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IR Propulsion Set

Software Package Release Notes



WAP7



WAP5



WAG9/WAG9H

Table of Contents

1 Introduction..... 4

1.1 Abstract 4

1.2 Abbreviations and Definitions 4

2 Software Package Delivery..... 5

3 Installation..... 6

3.1 Tools 6

3.2 Installation instruction 6

4 Changes: 12

4.1 Software Package 1.4.1.0 Release: 12

4.1.1 New or enhanced functions 12

4.1.2 Adaptations and corrected errors 12

4.1.3 Known problems 12

5 History of Changes..... 13

5.1 Software Package 1.4.0.9 Release (423W02AT) 13

5.1.1 New or enhanced functions 13

5.1.2 Adaptations and corrected errors 13

5.1.3 Known problems 13

5.2 Software Package Release 1.4.0.8 (423W01AT) 14

5.2.1 New or enhanced functions 14

5.2.2 Adaptations and corrected errors 14

5.2.3 Known problems 14

5.3 Software Package Release 1.4.0.7 (422W02AT) 14

5.3.1 New or enhanced functions 14

5.3.2 Adaptations and corrected errors 15

5.3.3 Known problems 15

5.4 Software Package Release 1.4.0.5 (422W01AT): 15

5.4.1 New or enhanced functions 15

5.4.2 Adaptations and corrected errors 16

5.4.3 Known problems 16

5.5 Software Package Release 1.4.0.4 (421W01BT): 16

5.5.1 New or enhanced functions 16

5.5.2 Adaptations and corrected errors 17

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 3/24	3EYP600299-2089
---	---	-----------------	-----------------	---------------------	-----------------

5.5.3	Known problems	17
5.6	Software Package Release 1.3.9.8 (420W02BT)	17
5.6.1	New or enhanced functions	17
5.6.2	Adaptations and corrected errors	17
5.6.3	Known problems	18
5.7	Software Package Release 1.3.9.6 (420W01BT)	19
5.7.1	New or enhanced functions	19
5.7.2	Adaptations and corrected errors	19
5.7.3	Known problems	19
6	Dependencies	20
6.1	Compatibility to earlier software releases	20
6.2	Hardware dependencies	20
7	High Level Summary of Software Versions	21
8	Version information for Software_Package_Baseline	22
8.1	Vehicle Control software	22
8.2	Converter Control software	22
8.3	HMI Software	23
8.4	BUR Software	23
9	Revision History	24

Table of Tables

Table 1: Abbreviations and Definitions	4
Table 2: Details of Software_Package_Baseline_1.4.1.0 (423W03AT) Delivery	5
Table 3: IR / RDSO / CLW Staff Tool list	6
Table 4: Software Versions	21
Table 5: CCUO1 Base Software Package	22
Table 6: CCUO2 Base Software Package	22
Table 7: TCNGW Base Software package	22
Table 8: CON Control Device IP Addresses	22
Table 9: CON processors application versions	23
Table 10: HMI Application Version	23
Table 11: BUR-Diagnostics processors software Version	23
Table 12: BUR- CCU/LVPS Control Unit processors software Version	23

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 4/24	3EYP600299-2089
---	---	-----------------	-----------------	---------------------	-----------------

1 INTRODUCTION

1.1 Abstract

This document contains the release notes information for all software delivered by Alstom for Propulsion Systems installed in WAG9/9H, WAP5, WAP7 locomotives with or without Hotel Load Converter Locomotives. Describes version information of Software binary part of released versions. Presently released software package version **1.4.1.0 (423W03AT)**.

1.2 Abbreviations and Definitions

Abbreviation	Description
BL	Bootloader
BUR	Auxiliary Converter
Cfg	Configuration
CCUO	Central Computing Unit – Operation Section
CLW	Chittaranjan Locomotive Works
DCU	Drive control unit
FW	Firmware
IR	Indian Railways
MAPP	Address plug programming tool for TCMS & converter control equipment
MCE	Micas-S2 Control Electronics, retained control equipment for the IR GP140 locomotive
MOBAD	Mode – Battery – Address Unit
MTVD	Download and version control tool for TCMS & converter control equipment
OS	Operating system
RDSO	Research Designs & Standard Organization
TCMS	Train Control and Management System
VCA	Vehicle Control Application
VCU	Vehicle control unit

Table 1: Abbreviations and Definitions

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 5/24	3EYP600299-2089
---	---	-----------------	-----------------	---------------------	-----------------

2 SOFTWARE PACKAGE DELIVERY

The software release is delivered as a package (Software Package baseline 1.4.1.0) file for all loco types.

The Package includes in the folders the following files:

Folder	Filenames	Description
Software_Package_Baseline_1.4.1.0 /CCUO_TCNGW	IRPRPSET_TCMS_6.0.0.12.mcp	Download container for CCUO1, CCUO2 and TCNGW MTVD OS + BL Cfg + Base Software.
Software_Package_Baseline_1.4.1.0 /CCON	IR_PRPSET_CCON_1.0.5.4.mcp	Download container for Converter Control Application MTVD. Including application software +OS + BL Cfg
Software_Package_Baseline_1.4.1.0 /HIRECT_AUX	HIRECT_Aux_Software Package-1.0.4.5.7z	Contains binary files of rectifier, inverter and Controllers inside BUR Unit.
Software_Package_Baseline_1.4.1.0 /HMI 4G	new_sw_4G_2_7_1_14_kernel3.13.tar.gz new_sw_4G_2_7_1_14_Kernel3_8.tar.gz	HMI application for HMI4G.
Software_Package_Baseline_1.4.1.0 /HMI 3G	new_sw_3G_1_7_1_14.tar.gz	HMI application for HMI3G.
Software_Package_Baseline_1.4.1.0 /Tooling/S19_Files	VCU1.S19 VCU2.S19 TCN_GW_C_1.S19	Configuration files for CCUO1: MOBAD Configuration files for CCUO2: MOBAD Configuration files for TCN_GW_C: MOBAD Note: These files are only required in case of replacement of defective controller devices. Please ask Alstom maintenance staff for details.
Software_Package_Baseline_1.4.1.0 /Tooling/OTI_Files	4 files in sub folder OTI_Files	Event & Condition data description files for TDS Uploader & Mavis
Software_Package_Baseline_1.4.1.0 /AT_PrpNet_TDSUploader_Settings	TDS uploader settings to upload diagnostics data	TDS Uploader setting file
Documentation	3EYP600299-2089__Fen_IR_PRPset_Software Package Release Notes.docx	Release notes of this software release (this document)

Table 2: Details of Software_Package_Baseline_1.4.1.0 (423W03AT) Delivery

3 INSTALLATION

3.1 Tools

To install this software release the following tools are required. The tool revision shall at least be as specified or higher (not for the TDS Uploader).

Tool Name	Revision	Identification
MTVD Version Control and Download	2.16.0.7	3EGM081360E0301
MAPP Address Plug Programming Tool	2.14.0.3	3EGM050810E0260
DCUTERM	3.6.0.814	3EST000202-9542
Tool for Downloading Software of AUX	-	TTProgDiag

Table 3: IR / RDSO / CLW Staff Tool list

3.2 Installation instruction

Preconditions

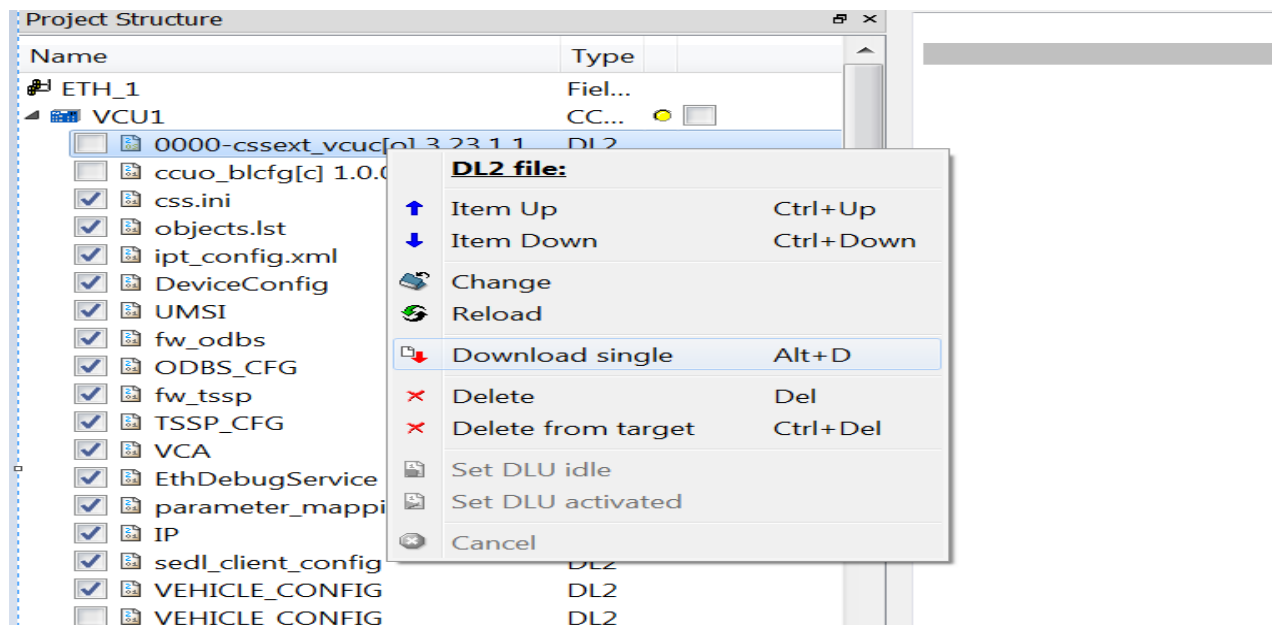
- Before starting installation, the tools have to be installed on the PC according to the installation instructions provided with the tools.
- The Ethernet configuration of the PC has to be set in the following way:
 IP address range: 10.0.0.215 to 10.0.15.254
 Subnet mask: 255.255.240.0
- Ethernet service cable RJ45 connector to M12 connector
- Connection between PC and CCUO1/CCUO2/TCNGW is established on ethernet.
- Connection to processor of Auxiliary converter shall be established by RS232 interface.

Step1: Vehicle and PC preparation

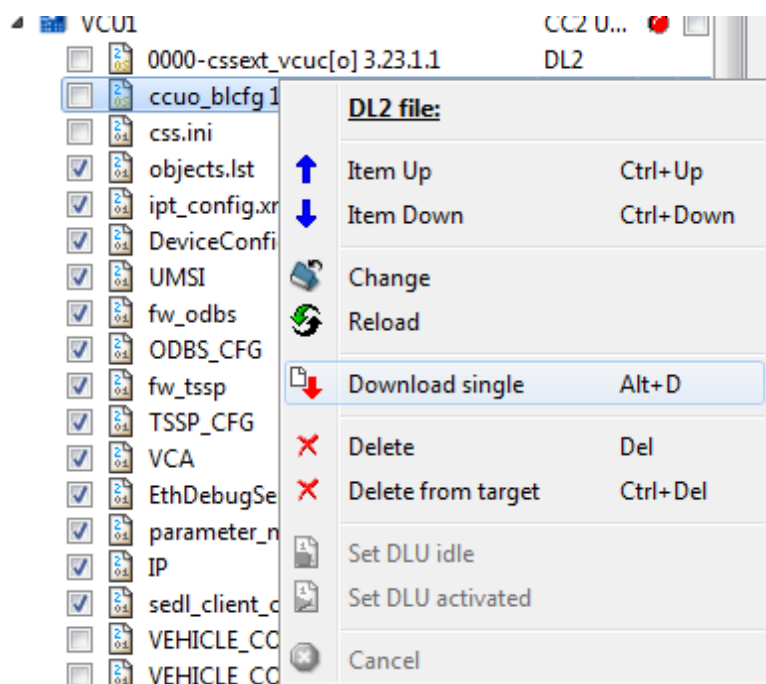
- Check for good charged vehicle battery before starting installation or use the direct 110V DC power set.
- Bring vehicle to a safe state by applying brake, switching off MCB and lower pantographs.
- Connect the PC by Ethernet to the Ethernet connector in cab 2 for Converter or CCUO1/CCUO2/TCNGW download.
- Extract the Release Zip file on the PC and the included zip files as well.

Step 2: If installing software for the first time: Download OS to CCUO1/CCUO2/TCNGW

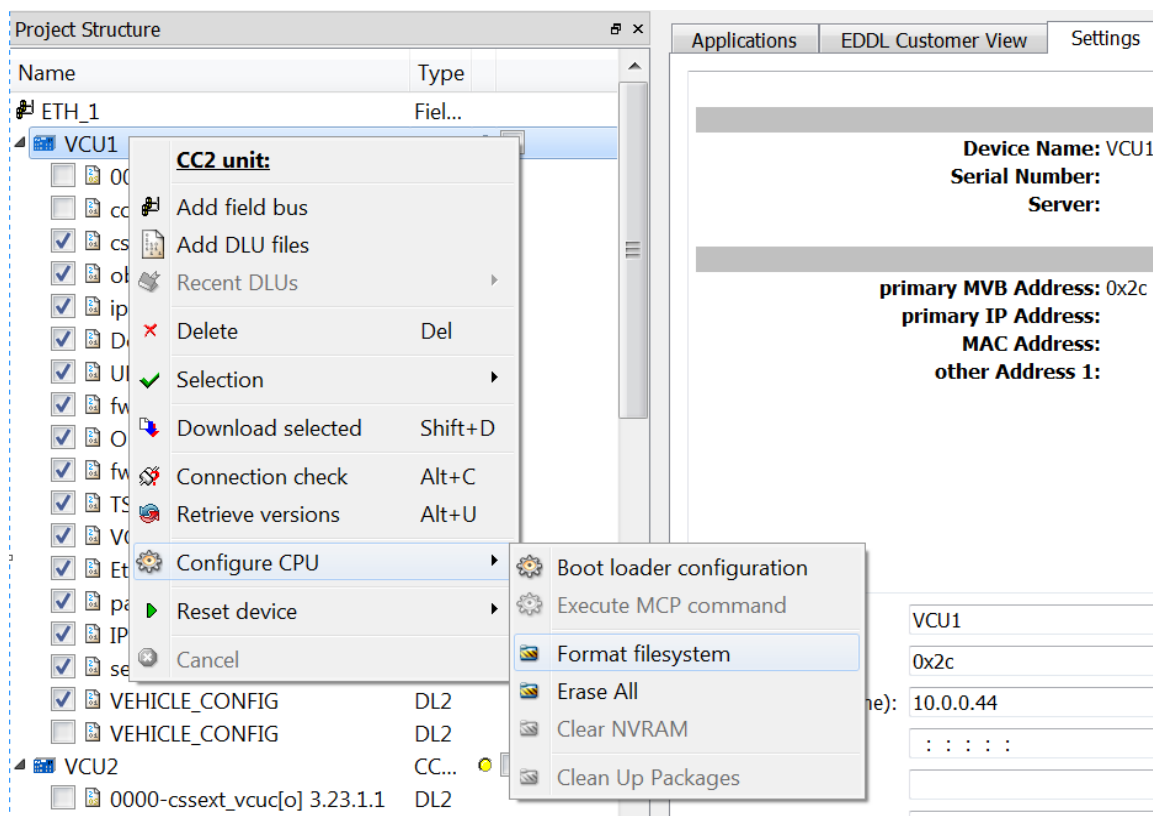
- Open download configuration IRPRPSET_TCMS_6.0.0.12.mcp
- Start connection check to CCUO1 by right clicking on the device.
- This will check communication with VCU1 and if established the LED glow Green colour otherwise Red.
- Right Click on the 0000-cssex_tvcuc[o] 3.25.0.1File to download OS of device. Select the download single as shown in below figure.



1. Once the OS is downloaded, right click on ccuo_blcfg 1.0.0.1 and select download single.



2. By Right clicking on CCUO1 device, select format file system present in configure CPU as shown in below figure.

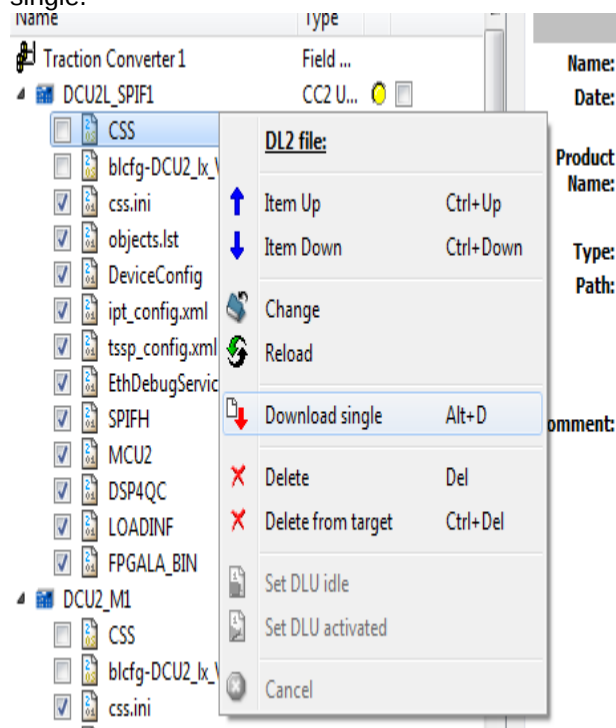


3. Repeat the above steps for CCUO2, TCNGW.

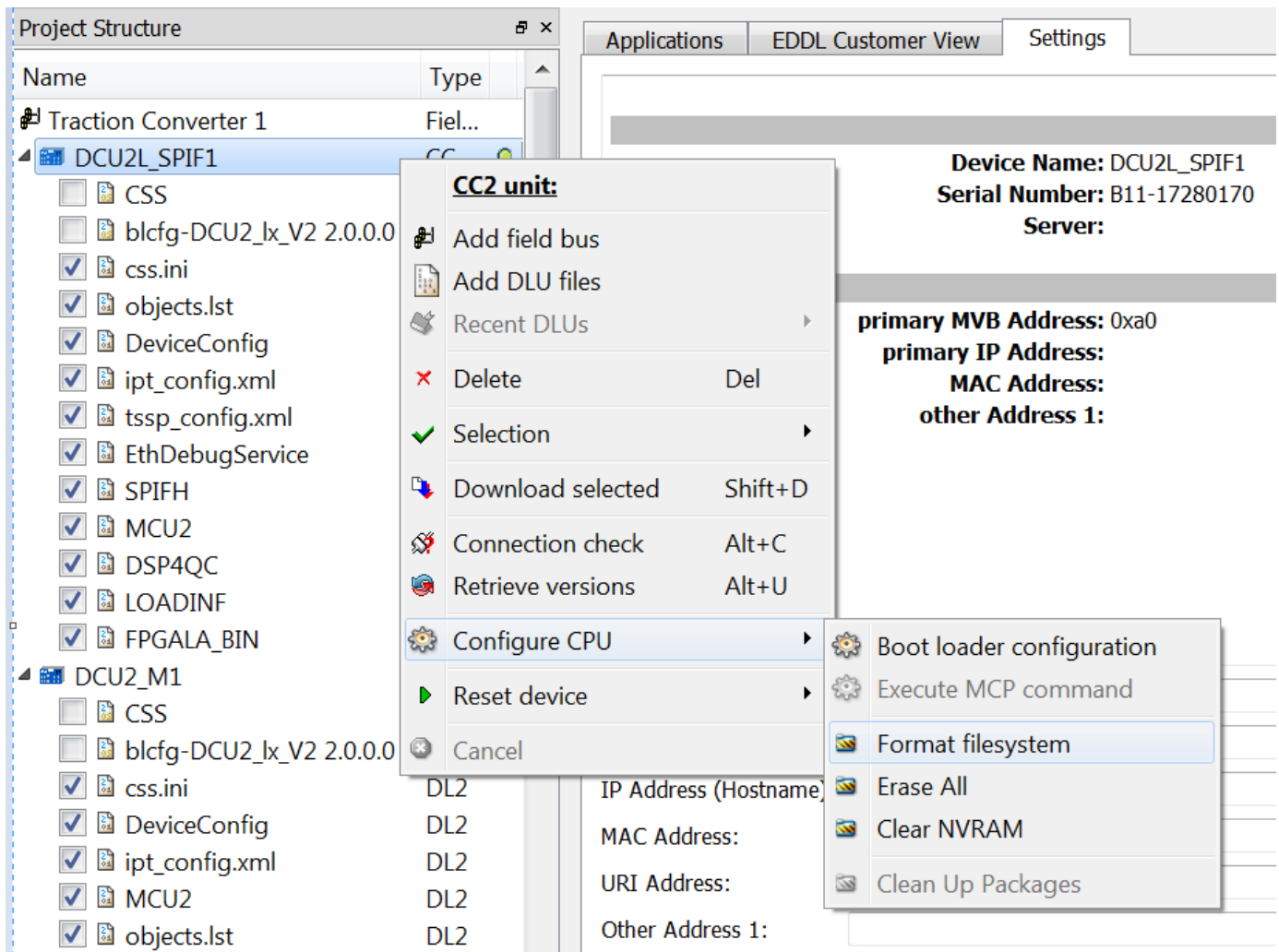
Step 3: If installing software for the first time: Download OS to DCU

Open download configuration IR_PRPSET_CCON_1.0.5.4.mcp

1. Start connection check to all devices and download CSS (OS) by right clicking on CSS and selecting download single.
2. Similarly download the blcfg-DCU2_lx_V2 2.0.0.0 file by right clicking on it and select the download single.



3. After successful download, right clicking on the device and select Format file system in Configure DCU. This creates file system.



Step4: Download Base software from PC to CCU01/CCU02/TCNGW

1. Open download configuration IRPRPSET_TCMS_6.0.0.12.mcp
2. Start connection check to CCU01, CCU02 and TCNGW
3. Select CCU01 Base Software package to download with description as below. Ensure that file 0000-cssex_t_vcuc[o] is **NOT** Selected.
4. After download is finished successfully, select VCU1, right click and select Reset device→restart to OS Run
5. Repeat steps for CCU02, TCNGW.

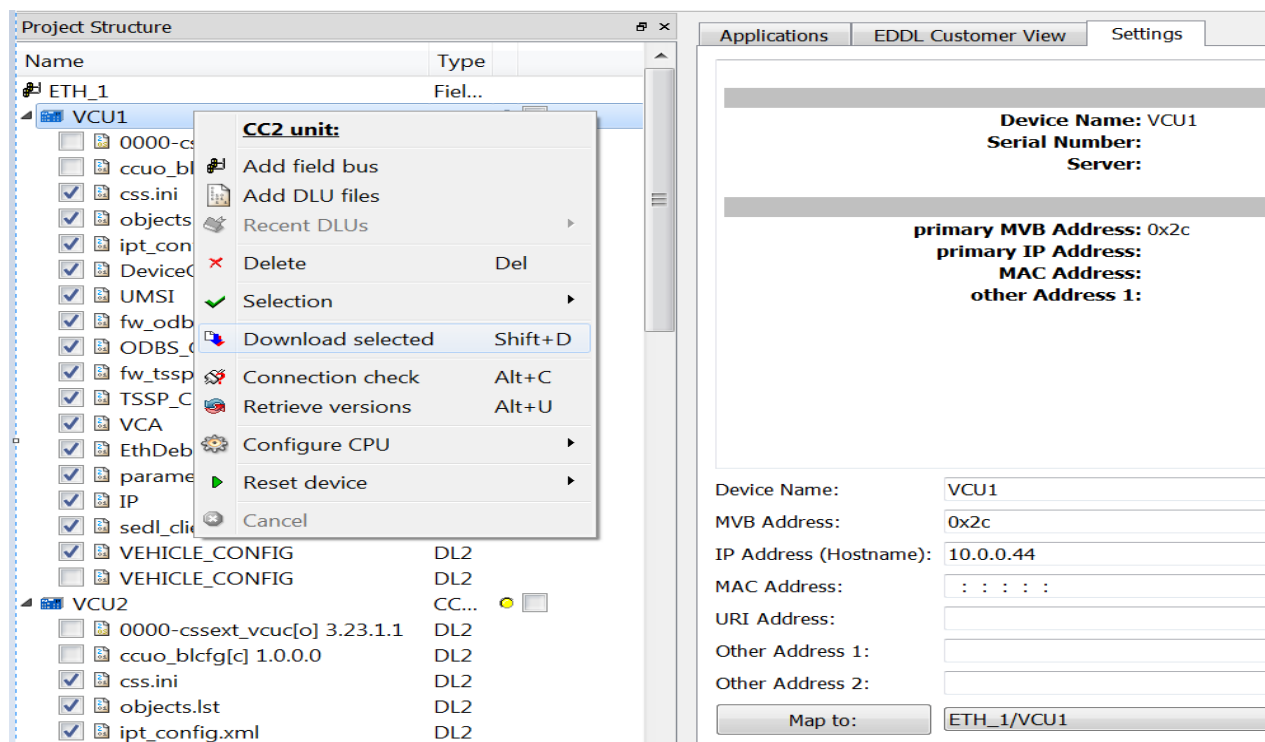
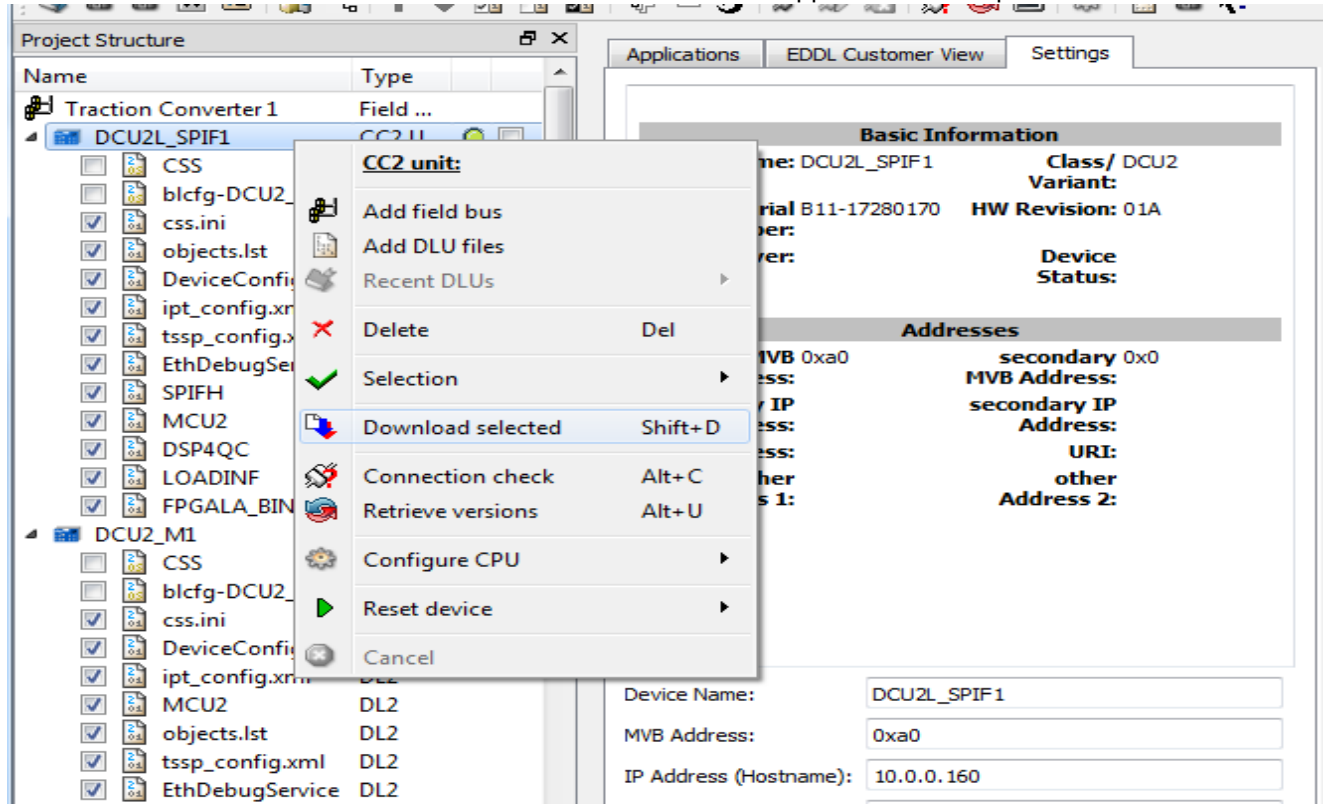


Figure 1: Download Application via MTVD

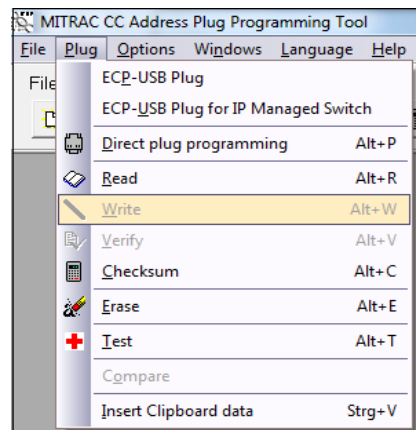
Step5: Download Base software from PC to DCU

1. Open download configuration IR_PRPSET_CCON_1.0.5.4.mcp
2. Start connection check to all CCON DCUs and Download the applications to respective DCUs



Step 6: Flash MOBAD configuration for CCU01, CCU02 and TCNGW MOBD using MAPP Tool : Plug→Write

1. Before executing command ensure MOBAD is connected to PC using USB to DB9 cable.
2. Select file to write and execute write option as shown below.



- Perform the above steps 1, 2 for CCUO1 with file: VCU1.S19
- Perform the above steps 1, 2 for CCUO2 with file: VCU2.S19
- Perform the above steps 1, 2 for TCNGW with file: TCN_GW_C_1.S19

Step 7: HMI Software shall be downloaded on DDU's using web interface via <http://10.0.0.200/login.php> for DDU1 and <http://10.0.0.201/login.php> for DDU2. Login with user's name: admin password: eiWEB.

Step 8: Aux Software shall be downloaded on BUR1, BUR2 and BUR3 using RS232 interface via TTPProDiag tool. Details are part of documentation "Software Uploading Procedure using FLASHit in Control Cards.pdf" shared part of software package.

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 12/24	3EYP600299-2089
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4 CHANGES:

4.1 Software Package 1.4.1.0 Release:

4.1.1 New or enhanced functions

CCUO:

- Resolved issue related to traction loss / speed loss observed in 1.4.0.9 release only.
- Resolved node stuck at 592 when one bogie isolated observed in 1.4.0.9 release only.

CCON:

None

BUR:

- Modified control logic for NO BUR Output frequency

HMI:

- Modified Diagnostic messages Priority

4.1.2 Adaptations and corrected errors

CCUO: None.

CCON: None

BUR: None

HMI: None

4.1.3 Known problems

CCUO: None

CCON: None

BUR: None

HMI: None.

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 13/24	3EYP600299-2089
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5 HISTORY OF CHANGES

5.1 Software Package 1.4.0.9 Release (423W02AT)

5.1.1 New or enhanced functions

CCUO:

- Hotel load changes done in 1.4.0.8 withdrawn.
- Removal of Coolant Pressure VS Tractive effort logic.
- Changed the plausibility factor & comparison factor for the transformer temperature (Transformer temperature greater than limit 2 issue)
- VCB Not Reclosing Issue Resolved.
- Added "energy saving mode" logic for BUR (applicable for New Design Aux Converter V1-2)
- ACP logic modification Reverted which was implemented in 1.4.0.5

CCON:

- Variable Reference DC Link voltage based on Shaft Power added.

BUR:

New Design of Aux Converter V1-2

- Energy saving mode is incorporated.
- "Battery charger less than 10amps" messages timing increased from 30 seconds to 2 minute 30 seconds to avoid spurious messages.
- "Battery voltage below 92 & 86 volt" messages timing increases from 30 seconds to 1 minute to avoid spurious messages.

Old Design of Aux Converter

- Now "No BUR output message" will come only when a permanent output frequency is not available.

HMI:

- Added energy saving mode event.
- Added TM isolation status icon on home screen.

5.1.2 Adaptations and corrected errors

CCUO: None.

CCON: None

BUR: None

HMI: None

5.1.3 Known problems

CCUO: None

CCON: None

BUR: None

HMI: None.

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 14/24	3EYP600299-2089
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5.2 Software Package Release 1.4.0.8 (423W01AT)

5.2.1 New or enhanced functions

CCUO:

- Part of OVC Issues for Pre-charging DC Link
- Resolved HLC when VCB switched on.
- Part of OVC Issues Filter Configuration Transition from Bogie1 to Bogie2 Logic Modified.
- Part of OVC issues Timeout of Pulse command Bogie Isolation Added FLG node with DCU Node
- Hotel Load Requirement Logic Modified for Low Pressure Main Reservoir.

CCON:

1. DC Link Under Voltage Supervision.
2. Relaxation in Fast Blocking Due to Speed Sensor.
3. DC Link Charge Inhibit Due Brake Resistor Over Temperature.

BUR:

None

HMI:

None

5.2.2 Adaptations and corrected errors

CCUO: None.

CCON: None

BUR: None

HMI: None

5.2.3 Known problems

CCUO: None

CCON: None

BUR: None

HMI: None.

5.3 Software Package Release 1.4.0.7 (422W02AT)

5.3.1 New or enhanced functions

CCUO:

1. DPWCS is merged with Main Branch
2. WTB Interoperability is also merged with Main Branch
3. VCU comm lost issue is resolved
4. System behaviour during earth fault in HL converter is improved
5. Angle transmitter fault in 504 node is resolved
6. Slave to Master Event Transfer in WTB
7. Standalone Loco operation without Gateway
8. CCU Logic update for HMI ACK functionality like BPFA Ack with last fault
9. Message is not pop up if input is high of DO- Earth Fault
10. Update of logic as per requirement Banking mode in DPWCS

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 15/24	3EYP600299-2089
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11. More than two cab occupy info message

CCON:

None

BUR:

1. D429 Communication Module: Reduced timing from 30 mins to 5 mins of isolation demand signal after 3 attempts in NO bur out condition.
2. Additional Checked of error bits for DCLinkV_TooLow and InputVoltNOK to avoid spurious messaging.
3. BUR-1 output frequency parameter from 50Hz to 44Hz to avoid OCB failure
4. Improvements on DC Link voltage Stabilization during Panto Bouncing and during vent level operation

HMI:

1. Issue of messages from Slave to Master is resolved both in DPWCS and WTB
2. Issue with Cat2 fault reset from Cab2 is resolved
3. HMI Kernel update
4. Modified HMI ACK functionality (Same as BPFA Ack for last fault)

5.3.2 Adaptations and corrected errors

CCUO: None.

CCON: None

BUR: None

HMI: None

5.3.3 Known problems

CCUO: None

CCON: None

BUR: None

HMI: None.

5.4 Software Package Release 1.4.0.5 (422W01AT):

5.4.1 New or enhanced functions

CCUO:

1. VCB not closing after crossing neutral section/ catenary voltage out of limits.
2. Panto Bouncing – Traction Interlock – info message.
3. Category 2 fault reset from HMI (DDU)
4. Reset of Traction Motor permanent isolation
5. ACP Train Parting- Disable Traction interlock
6. OHE voltage related issue at the time of Panto down
7. MR Pressure low message.
8. LSHO lamp glowing as per new and old schematics.
9. BPCS tuning.
10. BPFA glowing for P3 Faults.

CCON:

- 1) Pinion failure Implementation
- 2) Improvements on supervision of speed sensor faults
- 3) Improvements on DC link over voltage

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 16/24	3EYP600299-2089
---	---	-----------------	-----------------	----------------------	-----------------

BUR:

5. Battery Charger Overcurrent not coming from BUR3 has been resolved.
6. Optimized timings for following signals for avoid spurious messaging.
 - a. DC Link Overcurrent.
 - b. DC Link Overvoltage.
 - c. Battery Charger Overcurrent.
 - d. Battery Overcurrent.
 - e. BatteryChargerBelow10A.
7. BUR 1/2/3 No output frequency during panto bouncing.
8. Earth fault detection from BUR 1/2/3.
9. DSP Error leading to BUR Isolation during Bootup

HMI:

- 1) CAT2 reset from HMI.
- 2) OS Update for HMI

5.4.2 Adaptations and corrected errors

CCUO: None.

CCON: None

BUR: None

HMI: None

5.4.3 Known problems

CCUO: None

CCON: None

BUR: None

HMI: None.

5.5 Software Package Release 1.4.0.4 (421W01BT):

5.5.1 New or enhanced functions

CCUO:

- 1) The time of auto Flasher updated to 60 sec.
- 2) In case of Bogie isolation monitoring of corresponding Trafo pressure / temp signal is masked.
- 3) Functionality of VCB tripping with catenary voltage out of limits corrected.
- 4) Push Pull Panto Sequence updated.

CCON:

- 5) Resolved Wheel diameter corruption leading to Bogie isolation.

BUR:

None

HMI:

None

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 17/24	3EYP600299-2089
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5.5.2 Adaptations and corrected errors

CCUO:
Updated Operation System of CCUO devices to 3.25.0.1 version.

CCON:
None

BUR:
None

HMI:
None

5.5.3 Known problems

CCUO:
None

CCON:
None

BUR:
None

HMI:
None.

5.6 Software Package Release 1.3.9.8 (420W02BT)

5.6.1 New or enhanced functions

CCUO:
None

CCON:
1) Wheel diameter maximum value set to 1098.

BUR:
None

HMI:
None

5.6.2 Adaptations and corrected errors

CCUO:
None

CCON:
None

BUR:
None

HMI:

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 18/24	3EYP600299-2089
---	---	-----------------	-----------------	----------------------	-----------------

None

5.6.3 Known problems

CCUO:
None

CCON:
None

BUR:
None

HMI:
None.

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 19/24	3EYP600299-2089
---	---	-----------------	-----------------	----------------------	-----------------

5.7 Software Package Release 1.3.9.6 (420W01BT)

5.7.1 New or enhanced functions

CCUO:

- 1) Resolved ZPT long press required for raising Pantograph
- 2) For properly handling angle transmitter failure messages, angle transmitter Scaling is improved for allowing current up to 21mA.
- 3) Shunting Mode messages shall appear after every movement of MAC position from Zero to Traction
- 4) Water Closet Functionality
- 5) Allowing wheel diameter maximum value to 1098 mm
- 6) Resolved Hotel load ON command timing issue

CCON:

- 6) Line side converter control parameters are fine tuned to reduce IGAT failures

BUR:

- 1) To resolve unknown BUR frequent re-start without BUR isolation.
- 2) To avoid frequent BUR isolation by changing BUR restoring events.

HMI:

- 1) Water Closet Occupied Message added.
- 2) Allowing Max. Wheel diameter value to 1098 mm from entering on HMI.

5.7.2 Adaptations and corrected errors

CCUO:

None

CCON:

None

BUR:

None

HMI:

None

5.7.3 Known problems

CCUO:

None

CCON:

None

BUR:

None

HMI:

None.

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 20/24	3EYP600299-2089
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6 DEPENDENCIES

6.1 Compatibility to earlier software releases

TCMS Software:

Compatible with earlier release having enhanced functionalities in latest release.

CCCON/ BUR:

Compatible with earlier release having enhanced functionalities in latest release.

HMI4G:

New Operating system file name as “*hmi-o-btroq_new_sw_kernel_and_xlmb_and_bootup_only.tar*” to be downloaded with application.

6.2 Hardware dependencies

The software can be used on all WAG9, WAG9H, WAP7 with and without Hotel load, WAP5 locomotives with the Alstom Propulsion set equipment. Locomotive configuration file to be downloaded as per Vehicle configuration in CCUO.

There are no other known hardware dependencies.

7 HIGH LEVEL SUMMARY OF SOFTWARE VERSIONS

Device	Software_Package_Baseline_1.4.1.0 Version (423W03AT)	Software_Package_Baseline_1.4.0.9 Version (423W02AT)
CCUO1	6.0.0.12	6.0.0.11
CCUO2	6.0.0.12	6.0.0.11
TCNGW	0.1.0.2	0.1.0.2
DCUL/SPIF	1.0.5.4	1.0.5.4
DCUM	1.0.5.4	1.0.5.4
HMI4G	2.7.1.14	2.7.1.13
HMI3G	1.7.1.14	1.7.1.13
BUR1_V1	1.8.3.4	1.8.3.3
BUR2_V1	2.8.3.4	2.8.3.3
BUR3_V1	3.8.3.4	3.8.3.3
BUR1_V2	1.0.0.8	1.0.0.8
BUR2_V2	2.0.0.8	2.0.0.8
BUR3_V2	3.0.0.8	3.0.0.8

Table 4: Software Versions

8 VERSION INFORMATION FOR SOFTWARE_PACKAGE_BASELINE

8.1 Vehicle Control software

The software version screen on the drivers display shows the version of the CCUO1 and CCUO2.

Device name	Device ID	Built in cubicle	Device type	IP-address
CCUO1		TC1	VCU-C	10.0.0.44
CCUO2		TC2	VCU-C	10.0.0.46
TCNGW		VCU-Cubicle 1	TCN-GW-C	10.0.0.6

Used on Device	Application type	Application name	Software Package 1.4.1.0 (423W03AT)	Software Package 1.4.0.0 (423W02AT)
CCUO1	DL2-standard	VCU-C Operating System	3.25.0.1	3.25.0.1
CCUO1	Cfg	CCUO_blcfg[c]	1.0.0.1	1.0.0.1
CCUO1	AP	Software Application	6.0.0.12	6.0.0.11

Table 5: CCUO1 Base Software Package

Used on Device	Application type	Application name	Software Package 1.4.1.0 (423W03AT)	Software Package 1.4.0.0 (423W02AT)
CCUO2	DL2-standard	VCU-C Operating System	3.25.0.1	3.25.0.1
CCUO2	Cfg	CCUO_blcfg[c]	1.0.0.1	1.0.0.1
CCUO2	AP	Software Application	6.0.0.12	6.0.0.11

Table 6: CCUO2 Base Software Package

Used on Device	Application type	Application name	Version
TCNGW	DL2-standard	TCNGW Operating System	3.10.3.0
TCNGW	Cfg	tcngw_blcfg	1.0.0.1
TCNGW	AP	Software Application	0.1.0.2

Table 7: TCNGW Base Software package

8.2 Converter Control software

Device name	Built in cubicle	Device type	IP-address	MVB Address
DCU2L_SPIF1	TC1	DCU-2	10.0.0.160	0xa0
DCU2_M1	TC1	DCU-2	10.0.0.161	0xa1
DCU2_M2	TC1	DCU-2	10.0.0.162	0xa2
DCU2_M3	TC1	DCU-2	10.0.0.167	0xa7
DCU2L_SPIF2	TC2	DCU-2	10.0.0.136	0x88
DCU2_M4	TC2	DCU-2	10.0.0.137	0x89
DCU2_M5	TC2	DCU-2	10.0.0.138	0x8a
DCU2_M6	TC2	DCU-2	10.0.0.143	0x8f

Table 8: CON Control Device IP Addresses

F	Title:	Revision:	Language:	Page/Pages:	3EYP600299-2089
	IR PRPSET Software Package Release Notes	_F	en	23/24	

Used on Device	Application type	File name	Software Package 1.4.1.0 (423W03AT)	Software Package 1.4.0.9 (423W02AT)
DCU2L_SPIFn	OS	DCU2 Operating System	3.16.1.2	3.16.1.2
DCU2L_SPIFn	OS Cfg	Blcfg-DCU2_ix_V2 2.0.0.0	2.0.0.0	2.0.0.0
DCU2L_SPIFn	AP	Software Application	1.0.5.4	1.0.5.4
DCU2_Mn	OS	DCU2 Operating System	3.16.1.2	3.16.1.2
DCU2_Mn	OS Cfg	Blcfg-DCU2_ix_V2 2.0.0.0	2.0.0.0	2.0.0.0
DCU2_Mn	AP	Software Application	1.0.5.4	1.0.5.4

Table 9: CON processors application versions

8.3 HMI Software

Device	Type	File name	Software Package 1.4.1.0 (423W03AT)	Software Package 1.4.0.9 (423W02AT)
HMI4G	Bin	new_sw_4G_2_7_1_11_kernel3.13.tar.gz new_sw_4G_2_7_1_11_Kernel3_8.tar.gz	2.7.1.14	2.7.1.13
HMI3G	Bin	new_sw_3G_1_7_1_11.tar.gz	1.7.1.14	1.7.1.13

Table 10: HMI Application Version

8.4 BUR Software

BUR	Software Package 1.4.1.0 (423W02AT)	Name of File	Software Package 1.4.0.9 (423W02AT)	Name of File
BUR1	1.8.3.4	zins1831.elf	1.8.3.1	zins1830.elf
BUR2	2.8.3.4	Zins2831.elf	2.8.3.1	Zins2830.elf
BUR3	3.8.3.4	Zins3831.elf	3.8.3.1	Zins3830.elf

Table 11: BUR-Diagnostics processors software Version

Details	BUR	Control Card Details	Software Package 1.4.1.0 (423W03AT)	Name of downloadable File	Software Package 1.4.0.9 (423W02AT)	Name of downloadable File
Software for Main Control Cards (2000-138, 2000-139 & 2000-140)	BUR1	2000-138	Rev. R14A	HB13814A50HZ.hex	Rev. R13A	HB13813A50HZ.hex
	BUR1	2000-139	Rev. R14A	HB13914A50HZ.hex	Rev. R13A	HB13913A50HZ.hex
	BUR2	2000-138	Rev. R14A	HB23814A50HZ.hex	Rev. R13A	HB23813A50HZ.hex
	BUR2	2000-139	Rev. R14A	HB23914A50HZ.hex	Rev. R13A	HB23913A50HZ.hex
	BUR3	2000-138	Rev. R14A	HB33814A50HZ.hex	Rev. R13A	HB33813A50HZ.hex
	BUR3	2000-139	Rev. R14A	HB33914A50HZ.hex	Rev. R13A	HB33913A50HZ.hex
	LVPS	2000-140	Rev. R14A	HBC4013A.hex	Rev. R13A	HBC4009A.hex
	BUR1	2000-138	Rev. R14B	HB13814B44HZ.hex	Rev. R13B	HB13813B44HZ.hex
	BUR1	2000-139	Rev. R14B	HB13914B44HZ.hex	Rev. R13B	HB13913B44HZ.hex
	BUR2	2000-138	Rev. R14B	HB23814B44HZ.hex	Rev. R13B	HB23813B44HZ.hex
	BUR2	2000-139	Rev. R14B	HB23914B44HZ.hex	Rev. R13B	HB23913B44HZ.hex
	BUR3	2000-138	Rev. R14B	HB33814B44HZ.hex	Rev. R13B	HB33813B44HZ.hex
	BUR3	2000-139	Rev. R14B	HB33914B44HZ.hex	Rev. R13B	HB33913B44HZ.hex
	LVPS	2000-140	Rev. R14B	HBC40013B.hex	Rev. R13B	HBC40013B.hex

Table 12: BUR- CCU/LVPS Control Unit processors software Version

F	Title: IR PRPSET Software Package Release Notes	Revision: _F	Language: en	Page/Pages: 24/24	3EYP600299-2089
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9 REVISION HISTORY

Rev.	Edited	Checked	Approved	Remark
—	2020-09-21 Tejeswar Nukala	2020-09-22 Ketan Shah	2020-09-22 Kalpesh Devariya	1.3.9.8 package release notes with new format
_A	2021-04-29 Tejeswar Nukala	2021-05-10 Ketan Shah	2021-05-10 Kalpesh Devariya	1.4.0.4 software package details
_B	2022-01-10 Sridhar V	2022-01-12 Ketan Shah	2022-01-12 Antoine B	1.4.0.5 software package details
_C	2022-09-21 Sridhar V	2022-09-21 Ketan Shah	2022-09-21 Antoine B	1.4.0.7 software package details
_D	2023-04-03 Jyotiprakash Khuntia	2023-03-27 Ketan Shah	2023-03-27 Ketan Shah	1.4.0.8 software package details
_E	2023-10-06 Jyotiprakash Khuntia	2023-10-03 Sai Prabhath D	2023-10-03 Sai Prabhath D	1.4.0.9 software package details
_F	2023-12-13 Tejeswar Nukala	2023-12-13 T Tany Ann	2023-12-13 T Tany Ann	1.4.1.0 software package details