted.
	If system date is changed to a new one with a difference greater than six minutes, the system will be rebooted.

<b>webApp</b>	
	Solved: Periodic calls to coreDbReadMultData service still being made after leaving system information page.
	Channel and events monitoring pages.
	Local/Remote state included in system information page.
	In calibration pages, no empty coreDbReadMultData calls
	Take into account the *_A and *_B points from supBinC.
	Solved: Point quality tooltip might not show in some browsers.
	General third party libraries update
	AB_AC calibration – new warning message
	Limits for AB_AC calibration: 0 – 20A for current and 0 – 250V for voltage
	Solved: communication diagnostic inverted in CLAQ
	Solved: wrong label in firmware upgrade pop up
	Solved: settings page in IE don't shows always error.
	Solved: cannot set commands nor setpoints in Firefox
	Settings page IEC104: solved error changing link status period value
	Special characters in settings page blocks settings.

<b>webServer</b>	
	Klocwork corrections: solves major memory leaks














<b>Linux</b>	
	The eth1 port, when it is associated to a danp0 device, has poor performance. This version solves this flaw.
	The Linux image contained on the Baseline release is not deployed if it is older than the current image saved on the CPU. This behavior can be changed if the Baseline release file has the text “_KFD.tar.gz”.
	When an SD card is mounted, only the root user has write permissions. This flaw has been solved in this revision. Note that this is only true when the file system is FAT32 or EXT, if the FS is NTFS Linux does not include writing support.
	The script used to deploy a BaseLine release must restore permissions when downgrading to a release without cybersecurity.
	Some SD cards are not mounted properly and the console shows a lot of mmcblk I/O errors.
	This version solves CVE-2017-16939 vulnerability.
	<p>This Linux image includes the next Baseline modules:</p> <pre> libsys_01.02.14 sysAppInit_01.02.14 libXML_01.01.00 sysLog_01.00.00 </pre>










## BaseLine\_11.06.04

BaseLine_11.06.04		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.01
	BLMon	BLMon_01.01.01
	libchan_e500V2.so	chan_03.00.18
	<b>libcoreDb_e500V2.so</b>	<b>coreDb_10.01.03</b>
	CSBrick	cs_brick_2.2.3_n CSApi_02.00.01 CSApp_02.00.05 libpam_secbrick_01.02.00 pam_cslog_01.02.00
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServer_e500V2	ewServer_01.00.03
	libewT300_e500V2.so	ewT300_01.00.03
	formBinC_e500V2.so	formBinC_10.00.10
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.00
	i3mBinC_e500V2.so	i3mBinC_10.00.03
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.00
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.01.40</b>
	libi870_e500V2.so	i870Lib_10.01.00
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.02
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.03
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.14
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.10
	mdbmBinC_e500V2.so	mdbmBinC_10.00.14
	micomBinC_e500V2.so	micomBinC_10.00.00
	sepamBinC_e500V2.so	sepamBinC_10.00.01
	soeBinC2_e500V2.so	soeBinC2_10.00.01
	supBinC_e500V2.so	supBinC_10.01.08
	t300ConfModules	t300ConfModules_01.00.00
	libthm_e500V2.so	thm_05.03.15
	watchdog_e500V2	watchdog_01.00.02
	webApp	webApp_01.00.04
	libwebServer_e500V2.so	webServer_03.03.00

	Linux	LnX_17.06.21.07.11.07
--	-------	-----------------------

IEC61850	
	Compatible with; <b>BaselineM coreDb10</b>
	Compiled for CPU866e-Linux Full Version String: i61scBinC:v10.01.40-3.4.0.0-lc5977-Plf1984-022:Oct 03 2017 12:08:50  Compiled for HU250-Linux Compiled for HUE-Linux Not Compiled for x86-Win32
	Solves MMXU.phsX.cVal magnitudes and angles update when both were mapped in coreDb
	Only send event trace messages to stdout if user enables the feature from the console.
	IEC61850 commands failed unless Mod data object is defined
	Solves IEC61850 Server failed to send command responses and used up lots of memory
	IEC61850 commands with enhanced-security ignore final state and do not timeout
	IEC61850 select-before-operate ignores parameter changes
	IEC61850 Client switch position value in coreDb is 64/128 instead of 1/2 (HU250)
	IEC61850 Client report last entryID save on coreDb to manage quality to avoid receive historical data already processed
	Changes minor than 1 did not trigger reports on IEC61850 server
	Server side commands should use a timer instead of threads to supervise operTimeout and sboTimeout
	Solves IEC61850 select-before-operate-select does not timeout, stSeld not updated.






	<p><b>Brick Changes</b>          Import more V3.5 code.          For Cortex platforms change MAX_BUFFERS from 3072 to 1024          Se_IC          wrapper_common.c : ASN1ToObjectValue          wrapper_common.c : ASN1ToBasicDAValue</p>
	<p>GOOSE Publish Measures Dataset does not work, See SWTD-IEC61850-Controller.doc.</p>

<p><b>coreDb</b></p>	
	<p>Compatible with all existents VxWorks platform builds versions.          Compatible with all existent Linux platforms builds versions.          Compatible with libsys_01.xx.xx.          Compatible with libXML_01.xx.xx.</p>
	<p>On HDEP redundancy and STANDBY RTU, if communication is lost, status and analog quality is set with NT_LQF active.</p>
	<p>Change API flags used with dbContSetStbyFuncs().          BINC_EVENT_FLAG was defined in such a way that was equivalent to (BINC_EVENT_FLAG   BINC_COMMAND_FLAG   BINC_SETPOINT_FLAG).          New flag (BINC_ST_AN_EVENT_FLAG) has been defined to activate only event binController function.          BinControllers not using these new constants (not recompiled) will have the same behavior than before.</p>
	<p>Krunching log texts start with LF to improve readability</p>
	<p>Point description maximum size is up to 128*3 UTF8 characters</p>

## BaseLine\_11.06.03

BaseLine_11.06.03		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.01
	BLMon	BLMon_01.01.01
	libchan_e500V2.so	chan_03.00.18
	libcoreDb_e500V2.so	coreDb_10.01.00
	CSBrick	cs_brick_2.2.3_n CSApi_02.00.01 CSApp_02.00.05 libpam_secbrick_01.02.00 pam_cslog_01.02.00
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServer_e500V2	ewServer_01.00.03
	libewT300_e500V2.so	ewT300_01.00.03
	formBinC_e500V2.so	formBinC_10.00.10
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.00
	i3mBinC_e500V2.so	i3mBinC_10.00.03
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.00
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.01.37</b>
	libi870_e500V2.so	i870Lib_10.01.00
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.02
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.03
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.14
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.10
	mdbmBinC_e500V2.so	mdbmBinC_10.00.14
	micomBinC_e500V2.so	micomBinC_10.00.00
	sepamBinC_e500V2.so	sepamBinC_10.00.01
	soeBinC2_e500V2.so	soeBinC2_10.00.01
	supBinC_e500V2.so	supBinC_10.01.08
	t300ConfModules	t300ConfModules_01.00.00
	libthm_e500V2.so	thm_05.03.15
	watchdog_e500V2	watchdog_01.00.02
	webApp	webApp_01.00.04
	libwebServer_e500V2.so	webServer_03.03.00

	Linux	Lnx_17.06.21.07.11.07
--	-------	-----------------------

<b>IEC61850</b>	
	Compatible with; <b>BaselineM coreDb10</b>
	Compiled for PPCe-Linux Full Version String: i61scBinC:v10.01.37-3.4.0.0-lc5977-Plf1984-019:Jul 25 2017 12:34:54  Compiled for HU250-Linux Compiled for HUE-Linux Not Compiled for x86-Win32
	Fixed Artf209466 – Don't block server side commands if LLN0.ST.Loc is missing from data model.
	Fixed Artf212667 – Server can crash during IED discovery. Don't block server side commands if LN.ST.Mod = 0. (KNPC project)  [Brick]: Fixed problem seen on HUE platform, DE_LOCK and CLIENT_DE_LOCK mutex deadlock by only using DE_LOCK mutex for whole Brick Data Engine.
	Application Changes Changes to i61defs.h For Tango platform, reduce I61SRV_MAX_DMHDR_SIZE to 5000, memory allocation problems. Add more fields to struct I61SRV_POINT_T for refactoring of i61scB_event Changes to i61bif.c and i61cfg.c Refactor i61scB_event to speed up processing of Status events, required for KNPC large gateway project. Changes to i61src.c Init of SPCSO, DPCSO added for KNPC project Add support for client side Setpoints. Fix problem with server side Setpoints.

Brick Changes

Se\_IC

dataengine.h

MAX\_PROC\_QUEUE 1536 /\* was 1024, changed for KNPC project \*/  
report.h

MAX\_BRCBTX\_QUEUE 512 /\* was 256, increased for KNPC project \*/  
acsi\_services.c

object\_value.c

Import some V3.5 Brick changes.

wrapper\_common.c : ASN1ToObjectValue

wrapper\_common.c : ASN1ToBasicDAValue

Endianess nonsense again, changed for Tango platform

scl-parserEdTwo.c

If no datSet ignore the GCB in SCD file, it's useless. For Astra Zeneca UK project.

Se\_Platform

mvl\_defs.h

MVL\_MAX\_GNL\_NAMES 150 /\* was 100 \*/




GOOSE Publish Measures Dataset does not work, See SWTD-IEC61850-Controller.doc.

## BaseLine\_11.06.02

BaseLine_11.06.02		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.01
	BLMon	BLMon_01.01.01
	libchan_e500V2.so	chan_03.00.18
	libcoreDb_e500V2.so	coreDb_10.01.00
	CSBrick	cs_brick_2.2.3_n CSApi_02.00.01 CSApp_02.00.05 libpam_secbrick_01.02.00 pam_cslog_01.02.00 security_brick_02.01.00
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServer_e500V2	ewServer_01.00.03
	libewT300_e500V2.so	ewT300_01.00.03
	formBinC_e500V2.so	formBinC_10.00.10
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.00
	i3mBinC_e500V2.so	i3mBinC_10.00.03
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.00
	i61scBinC_e500V2.so	i61g2BinC_10.01.34
	libi870_e500V2.so	i870Lib_10.01.00
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.02
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.03
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.14
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.10
	mdbmBinC_e500V2.so	mdbmBinC_10.00.14
	micomBinC_e500V2.so	micomBinC_10.00.00
	sepamBinC_e500V2.so	sepamBinC_10.00.01
	soeBinC2_e500V2.so	soeBinC2_10.00.01
	supBinC_e500V2.so	supBinC_10.01.08
	t300ConfModules	t300ConfModules_01.00.00
	libthm_e500V2.so	thm_05.03.15
	watchdog_e500V2	watchdog_01.00.02

	webApp	webApp_01.00.04
	libwebServer_e500V2.so	webServer_03.03.00
	Linux	LnX_17.06.21.07.11.07




	Out of memory when BLApp try to exec a command with int cmdRun ( ).
---	---








## BaseLine\_11.06.01

BaseLine_11.06.01		
	binary file	Release module
Target	BLApp_e500V2	BLApp_01.01.01
	BLMon	BLMon_01.01.01
	libchan_e500V2.so	chan_03.00.18
	libcoreDb_e500V2.so	coreDb_10.01.00
	CSBrick	cs_brick_2.2.3_n CSApi_02.00.01 CSApp_02.00.05 libpam_secbrick_01.02.00 pam_cslog_01.02.00 security_brick_02.01.00
	dnpeBinC_e500V2.so	dnpeBinC_10.01.00
	libdnp_e500V2.so	dnpLib_10.01.03
	dnpmBinC_e500V2.so	dnpmBinC_10.01.00
	ewServer_e500V2	ewServer_01.00.03
	libewT300_e500V2.so	ewT300_01.00.03
	formBinC_e500V2.so	formBinC_10.00.10
	i1eBinC_e500V2.so	i1eBinC_10.01.00
	i1mBinC_e500V2.so	i1mBinC_10.01.00
	i3mBinC_e500V2.so	i3mBinC_10.00.03
	i4eBinC_e500V2.so	i4eBinC_10.01.00
	i4mBinC_e500V2.so	i4mBinC_10.01.00
	i61scBinC_e500V2.so	i61g2BinC_10.01.34
	libi870_e500V2.so	i870Lib_10.01.00
	libidUtl_e500V2.so	idUtlLib_10.01.00
	isg5BinC_e500V2.so	isg5BinC_10.00.02
	laqBinC_e500V2.so	laqBinC_10.00.02
	liblaqPfbM_e500V2.so	laqPfbM_04.04.03
	libmdbe_STD_e500V2.so	mdbe_STD_10.00.09
	mdbeBinC_e500V2.so	mdbeBinC_10.00.14
	libmdbm_STD_e500V2.so	mdbm_STD_10.00.10
	mdbmBinC_e500V2.so	mdbmBinC_10.00.14
	micomBinC_e500V2.so	micomBinC_10.00.00
	sepamBinC_e500V2.so	sepamBinC_10.00.01
	soeBinC2_e500V2.so	soeBinC2_10.00.01
	supBinC_e500V2.so	supBinC_10.01.08
	t300ConfModules	t300ConfModules_01.00.00
	<b>libthm_e500V2.so</b>	<b>thm_05.03.15</b>
	watchdog_e500V2	watchdog_01.00.02

	webApp	webApp_01.00.04
	libwebServer_e500V2.so	webServer_03.03.00
	<b>Linux</b>	<b>LnX_17.06.21.07.11.07</b>

Thm	
	Version strings displayed by 'thmShowVer' command:  libthm: v05.03.15: Jun 15 2017 07:17:10                      Linux SM_CPU866e
	On Linux platforms, the TKR2 GPS send local hour but it is considered as GMT. This version solves this flaw.
	This version solves some issues related to the software quality.














Linux	
	The "version" command shows the next information:  Linux 3.0.48-rt70 #274 SMP Wed Jun 21 07:11:07 CEST 2017
	The root password has been changed.
	The deployment of a Baseline release using a USB device has been improved. Once the release has been deployed, the user is asked to remove the USB device and then the system is rebooted.
	In order to improve the response time of the multiplexer boards (SM_SER), the mux_serial driver polling interval has been trimmed.
	This Linux image includes the next Baseline modules:  libsys_01.02.14 sysAppInit_01.02.13














	libXML_01.01.00 sysLog_01.00.00
--	------------------------------------


## BaseLine\_11.06.00



BaseLine_11.06.00		
	binary file	Release module
Target	<b>BLApp_e500V2</b>	<b>BLApp_01.01.01</b>
	<b>BLMon</b>	<b>BLMon_01.01.01</b>
	<b>libchan_e500V2.so</b>	<b>chan_03.00.18</b>
	<b>libcoreDb_e500V2.so</b>	<b>coreDb_10.01.00</b>
	<b>CSBrick</b>	<b>cs_brick_2.2.3_n</b> <b>CSApi_02.00.01</b> <b>CSApp_02.00.05</b> <b>libpam_secbrick_01.02.00</b> <b>pam_cslog_01.02.00</b> <b>security_brick_02.01.00</b>
	<b>dnpeBinC_e500V2.so</b>	<b>dnpeBinC_10.01.00</b>
	<b>libdnp_e500V2.so</b>	<b>dnpLib_10.01.03</b>
	<b>dnpmBinC_e500V2.so</b>	<b>dnpmBinC_10.01.00</b>
	<b>ewServer_e500V2</b>	<b>ewServer_01.00.03</b>
	<b>libewT300_e500V2.so</b>	<b>ewT300_01.00.03</b>
	<b>formBinC_e500V2.so</b>	<b>formBinC_10.00.10</b>
	<b>i1eBinC_e500V2.so</b>	<b>i1eBinC_10.01.00</b>
	<b>i1mBinC_e500V2.so</b>	<b>i1mBinC_10.01.00</b>
	<b>i3mBinC_e500V2.so</b>	<b>i3mBinC_10.00.03</b>
	<b>i4eBinC_e500V2.so</b>	<b>i4eBinC_10.01.00</b>
	<b>i4mBinC_e500V2.so</b>	<b>i4mBinC_10.01.00</b>
	<b>i61scBinC_e500V2.so</b>	<b>i61g2BinC_10.01.34</b>
	<b>libi870_e500V2.so</b>	<b>i870Lib_10.01.00</b>
	<b>libidUtl_e500V2.so</b>	<b>idUtlLib_10.01.00</b>
	<b>isg5BinC_e500V2.so</b>	<b>isg5BinC_10.00.02</b>
	<b>laqBinC_e500V2.so</b>	<b>laqBinC_10.00.02</b>
	<b>liblaqPfbM_e500V2.so</b>	<b>laqPfbM_04.04.03</b>
	<b>libmdbe_STD_e500V2.so</b>	<b>mdbe_STD_10.00.09</b>
	<b>mdbeBinC_e500V2.so</b>	<b>mdbeBinC_10.00.14</b>
	<b>libmdbm_STD_e500V2.so</b>	<b>mdbm_STD_10.00.10</b>
	<b>mdbmBinC_e500V2.so</b>	<b>mdbmBinC_10.00.14</b>
	<b>micomBinC_e500V2.so</b>	<b>micomBinC_10.00.00</b>
	<b>sepamBinC_e500V2.so</b>	<b>sepamBinC_10.00.01</b>
	<b>soeBinC2_e500V2.so</b>	<b>soeBinC2_10.00.01</b>
	<b>supBinC_e500V2.so</b>	<b>supBinC_10.01.08</b>
	<b>t300ConfModules</b>	<b>t300ConfModules_01.00.00</b>
	<b>libthm_e500V2.so</b>	<b>thm_05.03.14</b>
	<b>watchdog_e500V2</b>	<b>watchdog_01.00.02</b>












	<b>webApp</b>	<b>webApp_01.00.04</b>
	<b>libwebServer_e500V2.so</b>	<b>webServer_03.03.00</b>
	<b>Linux</b>	<b>Lnx_17.04.28.12.22.28</b>




<b>BLApp</b>	
	Version strings showed by 'BLAppShowVer' command:  BLApp_e500V2: v01.01.01 Mar 6 2017 14:59:07 Linux SM_CPU866E
	Use of safer code: input validation.
	Code reorganized
	It is possible to restart the BLApp process by sending SIGTERM signal or by calling BLApp_shutdown
	Baseline state will be saved to file BLStatus
	SIGBUS and SIGILL handling.
	When closing BLApp, does not delete the cyber security queues.
	Queue deletion corrected.
	Requests supervision binController to stop system watchdog ACK when closing BLApp. Please see supBinC release notes.
	General revision: warnings, buffer overflows.
	Solved: Wrong sysLog message when thm driver is not stopped causes BLApp crash.
	Crash solved when capturing SIGCHLD and BLApp was not being closed.
	Closes thm through thmShutdown API.










	Closes isg5 through isg5Shutdown API.
	Relaunch script waits for BLApp's pid to finish before restarting the process
	Starts thm, chan, coreDb and webServer automatically (Starts also twmem_init).
	BLApp reset changed: No longer deletes queues nor file descriptors. Calls coreDbClose instead.
	Signal handling removed.
	Compatible with coreDb 10.00.11 or higher. Older versions don't include "coreDbClose".
	Reboot solved when capturing SIGPIPE. BLApp was being relaunched but a SIGPIPE was generating which closed BLApp, so the watchdog rebooted the remote.
	SAITEL DP: BLApp relaunch enhanced: calls coreDbClose instead of deleting queues and semaphores.
	SAITEL DP: No longer handles signals. This means that in case of crash, no backtrace will be printed in the sysLog file. Instead, a core dump is created.
	Automatically starts coreDbLoad, chlnit, thmlnit, http_main and tmwmem_init. It is no longer necessary to include this calls (and their correspondent modules) as command line parameters
	Klocwork corrections
	Command line parameters: -l for loading libraries -b to launch commands before coreDb and thm launch -a to launch commands after coreDb and thm launch
	Hardening: no "system" calls allowed when executing commands received through the queue.

<b>BLMon</b>	
	Version strings showed by 'BLMonShowVer' command: BLMon v01.01.01: Mar 22 2017 10:48:56 Linux SM_CPU866E BLMon v01.01.01: Mar 22 2017 11:50:23 Linux HU250

	New Saitel SM_CPU866E command: dpVersion
	XML attribute order is no longer important




Chan	
	Compatible with all existents VxWorks platform builds versions. Compatible with all existents Linux platform builds versions. Compatible with libsys_01.02.06 or above. Compatible with libXML_01.xx.xx.
	All projects compiled with relative path.
	When T_FRAME is different from zero, the modem control procedure should be initiated.
	When DTR is enabled, the modem control procedure should be initiated.
	New function to close all channels defined.
	For platforms Linux, the stack size of the threads is set with the value specific.
	Finalize the 'chTcpServer' task before closing all channels.
	Allowed the representation with comma or dot for values with decimals in the XML attributes.
	Use thread-safe functions.
	An XML element attributes are independent of theirs position, can appear in any order.
	For serial channels where the control modem signals are managed by the main CPU, at close channel the pending messages have to be removed. This only can happen on bad configurations where the protocol timeout is shorter than the transmission time.
	For TCP channels over slow networks (PPP/GPRS), and in some platforms, data can be lost if the socket has no buffer enough (non blocking sockets are used). If this happens the connection is broken and a message "chTcpTx: channel .... send err ...." is logged.


	Also to avoid this situation for default 104, DNP configuration over slow networks the buffer size is specified at socket level.
	Change the type of some messages 'ERROR' to 'INFO' or 'WARNING'.
	For Linux platforms, avoid first transmission lost and log message on serial channels that use a transmission task when CLOSE-OPEN-TX at the same time.
	Linux serial channels are flushed before close






<b>coreDb</b>	
	Compatible with all existents VxWorks platform builds versions. Compatible with all existent Linux platforms builds versions. Compatible with libsys_01.xx.xx. Compatible with libXML_01.xx.xx.
	The waiting time of task 'dbNetOut' is increased before delete the queue.
	Fix "fclose" twice on null configuration files.
	Klocwork warnings and dbtarg_strcpy
	On rebooting in Linux systems, exit function is called instead of infinite loop.
	It is not to consider the change of the initial value (0 and Local Not Topical) to a new one (the first update from the source as KDM_POLL) as a change to be notified to the destination. Unless that the destination had already enabled "destEventFlag". (This is done by SCADA protocol destination at the first read from the SCADA)
	When a Linux system must be rebooted, it must use reboot function to perform a faster restarting. Synchronization function is called before to avoid data loss.
	Synchronize the STAND-BY to ONLINE hook functions set.
	The fixed time which a binController waits on its task before looking for received messages, can be configured, firstly, per binController, if not, secondly, for every binController on the system, or, thirdly, with a value by default.













<b>CSBrick</b>	
	First Edition.




<b>dnpe</b>	
	<p>Compatible with all existents VxWorks platform builds versions.</p> <p>Compatible with libWinSys for Windows platform.</p> <p>Compatible with the following Linux platform builds version for CPU866e:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.</p> <p>Compatible with libsys_01.xx.xx.</p> <p>Compatible with libXML_01.xx.xx.</p> <p>Compatible with coreDb_10.xx.xx.</p> <p>Compatible with dnpLib_10.01.00.</p> <p>Compatible with libidUtilLib_10.01.00.</p> <p>Compatible with thm_05.xx.xx.</p>
	<p>Updated to the version 3.20.00 of TMW library with SAV5 and SAV2.</p> <ul style="list-style-type: none"> <li>- New function to open the sessions in the library dnp.</li> <li>- For SAV5, support for new object type OB121.</li> <li>- If the event timestamp is null, sets the event timestamp with the current time.</li> </ul>
	Software quality review.


<b>dnpLib</b>	
	<p>Compatible with all existent VxWorks platforms builds versions.</p> <p>Compatible with libWinSys for Windows platform.</p> <p>Compatible with the following Linux platform builds version for CPU866e or above:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.</p>


	<p>Compatible with libsys_01.xx.xx.</p> <p>Compatible with libXML_01.xx.xx.</p> <p>Compatible with coreDb_10.xx.xx.</p> <p>Compatible with libidUtilLib_10.01.00.</p> <p>Compatible with thm_05.xx.xx.</p> <p>Compatible with CSApi_02.00.01.</p>
	<p>Compatible with the following versions of openssl library:</p> <ul style="list-style-type: none"> <li>- openssl 0.9.8za 5 Jun 2014 for VxWorks HU_A.</li> <li>- openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.</li> <li>- openssl 1.0.2h 3 May 2016 for Linux HU250.</li> </ul> <p>openssl 1.0.2h 3 May 2016 for Windows.</p>
	<p>Updated to the version 3.20.00 of TMW library with SAV5 and SAV2.</p> <ul style="list-style-type: none"> <li>- New elements and attributes in the DNP configuration files to SAV5 and SAV2.</li> <li>- New object types for SAV5: OB121 (master and slave), DIAG_OB121 (master).</li> <li>- For DNP slave, new attribute US_CNF_TIMEOUT for unsolicited responses.</li> <li>- For DNP slave, new function to open the sessions.</li> <li>- For DNP slave, fixed bug to set group static for OB10.</li> <li>- For DNP slave, changed IVT_RQF by IVT_LQF.</li> <li>- For DNP slave, the objects OB40, OB41 and OB121 sets always the quality bits of DNP to ONLINE.</li> <li>- For DNP slave, changed the element name of configuration file associated to transfer file. This element indicates the absolute path the file to transfer or receive.</li> <li>- For DNP master, new mode to calculate the value of points DIAG:INTENTOS_TX and DIAG:FALLOS_TX. Fixed bug to associated to these points.</li> <li>- For DNP master, the element of configuration file associated to transfer file indicates the directory of the file to transfer or receive.</li> </ul>
	<p>An XML element attributes are independent of theirs position, can appear in any order.</p>
	<p>Fixed bug when two or more DNP slaves have associated the same direction on the same channel.</p>
	<p>Use thread-safe functions.</p>





	Allow unknown element at dnpm_cont.xml to enable future extension in backward compatibility mode.
	Software quality review.
	Fixed bug to set the points timestamp when the master session goes to offline.
	Changed the messages related with secure authentication that are written in the logging file.
	The DNP slave doesn't use the attribute REKEY_DUE_RESTART, so this attribute is not parsed.
	Fixed bug to write the diagnostic points DIAG:INTENTOS_TX and DIAG:FALLOS_TX.
	In CPU866e, the messages related with secure authentication are written in the cybersecurity log.
	Changed the severity from critical to error.










<b>dnpm</b>	
	<p>Compatible with all existents VxWorks platform builds versions.</p> <p>Compatible with libWinSys for Windows platform.</p> <p>Compatible with the following Linux platform builds version for CPU866e:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.</p> <p>Compatible with libsys_01.xx.xx.</p> <p>Compatible with libXML_01.xx.xx.</p> <p>Compatible with coreDb_10.xx.xx.</p> <p>Compatible with dnpLib_10.01.00.</p> <p>Compatible with libidUtilLib_10.01.00.</p> <p>Compatible with thm_05.xx.xx.</p>
	<p>Compatible with the following versions of openSSL library:</p> <ul style="list-style-type: none"> <li>- openSSL 0.9.8za 5 Jun 2014 for VxWorks HU_A.</li> <li>- openSSL 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.</li> <li>- openSSL 1.0.2h 3 May 2016 for Linux HU250.</li> <li>- openSSL 1.0.2h 3 May 2016 for Windows.</li> </ul>


	Updated to the version 3.20.00 of TMW library with SAV5 and SAV2. - For SAV5, support for new objects types: OB121, DIAG_OB121.
	Removed out-of-service filter command for broadcast addresses.
	Software quality review.







<b>ewServer</b>	
	First Edition.



<b>ewT300</b>	
	First Edition.





<b>form</b>	
	HU250, HU_A (VxWorks), CPU 866 and CPU 866e supported. Compatible with all existent Linux platforms builds versions. Compatible with all existent VxWorks platforms builds versions. Compatible with coreDb_10.00.01 and above Compatible with libsys_01.xx.xx. Compatible with coreDb_10.xx.xx.
	Changed writing modes usage. KDM_POLL is used if is the first entry or the source coordinate belongs to a setpoint or analog point. KDM_EVENT is used when an expression is triggered or the source coordinate belongs to a command or status point, and it is not the first entry.
	Solved AND/OR functions bug, related with result of quality flag when an input has it as invalid and its value is 0/1, respectively.
	IF expression with two parameters, is checked now with bison-flex parser.







	Triggers in status or analog are not shot up at each event. It depends on event quality flags and previous event values.
	Invalid time flags (IVT) are not taken into account to compare two quality flags.
	Changed writing modes usage. KDM_POLL is used to write results from periodic expressions (not triggered). KDM_EVENT is used when a triggered expression is calculated, so the trigger condition is accomplished.
	IF expression timestamp is equal to last result change time.
	IF expression with two parameters does not have to write on first entry mandatorily.
	IVT_LQF must be only activated if this binController sets a coreDb point timestamp and it is not synchronized.
	Pointers to invalid destination coordinates are checked correctly to avoid system reboots.
	CYCLE PERIOD must be in the range [1, 10000] milliseconds and non-triggered expression are calculated depending on this time. By default it is 1.
	Corrected returned value with OR expression and NAN input value without any other input with a value different to 0.



<b>i1e</b>	
	<p>Compatible with all existent VxWorks platforms builds versions.</p> <p>Compatible with libWinSys for Windows platform.</p> <p>Compatible with the following Linux platform builds version for CPU866e:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.</p> <p>Compatible with libsys_01.xx.xx.</p> <p>Compatible with libXML_01.xx.xx.</p> <p>Compatible with coreDb_10.xx.xx.</p> <p>Compatible with libi870Lib_10.01.00.</p> <p>Compatible with libidUtilib_10.01.00.</p> <p>Compatible with thm_05.xx.xx.</p>








	<p>Compatible with the following versions of openssl library:</p> <ul style="list-style-type: none"> <li>- openssl 0.9.8za 5 Jun 2014 for VxWorks HU_A.</li> <li>- openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.</li> <li>- openssl 1.0.2h 3 May 2016 for Linux HU250.</li> <li>- openssl 1.0.2h 3 May 2016 for Windows.</li> </ul>
	<p>Support for M_EP_TB_1, M_EP_TC_1, M_EP_TE_1, M_EP_TF_1 ASDUs.</p>
	<p>Support to associate an ASDU in monitor direction with a ASDU in control direction.</p>
	<p>Fixed bug to treat the events of the ASDUs MEPB and MEPC.</p>
	<p>Updated to the version 03.20.00 of TMW library.</p> <ul style="list-style-type: none"> <li>- Fixed bug to get the sequence number of counters.</li> </ul>
	<p>Software quality review.</p>

<p><b>i1m</b></p>	
	<p>Compatible with all existent VxWorks platforms builds versions.  Compatible with libWinSys for Windows platform.  Compatible with the following Linux platform builds version for CPU866e:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.  Compatible with libsys_01.xx.xx.  Compatible with libXML_01.xx.xx.  Compatible with coreDb_10.xx.xx.  Compatible with libi870Lib_10.01.00.  Compatible with libidUtilLib_10.01.00.  Compatible with thm_05.xx.xx.</p>
	<p>Compatible with the following versions of openssl library:</p> <ul style="list-style-type: none"> <li>- openssl 0.9.8za 5 Jun 2014 for VxWorks HU_A.</li> <li>- openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.</li> <li>- openssl 1.0.2h 3 May 2016 for Linux HU250.</li> <li>- openssl 1.0.2h 3 May 2016 for Windows.</li> </ul>












	Changed error messages in 'fnPut' function.
	Updated to the version 03.20.00 of TMW library.
	Software quality review.
	Changed the name of variables pg_time and g_ivTimeOn.



















<b>i4e</b>	
	<p>Compatible with all existent VxWorks platforms builds versions.</p> <p>Compatible with libWinSys for Windows platform.</p> <p>Compatible with the following Linux platform builds version for CPU866e:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.</p> <p>Compatible with libsys_01.xx.xx.</p> <p>Compatible with libXML_01.xx.xx.</p> <p>Compatible with coreDb_10.xx.xx.</p> <p>Compatible with libi870Lib_10.01.00.</p> <p>Compatible with libidUtilLib_10.01.00.</p> <p>Compatible with thm_05.xx.xx.</p>
	<p>Compatible with the following versions of openssl library:</p> <ul style="list-style-type: none"> <li>- openssl 0.9.8za 5 Jun 2014 for VxWorks HU_A.</li> <li>- openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.</li> <li>- openssl 1.0.2h 3 May 2016 for Linux HU250.</li> <li>- openssl 1.0.2h 3 May 2016 for Windows.</li> </ul>
	New configuration parameter to store or discard the events.
	Support for M_EP_TE_1, M_EP_TF_1 ASDUs.
	Support to associate an ASDU in monitor direction with a ASDU in control direction.
	Fixed bug to treat the events of the ASDUs MEPB and MEPC.


	Updated to the version 03.20.00 of TMW library. - Fixed bug to get the sequence number of counters.
	Software quality review.



<b>i4m</b>	
	Compatible with all existent VxWorks platforms builds versions. Compatible with libWinSys for Windows platform. Compatible with the following Linux platform builds version for CPU866e: - Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016 Compatible with all existents Linux platform builds versions for HU250. Compatible with libsys_01.xx.xx. Compatible with libXML_01.xx.xx. Compatible with coreDb_10.xx.xx. Compatible with libi870Lib_10.01.00. Compatible with libidUtilLib_10.01.00. Compatible with thm_05.xx.xx.
	Compatible with the following versions of openSSL library: - openSSL 0.9.8za 5 Jun 2014 for VxWorks HU_A. - openSSL 1.0.2j 26 Sep 2016 for Linux SM_CPU866e. - openSSL 1.0.2h 3 May 2016 for Linux HU250. - openSSL 1.0.2h 3 May 2016 for Windows.
	Support for commands with time tag.
	Changed error messages in 'fnPut' function.
	Updated to the version 03.20.00 of TMW library.
	Software quality review.
	Changed the name of variables pg_time and g_ivTimeOn.







<b>i870Lib</b>	
	<p>Compatible with all existent VxWorks platforms builds versions.</p> <p>Compatible with libWinSys for Windows platform.</p> <p>Compatible with the following Linux platform builds version for CPU866e:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.</p> <p>Compatible with libsys_01.xx.xx.</p> <p>Compatible with libXML_01.xx.xx.</p> <p>Compatible with coreDb_10.xx.xx.</p> <p>Compatible with libidUtilLib_10.01.00.</p> <p>Compatible with thm_05.xx.xx.</p>
	<p>Compatible with the following versions of openssl library:</p> <ul style="list-style-type: none"> <li>- openssl 0.9.8za 5 Jun 2014 for VxWorks HU_A.</li> <li>- openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.</li> <li>- openssl 1.0.2h 3 May 2016 for Linux HU250.</li> <li>- openssl 1.0.2h 3 May 2016 for Windows.</li> </ul>
	Fixed bug when any queue overflows and the data sends by background scan when the session is online.
	New configuration parameter to store or discard the events in IEC-104 slave.
	Support for M_EP_TB_1, M_EP_TC_1, M_EP_TE_1, M_EP_TF_1 ASDUs in IEC-101.
	Support for M_EP_TE_1, M_EP_TF_1 ASDUs in IEC-104.
	Support for commands with time tag in IEC-104.
	Fixed bugs in file transfer.
	Implementation IEC 62351-5 Ed. 2 and IEC 60870-5-7.
	Fixed bug when performing a command whose coordinate has the 'BLQi' field and the point 'DIAG:BLQi' is undefined.
	Support to associate an ASDU in monitor direction with a ASDU in control direction in IEC slaves.





	Blocking of ASDUs CSC and CDC to sector level in IEC slaves.
	New parameter of configuration to set the mode of storing the events in IEC slaves.
	New element of configuration for ASDUs MEPB and MEPC to maintain the compatibility with previous versions.
	Sends the negative activation termination when the timeout of a monitored command ending is expired.
	All projects compiled with relative path.
	Fixed bug to store the ASDUs MEPB and MEPC.
	Fixed bug to get the local/remote status from coreDb.
	Fixed bug to go on service the master IEC104.
	If the activation termination is disabled in the configuration, it is not enabled even if there are monitored points.
	Fixed bug to send the event formed for two simple points.
	The masters only send a General Interrogation before entering on service.
	Fixed bug to show the error message when a command point is associated to an undefined point.
	Fixed bug when the period of General Interrogation is zero. If the period of Counter Interrogation is zero, a Counter Interrogation is sent after entering on service if there is some type of point MIT configured in the database.
	An XML element attributes are independent of theirs position, can appear in any order.
	Use thread-safe functions.
	Fixed bug when two or more IEC slaves have associated the same sector direction on the same channel.
	Changed the name of variables pg_time and g_ivTimeOn.
	Software quality review.





	<p>Updated to the version 03.20.00 of TMW library.</p> <ul style="list-style-type: none"> <li>- Deleted the DS0001371, DS0003051, DS0003155 code, the TMW library implements it.</li> <li>- Test command with time tag CP56Time2a checks the command age.</li> <li>- Deleted the following functionality: rejection of the General Interrogation, synchronization and counters interrogation, if there is a command in execution, sending cyclic of RTC, General interrogation with different originator address.</li> <li>- Timer of cyclic and background scan sending is reloaded when the first frame is sent.</li> <li>- New optional parameter (USE_OF_DAY_WEEK) of configuration for the element 'SECTOR'.</li> <li>- For IEC slave, fixed bug to get the sequence number of counters.</li> <li>- For IEC slave, changed the quality bit IVT_RQF by IVT_LQF.</li> <li>- For IEC slave, deleted unused functions.</li> <li>- For IEC slave, deleted unused attributes of element 'SEC_EXTRA_INFO'.</li> <li>- For IEC-101 slave, checks maximum size of a ASDU.</li> </ul>
---	--

<b>idUtilLib</b>	
	<p>Compatible with all existents VxWorks platform builds versions.</p> <p>Compatible with all libWinSys for Windows platform.</p> <p>Compatible with the following Linux platform builds version for CPU866e:</p> <ul style="list-style-type: none"> <li>- Linux 3.0.48-rt70 #270 SMP Wed Dec 21 08:03:48 CET 2016</li> </ul> <p>Compatible with all existents Linux platform builds versions for HU250.</p> <p>Compatible with libsys_01.xx.xx.</p> <p>Compatible with coreDb_10.xx.xx.</p> <p>Compatible with chan_03.xx.xx.</p> <p>Compatible with thm_05.xx.xx.</p>
	<p>Compatible with the following versions of openssl library:</p> <ul style="list-style-type: none"> <li>- openssl 0.9.8za 5 Jun 2014 for VxWorks HU_A.</li> <li>- openssl 1.0.2j 26 Sep 2016 for Linux SM_CPU866e.</li> <li>- openssl 1.0.2h 3 May 2016 for Linux HU250.</li> <li>- openssl 1.0.2h 3 May 2016 for Windows.</li> </ul>




	All projects compiled with relative path except for VxWorks HU_A.
	Conversion of timestamp without the summer bit.
	Updated to the version 3.20.00 of TMW library with cryptography.
	<p>Support for the generation of diagnostic information of TMW library.</p> <p>There are two new functions related with the diagnostic information of the TMW library:</p> <ul style="list-style-type: none"> <li>- tmwtarg_enableDiag 'flag': Enable (when flag value is '1') or disable (when flag value is '0') the diagnostic messages. By default, the diagnostic messages are disabled.</li> <li>- tmwtarg_setLevelDiag 'value': Set the type of diagnostic messages to display. By default, the type of diagnostic messages to display is TMWDIAG_ID_SECURITY_DATA and TMWDIAG_ID_SECURITY_HDRS. The allowed values are a sum of the following: <ul style="list-style-type: none"> <li>- 0x00000001 (1): Displays messages related to the physical layer.</li> <li>- 0x00000002 (2): Displays messages related to the link layer.</li> <li>- 0x00000004 (4): Displays messages related to the transport layer.</li> <li>- 0x00000008 (8): Displays messages related to the application layer.</li> <li>- 0x00000010 (16): Displays messages related to the user level.</li> <li>- 0x00000080 (128): Displays messages related to the static data.</li> <li>- 0x00000100 (256): Displays messages related to the head of static data.</li> <li>- 0x00000200 (512): Displays messages related to the event data.</li> <li>- 0x00000400 (1024): Displays messages related to the head of event data.</li> <li>- 0x00000800 (2048): Displays messages related to the cyclic data.</li> <li>- 0x00001000 (4096): Displays messages related to the head of cyclic data.</li> <li>- 0x00002000 (8192): Displays messages related to the security data.</li> <li>- 0x00004000 (16284): Displays messages related to the head of security data.</li> <li>- 0x00008000 (32768): Displays the transmitted messages.</li> <li>- 0x00010000 (65536): Displays the received messages.</li> <li>- 0x00020000 (131072): Displays the messages timestamp.</li> <li>- 0x00040000 (262144): Displays the error messages.</li> <li>- 0x00080000 (524288): Displays the target messages.</li> </ul> </li> </ul>


	Software quality review.
---	--------------------------



<b>mdbe_STD</b>	
	Compatible with all existent VxWorks platforms builds versions. Compatible with libWinSys for Windows platform. Compatible with all existent Linux platforms builds versions. Compatible with libsys_01.xx.xx. Compatible with libXML_01.xx.xx. Compatible with coreDb_10.xx.xx. Compatible with thm_05.xx.xx. Compatible with mdbeBinC_10.00.10 or above.
	Local/remote support for Function Code 05, 06, 15, 16.
	MDBE_COM_ENABLED coordinate checked as valid for this profile, in case of mapped.
	Fixed software quality issues.



<b>mdbe</b>	
	Compatible with all existent VxWorks platforms builds versions. Compatible with all existent Linux platforms builds versions. Compatible with libsys_01.xx.xx. Compatible with libXML_01.xx.xx. Compatible with coreDb_10.xx.xx. Compatible with chan_03.xx.xx.
	New optional destination coordinate (MDBE_COM_ENABLED) for stop answering requests from master, depending on its value.
	Changed syslog message type from warning to info when a bin has not mapped MDBE_COM_STATUS.
	Fixed software quality issues.

<b>soe2</b>	
	First Edition.


<b>sup</b>	
	Compatible with coreDb_10.00.01 and above Compatible with libsys.1.1.1.so and above Compatible with libXML.1.X.X.so
	Solved: RED_IT_FAIL is always set to 1 (indicating FAIL)
	IVT_LQF timestamp flag is managed




<b>t300ConfModules</b>	
	First Edition.










<b>thm</b>	
	If the thmConf.xml file has no synchronization devices configured, the message logged on syslog.txt ("xcfgReadThmParams: there are no synchronization devices configured ") must be of type INFO instead of WARNING.
	Currently, if a PTP master, using the UDP network transport, sends a value other than zero in the transportSpecific field of a PTP frame, the message is rejected by the PTP slave. In order to correct this behavior this field must be ignored.

	This version solves some issues related to the software quality.
	On Linux platforms the ERROR “initThm: unable to open /thmMutex semaphore” can appear. This version solves this flaw.

<b>watchdog</b>	
	First Edition.

<b>webServer</b>	
	Works now as internal web server: listens only locally and SSL removed. (SAITEL DP 866E feature)

<b>Linux</b>	
	<p>This Linux image includes the next Baseline modules:</p> <ul style="list-style-type: none"> <li>libsys_01.02.14</li> <li>sysApplnit_01.02.12</li> <li>libXML_01.01.00</li> <li>sysLog_01.00.00</li> </ul>
	<p>The openssh-5.9p1 currently installed in the SM_CPU866e contain several security vulnerabilities. These vulnerabilities are solved in openssh-7.3p1. This Linux version upgrades the openssh package from 5-9p1 to 7.3p1.</p>
	<p>The openSSL version 1.0.1h currently installed in the SM_CPU866e contain several security vulnerabilities. These vulnerabilities are solved in openSSL 1.0.2j. This Linux version upgrades the openssl package from 1.0.1h to 1.0.2j.</p>

	<p>The thm device driver must include support for the ioctl THM_IOC_STOP, this way the /dev/thm device can be reconfigured and started again.</p>
	<p>The Linux kernel has a vulnerability named dirty cow (CVE-2016-5195). A race condition was found in the way the Linux kernel's memory subsystem handled the copy-on-write (COW) breakage of private read-only memory mappings. An unprivileged local user could use this flaw to gain write access to otherwise read-only memory mappings and thus increase their privileges on the system.</p> <p>This bug has been solved in this Linux version.</p>
	<p>Currently, the root file system, mounted in volatile ram, does not support ACL (Access Control List).</p> <p>This version includes ACL support for the rootfs.</p>
	<p>The SPI clock frequency for the ST_CPU_DCT_DIS board must be decreased. Currently, this frequency is 10MHz and it has been determined that in some cases this frequency is excessive and the ST_CPU_DCT_DIS board is not accessed properly.</p> <p>This Linux version reduces the frequency to 1.5MHz.</p>
	<p>This version includes support for a DHCP server.</p>
	<p>The flash devices mount point:/mnt/bf, /mnt/flash/ and /mnt/nflash must have write permissions for all users the first time they are mounted. Currently, the assigned permissions are 0755 (drwxr-xr-x).</p>
	<p>The script used to deploy a Baseline release has been improved. It includes support for the CS brick and it is also able to run a custom script installed within the release by the user and named imageDeploy.sh.</p>
	<p>Sometimes, after a reboot, the indication 'Empty flash at 0x&lt;address&gt;' appears a lot of times. This version solves this flaw.</p>
	<p>When a SM_SER serial channel is configured, the board takes a time before it can reply to the multiplexer driver and during this time the other serial channels do not communicate. To avoid this undesired behavior, the serial channel will only be configured if the assigned values change.</p>



