



2007 CORRIDOR BASELINE DEFINITION OF THE REFERENTIAL

Project:	ERTMS
Document type:	Engineering

Issue date:	26 th May 2006
Doc. Nr :	05-1E142-PEEE
Version :	2a

Initial diffusion list :

MODIFICATIONS AND UPDATES

Issue revision	Issue date	Modifications / Comments	Author
0a	22/04/2005	First draft.	ELM
0b	25/04/2005	Correction following HSL Zuid / RFF meeting of 25 th April 2005	ELM
0c	01/05/2005	Chapter 1	HVV
0d	10/05/2005	Chapter 1, 3	HVV
0e	13/05/2005	Modification following corridor meeting of 12/04/05	ELM
0f	24/05/2005	Chapter 4 : Change Management	HVV
0g	01/06/2005	Corridor meeting (31/05/05)	ELM
0h	05/06/2005	Editorial changes Chapter 1, 2, 3, 4	HVV
1	09/06/2005	Version for final review for version 1 of the corridor baseline	ELM
1a	22/11/2005	Definition of the 2007 Corridor referential on the basis of the SRS version 2.3.0	ELM
1b	03/12/2005	Editorial changes, clarifications Ch. 1 and 2	HVV
1c	05/12/2005	Modification on table 2.1	ELM
1d	14/12/2005	EEIG Review	MC + RD
1e	4/01/2006	Editorial changes	ELM
1f	10/02/2006	Review in the C2007 meeting (26/01/06)	ELM
1g	21/02/2006	C2007 members comments for version 2	ELM
2	23/03/2006	Last review in Corridor meeting (23/03/2006): version for signature	ELM
2a	26/05/2006	Modification of Chapter 2 decided in C2007 meeting (18/05/2006)	ELM

APPROVAL






Name	Company and Title	Date	Signature
	CFL Director		
	DB Netz AG Infrastructur Manager		
	HSL Zuid Manager transportation department		
	INFRABEL General Manager Direction Network		
	RFF National Project Manager		

TABLE OF CONTENTS

1	INTRODUCTION	6
1.1	ERTMS FOR THE POS- AND PBKA-CORRIDORS	6
1.2	2007-CORRIDOR GROUP	6
1.3	ORGANIZATION OF THE 2007-CORRIDOR GROUP	7
1.4	REFERENCES	7
1.5	THIS DOCUMENT	7
2	CHANGE REQUESTS LIST	9
3	ADDITIONAL ISSUES	12
3.1	KEY MANAGEMENT SCENARIO'S FOR THE CORRIDOR	12
3.2	ASSIGNMENT PROCESS OF M_TRACTION	12
3.3	ASSIGNMENT OF M_VERSION	14
3.4	BRAKING CURVE MODEL	14
3.5	CR U170 "INDICATION OF TRACK CONDITIONS"	14
3.6	CR U583 "INDICATIONS ON DMI IN SR/OS MODE"	14
4	CORRIDOR BASELINE MAINTENANCE	16
4.1	ORGANISATION	16
	ANNEXE 1. OPTIONAL CHANGE REQUESTS FOR BASELINE VERSION 1	17
ANNEXE 1.1.	CR U5: "MESSAGE NAMES"	18
ANNEXE 1.2.	CR U10: "MESSAGE FLOW DURING TERMINATION OF A COMMUNICATION SESSION"	19
ANNEXE 1.3.	CR U12: "SUPERVISION OF SEQUENCE"	20
ANNEXE 1.4.	CR U15: "NID-C DESCRIPTION"	21
ANNEXE 1.5.	CR U20: "PENDING COMMUNICATION SESSION"	22
ANNEXE 1.6.	CR U30: "EDITORIAL CLARIFICATIONS"	25
ANNEXE 1.7.	CR U31: "CLARIFICATION OF TERMS"	26
ANNEXE 1.8.	CR U39: "RESTRICTED USE OF DUPLICATED BALISES"	29
ANNEXE 1.9.	CR U40: "POSITION REPORT IN CASE OF PASSING AN UNLINKED BALISE GROUP"	30
ANNEXE 1.10.	CR U41: "POSITION REPORT IN EVERY TRAIN-TO-TRACK TELEGRAM"	31
ANNEXE 1.11.	CR U44: "SPECIFIC OUTPUT IN CASE OF BRAKING DUE TO UNEXPECTED BALISE MESSAGES" ..	32
ANNEXE 1.12.	CR U49: "TELEGRAM OR MESSAGE COUNTER"	33
ANNEXE 1.13.	CR U51: "POSITION REPORTING IN RV MODE"	34
ANNEXE 1.14.	CR U57: "MODE RELATED SPEED RESTRICTION IN SH"	35
ANNEXE 1.15.	CR U58: "INCORRECT COMMENT ON NID_STM IN PACKET 72"	36
ANNEXE 1.16.	CR U63: "ODOMETRY INACCURACY AT TRACK CONDITIONS"	37
ANNEXE 1.17.	CR U65: "SH MAX SPEED DEFINED IN DEFAULT VALUE"	38
ANNEXE 1.18.	CR U66: "NON RELEVANT INFORMATION FOR DRIVER"	39
ANNEXE 1.19.	CR U68: "MODE TRANSITION CASES REPORTED TO RBC"	40
ANNEXE 1.20.	CR U71: "Pos. REP. IN ALL TRAIN>RBC MESSAGES"	41
ANNEXE 1.21.	CR U74: "SAME SUBSET NUMBER AS JRU FFFIS"	42
ANNEXE 1.22.	CR U76: "SPLITTING OF AN ERTMS TRAIN"	43
ANNEXE 1.23.	CR U78: "ODO ACCURACY END OF SPEED RESTRICTION"	44
ANNEXE 1.24.	CR U86: "SPECIFIC ENGINEERING RULE"	45
ANNEXE 1.25.	CR U90: "HIGH PRIORITY CHANNEL (3)"	46
ANNEXE 1.26.	CR U96: "EM REGARDING TRANSMISSION ERROR"	47
ANNEXE 1.27.	CR U99: "MMI VERSUS INTERNAL INFORMATION »	48
ANNEXE 1.28.	CR U100: "MMI VERSUS MODE TABLE »	49
ANNEXE 1.29.	CR U103: "ACCELERATION MISSING IN TRAIN DATA"	51
ANNEXE 1.30.	CR U105: "AVAILABILITY OF ACKNOWLEDGEMENT BUTTON"	52
ANNEXE 1.31.	CR U119: "NON LEADING IS ENDED"	53
ANNEXE 1.32.	CR U120: "TRACK COND: CHANGE TRACTION POWER"	54
ANNEXE 1.33.	CR U128: "SHORT NUMBER PROGRAMMED IN BALISE"	55

ANNEXE 1.34.	CR U133: "REQUIREMENT DOESN'T BELONG TO THE CHAPTER	56
ANNEXE 1.35.	CR U134: "L_MAMODE FOR A SHUNTING AREA"	57
ANNEXE 1.36.	CR U137: "Q_EMERGENCYSTOP DEFINITION"	58
ANNEXE 1.37.	CR U138: "BRAKE RELEASE MAX RV DISTANCE"	59
ANNEXE 1.38.	CR U140: "REVERSING DISTANCE SENT BY RBC"	60
ANNEXE 1.39.	CR U141: "GEOGRAPHICAL POSITION IN SH"	61
ANNEXE 1.40.	CR U148: "LEAVING ISOLATION MODE"	62
ANNEXE 1.41.	CR U154: "TEXT MESSAGE CONSISTENCY"	64
ANNEXE 1.42.	CR U157: "VALID DIRECTION FOR RMP IN SR"	65
ANNEXE 1.43.	CR U158: "TYPES OF RADIO MESSAGES"	66
ANNEXE 1.44.	CR U166: "NID_OPERATIONAL"	68
ANNEXE 1.45.	CR U168: "MA REQUEST"	69
ANNEXE 1.46.	CR U177: "LOSS OF END OF PROFILE ELEMENTS"	71
ANNEXE 1.47.	CR U183: "DATA FROM SINGLE BALISE GROUPS"	72
ANNEXE 1.48.	CR U186: "MESSAGE 42 FURTHER DELETIONS"	73
ANNEXE 1.49.	CR U187: "EOMISSION DURING RBC HANDOVER"	74
ANNEXE 1.50.	CR U198: "REVOCATION OF EMERGENCY STOP IN SR"	75
ANNEXE 1.51.	CR U204: "REP. POSITION WHEN CHANGE ORIENTATION"	76
ANNEXE 1.52.	CR U216: "AMBIGUITY OF DISTANCE IN PROFILE DATA"	77
ANNEXE 1.53.	CR U223: "RESTORE SUPPORTED LEVELS AT SOM"	78
ANNEXE 1.54.	CR U232: "START/END FOR UNKNOWN TEXT MSG"	80
ANNEXE 1.55.	CR U237: "SERVICE BRAKE T_NVCONTACT"	82
ANNEXE 1.56.	CR U238: "SHIFTED REFERENCE LOCATION"	83
ANNEXE 1.57.	CR U240: "JRU CHANGES"	84
ANNEXE 1.58.	CR U242: "MANAGEMENT OF SYSTEM VERSION"	86
ANNEXE 1.59.	CR U254: "TRAIN TRIP AND COND. EM. STOP"	87
ANNEXE 1.60.	CR U257: "LAST 8 REPORTED BG IDENTITIES STORED"	88
ANNEXE 1.61.	CR U259: "TRANSITION PT TO SH ORDERED TRACKSIDE"	90
ANNEXE 1.62.	CR U294: "INDICATION TO BRAKING CURVE AREA"	91
ANNEXE 1.63.	CR U296: "LINKING REACTION INFO TO RBC"	92
ANNEXE 1.64.	CR U297: "OVERRIDE REQUEST"	94
ANNEXE 1.65.	CR U298: "LEVEL SELECTION BY DRIVER"	95
ANNEXE 1.66.	CR U403: "ACK OF TRAIN DATA ALSO IN TR AND PT"	97
ANNEXE 1.67.	CR U529: "REACTIVATION OF RADIO LINK SUPERVISION"	98
ANNEXE 2.	CR U170 : OPERATIONAL SCENARIO FOR PASSING A NEUTRAL SECTION WITH	
	CHANGE OF VOLTAGE	99

1 INTRODUCTION

1.1 ERTMS FOR THE POS- AND PBKA-CORRIDORS

This document deals with the implementation of ERTMS in the PBKA- and POS corridors. Within these corridors, several high speed line projects have planned to use ERTMS. Relevant projects are:

- Belgium: Line 4 (Antwerp – Dutch/Belgian border)
- Belgium: Line 3 (Luik – German/Belgian border)
- Belgium/ Netherlands: onboard unit for V250 rolling stock
- Belgium/ Netherlands: onboard unit for Bombardier locomotives
- France: LGV-Est (Paris – French/German border)
- France: Bi-standard onboard unit for POS
- Thalys grouping: ETCS onboard system for PB(K)A rolling stock
- Germany: Frankfurt – French/German border
- Germany: Aachen – (German/Belgian border)
- Luxemburg: ERTMS Level 1 implementation
- Netherlands: HSL-Zuid (Amsterdam – Dutch/Belgian border)

For the PBKA and POS corridors it is clear for some time, that a consistent ERTMS baseline is needed very soon, in order to start testing mid-2005 and start operations in 2007.

1.2 2007-CORRIDOR GROUP

In the beginning of 2004, parties of the PBKA and POS corridors realized that it would be necessary to define an ERTMS corridor baseline to ensure interoperability and a proper capacity for first international HS-lines. It was decided to start up an ERTMS-working group inside the EEIG, the "2007 Corridors group", to define this corridor baseline, consisting of a set of Change Requests and some additional points on interoperability issues. The Change Requests, which have been defined and discussed between UNISIG and the ERTMS Users Group for the SRS versions V2.3.0 and V3.0.0, have been input for the corridor baseline.

Major goal of the 2007-Corridor group is to define a common ERTMS baseline in accordance with subset 108 to ensure interoperability between the ERTMS implementation projects within the POS- and PBKA-corridors.

Furthermore, technical and operational issues in accordance with Change Requests (CRs) had to be discussed, relevant for the interoperability in the corridor. Agreements on these issues have been made: one example is the definition of interoperability scenarios for key management.

The Corridor Group has produced a Corridor baseline document (reference 05-1E142-PEEE, version 1) that listed the Change Requests (CRs) that were needed for the corridor application.

In parallel, the common process EEIG/UNISIG for achieving a consolidated version of ERTMS, the version 2.3.0 continued and has been closed now with the delivery of the definition of the version 2.3.0 and 3.0.0 defined in the subset 108 version 1.0.0.

The version of the Corridor baseline document has been updated accordingly to the version 2.3.0 as described in the subset 108 version 1.0.0.

1.3 ORGANIZATION OF THE 2007-CORRIDOR GROUP

The following parties are involved in the 2007-Corridor group:

- CFL
 - [REDACTED]
 - [REDACTED]
- DB
 - [REDACTED]
- HSL-Zuid
 - [REDACTED]
- Infrabel
 - [REDACTED]
- RFF
 - [REDACTED]
- SNCF
 - [REDACTED]
 - [REDACTED]

The 2007 Corridor group is being supported by the EEIG ERTMS Users Group, represented by [REDACTED], [REDACTED], and [REDACTED]. The actual knowledge of the Users Group, concerning the development of the ERTMS Versions (V 2.3.0 and V 3.0.0) and their in depth functional and technical knowledge is of great value.

1.4 REFERENCES

- [1] SUBSET-108 v1.0.0 (18.10.2005)

1.5 THIS DOCUMENT

As the consolidation process continues, maintaining the Corridor baseline can become necessary. Chapter 2 of this document contains an overview of the change requests which belong to the baseline.

In chapter 3, additional interoperability subjects which are not kept by change requests, are described.

Chapter 4 describes the Baseline Maintenance Process, which is necessary to keep the corridor baseline consistent in the coming years.

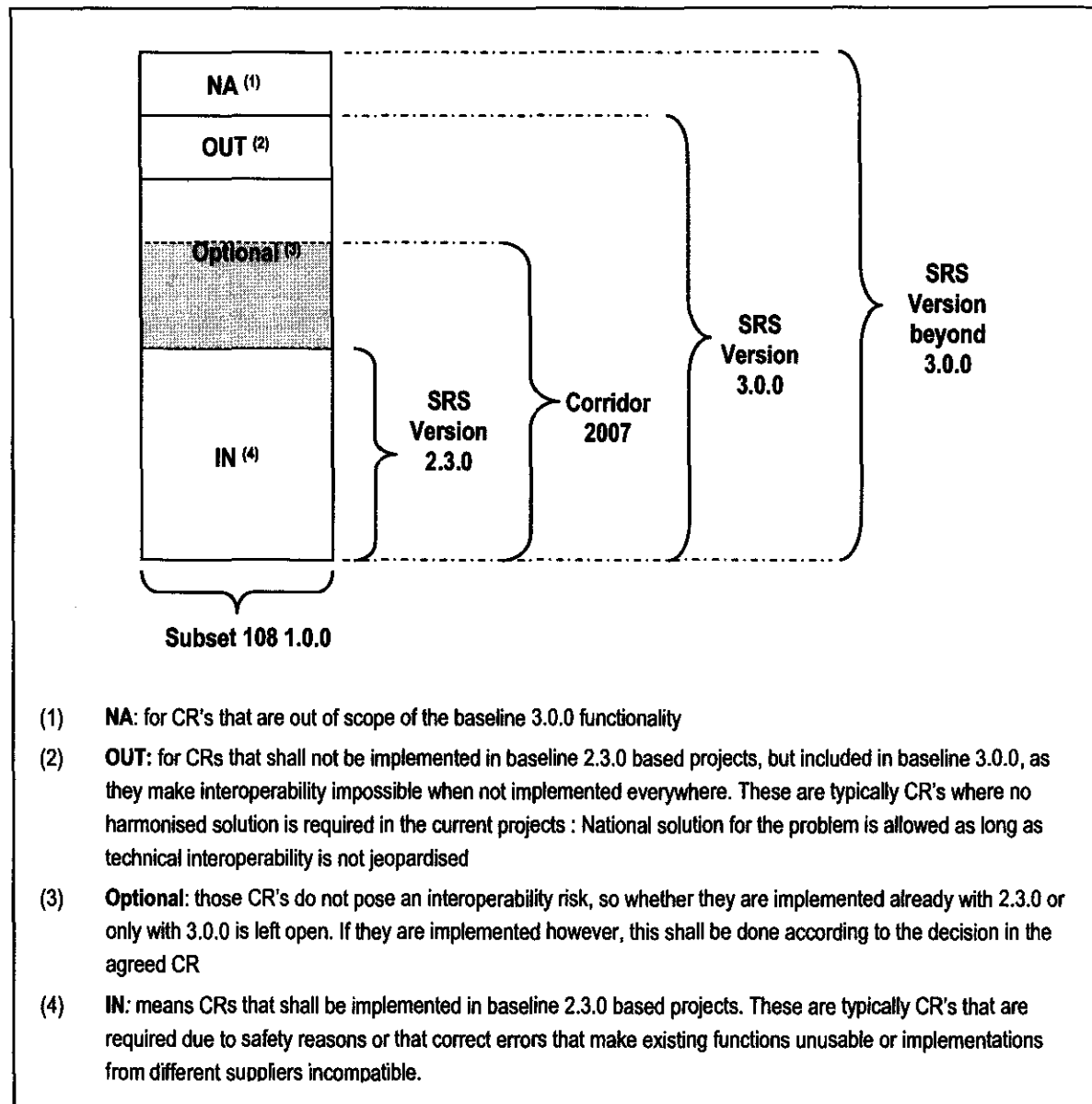
Annex 1: Detailed description of Change Requests

Annex 2: Operational scenario related to CR U170

2 CHANGE REQUESTS LIST

The version 2.3.0 defined in the version 1.0.0 of subset 108, that was voted by the European member states in December 2005, is a good basis for the Corridor 2007. But the C2007 group needs, especially for cross border operation, in addition to version 2.3.0 a set of optional Change Requests (CRs) listed in subset 108 that ensure safety (e. g. U595), a proper capacity and availability of its lines equipped with ERTMS.

The following schema shows a representation of the different versions and the position of the Corridor 2007 referential.



The 2007 Corridor referential contents all the "IN" CRs listed in the subset 108 (ref [1]). Those CRs are annexed to the subset 108, therefore they are not again listed in this document.

The 2007 Corridor referential contents in addition a set of "Optional" CRs that are listed in the following paragraph. These optional CRs are commonly agreed by the 2007 Corridor group for use by its trains running in the complete PBKA- and POS-corridor. These optional CRs are not mandatory for the trackside installation, the trackside infrastructure Manager is free to use the relevant CRs according to the needs, when selected the CR have to be implemented as described there.

The agreed optional CRs for the ERTMS 2007 Corridor are listed in following board. The CRs themselves are listed in the annex 1 of this document.

UNISIG number	EEIG number	Title	O/T	Version
5		Message names	OT	03/12/2002
10		Msg flow in termination of com sess	OT	03/12/2002
12		Supervision of sequence	OT	03/12/2002
15		NID_C description	T	03/12/2002
20		Pending communication session	O	23/11/2005
30		Editorial clarifications	OT	24/02/2004
31		Clarification of terms	OT	22/03/2005
39		Restricted use of duplicated balises	O	03/12/2002
40		Pos. Report at passing unlinked BG	OT	10/08/2005
41		Pos Rep in every Train to Track msg	O	03/12/2002
44		Braking for unexpected balise msg	O	03/12/2002
49		Telegram or Message Counter	OT	03/12/2002
51		Position Report in RV mode	O	03/12/2002
57		Mode related speed restriction in SH	O	03/12/2002
58		comment NID_STM in packet 72	OT	03/12/2002
63	02Q071	Odo inaccuracy with track conditions	O	01/10/2002
65	02Q082	SH max speed defined in default value	O	11/09/2002
66	02Q083	non-relevant information for Driver	O	15/01/2003
68	02Q089	Mode transition cases reported to RBC	O	13/10/2005
71	02Q074	Pos. Rep. in all Train>RBC messages	O	11/09/2002
74		Same Subset number as JRU FFFIS	O	03/12/2002
76	02Q068	Splitting	O	15/01/2003
78	02Q070	Odo accuracy end of speed restriction	O	01/10/2002
86		Specific engineering rule	T	03/12/2002
90		High priority channel (3)	O	03/12/2002
96		EM regarding transmission error	OT	03/12/2002
99		MMI versus internal information	O	03/12/2002
100		MMI versus mode table	O	11/11/2003
103		Acceleration missing in Train Data	O	05/02/2003
105		Availability of Ack button	O	03/12/2002
119		Non Leading is ended	O	03/12/2002
120		Track Cond: Change traction power	O	12/04/2005
128		Short number programmed in balise	O	13/10/2005
133		Req. not belonging to chapter	O	24/02/2003
134		L_MAMODE for a shunting area	O	10/08/2005
137		Q_EMERGENCYSTOP definition	OT	24/02/2003
138		Brake release max RV distance	O	24/02/2003
140		Reversing distance sent by RBC	O	24/02/2003
141		Geographical position in SH	O	24/02/2003

2007 CORRIDOR BASELINE: DEFINITION OF THE REFERENTIAL

UNISIG number	EEIG number	Title	O/T	Version
148	B2.35	Leaving ISolation mode	O	15/03/2004
154	B2.44	Text message consistency	O	03/12/2003
157	B2.47	Valid direction for RMP in SR	O	03/03/2003
158	B2.48	Types of radio messages	OT	10/08/2005
166	B2.58	NID_OPERATIONAL	OT	03/12/2003
168	B2.60	MA request	O	26/03/2004
177		Loss of End of Profile elements	O	04/07/2005
183		Data from single balise groups	O	03/03/2003
186		Message 42 further deletions	O	03/03/2003
187		EoMission during RBC Handover	O	13/10/2005
198		Revocation of Em. Stop in SR	O	22/03/2005
204		Rep. position when change orientation	O	08/08/2003
216		Ambiguity of distance in profile data	O	08/08/2003
223		Restore supported levels at SoM	O	12/04/2005
232	B2.43	Start/End for unknown text msg	O	15/03/2004
237	B3.67	Service Brake T_NVCONTACT	O	11/11/2003
238	B3.69	Shifted reference location	O	11/11/2003
240	B3.72	JRU changes	O	16/04/2003
242	B3.74	Management of system version	OT	21/12/2004
254		Train Trip and cond. em. stop	O	08/08/2003
257		Last 8 reported BG identities stored	OT	16/06/2005
259		Transition PT to SH ordered trackside	O	08/08/2003
294	B4.83	Indication to braking curve area	O	16/04/2003
296	B4.85	Linking reaction info to RBC	O	11/11/2003
297	B4.86	Override request	O	15/03/2004
298	B4.87	Level selection by Driver	O	23/11/2005
403		Ack of train data also in TR and PT	O	29/01/2004
529		Reactivation of Radio link supervision	O	10/11/2004

3 ADDITIONAL ISSUES

3.1 KEY MANAGEMENT SCENARIO'S FOR THE CORRIDOR

For the 2007- corridor group, the Key Management is an important issue, as it is related to interoperability. For this reason, a special Key Management working group is elaborating on the interoperability scenarios, which have been defined in the ERTMS specifications. No new functionality has been defined, but existing functions have been worked out. The national scenarios on key management are not within the scope of this document. This working group has issued the following documents:

1. ETCS Corridor 2007 – KMS Scenario's (Ref EEIG: 04E518 0f, 11/11/04)
2. 2007 Corridor – KMS Requirements Specifications (Ref EEIG: 04E374 1, 10/11/04)

Document 1 defines the key management scenarios and assumptions, which are significant with regard to the interoperability aspects for the implementation and operation of the Key Management Systems in the frame of the 2007 Corridor group.

Document 2 can be seen as an example of national requirements for the implementation of a Key management System.

The document which describes the key management scenarios is not complete yet. Before start operations in 2007, scenarios will be added, specific procedures will be developed and a interoperability contract will be drafted.

3.2 ASSIGNMENT PROCESS OF M_TRACTION

The process of assignment of the variable M_TRACTION is described in the EEIG document 05E211 where it is stated for the 2007 corridor group the following proposal. One values of M_TRACTION will be assigned to non electric traction. This value is common for all railways. Five values of M_TRACTION will be assigned to each railway for the definition of their electric traction systems. The assignment process has been described in the document and sent to UIC to be the basic document extended for all Railways.

In addition, the 2007 corridor members have defined their assigned values. SBB have been asked to do the same and gave its values.

The following table gives the values retained for the Corridor 2007.

Value	Country/Railway	Description
0	All	Non electrical traction (common for all railways)
1	France	1500V DC
2	France	25kV 50Hz CR
3	France	25kV 50Hz HS
4	France/UK	25kV 50Hz ET
5	France	reserved
6	Netherlands	1500V DC

2007 CORRIDOR BASELINE: DEFINITION OF THE REFERENTIAL

7	Netherlands	25kV 50Hz CR
8	Netherlands	25kV 50Hz HS
9	Netherlands	reserved
10	Netherlands	reserved
11	Germany	15kV 16 2/3 Hz, max. 600 A
12	Germany	15kV 16 2/3 Hz, max. 900 A
13	Germany	15kV 16 2/3 Hz, max. 1000 A
14	Germany	15kV 16 2/3 Hz, max. 1200 A
15	Germany	15kV 16 2/3 Hz, max. 1500 A
16	Belgium	3000V DC
17	Belgium	25kV 50Hz L1
18	Belgium	25kV 50Hz L2L3L4
19	Belgium	25kV 50Hz CR
20	Belgium	reserved
21	Luxemburg	25kV 50Hz
22	Luxemburg	3000V DC
23	Luxemburg	750V DC
24	Luxemburg	reserved
25	Luxemburg	reserved
26	Italy	
27	Italy	
28	Italy	
29	Italy	
30	Italy	
31	Spain	
32	Spain	
33	Spain	
34	Spain	
35	Spain	
36	UK	
37	UK	
38	UK	
39	UK	
40	UK	
41	Switzerland	15kV 16 2/3 Hz, 1320 mm / 1450 mm with isolated horns
42	Switzerland	15kV 16 2/3 Hz, 1450 mm / 1600 mm with isolated horns
43	Switzerland	15kV 16 2/3 Hz, 1950 mm
44	Switzerland	15kV 16 2/3 Hz, 1320 mm -1450 mm / 1600 mm with isolated horns
45	Switzerland	15kV 16 2/3 Hz, 1450 mm -1950 mm

46	Switzerland	15kV 16 2/3 Hz, 1350 mm – 1950 mm
47	Switzerland	Reserved
48	Switzerland	Reserved
49	Switzerland	Reserved
50	Switzerland	Reserved

3.3 ASSIGNMENT OF M_VERSION

The value assigned at M_VERSION for the baseline 1 of the corridor 2007 is 1.0.

3.4 BRAKING CURVE MODEL

SUBSET-108 V100 defines the harmonised braking model (CR595), with the remark that the model can be implemented in SRS230 based projects as long as the airgap remains unchanged. In that case a table with the relevant national safety margins shall be stored onboard.

A C2007 braking curve working group has been established. This working group has decided that for the C2007 projects this solution is adopted. The reference for the braking curve model is the EEIG document 97E8816F (CR595). Each member of the C2007 group shall provide the relevant national safety margins to EEIG which will put them together.

The CR595 is not yet fully agreed with UNISIG, therefore the C2007 braking curve group will continue to monitor the developments and will address any problem that may arise regarding the implementation of the braking curve model.

3.5 CR U170 “INDICATION OF TRACK CONDITIONS”

The operational scenario describing the indication on DMI of track conditions is attached in annex 2 of this document. This scenario defines an announcement distance between the announcement location (point B) and the execution location (point D). This distance needs to be long enough to ensure that the driver (or an optional automatic system) is able to reduce the traction power, open the main switch and lower the pantograph before reaching the beginning of the neutral section.

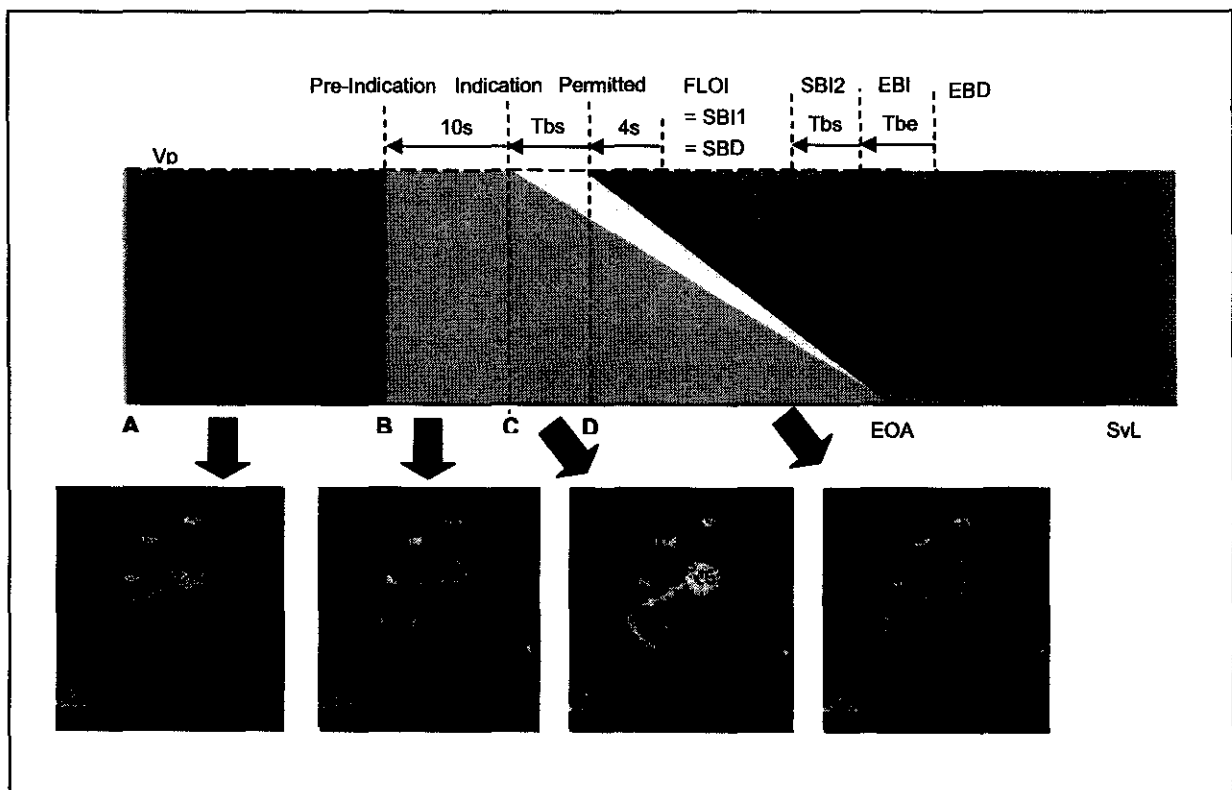
The requirement for the Corridor 2007 infrastructures is that the announcement distance (B-D) shall be based on a minimum time of 17 seconds, taking the actual line speed into account. The trains must respect this requirement and must be able to manage in less than 17 seconds the onboard functionality.

3.6 CR U583 “INDICATIONS ON DMI IN SR/OS MODE”

The corridor group has decided to use a common solution concerning the CR U583. This solution is based on the EEIG proposal for the CR with the option that the push pull button which allows the driver to display the OS/SR information on the DMI is always and automatically active. The solution retained for the CR is the following:

- Before reaching the pre-indication area, the DMI will display the current speed indication with the "hook" indicating the supervised maximum speed (V_{NVSTFF} or $V_{NVONSIGHT}$).
- Inside the pre-indication area or for all speed limits lower than the supervised speed, the DMI will display automatically with an acoustic warning the current speed indication, the permitted speed and the release speed using the same colour as in Full Supervision (light grey, black grey, yellow, orange and red).

The following schema describes the different areas.



4 CORRIDOR BASELINE MAINTENANCE

Due to the ongoing consolidation process of the ERTMS specifications, it can be expected that new change requests will be generated which could be relevant for one or more projects of the 2007 Corridor group. So, it is necessary to describe the Corridor baseline maintenance management for the implementation of the ERTMS baseline in the projects of the 2007 Corridor group.

The 2007 Corridor group will consider new change requests only when they are necessary for operation in the relevant corridor projects. In more, the group will take care that compatibility between ERTMS implementations within 2007 and in the future is not jeopardized by introduction of change requests.

4.1 ORGANISATION

At this moment, the 2007 Corridor group already performs, although implicitly, the corridor baseline maintenance management. In the meetings of the 2007 Corridor Group, operational, functional and technical aspects are dealt with.

To have a formal approval for each new version of the corridor baseline, it is necessary to agree on the implementation of the baseline, at a higher organisational level of the projects concerned, since consequences for planning and costs can be substantially. At this level, the "2007 Corridor Management Group" will be established, consisting of the responsible managers for the projects concerned:

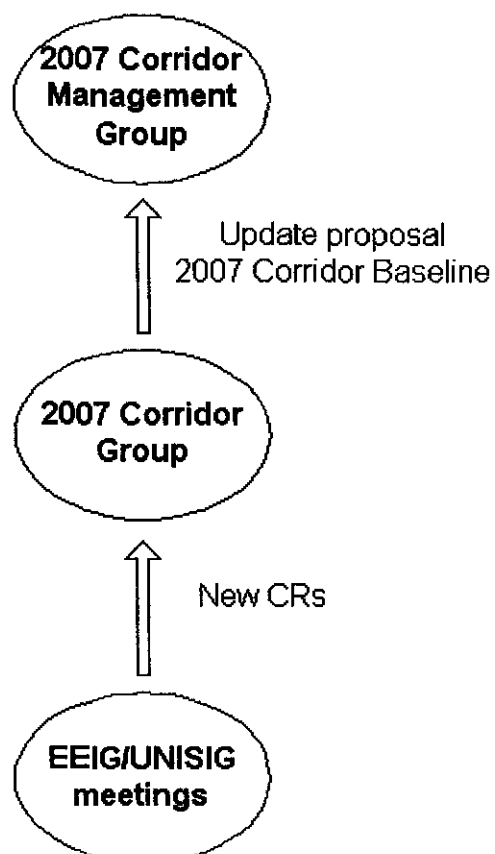
CFL: D. Thull

DB: J. Hartmann

HSL-ZUID: P.J. van Kleunen

INFRABEL: J.L. Ghisbain

RFF: P. Castan



ANNEXE 1. Optional change requests for Baseline Version 1

Annexe 1.1. CR U5: "Message names"

Request ID 0000000005

Problem headline Message names

Problem description The Figures 3 and 4 of SRS section 3 use different message names than the names defined inside section 8 of the same SRS. Only the use of the same message name ensure an unambiguous assignment.

UNISIG solution Figure 3:

- Replace CommSessINIT by "Initiation of communication session" (see section 8.6.13 of SRS)
- Replace System Version by "Configuration Determination" (see section 8.7.12 of SRS)
- Replace Session EstablishedRep by "Session established" (see section 8.6.17 of SRS)

Figure 4:

- Replace CommSessINIT by "Initiation of communication session" (see section 8.7.16 of SRS)
- Replace Session EstablishedRep by "Session established" (see section 8.6.17 of SRS)

Impacted documents Subset-026-3 V2.2.2 3.5 Figures 3,4
Subset-026-8 V2.2.2 8.6.13, 8.6.17, 8.7.12, 8.7.16

Remarks

Type of change editorial / clarification

Annexe 1.2. CR U10: "Message flow during termination of a communication session"**Request ID** 0000000010**Problem headline** Message flow during termination of a communication session

Problem description b) Replace CommSessEND by some abbreviation of correct message ID "Termination of a communication session"
c) Replace CommSessEND ack by "Acknowledgement of termination of a communication session"

UNISIG solution b) Replace CommSessEND by "Termination of communication session"
c) Replace CommSessEND ack by "Acknowledgement of termination of communication session"

Impacted documents Subset-026-3 V2.2.2, 3.5.5. fig 5**Remarks** Clause a) is not relevant and has been deleted**Type of change** editorial / clarification

Annexe 1.3. CR U12: "Supervision of sequence"**Request ID** 0000000012**Problem headline** Supervision of sequence

Problem description The specified function does not guarantee the correct sequence: it cannot detect lost messages. Supervision of sequence implies detection of all sequence errors.
Rename the function e.g. supervision of timeliness.

UNISIG solution Add note 3.16.3.3.3.1 : The supervision does not detect a lost message. This has to be assured by means of the "acknowledge" function.

Impacted documents Subset-026-3 V2.2.2, 3.16.3.3

Remarks

Type of change editorial / clarification

Annexe 1.4. CR U15: "NID-C description"**Request ID** 0000000015**Problem headline** NID-C description**Problem description** Incorrect NID-C description**UNISIG solution** Change Description:
...in which the balise group, the RBC or the RIU is situated.**Impacted documents** Subset-026 V2.2.2, 7.5.1.86**Remarks****Type of change** editorial / consistency

Annexe 1.5. CR U20: "Pending communication session"

Request ID	0000000020
Problem Headline	Pending communication session
Problem Description	<p>When the safe connection has been lost (e.g. network caused disconnection), the RBC has</p> <ul style="list-style-type: none"> - to keep the communication session and - to wait for re-establishment of the safe connection by on-board unit. <p>If the on-board unit is not able to re-establish the safe connection, it terminates its communication session. There is no way to send the respective information to the RBC, because of the missing safe connection. The RBC communication session is pending.</p> <p>In the case of bad radio conditions, after some time RBC resources could be blocked.</p> <p>Actions should be specified based on maximum delay specified for establishment of safe connection.</p> <p>Assumptions:</p> <p>Connection establishment delay: ≤ 40 s</p> <p>Number of connection establishment trials: 3</p>
Decision by CR-Board	<p>Accepted.</p> <p>Add new line to Table A3.1 (List of Fixed Value Data): Maximum time to maintain a communication session in case of failed re-connection attempts: 5 minutes</p> <p>EEIG reply 14-10-03:</p> <p>We agree with the time limit of 5 minutes, but to avoid any misunderstanding we recommend the following editorial improvements:</p> <ol style="list-style-type: none"> 1) Clarify the relation between the limit of 5 minutes and the number of times to try to establish a safe connection (3 times in A3.1). We understand that the 5 minutes includes the 3 attempts and NOT that each attempt could last for 5 minutes, giving a total of 15 minutes. Please make this explicit in the SRS. 2) SRS 3.5.3.7 refers only to "a defined number of times". The 5 minutes time limit should be added. Compare also SRS 3.5.4.3 which refers only in general to "Conditions for stopping the attempts as defined in A3.1". It may be better to reformulate 3.5.3.7 in the same way as 3.5.4.3, but taking the relation between the two "Conditions" (3 times and 5 minutes) into account as indicated above in 1). <p>UNISIG 17/11/03</p> <p>Postponed: Clarify with radio approach to establish connection taking into account degraded cases, also change of network.</p>

	<p>UNISIG 18.2.04</p> <p>Regards 1) Modify second bullet or 3.5.4.3 to read: " Maximum number of attempts to re-establish the safe connection (as defined in A3.1) has been reached."</p> <p>Add new requirement 3.5.4.3.1 : "If the safe connection is not re-established after a defined time (as defined in A3.1), both, on-board equipment and trackside, shall consider the session as terminated."</p> <p>Regards 2) Rejected. For establishing a new session, the time limit is not applicable.</p> <p>UNISIG 29/09/05:</p> <p>Decision 18/02/04 to be revised as consequence of CR 599. Attached is a proposal ("Proposal CR 20 wg. CR 599.doc") for the modification of CR 20, worked out by some members of the SG. The clauses affected by the proposed changes are marked in yellow. Note: The proposal tries at the same time to make editorial improvements of the requirements in section 3.5.4 (Maintaining a communication session).</p> <p>UNISIG 17/11/05 Attachment agreed, see attachment</p>
References	Subset 026-3, V2.2.2, 3.5.4.3, A3.1
Remarks of CR-Board	<p>The CR board has put this requirement to the on-board to be in line with general approach of UNISIG specify mainly the on-board side of ETCS. The time limit of 5 minutes has been chosen generously to be "on the safe side" with regards to the described use.</p> <p>18.02.04 (regards 3.5.4.3.1) :</p> <p>The SG considers it not useful to terminate the session on-board earlier than trackside</p>
Type of change	Technical / requested by EEIG
Change backward compatible	
Economical evaluation	
List of attachments	Proposal CR 20 wg. CR 599.doc
Date of last modification	17.11.2005

"Proposal CR 20 wg. CR 599.doc"

- 3.5.3.4 The on-board shall establish a communication session
- a) At Start of Mission (only if level 2 or 3).
 - b) If ordered from the trackside, unless currently being established or already established with the same RBC/ RIU.
 - c) When reporting a change of mode, if no session is established.
 - d) See CR 298
 - e) When communication session has been terminated inside an announced radio hole, and the train front reaches the end of this radio hole (refer to 3.5.4.6)

3.5.4 Maintaining a communication session

- 3.5.4.1 When a communication session is established, in case of a loss of the safe radio connection, i.e, if the disconnection has not been ordered (see 3.5.5.1), the involved entities shall consider the communication session still established for a defined time. The defined time shall start as soon as EURORADIO has indicated the loss of the safe radio connection.
- 3.5.4.2 When EURORADIO indicates the loss of the safe radio connection, the ERTMS/ETCS on-board equipment shall immediately try to set-up a new safe radio connection
- 3.5.4.2.1 If the safe radio connection is not re-established after the defined time (as defined in A3.1), both, on-board equipment and trackside, shall consider the session as terminated, and the ERTMS/ ETCS on-board equipment shall inform the driver (*modifies decision of CR 543*).
- 3.5.4.3 The attempts shall be repeated , until at least one of the following conditions is met:
- The safe radio connection is set-up.
 - the session is considered as terminated.
- 3.5.4.4 (*moved to 3.5.4.2.1*)When the safe radio connection is lost inside an announced radio hole (see section 3.12.1.3), the on-board equipment shall try to re-establish the safe radio connection when the train front reaches the end of the radio hole.

Annexe 1.6. CR U30: "Editorial clarifications"

Request ID	0000000030
Problem Headline	Editorial clarifications
Problem Description	<p>a) SRS 2.2.2, 3.5.3.5 b) Replace " to" by "of"</p> <p>b) SRS 2.2.2, 3.10.1.3 Split into two sections or Move the second sentence from 3.10.1.3 to 3.10.1.4</p> <p>c) SRS 2.2.2, 3.16.3.1.4 The following chapters define -> detailed definition of chapters required</p> <p>d) SRS 2.2.2, 3.18.4.4.1 The ETCS variable specified for on-board equipment identification has been called NID ENGINE. Delete the misleading term: train identity which implies something like train ranning number.</p> <p>e) SRS 2.2.2, 4.7.2.1.2 What is the meaning of Radio hole control</p>
Decision by CR-Board	<p>a) accepted. See problem description</p> <p>b) accepted. Move second paragraph to new clause 3.10.1.3.1</p> <p>c) accepted. Add reference to 3.16.3.2 to 3.16.3.5</p> <p>d) rejected. It is said above : ETCS identity</p> <p>e) accepted. Replace by : radio hole, supervision of safe radio connection stopped</p>
References	<p>Subset 026-3, V2.2.2, 3.5.3.5 b), 3.10.1.3, 3.16.3.1.4</p> <p>Subset 026-4, V2.2.2, 4.7.2.1.2(Table)</p>
Remarks of CR-Board	
Type of change	<p>a) editorial / style</p> <p>b) editorial / structure</p> <p>c) editorial / clarificaiton</p> <p>d) -</p> <p>e) editorial / clarification</p>
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.7. CR U31: "Clarification of terms"

Request ID	0000000031
Problem Headline	Clarification of terms
Problem Description	<p>a) SRS 2.2.2, 3.5.5. fig 5 Replace CommSessEND by some abbreviation of correct message ID "Termination of a communication session"</p> <p>Replace CommSessEND ack by "Acknowledgement of termination of a communication session"</p> <p>b) SRS 2.2.2, 3.5.5.3 - 3.5.5.6 Replace End of communication session by "Termination of a communication session"</p> <p>c) SRS 2.2.2, 3.12.1.3. Replace radio link by "safe radio connection"</p> <p>d) SRS 2.2.2, 3.14.1.7. Replace radio link by "safe radio connection"</p> <p>e) SRS 2.2.2, 3.16.3.2.3 Replace radio session by "communication session"</p> <p>f) SRS 2.2.2, 4.5.2.1 Replace Check radio link by "Check safe connection"</p> <p>g) SRS 2.2.2, 8.7.16 Rename the message. Initiation of communication session is used for message 155 (section 8.6.13). The format of message 38 is different to message 155.</p> <p>h) SRS 2.2.2, 3.5.4.4 Replace radio connection by "safe radio connection"</p> <p>i) SRS 2.2.2, 3.15.1.1.2, 3.15.1.3.1, 3.15.1.3.5.1, 3.15.1.3.6 Replace ERTMS/ETCS session by "communication session"</p> <p>j) SRS 2.2.2, 3.10.1 The term High priority channel implies something like a separate physical channel. There is no high priority channel! Replaceusing the high priority channel... by ... as high priority data...</p> <p>k) SRS 2.2.2, 3.18.4.4.1 The ETCS variable specified for on-board equipment identification has been called NID ENGINE. Delete the misleading term: train identity which implies something like train running number.</p>
Decision by CR-Board	<p>a) agreed: Replace CommSessEnd by "Termination of communication session"</p> <p>Replace CommSessEndack by "Acknowledgement of termination of communication session"</p> <p>b) agreed: Replace CommSessEnd by "Termination of communication session"</p>

	<p>c) agreed. d) agreed. e) agreed. f) agreed. g) rejected. h) agreed, i) agreed, j) rejected. k) rejected.</p> <p>Further :</p> <p>Modify 3.16.3.4, Title of figures 36& 37, A3.3, A3.4.1i from "radio link" to "safe radio connection"</p> <p>21/01/05: Add regards i) following references: 3.15.1.1.3, 3.15.1.3.2, 3.15.1.3.7</p> <p>17/03/05:</p> <p>Replace "safe connection" by "safe radio connection" in following clauses: 3.5.2.2, 3.5.3.7 a) b), 3.5.3.10 a) b), 3.5.4.1, 3.5.4.2, 3.5.4.3, 3.5.4.3.1, 3.5.5.2 c), 3.9.3.17, 3.16.4.3, 3.16.4.1, A3.1</p> <p>Replace "radio connection" by "safe radio connection" in following clause: 3.10.3.4</p> <p>Replace "radio link" by "radio connection" in clause: 3.10.1.1.1</p>
References	<p>Subset 026-3, V2.2.2, 3.5.2.2, 3.5.3.7 a) b), 3.5.3.10 a) b), 3.5.4.1, 3.5.4.2, 3.5.4.3, 3.5.4.3.1, 3.5.5.2 c), 3.5.5.3-3.5.5.6, 3.9.3.17, 3.10.3.1.1.1, 3.10.3.4, 3.12.1.3, 3.14.1.7, 3.16.3.2.2, 3.5.4.4, 3.15.1.1.2, 3.15.1.1.3, 3.15.1.3.1, 3.15.1.3.2, 3.15.1.3.5.1, 3.15.1.3.6, 3.15.1.3.7, 3.16.3.4.3, 3.16.4.1, A3.1</p> <p>Subset 026-4, V2.2.2, 4.5.2.1</p>
Remarks of CR-Board	
Type of change	<p>a) editorial / clarification b) editorial / consistency c) editorial / consistency d) editorial / consistency e) editorial / consistency f) editorial / consistency g) - h) editorial / consistency i) editorial / consistency j) - k) -</p>

Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	17.03.2005

Annexe 1.8. CR U39: "Restricted use of duplicated balises"**Request ID** 0000000039**Problem headline** restricted use of duplicated balises**Problem description** The use of duplicated balises is restricted in requirement 3.16.2.4.2.

This restriction is missing in requirement 3.16.2.4.4.

UNISIG solution In 3.16.2.4.4 and in 3.16.2.5.1 the same restrictions as in 3.16.2.4.2 are applicable**Impacted documents** Subset-026-3, V2.2.2 3.16.2.4.1, 3.16.2.4.4, 3.16.2.5.1**Remarks****Type of change** editorial / consistency

Annexe 1.9. CR U40: "Position report in case of passing an unlinked balise group"

Request ID	0000000040
Problem Headline	position report in case of passing an unlinked balise group
Problem Description	<p>a) Does chap. 3.6.5.1.5d mean, that on-board sends a position report also when an unlinked balise group is passed</p> <p>b) There is an inconsistency between 3.6.1.5d (every balise group) and 7.5.1.69 (M LOC each balise).</p>
Decision by CR-Board	<p>Accepted</p> <p>a) Modify 3.6.5.1.5d to read : At every passage of a LRBG compliant (see 3.6.2.2.2) balise group</p> <p>b) Modify 7.5.1.69 as follows</p> <p>For 001 : replace with "Every LRBG compliant balise group"</p> <p>For 010 : replace with "Do not send position report on passage of LRBG compliant balise group"</p> <p>For 011: Delete (spare from 011 to 111)</p> <p>Remark:</p> <p>(1) Clause 3.6.2.2.2 specifies that unlinked balise groups cannot be used as LRBG.</p> <p>Added 19.1.04:</p> <p>Modify 3.6.5.1.4.j to read : ".. At every passage of an LRBG compliant balise group (see 3.6.2.2.2)"</p>
References	<p>Subset 026-3, V2.2.2, 3.6.2.2.2, 3.6.5.1.5</p> <p>Subset 026-7, V2.2.2, 7.5.1.69</p>
Remarks of CR-Board	
Type of change	editorial / clarification
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	

Annexe 1.10. CR U41: "Position report in every train-to-track telegram"**Request ID** 0000000041**Problem headline** position report in every train-to-track telegram

Problem description The description in 7.4.3.1 says that the position report is inserted in every train-to-track telegram. This contradicts chap. 8.4.4.7.2 where exceptions are listed.

UNISIG solution Delete in 7.4.3.1 Description "is inserted in all track to train telegrams and"

Remark: (duplicate to EEIG CR)

Impacted documents SUBSET-026-07 V2.2.2 7.4.3.1
SUBSET-026-08 V2.2.2 8.4.4.7.2

Remarks

Type of change editorial / consistency

Annexe 1.11. CR U44: "Specific output in case of braking due to unexpected balise messages"

Request ID 0000000044

Problem headline specific output in case of braking due to unexpected balise messages

Problem description Is there a specific output shown to the driver in case of braking due to unexpected balise messages ?

- 3.16.2.6.1 When the linking reaction to train trip or a service brake application, the driver shall be informed that the intervention is due to data consistency problem with the expected balise group.
- 3.17.3.5 If the version is not compatible, the train shall be tripped and an indication shall be given to the driver.

A suitable output for both cases is not specified in table 4.7.2.1.2.

UNISIG solution Output information : "Error messages" to be added to table 4.7.2

Impacted documents Subset-026-3, V2.2.2 3.16.2.6.1, 3.17.3.5
Subset-026-4, V2.2.2 table 4.7.2

Remarks

Type of change editorial / consistency

Annexe 1.12. CR U49: "Telegram or Message Counter"**Request ID** 0000000049**Problem headline** Telegram or Message Counter**Problem description** an editorial mistake only:

The variable M_MCOUNT is called "telegram counter" in chap.
8.4.2.1 and "message counter" in 7.5.1.71.

UNISIG solution change variable to "message counter" in 8.4.2.1; change "identity"
to "value of the message counter" in 3.16.2.4.7**Impacted documents** Subset-026-7 V2.2.2 7.5.1.71
Subset-26-8 IV2.2.2 chapter 8.4.2.1
Subset-26-3 issue 2.2.2 chapter 3.16.2.4.7**Remarks****Type of change** editorial / consistency

Annexe 1.13. CR U51: "Position Reporting in RV Mode"

Request ID 0000000051

Problem headline Position Reporting in RV Mode

Problem description position reporting in RV mode position report also useful in the RV mode according to position report parameters

The train shall send position reports according to the position report parameters also in the Reversing mode. It can enter the Reversing mode only from FS or OS, i.e. normally position report parameters exist. Up to now, according to the active functions table (req. 4.5.2) position reporting is only required for balise group passage.

UNISIG solution Add "x" in Active Function Table (4.5.2) for "Report train position when train reaches standstill" and "Report train position as requested by RBC"

In Table 4.8.4:

-Accept position report parameters in RV mode

Delete clause 4.4.18.1.6

Impacted documents Subset-26-4 V2.2.2 4.4.18.1.6, Table 4.5.2, Table 4.8.4

Remarks

Type of change technical / consistency / minor

Annexe 1.14. CR U57: "Mode related speed restriction in SH"

Request ID 0000000057

Problem headline Mode related speed restriction in SH

Problem description Reference to the national value in 4.4.8.1.1 is incomplete, complete description is given in 3.11.7.1 where also the possibility of a value given by trackside is described.

UNISIG solution Delete "(national value)" in 4.4.8.1.1 a).

Impacted documents Subset-026-03 V2.2.2 Chapter 3.11.7.1,
Subset-026-04 V2.2.2 Chapter 4.4.8.1.1 a)

Remarks

Type of change editorial / consistency

Annexe 1.15. CR U58: "Incorrect comment on NID_STM in packet 72"

Request ID 0000000058

Problem headline incorrect comment on NID_STM in packet 72

Problem description The "comment" on STM is incorrect in packet 72. It shall be
M_LEVEL_TEXTDISPLAY instead of M_LEVELTR.

UNISIG solution replace M_LEVELTR by M_LEVEL_TEXTDISPLAY

Impacted documents SUBSET-026-07 V2.2.2, 7.4.2.22

Remarks

Type of change editorial / consistency

Annexe 1.16. CR U63: "Odometry inaccuracy at track conditions"

Request ID	0000000063
References	SUBSET-026 V222 3.12.1
Problem Headline	EEIG ref 02Q071: Odometry inaccuracy at track conditions
Problem Description	<p>The track condition function is used to inform the driver and/or the train of a condition in front of the train (SRS 3.12.1.1). The type of track conditions to be covered by this function may be powerless section, lower pantograph, switch off main power switch, etc (SRS 3.12.1.3)</p> <p>The SRS 3.12.1.4 and 3.12.1.5 indicate that the information in relation with these functions must be displayed on the MMI. However, it is not indicated which train position have to be taken for the implementation of the function as well as for the release of the function</p>
Solution Proposal by Submitter	For the location to implement the function, the onboard equipment shall take into account the maximum safe front end position of the train. For the release of the function, onboard equipment shall take into account the minimum safe front end position of the train minus train length. Depending on the type of track condition (e.g. change of traction voltage) only part of the train length (e.g. the part where the pantographs are) is relevant for this function.
Remarks of Submitter	CLR
UNISIG Solution	<p>Accepted.</p> <p>Add new paragraph 3.12.1.2.1: The starting point of a profile type track condition shall be established taking into account the max safe front end of the train, the end of the profile the min safe rear end of the train. Location type data shall be evaluated taking into account the max safe front of the train.</p> <p>Add new paragraph 3.12.1.2.1.1: Note: The timing of output data to control train equipment (e.g., pantograph) is application specific.</p> <p>Delete clause 3.12.1.4</p>
Contents Remarks	CLR
Attachment of Submitter	n
Attachment of UWP	n
Attachment of CR-Board-Member	n
Attachment of CR-Board	n

Annexe 1.17. CR U65: "SH max speed defined in default value"

Request ID	0000000065
References	SUBSET-026 V222 A 3.2
Problem Headline	EEIG ref 02Q082: default shunting speed
Problem Description	<p>In the area of DB AG the maximum speed for shunting is defined as 25 km/h.</p> <p>For a train in shunting mode, that has not received national data, the maximum speed is defined by the default value as 30 km/h.</p> <p>That is for DB AG not correct.</p>
Solution Proposal by Submitter	<p>Shunting mode permitted speed limit = 25 km/h as default value.</p> <p>(V NVSHUNT = 25 km/h)</p>
Remarks of Submitter	CR
UNISIG Solution	<p>Shunting mode permitted speed limit = 25 km/h as default value.</p> <p>(V NVSHUNT = 25 km/h)</p>
Contents Remarks	CR
Attachment of Submitter	n
Attachment of UWP	n
Attachment of CR-Board-Member	n
Attachment of CR-Board	n

Annexe 1.18. CR U66: "Non relevant information for driver"

Request ID	0000000066
Problem Headline	EEIG ref 02Q083: Non relevant information for driver
State	Solution found by CR-Board
References	SUBSET-026 V222 3.10.2.1.3
Problem Description	In some cases the driver obtains information, which are non-relevant to him.
Solution Proposal by Submitter	<p>The driver should only obtain information, if a reaction is needed or if he must be informed about an important occasion.</p> <p>Non-relevant information should not be given to the driver.</p> <p>For example: In the case the emergency message is ignored, the driver shall not be informed.</p>
Remarks	<p>CR</p> <p>This request has been agreed by the Operational Rules group in EEIG.</p>
Name of Submitter	Robert Dijkman
Company of Submitter	EEIG
E-mail-address of Submitter	rdijkman@ertms.be
Date of receipt	06.09.2002
Solution by CR-Board	<p>Pending (Users Group)</p> <p>What is relevant information for the driver can only be decided on basis of the common operational rules to be produce by the railways.</p> <p>User Group to identify UNISIG on basis of the agreed Operational Rules what is to be considered relevant information (i.e., what is to be deleted (or to be added))</p> <p>Decision reviewed on 15/01/03 due to comments received fom EEIG:</p> <p>Agreed:</p> <p>In the first bullet of 3.10.2.1.2 delete "and the driver".</p> <p>See attachment from EEIG</p>

Annexe 1.19. CR U68: "Mode transition cases reported to RBC"

Request ID	0000000068
State	EEIG pending
Problem Headline	EEIG ref 02Q089: Reporting mode changes to the RBC
Problem Description	In such modes as Shunting, Stand by, a.o., radio communication is not necessarily established. On the other hand the onboard equipment has to transfer the position information by changing the modes.
Decision by CR-Board	Accepted. Modify line in Active Functions Table (SRS 4.52) referring to 3.6.5.1.4 b) by adding footnote : For ETCS levels 2 and 3 this shall imply establishing a radio communication session if none is established. 18/11/04: Decision modified by CR 560 to read: "For ETCS levels 2 and 3 this may imply establishing a radio communication session if none is established."
References	Subset 026-4, V2.2.2, 4.5.2(Table)
Remarks of CR-Board	
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
Type of change	Technical / gap
Change backward compatible	
List of attachments	
Date of last modification	18.11.2004

Annexe 1.20. CR U71: "Pos. Rep. in all Train>RBC messages"

Request ID	0000000071
References	SUBSET-026 V222 8.6.7 / 8.6.13 / 8.6.14 / 8.6.15
Problem Headline	EEIG ref 02Q074: Insertion of packet 0 in all messages from train to RBC
Problem Description	<p>It is indicated in SRS §7.4.3.1 that packet number 0, "Position Report" is inserted in all train to track telegrams and is used to report the train position.</p> <p>The following train to track messages do not include packet number 0 ;</p> <p>Message 146 Acknowledgement Message 154 No compatible version Message 155 Initiation of a communication session Message 156 Termination of a communication session</p> <p>At first it seems necessary to include packet number 0 in message 146. For the three other messages it may perhaps not be necessary. If it was the case, § 7.4.3.1 of SRS should be modified in order to indicate that this packet is not inserted in all train to track telegrams.</p>
Solution Proposal by Submitter	Include packet number 0 in messages 146, 154, 155, 156 or modify paragraph 7.4.3.1 of SRS.
Remarks of Submitter	CLR
UNISIG Solution	<p>Delete in 7.4.3.1 / Description: "is inserted in all track to train telegrams and ".</p> <p>Justification: It is useless to add packet 0 to message 146 "Acknowledgement", it only makes the acknowledge slower. For messages 154, 155, 156, 159: they are all linked to the session establishment and hence they should remain invariant from version to version (M VERSION). Therefore, packet 0 shall not be added to these messages. Also, from a functional point of view, these messages do not require a position report to be added.</p>
Contents Remarks	CLR
Attachment of Submitter	n
Attachment of UWP	n
Attachment of CR-Board-Member	n
Attachment of CR-Board	n

Annexe 1.21. CR U74: "Same Subset number as JRU FFFIS"

Request ID 000000074

Problem headline Subset Number the same as for the JRU FFFIS

Problem description Confusion results in the management of documents. Document also required to be referenced in Annex A of the TSI

UNISIG solution Renumber the document to Subset 028

Impacted documents Subset 027 JRU Test Specification

Remarks This CR is linked to the upissue of subset 027, the JRU FFFIS covered in a separate CR.
Document renumbered to Subset 028 is attached at issue 2.0.1 to match the current version of the FFFIS. Subject to the SG approval of the FFFIS at 2.2.2 the final issue for release of this document should also be 2.2.2.

Type of change editorial (consistency)

Annexe 1.22. CR U76: "Splitting of an ERTMS train"

Request ID	0000000076
Problem Headline	EEIG ref 02Q068: Splitting of an ERTMS train
State	Solution found by CR-Board
References	SUBSET-026 V222 5.14.2.1
Problem Description	<p>The procedure for splitting a train SRS §5.14.2.1 indicates that if the "front train after splitting" or the "new train after splitting" needs to move a few metres to complete the physical split, this can be done (under driver responsibility) in SR or SH mode.</p> <p>SNCF requires the possibility to move the rear train (new train after splitting) of a few meters to complete the physical split.</p>
Solution Proposal by Submitter	<p>In addition to SR or SH mode, the moving of a train during splitting operation should also be possible in SB mode in the limit of the train dependant distance (SRS §3.14.4.1) which is a national value.</p> <p>The value for the train dependant distance in SB mode seems to be provided by the variable D NVROLL (Roll away distance limit), but this point is not clear. Please confirm if D NVROLL is used for train dependant distance.</p>
Remarks	CLR
Name of Submitter	Robert Dijkman
Company of Submitter	EEIG
E-mail-address of Submitter	rdijkman@ertms.be
Date of receipt	11.09.2002
Solution by CR-Board	<p>It is confirmed that also for Standstill Supervision the distance D NV</p> <p>ROLL applies : the description of the national parameter D NVROLL in 7.5.1.17 needs to be adapted to allow for this.</p> <p>Within the (national/default) limits of D NVROLL the train may be moved for uncoupling.</p> <p>Decision reviewed on 15/01/03 due to comments received from EEIG (CLR076 response.rtf):</p> <p>Add new clause 5.14.2.1.1 reading : " Note: If removing the mechanical or electrical links requires moving the two train parts apart from each other for a small distance, this can be done even in SB mode"</p>

Annexe 1.23. CR U78: "Odo accuracy end of speed restriction"

Request ID	0000000078
References	SUBSET-026 V222 3.13.6
Problem Headline	EEIG ref 02Q070: Odometry inaccuracy at exit of speed restriction
Problem Description	<p>The SRS provides indications on how shall react the on board equipment when calculating brake curves taking account of the odometry inaccuracy. For example :</p> <p>the distance to the EOA taking into account the estimated position of the front train (SRS-3.13.6.3.2.3a)</p> <p>The distance to the SL taking into account the maximum safe front end position (SRS 3.13.6.3.2.3b).</p> <p>For the entry of a speed restriction section, the supervision with regards to the target location shall refer to the train front using the max safe value (SRS 3.13.6.2.4)</p> <p>For the exit of a speed restriction section, it is not indicated in the reference documents which position of the train must be taken into account by the onboard equipment (estimated position of the front end, maximum safe front end position or minimum safe front end position).</p>
Solution Proposal by Submitter	Indicate in the reference documents that in case of exit of a speed restriction section, the onboard equipment shall take into account the minimum safe front end position minus train length.
Remarks of Submitter	CLR
UNISIG Solution	<p>Accepted.</p> <p>The SRS is to be updated as follows:</p> <p>Modify clause 3.13.3.3.1 to read:</p> <p>The speed monitoring with respect to the most restrictive speed profile shall take into account the minimum of the static speed restrictions applicable to the train (see section 3.11.9):</p> <p>a) The location of a speed decrease shall be supervised by the on-board equipment taking into account the max safe front end of the train (see also section 3.13.6.2.4)</p> <p>b) The location of a speed increase shall be supervised by the on-board equipment taking into account the min safe front end of the train, or, when requested, the min safe rear end of the train.</p> <p>Add reference to clause 3.13.6.2.4 : ... (see also section 3.13.3.3.1).</p>
Contents Remarks	CLR
Attachment of Submitter	n
Attachment of UWP	n
Attachment of CR-Board-Member	n
Attachment of CR-Board	n

Annexe 1.24. CR U86: "Specific engineering rule"

Request ID 000000086

Problem headline Specific engineering rule

Problem description Even if linking is active, the onboard kernel will still accept data from erroneous information points (cross talk) that are marked as not being linked so that the telegrams need pass only the message consistency checks.

UNISIG solution Add engineering rule (SUBSET-040) that balises marked as unlinked must not contain movement authority or other permissive data according to the UNISIG safety analysis. Exceptions to be justified by individual project

Impacted documents Subset-088-2 V2.2.2 Part 3 Annex
Subset-026-3 V2.2.2 3.4.4.4.2
Subset-040 V2.0.0

Remarks

Type of change technical / safety / minor

Annexe 1.25. CR U90: "High priority channel (3)"

Request ID 0000000090

Problem headline High Priority channel (3)

Problem description It is possible that an Emergency Stop message through the High Priority channel is received by the onboard system before a message from the normal (safe) channel.
The EM may invalidate the consistency of the safe message as the timestamps may be received in the wrong order.

UNISIG solution According to SRS 3.16.3.1.4 high priority messages are excluded from the sequence check, that implies that also the time stamp of the high priority message is not used for sequence checking. For clarification purposes add new clause 3.16.3.3.1 "Only time stamps of messages arriving over the normal priority channel shall be used".

Impacted documents Subset-026-3 V2.2.2 3.16.3.1.4, 3.16.3.3.1

Remarks

Type of change editorial / clarification

Annexe 1.26. CR U96: "EM regarding transmission error"

Request ID 000000096

Problem headline Emergency Message regarding transmission error

Problem description Conditional Emergency Message is subject to transmission errors, that are not mitigated by the ETCS as there is no safety code in the High Priority channel of Euroradio.
The Conditional Emergency Message may be modified in the parameters for time or space conditions, and still be a consistent message.
The shortcut solution is usage of Unconditional Emergency Message as it is acknowledged, thus safer.

UNISIG solution Covered by CR 0000094.

UNISIG Solution from CR 0000094:
Emergency stop messages shall be sent in parallel over the normal priority (safe) channel.
Justification:
even in noisy environment the normal priority message may arrive in a safe way where the high priority message is corrupted repeatedly
This eliminates the need for test messages for high priority Channel

Update table 8.5.3. accordingly: E+N for message 15 and 16
Modify 3.10.1.1 ... using the normal priority channel and in parallel the high priority
Modify 3.16.3.1.2 ...shall be transmitted in parallel over the high priority channel and the normal priority channel ...

Impacted documents Subset-026-3 V2.2.2 3.10.1.1, 3.16.3.1.2
Subset-026-8 V2.2.2 table 8.5.3

Remarks

Type of change technical / safety / minor

Annexe 1.27. CR U99: "MMI versus internal information »

Request ID 0000000099

Problem headline MMI versus internal information

Problem description In RV mode a level transition order/announcement will be rejected (4.8.4.2) but for the MMI output this information is available (4.7.2.1.2).

UNISIG solution Table 4.7.2.1.2 to be corrected

Impacted documents Subset-026-4 V2.2.2 4.8.4.2; 4.7.2.1.2

Remarks

Type of change editorial / consistency

Annexe 1.28. CR U100: "MMI versus mode table »

Request ID	0000000100
Problem Headline	MMI versus mode table
Problem Description	The list of modes in 5.8.2.1. b seems to be not in line with the MMI versus mode table 4.7.2.1.2 (Override request, Override status)
Decision by CR-Board	<p>Accepted.</p> <p>Update Table 4.7.2 according to the SRS chapter 5.8</p> <p>Output :</p> <ul style="list-style-type: none"> - Permission to select override: "A" in modes FS, OS, SR, SH, UN, PT, SB, SE, SN - Correct table 4.7.2 for output "override status" : delete "A" for FS, OS, add "A" for SH - Status "override active" not mentioned in 5.8 : <ul style="list-style-type: none"> > Add new clause 5.8.3.7: The status override active shall be indicated to the driver > Add to 5.8.2.1 b SE, SN mode <p>EEIG reply 16-04-03</p> <p>Not yet completely agreed. First bullet should be deleted. The proposal in EEIG CR 86 solves this problem in a better way. (When the override button becomes available for the driver only under certain conditions, there is no need for a specific output to indicate the permission to use this button.)</p> <p>UNISIG reply 25.06.03: Rejected: Showing the "Override" button is just one of the possible implementations of giving permission to press "Override"</p> <p>EEIG reply 16-09-03</p> <p>Maybe the wording between brackets in the EEIG reply was not clear enough. The word "available" may be misleading, but it is the word used in 4.7.2.1.2. to indicate that the input is active only if certain conditions are fulfilled. That means the onboard shall never accept this input if the relevant condition is not fulfilled.</p> <p>Compare also 5.8.2.1 which clearly states that "the override button becomes available" only when certain conditions are fulfilled.</p> <p>UNISIG reply 21/10/03:</p> <p>It looks like we finally understood your reply 16-04-03:</p> <p>We accept the deletion of the 1st bullet of our initial decision, i.e. not to include "Permission to select override: "A" in modes FS, OS, SR, SH, UN, PT, SB, SE, SN" in table 4.7.2 (output)</p>

2007 CORRIDOR BASELINE: DEFINITION OF THE REFERENTIAL

References	Subset 026-4, V2.2.2, 4.7.2.1.2(Table) Subset 026-5, V2.2.2, 5.8.3.7, 5.8.2.1b)
Remarks of CR-Board	
Type of change	Editorial / consistency
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.29. CR U103: "Acceleration missing in Train Data"

Request ID	0000000103
Problem Headline	There is no acceleration data specified as specific train data.
State	Solution found by CR-Board
References	Subset-026-3 v.2.2.2 3.13.3.6.3; 3.18.3
Problem Description	There is no acceleration data specified as specific train data.
Solution Proposal by Submitter	
Remarks of Submitter	
Solution Proposals by CR-Board members	
Remarks of CR-Board members	
Decision by CR-Board	Accepted Modify 3.18.3.2 : Replace "Deceleration" with "Parameter" Decision reviewed 5/02/03 due to User Group comments: Modify 3.18.3.2 : Replace "Deceleration data" with "Traction / Brake Parameters"
Type of change	Editorial/clarification
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.30. CR U105: "Availability of Acknowledgement button"

Request ID 0000000105

Problem headline Availability of Acknowledgement button

Problem description Ackn of level transition and/or Ackn of Unfitted mode must be available also in UN mode itself, because the driver must have the possibility to acknowledge the transition after passing the level transition itself otherwise after 5 s the train will be stoped.
This is also valid for Ackn of On Sight mode in OS.

UNISIG solution Add for UN mode "A" for Ack Unfitted, and for OS mode "A" for Ack On Sight

Impacted documents Subset-026-4 V2.2.2 table 4.7.2 Input information

Remarks

Type of change editorial / consistency

Annexe 1.31. CR U119: "Non Leading is ended"

Request ID 0000000119

Problem headline Non leading is ended

Problem description Clarification
What does it mean NL is ended

UNISIG solution Rephrase condition [47] to read "Driver has selected "End of
Non-Leading Mode and train is at standstill

Impacted documents Subset-026-4 V2.2.2 list 4.6.3 Condition 47

Remarks

Type of change editorial / clarification

Annexe 1.32. CR U120: "Track Cond: Change traction power"

Request ID	0000000120
Problem Headline	Track Condition Change of traction power
Problem Description	What about Track Condition: Change of traction power . In which Level or mode will this Information be accepted
Decision by CR-Board	Accepted Table 4.8.4 Replace "Track conditions" with "Track conditions excluding big metal masses " Table 4.8.4 Replace " switch off balise transmission" with "Track condition big metal masses " Same changes to be made in table 4.10 25/02/05 (OG) To be added to previous decision (for consistency with chapter 4): Table A3.4, column "Data Stored on-board": - Modify "Track Conditions" to "Track Conditions excluding big metal masses" - Modify "Switch Off Balise Transmission" to "Track Condition big metal masses"
References	Subset 026-3, V2.2.2, A3.4 Subset 026-4, V2.2.2, 4.8.3(table) , 4.8.4(table), 4.10(table)
Remarks of CR-Board	
Type of change	editorial / clarification
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	25.02.2005

Annexe 1.33. CR U128: "Short number programmed in balise"

Request ID	0000000128
State	EEIG pending
Problem Headline	Short number programmed in balise identification.
Problem Description	In case the short number is programmed in the balise instead of the normal phone number, the onboard equipment is not able to differentiate this special number from the normal one.
Decision by CR-Board	Add "note" to 3.5.3.14 Decision enhanced 17/05/04: Replace in 3.5.3.14 "...shall be..." with "...is..." (do not use "shall" in a note)
References	Subset 026-3, V2.2.2, 3.5.3.14
Remarks of CR-Board	
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
Type of change	Editorial / clarification
Change backward compatible	
List of attachments	
Date of last modification	17.05.2004

Annexe 1.34. CR U133: "Requirement doesn't belong to the chapter"

RequestID 133

Problem Headline Requirement doesn't belong to the chapter

Problem Description This point is not related to the title of the chapter (message acknowledgement).

Solution Proposal by Submitter Change it to 3,5,5,1 c)

Remarks of Submitter No

Solution by CRBoard Accepted

Remarks of CRBoard

Type of Change Editorial/Structure

Impacted Documents Subset 026-3, issue 2.2.2, 3.16.3.5.4, 3.5.5.1.c)

optional: name of attachment

Annexe 1.35. CR U134: "L_MAMODE for a shunting area"

Request ID	0000000134
Problem Headline	L MAMODE for a shunting area
Problem Description	Variable L MAMODE is applicable both for OS mode and SH mode, but in chapter 4 is not specified the on-board equipment shall supervise the distance of the shunting area. Then, what s the action to be undertaken when the equipment leaves a shunting area
Decision by CR-Board	<p>Modify 3.12.4.2 last sentence to read : For SH mode the mode profile shall define the entry location to SH mode, for the length the value infinite shall be used.</p> <p>EEIG reply 16-04-03 Not agreed.</p> <p>Regarding the length in SH mode profile your solutions seems to specify a requirement for the trackside.</p> <p>That means we still do not know what the onboard will do if it receives a value other than infinite.</p> <p>From a system point of view it would be better to specify the requirement for the onboard instead of the trackside, e.g. ignore the value for the length sent by trackside in an SH profile and always use infinite onboard.</p> <p>Unisig reply 25.06.2003:Accepted: Modify 3.12.4.2 last sentence as follows: "For SH mode the mode profile shall only define the entry location to SH mode, any length given shall be ignored by the on-board"</p> <p>21/01/05: SG decision: Second sentence of 3.12.4.2 is unclear, modify as follows: "For SH mode the mode profile only defines the entry location to SH mode, any length given shall be ignored by the on-board"</p>
References	<p>Subset 026-3, V2.2.2, 3.12.4.2</p> <p>Subset 026-7, V2.2.2, 7.5.1.45</p>
Remarks of CR-Board	
Type of change	Editorial/ clarification
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	21.01.2005

Annexe 1.36. CR U137: "Q_EMERGENCYSTOP definition"

RequestID 137

Problem Headline Q EMERGENCYSTOP definition

Problem Description Definition is not clear, it might be in opposition with definition 7,5,1,107 in chapter 7.

Solution Proposal by Submitter Copy definition from 7,5,1,107.

Remarks of Submitter No

Solution by CRBoard Delete in 8.6.8 explanation to Field no. 6

Remarks of CRBoard

Type of Change Editorial/consistency

Impacted Documents Subset 026-8, issue 2.2.2, 7.5.1.107, 8.6.8

optional: name of attachment

Annexe 1.37. CR U138: "Brake release max RV distance"

RequestID 138

Problem Headline Brakes release after max reversing distance overpassed

Problem Description It doesn't specify when the emergency brake is released after application due to supervision of the max distance allowed to run in Reversing mode.

Solution Proposal by Submitter Release after driver acknowledgement

Remarks of Submitter No

Solution by CRBoard

- Modify clause 3.14.1.5 by adding " .. exceeding the reversing distance.. "
- Modify 4.4.18.1.3 last sentence : "The brake command shall be triggered if overpassing this distance"

Remarks of CRBoard Ref 4.4.18.1.3 : Inconsistency with 3.15.4.8 where only " brake" is specified, type of brake left open to implementation

Type of Change Editorial/consistency

Impacted Documents Subset 026-3, issue 2.2.2, 3.14.1.5, 3.15.4.8, 4.4.18.1.3

optional: name of attachment

Annexe 1.38. CR U140: "Reversing distance sent by RBC"

RequestID 140

Problem Headline Reversing distance sent by the RBC

Problem Description Does this requirement refer to the distance contained in the Reversing Supervision Information packet What happens if the packet contains also a speed Should the new speed be supervised or rejected

Solution Proposal by Submitter Change the requirement to new speed and distance

Remarks of Submitter No

Solution by CRBoard Delete clause 4.4.18.1.4

Remarks of CRBoard Clause 4.4.18.1.4 is redundant with 3.15.4.3, the modes in which the data is accepted is listed in table 4.8.4

Type of Change Editorial/consistency

Impacted Documents Subset 026-4, issue 2.2.2, 3.15.4.3, 4.4.18.1.4, table 4.8.4

optional: name of attachment

Annexe 1.39. CR U141: "Geographical position in SH"

RequestID 141

Problem Headline Geographical position in shunting mode

Problem Description The Geographical Position Information is not updated or accepted in some modes, as Shunting, but is not deleted, so when the on-board equipment leaves SH it continues updating the old geographical information when it s an incorrect value.
Shouldn t we delete it

Solution Proposal by Submitter Delete the Geographical Information when entering SH, SL, IS, SF, SE and SN. Check if there is other information in the same case.

Remarks of Submitter No

Solution by CRBoard "Delete" in table 4.10 for SH, SL mode

Remarks of CRBoard Status in table 4.10 for SE, SN is already "Delete", for IS, SF mode, where there is no normal way "back", it is "Not relevant"

Type of Change Technical/error

Impacted Documents Subset 026-4, issue 2.2.2, 4.10.1.3, table 4.10

optional: name of attachment

Annexe 1.40. CR U148: "Leaving ISolation mode"

Request ID	0000000148
Problem Headline	EEIG ref 035: Leaving Isolation mode
Problem Description	<p>The special operating procedure to leave Isolation Mode has to be described.</p> <p>It has to be made clear how the mode can be left and who must explain which actions to do it.</p>
Decision by CR-Board	<p>This operating procedure is implementation dependent, also operator specific</p> <p>15-05-03 EEIG response:</p> <p>We fully agree with you that the procedure to recover from IS mode is an implementation issue. We also fully agree with your statement "that the integrity of the ETCS on-board equipment must be ensured before the equipment is put back into service again". It is however nowhere defined what this statement "the integrity of the ETCS onboard" exactly means and we need to have a common view on that. We therefore just want to add a general requirement that after the solution dependent IS recovery procedure at least all the variables from 4.10 shall have the status as defined in the column for NP mode.</p> <p>Unisig reply 25.06.03:</p> <p>We agree that, before the equipment is taken back into service again, also any safety critical data (including variables from 4.10) has to be properly set up (or reset). What these data comprises, and how/when it is being done is an implementation issue, out of scope for the standard.</p> <p>EEIG reply 16-09-03</p> <p>Not acceptable. The whole list of variables in 4.10 column IS should be set to the same values as for NP.</p> <p>We cannot accept that the value of these variables after passing through IS are train or operator dependent.</p> <p>UNISIG reply 21/10/03:</p> <p>If the OBU is in Isolation mode due to a failure you cannot predict what happens to stored data because of this failure : e.g., data remaining unchanged in NP mode may be deleted due to the failure. It is therefore part of maintenance to bring the OBU to a defined state before it is brought back into service. This is also the reason why there is no way "back" from IS mode specified.</p> <p>Meeting with EEIG 19.02.04 :</p> <p>Accepted.</p>

	Add to 4.4.3.1.3 : "This procedure shall ensure that the on-board equipment is only put back into service when it has been proven that this is safe for operation."
References	SUBSET 026-4, V2.2.2, 4.4.3.1.3
Remarks of CR-Board	
Type of change	Editorial / clarification
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.41. CR U154: "Text message consistency"

Request ID	0000000154
Problem Headline	EEIG ref 044: Text message inconsistency
Problem Description	There is a contradiction in the handling of text messages in the Active Functions Table (4.5.2), in the MMI versus Mode Table (4.7.2) and in the Accepted Information Table (4.8.4).
Decision by CR-Board	<p>table 4.7.2 (Ackn of fixed/plain text information) : remove "A" for SH, SE, SN; add "A" for NL, RV</p> <p>table 4.7.2 (fixed/plain text information) : remove "A" for SH, TR, SE, SN</p> <p>table 4.5.2 (manage text display to driver) : add "X" for RV</p> <p>EEIG reply 16-09-03 Accepted with the exception of TR mode. If running at a high speed the train may travel quite a distance in TR mode and a relevant text message may be sent during this time to the train and the driver should be aware of this message and acknowledge it before acknowledging the TR mode. We therefore propose to add the following: an "X" for TR in 4.5.2 (Manage Text Display for driver) an "A" for TR in 4.7.2 (fixed/plain text information) an "A" for TR in 4.7.2 (ack of fixed/plain text information) an "A" for TR in 4.8.4 (fixed/plain text information)</p> <p>UNISIG reply 17.11.03: Accepted as proposed (note: output fixed/plain text is already there in 4.7.2)</p>
References	SUBSET 026-4, V2.2.2, 4.5.2(table), 4.7.2(table), 4.8.4(table)
Remarks of CR-Board	<p>Remarks to original decision:</p> <p>CR Board rather considers tables 4.8.4 and 4.10 to be correct. Additionally we found the missed "ack" of text messages in NL, RV</p>
Type of change	Editorial / consistency
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.42. CR U157: "Valid direction for RMP in SR"

Request ID	0000000157
References	SUBSET-026 V222 - 3.14.3 / 7.4.2.16
Problem headline	EEIG ref 047: Valid direction for Reverse Movement Protection in SR
Problem description	The valid direction for the Reverse Movement Protection in the mode SR is not defined. (SRS 3.14.3.1 refers to chapter 4 for this, but it could not be found in chapter 4)
Solution proposal by submitter	Define the direction the RMP is based on (if necessary, including changes in 7.4.2.16, direction to be given for every balise).
Remarks of Submitter	CLR
Solution Proposals by CR-Board-Members	
Remarks of CR-Board members	
Decision by CR-Board	Change the last sentence in 3.14.3.1 to: "See chapter 4 concerning permitted direction for special cases" Add new requirement to chapter 4.4.11.1.3: running in the direction opposite to the train orientation (reverse movement protection).
Remarks of CR-Board	
Type of change	Editorial / clarification
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.43. CR U158: "Types of radio messages"

Request ID	0000000158
Problem Headline	EEIG ref 048: Types of radio messages
Problem Description	<p>The EIRENE SRS 13.0 paragraph 10.2.1 gives two Control-command (ERTMS) priorities: "Control-command (Safety)" with priority number 1 and "Control-command information" with priority 3. EuroRadio FIS speaks about high priority data and normal priority data. SRS 8.5.2 and 3.10.1.1 speak about normal priority and high priority channel. The question is how these priority indications in the different documents relate to each other. Please clarify this.</p>
Decision by CR-Board	<p>The EURORADIO FIS defines in section 8.2.4.2.1 that for all applications the eMLPP (enhanced multi-level precedence and pre-emption) level 1 (command control safety) is used. The eMLPP level is a GSM-R feature and used by GSM-R when setting up calls (higher priorities result in faster call set-ups), or when managing calls (precedence of calls with higher priority).</p> <p>EURORADIO now allows to use multiple logical channels within a physical channel. The only logical channel used currently within the physical connection between track and train is the one between RBC and the EVC. Within this logical channel EURORADIO transmits high and normal priority data.</p> <p>This normal and high priority data is identified wrongly in the SRS as normal and high priority channel.</p> <p>Rephrase 3.10.1.1 : "...shall be sent individually to each onboard equipment as high priority data on the same logical channel as the other normal priority data exchanged between RBC and the EVC, as described in the EURORADIO specification. Only emergency messages can be sent as high priority data, not"</p> <p>Rephrase 3.10.1.1. 1 : "... to use high priority data on the logical link between RBC and EVC to get a quick reaction."</p> <p>Rephrase 3.16.3.1.2 : " Emergency stop messages shall be sent as high priority data ."</p> <p>Rephrase 3.16.3.1.3 : "Other messages shall be sent as normal priority data."</p> <p>Rephrase 3.16.3.1.4 : "... for data transmitted as normal priority data".</p>

	<p>Rephrase 8.5.1.2 : " "Type" defines whether a message is to be sent as normal priority (N) or as high priority data (E), as defined in the Euroradio specifications."</p> <p>EEIG reply 16-09-03</p> <p>Just an additional question for clarification.</p> <p>From your answer we understand that ETCS only uses the eMLPP level 1 (Control command safety in EIRENE SRS). Does that mean that there is no such thing as Control command information (specified in EIRENE SRS as eMLPP level 3) If not then why is it specified in EIRENE SRS</p> <p>UNISIG reply 22/10/03:</p> <p>ETCS only uses eMLPP level 1, the highest level (eMLPP level 0) is reserved for voice emergency calls. Reason: only voice emergency calls are permitted to cut an ETCS connection (in case no other GSM slot is available).</p> <p>The creation of an eMLPP level 3 dedicated to control command is an EIRENE decision not requested by UNISIG.</p> <p>21/01/05</p> <p>Add sentence at end of 3.16.3.1.4: "For high priority data the checks shall not apply."</p> <p>Modify 3.16.3.3.1 : replace "arriving over the high priority channel" with "received as normal priority data"</p>
References	<p>SUBSET 026-3, V2.2.2, 3.10.1.1, 3.10.1.1.1, 3.16.3.1.2, 3.16.3.1.3, 3.16.3.1.4, 3.16.3.3.1</p> <p>SUBSET 026-8, V2.2.2, 8.5.1.2</p>
Remarks of CR-Board	
Type of change	<p>Editorial / consistency</p> <p>Editorial/clarification</p>
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	21.01.2005

Annexe 1.44. CR U166: "NID_OPERATIONAL"

Request ID	0000000166
Problem Headline	EEIG ref 058: NID OPERATIONAL
Problem Description	<p>The variable NID OPERATIONAL contains the train running number and is quoted as a 8 digit decimal number.</p> <p>If the current train running number is shorter than 8 digits the remaining digits shall be fulfilled with the value F .</p> <p>It isn't said whether these values F shall be inserted at the beginning or the end of the variable. Please clarify.</p>
Decision by CR-Board	<p>Modify 7.5.1.92, adopt same solution as for NID RADIO (CR 16).</p> <p>03-04-03 EEIG response to Decision by CR-Board: In the Decision by CR_Board there is a reference to CR 16 which is unknown to EEIG. Maybe there is a editorial mistake and the reference should be CR 72 (EEIG 02Q075). Please clarify.</p> <p>SG reply: CR 16 is correct. It was pending for a reply by EURORADIO, but is now ready to be issued to the EEIG.</p> <p>Description of decided change completed on EEIG request (EMAIL Dijkmann 18/11/03):</p> <p>Modify "description" of 7.5.1.92 by adding : " The NID_OPERATIONAL consists of up to 8 characters which are entered "left adjusted" into the data field, the leftmost digit is the digit to be displayed leftmost. In case NID_OPERATIONAL is shorter than 8 digits, the remaining space is to be filled with special character "F". "</p>
References	SUBSET 026-7, V2.2.2, 7.5.1.92
Remarks of CR-Board	
Type of change	Editorial/clarification
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.45. CR U168: "MA request"

Request ID	0000000168
Problem Headline	EEIG ref 060: MA request
Problem Description	<p>The parameters for requesting a new MA shall be given by the RBC.</p> <p>Questions for the case, that no request parameters have been sent by the RBC:</p> <ol style="list-style-type: none"> 1) Does the train send no MA request or cyclically a request 2) In case no MA request is sent: What is the default value used for 3) In case a MA request is sent cyclically: How is it possible to set that no request is sent 4) In which time before the beginning of the braking curve the MA request has to be sent 5) What happens if a time is set, that is longer then the time until the beginning of the braking curve <p>Clarification for item 5 received 23.4. from EEIG :</p> <p>With the request parameters, a time is given (T MAR). This time defines, when a train will start sending an MA request by the means of a time until reaching the indication limit. What happens if, when a) receiving the parameters and b) receiving a new MA, the time till reaching the indication limit is already lower than the given value T MAR. Will the train ever send an MA request a time is set, that is longer then the time until the beginning of the braking curve</p>
Decision by CR-Board	<p>Accepted.</p> <ol style="list-style-type: none"> 1,2) If no parameters have been sent, the train will only request an MA once the driver pushes start. This request will then be repeated every 60s until the RBC responds. 3) If it is wished that no MA request is sent this can be specified by the RBC by sending corresponding MA request parameters. 4) The time before reaching the braking curve that is required by the trackside is a trackside implementation issue. 5) The OBU will start immediately to cycle MA requests. <p>Further: Modify clause 3.8.2.6 to read: "In case no MA request parameters have been received from the RBC and following an MA request no MA has been received, the request shall be repeated with a repetition cycle according to a fixed value (see appendix)."</p> <p>Meeting with EEIG 19.02.04:</p>

	<p>Modify 7.5.1.147 T_MAR, Meaning of Special/Reserved Value from "Not relevant" to "No MA request triggering with regards to this function"</p> <p>Modify 7.5.1.153 T_TIMEOUTRQST, Meaning of Special/Reserved Value from "Not relevant" to "No MA request triggering with regards to this function"</p> <p>Add new clause 3.8.2.3.1 to read: "Regards to the above possibilities, the MA request shall be triggered when the train front has passed the resulting location (regards a)/ time (regards b)".</p>
References	SUBSET 026-3, V2.2.2, 3.8.2.3.1, 3.8.2.6 Subset 026-7, V2.2.2, 7.5.1.147, 7.5.1.153
Remarks of CR-Board	
Type of change	Editorial / clarification
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.46. CR U177: "Loss of End of Profile elements"

Request ID	0000000177
Problem Headline	Loss of End of Profile elements
Problem Description	Clause 3.7.3.3 does not give a complete list of cases in which the MA is shortened (and track description data has to be deleted). The complete list and the affected data is described in detail in appendix 3.4
Decision by CR-Board	<p>Do not rephrase or delete the bullets but add in 3.7.3.3 a reference to the annex A3.4 for a complete list.</p> <p>UNISIG 22/06/05:</p> <p>Decision revoked, 3.7.3.3 is still confusing.</p> <p>Rephrase section 3.7.3.3 as follows:</p> <p>"In case the MA has been shortened, the track description and linking information shall be deleted (or the initial state shall be resumed) by the on-board beyond the new End of Authority (or danger point/overlap if given). The various cases where the MA is shortened, and the data affected, is described in detail in Appendix A3.4."</p>
References	Subset 026-3, V2.2.2, 3.7.3.3, A3.4
Remarks of CR-Board	
Type of change	Editorial / consistency
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	22.06.2005

Annexe 1.47. CR U183: "Data from single balise groups"

Request ID	0000000183
References	SUBSET-026-03 version 2.2.2, chapter 3.4.3.1.3, 3.4.3.2.1 SUBSET-026-03 version 2.2.2, chapter 3.6.3.1.4, 3.6.6.7
Problem headline	Data from single balise groups
Problem description	<p>We interpret the requirements 3.4.3.1.3 and 3.4.3.2.1 in such a way that data from a single balise group with no coordinate system must not be used if linking information is not available. This is inconsistent with 3.6.3.1.4. There it says that data which are only valid for one direction (nominal or reverse) shall be rejected. The same inconsistency is to be found in requirement 3.6.6.7. It also describes a special behaviour for this case.</p> <p>Why is the case "no radio contact" explicitly mentioned in 3.4.3.2.1 Does this mean that data from a single balise group shall also be rejected when linking information is available but there is a radio hole</p>
Solution proposal by submitter	
Remarks of Submitter	
Solution Proposals by CR-Board-Members	
Remarks of CR-Board members	
Decision by CR-Board	Add to 3.4.3.1.3, second sentence "and if the information is directional" and same to 3.4.3.2.1.
Remarks of CR-Board	3.4.3.1.3, 3.4.3.2.1 are trackside requirements 3.6.3.1.4 is an onboard requirement
Type of change	Editorial / clarification
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.48. CR U186: "Message 42 further deletions"

Request ID	0000000186
References	Subset-026 chapter 4.8.3.1; 4.8.4.2; 4.10.1.3 tables
Problem headline	Message 42 further deletions
Problem description	Although for SRS version 2.2.2 the driver confirmation of the train position on SoM was deleted, the now deleted message (no. 42) "confirmation of location by driver requested" is still listed in the tables in the above listed paragraphs
Solution proposal by submitter	
Remarks of Submitter	
Solution Proposals by CR-Board-Members	
Remarks of CR-Board members	
Decision by CR-Board	Delete message no.42 from tables 4.8.3.1; 4.8.4.2; 4.10.1.3
Remarks of CR-Board	
Type of change	Editorial / consistency
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.49. CR U187: "EoMission during RBC Handover"

Request ID	0000000187
State	EEIG pending
Problem Headline	End of Mission during RBC Handover
Problem Description	<p>A train with two radio sessions during a RBC handover will after the RBC border passage only inform the accepting RBC about an end of mission. Anyway the second radio session may still be open because the train has not fully left the handing over RBC area.</p> <p>No message is defined for the RBC-RBC interface to inform the handing over RBC about an end of mission by the accepting RBC.</p>
Decision by CR-Board	<p>Add new requirement 3.15.1.3.4b to read: "If the on-board equipment is connected to both RBCs, and it executes an End of Mission, it shall execute the End of Mission procedure with both RBCs"</p> <p>Add new requirement 5.15.2.2.6.3 to read: "If the on-board equipment executes an End of Mission while being connected to both RBCs, it shall execute the End of Mission procedure with both RBCs"</p> <p>Decision corrected 17/05/04:</p> <p>Do not add new requirement 5.15.2.2.6.3 . Justification: The section 5.15.2 is only informative, 5.15.2.2.6 is about leaving an area, not EoM, and the requirement is anyway stated in 3.15.1.3.4.</p>
References	<p>Subset 026-3, V2.2.2, 3.15.1.3.4b</p> <p>Subset 026-5, V2.2.2, 5.15.2.2.6.3</p>
Remarks of CR-Board	
Kind of request	<p><input checked="" type="checkbox"/> CR</p> <p><input type="checkbox"/> CLR</p>
Type of change	Editorial / consistency
Change backward compatible	
List of attachments	
Date of last modification	17.05.2004

Annexe 1.50. CR U198: "Revocation of Emergency Stop in SR"

Request ID	0000000198
Problem Headline	Revocation of Emergency Stop in SR
Problem Description	In Staff Responsible mode the revocation of an emergency stop is accepted but not the conditional emergency stop. Moreover when entering Staff Responsible all the emergency stop messages (conditional and unconditional) are deleted, so it is impossible to be in this mode and have a conditional emergency stop stored on-board.
Decision by CR-Board	<p>Modify table 4.8.4, line "Revocation of Emergency Stop":</p> <ul style="list-style-type: none"> - Column "Information" : Replace "(Space Critical)" with "(Conditional or Unconditional)" - Change for mode SR from "A" to "R" <p>Added 19.1.04:</p> <p>List 4.10.1.4.2 n) Replace "(Space Critical)" with "(Conditional or Unconditional)"</p> <p>SG 01/03/05:</p> <p>Further to be modified:</p> <p>A3.4.1.4.2 n) to read: "Revocation of Emergency Stops (Conditional or Unconditional)"</p>
References	Subset 026-4, V2.2.2, 4.8.4.1, 4.10.1.4.2, A3.4.1.4.2n)
Remarks of CR-Board	If an unconditional emergency stop has been accepted before, the mode is TR/PT
Type of change	Editorial / consistency
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	01.03.2005

Annexe 1.51. CR U204: "Rep. position when change orientation"

Request ID	0000000204
References	Subset-026-3, issue 2.2.2, § 3.6.5.1.4 f) & table 4.5.2
Problem headline	Report of train position when change of train orientation
Problem description	The report of train position when change of train orientation is no longer relevant, as after a change of train orientation, a SoM position report will always be issued.
Solution proposal by submitter	Remove 3.6.5.1.4 f) and associated line table 4.5.2
Remarks of Submitter	
Solution Proposals by CR-Board-Members	
Remarks of CR-Board members	
Decision by CR-Board	Accepted Replace 3.6.5.1.4f) with "Intentionally deleted", delete associated line in table 4.5.2
Remarks of CR-Board	The statement in 3.6.5.1.4f) is not correct, as the orientation has not yet changed when the active cab is switched off and the mode changes to SB, rather when the SoM is performed
Type of change	Editorial / consistency
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.52. CR U216: "Ambiguity of distance in profile data"

Request ID	0000000216
References	Subset-026 v.2.2.2 chapter 3.6.3.2.2
Problem headline	ambiguity of distance information in profile data
Problem description	<p>Clarification required:</p> <p>Subset-026-3 v222 chapter 3.6.3.2 does not describe the validity of the value zero for the distance-information in profile data. As defined in Subset-026-7 v222 the value zero is a valid data.</p> <p>It is not clear in which cases this value zero could be used or not. (e.g. Leveltransition with 0m is wrong because of available special value Now)</p>
Solution proposal by submitter	
Remarks of Submitter	
Solution Proposals by CR-Board-Members	
Remarks of CR-Board members	
Decision by CR-Board	<p>For continuous profile data</p> <p>Add to 3.6.3.2.2:</p> <p>"e) If distance (n+1) = 0 then the corresponding profile value n shall still be taken into account."</p>
Remarks of CR-Board	
Type of change	Editorial / clarification
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.53. CR U223: "Restore supported levels at SoM"

Request ID	0000000223
Problem Headline	Table of Supported Levels must be restored at Start of Mission
Problem Description	<p>Subset-026-5, chap. 5.10.2.9 requires: At standstill, the onboard equipment shall allow the driver to change the ERTMS/ETCS level amongst those stored in the table of priority .</p> <p>In the start of mission procedure (subset-026-5, chap. 5.4.3.2) there is no restriction required for the possible selection of ERTMS/ETCS levels. The driver is responsible to select/revalidate a level for which the track side is fitted.</p> <p>The restriction: amongst those stored in the table of priority in 5.10.2.9 can not ensure, that the driver select a level which doesn't match to the trackside equipment.</p> <p>Examples:</p> <ul style="list-style-type: none"> - The train is in standstill between a level announcement and the announced level border. The driver can select only one of the announced levels, not one of the trackside equipment at the current train position. - After start of mission and no level border crossing, there is no table of priority . What shall be done ? <p>A storing of the table of priority at no power contains problem after cold movement of the train crossing a level border.</p> <p>Because the table of priority can not ensure, that the driver selects only one level for which the trackside is fitted, it contains more safety risks, if the driver trusts the offered levels, depend on the table of priority .</p> <p>Furthermore, it makes no sense to offer the driver levels, for which the onboard is not fitted. This information is reliable known by the onboard.</p>
Decision by CR-Board	<p>Modify 5.10.2.9 as follows : "At standstill, the onboard equipment shall allow the driver to change the ERTMS/ETCS level. If a table of priority is available, the driver selection shall be limited to the levels contained in the table of priority (for details refer to chapter 3.18.4.2)"</p> <p>Delete last sentence of clause 3.18.4.2.3.</p> <p>Add new clause 3.18.4.2.4: " For operational fallback situations: At standstill, the onboard equipment shall allow the driver to change the ERTMS/ETCS level: The selection shall be limited to those contained in the table of priority, if available."</p>

	<p>Add new clause 3.18.4.2.5: "The driver shall follow the table of priority, if available. If not available, the driver can select any level, obeying the operational rules applicable for this area (see also 5.10.2.7)"</p> <p>Add to table 4.10: New line "Table of priority of trackside supported levels", same as line "ERTMS/Level, but with "D" for NP mode</p> <p>Meeting with EEIG 19.02.04:</p> <p>Add "note" 3.18.4.2.4.1 to read : " Even if only one level is permitted this is considered as a table of priority."</p> <p>25/02/05 (OG):</p> <p>Add to table A3.4 below line " ERTMS/ETCS level" new line "Table of priorityof trackside supported levels" with "U" for all columns "Situations listed above"</p>
References	<p>Subset 026-3, V2.2.2, 3.18.4.2, A3.4</p> <p>Subset 026-4, V2.2.2, 4.10 (Table)</p> <p>Subset 026-5, V2.2.2, 5.10.2.9</p>
Remarks of CR-Board	
Type of change	Operational / gap
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	25.02.2005

Annexe 1.54. CR U232: "Start/End for unknown text msg"

Request ID	0000000232
Problem Headline	EEIG 043: Unknown text message
Problem Description	The message "unknown text received" has no meaning for the driver and therefore should not be displayed to him. See similar argument in EEIG 02Q083 (UNISIG ID 066).
Decision by CR-Board	<p>Rejected.</p> <p>Decision in meeting with EEIG 19.2.04: Justification moved from "Remarks of CR-Board", because it refers to the original decision:</p> <p>A safety critical message may have been missed. Therefore we think we should keep the message. Anyway the situation should not occur, only due to an engineering error</p> <p>RD reply 181103:</p> <p>The UNISIG argument for rejecting this CR is completely wrong.</p> <p>1) Safety critical messages will not be missed because if the relevant message is safety critical, then the version management check shall prevent this train (which does not understand the message) from entering the infrastructure where the message is used. This is indicated in our solution proposal.</p> <p>2) Suppose that, due to an engineering error as you say, this train would still enter the relevant area and receive the message. To show in that case the "unknown text received" to the driver would by no means mitigate the risk related to missing this safety critical message. The Operational Rules Group has not defined a rule (and they will not do it also) which would tell the driver what to do upon receiving this message. It therefore does not make sense to keep message in the SRS. Stronger, it is misleading to keep it, since it will always suggest to the reader that there is some use for this message, which is not the case. See also the attached document 03Q164 of the Operational Rules Group.</p> <p>Attachment added by RD 181103: 03Q164</p> <p>UNISIG reply 15/12/03 :</p> <p>Replace 3.12.3.3.5 with "Intentionally deleted".</p> <p>Remark : Should this happen, the normal message consistency principles apply.</p>
References	SUBSET 026-3, V2.2.2, 3.12.3.3.5
Remarks of CR-Board	

Type of change	Operational / requested by EEIG / minor
Change backward compatible	
Economical evaluation	
List of attachments	EEIG043 (U232) 031203 Annex.doc

Annexe 1.55. CR U237: "Service Brake T_NVCONTACT"

Request ID	0000000237
References	SUBSET 026-3, V2.2.2, 3.16.3.4.5
Problem Headline	EEIG 067 Service Brake T NVCONTACT
Problem Description	In case the service brake is initiated as a reaction to T NVCONTACT timer, the train could very well come to standstill in a radio hole. In this case no new message will be received and according to 3.16.3.4.5a the brake will not be released. Therefore it would not be possible to use override to escape from the radio hole.
Solution Proposal by Submitter	Add at the end of 3.16.3.4.5b: " and the service brake command shall be released".
Remarks of Submitter	No
Decision by CR-Board	Replace text in 3.16.3.4.5 a) by "for brake command release conditions refer to section 3.14.1.7"
Remarks of CR-Board	
List of attachment(s)	

Annexe 1.56. CR U238: "Shifted reference location"

Request ID	0000000238
References	SUBSET 026-3, V2.2.2, 3.6.3.2.5
Problem Headline	EEIG 069 Shifted reference location
Problem Description	<p>MA data, track description, speed profile and gradient profile can in general only be given starting on a reference balise (refer to SRS 3.6.3.2.1 Figure 12).</p> <p>When a train starts, e.g. after Awakening or manual level transition, and the balise referenced in the position report is under and not behind the train, it is for the mentioned reason not possible to give speed and gradient profile for the whole train length, but only starting from that balise. This might lead to wrong cab signalling values. For this reason, the information ENTRY IN ... is displayed to the driver.</p> <p>DB wants to avoid this situation (possibly wrong cab signalling and displaying ENTRY ...). This would be possible by giving speed and gradient profile also for the area under the train and behind of the balise . An easy solution for this can already be found in the SRS (shifted location reference), but is limited in use after a change of train orientation (SRS 3.6.3.2.5). By allowing the use of this functionality also without changing the train orientation, the problem can easily be solved.</p>
Solution Proposal by Submitter	Change SRS 3.6.3.2.5 from It shall be possible to shift the location reference from the RBC when the train has changed its orientation. to It shall be possible to shift the location reference from the RBC.
Remarks of Submitter	No
Decision by CR-Board	<p>Accepted.</p> <p>Modify clause 3.6.3.2.5 to read:"It shall be possible to shift the location reference from the RBC, e.g., after a change of train orientation or running direction"</p>
Remarks of CR-Board	Supersedes decision of CR 43
List of attachment(s)	

Annexe 1.57. CR U240: "JRU changes"

Name of submitter	Robert Dijkman
Company	EEIG
E-mail-address	rdijkman@ertms.be
References	SUBSET-027 V222
Problem headline	EEIG_072 JRU changes
Problem description	Several problems/inconsistencies have been discovered.
Solution proposal by submitter	<p>1) § 4.1.1.6 (in accordance with the § 4.1.2.2)</p> <ul style="list-style-type: none"> - Replace identifier 156 by 153 for the message "Start of transmission"; - Replace identifier 157 by 154 for the message "End of transmission". <p>2) § 4.1.2</p> <ul style="list-style-type: none"> - To avoid misunderstanding, modify the title of the paragraph in order to indicate that these information are output of the JRU (eg 4.1.2 : JRU output information) <p>3) 4.1.2.2</p> <ul style="list-style-type: none"> - The variable NID_MESSAGE must be defined from 0 to the value 255 and not 200. This variable is coded on 8 bits (0 to 255). <p>4) § 4.1.2.4.3 For the year, indicate that only the last 2 figures will be recorded (unit and ten)</p> <p>5) § 4.1.2.4.5 Replace NID_LRGB by NID_LRBG (Identity of Last Relevant Balise Group)</p> <p>6) § 4.1.2.4.8 The title of this paragraph is misleading. It suggests that it concerns the ETCS identity (NID_ENGINE). The title should be changed to NID_OPERATIONAL. The same modification should also be made in the table in paragraph 4.1.2.3.2.</p> <p>7) § 4.1.2.5.3</p> <ul style="list-style-type: none"> - Give the length of the variable T_CUT_OFF - Give the length of the variable T_DELAY <p>(these 2 variables are not defined in FIS MMI [7], at least not in V200, while ref [7] still mentions V100!)</p> <ul style="list-style-type: none"> - Length of M_LOADINGGAUGE, NID_RBC and NID_RADIO are not consistent with [1] (which should refer to SRS222, not 220). Why define the length here unnecessary again for variables already defined in SRS, with the obvious possibility for inconsistencies? Proposal: delete the length of variables defined elsewhere. - M_VOLTAGE does not exist anymore in [1] (SRS222!). - M_ADHESION is defined in chapter 7 of [1] and not in [7]. <p>8) § 4.1.2.5.15</p> <ul style="list-style-type: none"> - Define information coming from STM's and their length (in accordance with Subset 58). <p>9) § 4.1.3</p> <ul style="list-style-type: none"> - To avoid misunderstanding, modify the title of the paragraph in order

	<p>to indicate that these information are input for the JRU (eg 4.1.3 : JRU input information)</p> <p>10) § 4.1.3.1.1.1</p> <ul style="list-style-type: none">- The variable NID_MESSAGE must be defined from 0 to the value 255. This variable is coded on 8 bits (0 to 255). <p>11) General quality</p> <ul style="list-style-type: none">- The ISSUE and DATE on the front page are from an old version.- The reference section 3.3 should be thoroughly cleaned up. Ref [2], [3], [4] and [6] should be deleted. For [5] if this is the ETCS FRS then version 4.3 does not exist.- There is a substantial overlap between section 3.2 (General aspects) and SRS 3.20. Both appear to be defining the JRU, but, although they overlap, both are incomplete. This is confusing and a possible source of inconsistencies. The definition of the JRU should be complete in one document, preferably the SRS, since the JRU is part of the onboard ETCS. The JRU FFFIS should limit itself only to the interface.
Optional: remarks	No
Optional: attachment	No

Annexe 1.58. CR U242: "Management of system version"

Request ID	0000000242
References	SUBSET 026-3, V2.2.2, 3.17 SUBSET 026-7, V2.2.2, 7.5.1.79 SUBSET 026-8, V2.2.2, 8.4.2.1, 8.4.3.1, 8.7.12
Problem Headline	EEIG 074 ERTMS system version management
Problem Description	Version management of the ERTMS system specifications is defined in SRS 3.17. The associated variable M VERSION (7.5.1.79) has only one value defined: 001 0000 = Class 1. This makes no sense, since class 1 is not a version but a global indication of the application (high speed). The class 1 specifications will have different versions which are all class 1, but not all compatible. UNISIG should clarify better the meaning of the value 001 0000. Is it used for the versions in the consolidation phase (e.g. SRS 200, 222) Will the first consolidated version of the SRS be equivalent to M VERSION 001 0001
Solution Proposal by Submitter	Improved description of M VERSION
Remarks of Submitter	No
Decision by CR-Board	Accepted. Modify 7.5.1.79 as follows : Modify "Name" to "Version of ETCS Specification", Modify "Description" accordingly, Modify Special/ Reserved Values "Class 1" to "Class 1, SRS 2.2.2" CR decision revised (UNISIG SG meeting 22/09/04): Modify 7.5.1.79 as follows : Modify "Name" to "Version of ETCS system, "Modify "Description" accordingly, Change accordingly definition in chapter 8 § 8.4.2.1, 8.4.3.1, 8.7.12 Modify Special/ Reserved Values "Class 1" to "Class 1, SRS 2.2.2" (unchanged)
Remarks of CR-Board	
List of attachment(s)	
Date of last modification	22.09.2004

Annexe 1.59. CR U254: "Train Trip and cond. em. Stop"

Request ID	0000000254
References	Subset-026-5, issue 2.2.2, § see attachment for CR 210
Problem headline	Procedure Train Trip : coexistence of a conditional emergency stop and a trip due to a different reason
Problem description	If a conditional ES has been received and a train trip has occurred for a different reason, answer "NO" to question D130 leads to acceptance of new MA and track description data, independently from emergency stop revocation.
Solution proposal by submitter	
Remarks of Submitter	
Solution Proposals by CR-Board-Members	
Remarks of CR-Board members	
Decision by CR-Board	Accepted. See attachment to CR 210
Remarks of CR-Board	According to SRS 3.10.2.1.4 no new MA shall be accepted following reception of an emergency stop until it is revoked. A train trip for a different reason must not override this requirement
Type of change	Editorial /consistency.
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.60. CR U257: "Last 8 reported BG identities stored"

Request ID	0000000257
Problem Headline	Last eight reported BG identities stored on board with regard to deletion of stored position data in SoM procedure.
Problem Description	<p>What happens to the last eight reported BG when on-board receives a train accepted message from RBC Does the deletion of stored position data include the last eight BG From § 5.4.2.2 it seems not, but from on-board point of view, last reported BG table acts as a filter to accept or not the radio messages from RBC.</p> <p>What is the criterion to accept/reject a RBC message with LRBG set to "UNKNOWN"</p> <p>Problems to be put in relation with CLR 220</p>
Decision by CR-Board	<p>Modify 5.4.2.2 adding 2, last eight reported BG identities stored on-board" at the end of the clause</p> <p>Modify 5.4.3.2, A24, adding new sentence at the end of the 1st paragraph: "When on-board deletes stored position data, last eight reported BG identities stored on-board shall also be deleted".</p> <p>Add new clause § 3.6.2.2.2 d) : "Exception : when on-board position data has been deleted or has reported an "invalid" position not confirmed by the RBC (during SoM procedure), both, ETCS on-board equipment and RBC shall use a LRBG identifier set to "unknown" .</p> <p>"Add new clause 3.6.2.2.2 e) "Once the ETCS on-board equipment has received from the RBC a message with an LRBG not set to "unknown" it shall stop accepting further messages containing LRBG "unknown". For further conditions see 3.16.3.1.1."</p> <p>Add to 3.16.3.1.1: "c) The message contains a wrong combination of parameters (e.g., LRBG is set to "unknown", however the message contains packets that require a location reference and direction)"</p> <p>UNISIG 17/03/05:</p> <p>Delete new clause 3.16.3.1.1 c)</p> <p>Justification: Requirement is not testable in an exhaustive way, data from trackside is validated and therefore assumed to be correct. What is testable is already covered by the requirements in 3.16.3.1.1 a) and b)</p>

	<p>SG 28/04/05:</p> <p>Modify 5.4.3.2, A39, adding new sentence at the end of the 1st paragraph: "When on-board deletes stored position data, last eight reported BG identities stored on-board shall also be deleted".</p> <p>EEIG 19-05-05:</p> <p>There is something not entirely clear. From 3.6.2.2.2c we understand that the onboard shall store "at least" 8 reported LRBG. What will happen if an onboard stores 10 LRBG? After deleting the last eight, will number 9 and 10 now become the last two? Is this what you intend to achieve? Please clarify.</p> <p>UNISIG 1/6/05:</p> <p>Delete "eight" in: A3.4.1.3, Table 4.10.1, 5.4.3.2 A24 and A39, 5.4.2.2</p>
References	<p>Subset 026-3, V2.2.2, 3.6.2.2.2, 3.16.3.1.1, A3.4.1.3</p> <p>Subset 026-4, V2.2.2, 4.10.1 (Table)</p> <p>Subset 026-5, V2.2.2, 5.4.2.2, 5.4.3.2 A24&A39</p>
Remarks of CR-Board	
Type of change	Editorial / clarification
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	01.06.2005

Annexe 1.61. CR U259: "Transition PT to SH ordered trackside"

Request ID	0000000259
References	Subset-026, issue 2.2.2, § see attachment to CR 210
Problem headline	Transition from PT to SH when ordered by trackside
Problem description	Shouldn't it be possible to switch from PT to SH mode when EVC receives a MA with shunting mode profile and the train is inside the mode profile
Solution proposal by submitter	modify § 4.4.14.1.6 : Onsite/Shunting MA § 4.6.2 : add condition [50] for transition PT => SH
Remarks of Submitter	
Solution Proposals by CR-Board-Members	
Remarks of CR-Board members	
Decision by CR-Board	Accepted, see attachment to CR 210
Remarks of CR-Board	This possibility is already available in the Train Trip procedure (by reference to the Start of Mission procedure)
Type of change	
Kind of request	<input checked="" type="checkbox"/> CR <input type="checkbox"/> CLR
New CR-State (please mark exactly one item)	<input checked="" type="checkbox"/> Solution found by CR-Board, <input type="checkbox"/> Solution necessary by UWP, <input type="checkbox"/> CR rejected by CR-Board, <input type="checkbox"/> Postponed
Forward to UWG	
Postponed until / pending reason	
Attachment of Submitter	N
Attachment of UWG	N
Attachment of CR-Board-Member	N
Attachment of CR-Board	N
Date of CR-Board Meeting	<no date>

Annexe 1.62. CR U294: "Indication to braking curve area"

Name of submitter	
Company	EEIG
E-mail-address	@ertms.be
References	SUBSET-033 V200
Problem headline	EEIG_083 Indication to braking curve area
Problem description	The indication that a train is approaching the braking curve section as mentioned in SRS 3.13.4.8 is not represented in the MMI FIS although this information has to be given to the driver via the MMI.
Solution proposal by submitter	Add information about that indication to the MMI FIS document
Optional: remarks	No
Optional: attachment	No

Annexe 1.63. CR U296: "Linking reaction info to RBC"

Request ID	0000000296
References	SUBSET 026-3, V2.2.2, 3.16.2.6.2
Problem Headline	EEIG 085 Linking reaction info to RBC.
Problem Description	<p>1) Clause 3.16.2.6.2 contains 2 separate requirements. The second sentence should have its own clause number.</p> <p>2) The second sentence does not specify clearly when the RBC shall be informed. As soon as the service brake is initiated due to the linking reaction, or when the train has reached standstill.</p> <p>3) If due to transmission times etc, the RBC sends a new MA before receiving or reacting on the message about the linking reaction, the on-board will nevertheless take this new MA immediately into account. (At least it is not clear what happens, since 3.16.2.6.2 speaks only about shortening the current MA, but says nothing about any new MA.)</p>
Solution Proposal by Submitter	<p>1) Give second sentence a separate clause number.</p> <p>2) Add at the end of second sentence: "... immediately after the linking reaction."</p> <p>3) Introduce some kind of handshaking between onboard and RBC to avoid that the onboard will take a new MA into account before it is ensured that the RBC has received and understood the linking reaction information from the onboard.</p>
Remarks of Submitter	No
Decision by CR-Board	<p>Accepted.</p> <p>- Move last sentence of 3.16.2.6.2 to new clause 3.16.2.6.3</p> <p>- Add new section 3.16.4 as follows: "3.16.4 Error Reporting to RBC" "3.16.4.1 In level 2/3, if a radio communication session is established, errors shall be reported as soon as the availability of a safe connection permits."</p> <p>Note: In our understanding, error reports are purely for diagnostic purposes, i.e, do not influence the RBC issuing MAs. They therefore do not need to be acknowledged. Errors are reported to the driver. It is the responsibility of the driver to act in a safe way in such a case.</p>
Remarks of CR-Board	<p>See also (rejected) CR 271. For M_ERROR definition see also CR 38.</p> <p>Further, regards problem item 2: The SRS in clause</p>

	3.16.2.6.2 states clearly that the MA shall be shortened to the current position when the train has reached standstill. It does not matter if an MA should have been accepted before.
List of attachment(s)	

Annexe 1.64. CR U297: "Override request"

Request ID	0000000297
Problem Headline	EEIG 086 Override request
Problem Description	SRS 5.8.2 defines conditions for the override button to become available for the driver. The line for override request in 4.7.2.1.2 contains the marker "X" instead of "A". This is not consistent.
Decision by CR-Board	<p>Rejected : Issue covered by CLR 100</p> <p>Meeting with EEIG 19.02.04:</p> <p>Accepted.</p> <p>Change in 4.7.2.1.2 for the line override request every "X" into "A"</p> <p>(Former reference to CR 100 incorrect, this CR refers to the input, CR 100 to the output)</p>
References	<p>SUBSET 026-4, V2.2.2, 4.7.2.1.2 (Table/override request)</p> <p>Subset 026-5, V2.2.2, 5.8</p>
Remarks of CR-Board	
Type of change	Editorial / consistency
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.65. CR U298: "Level selection by Driver"

Request ID	0000000298
Problem Headline	EEIG 087 Level selection by driver
Problem Description	<p>1) UNISIG is asked to clarify the procedure of manually changing the level. Especially it is unclear whether further ackn. of the driver are requested, and how the set up of the radio communication works (especially in degraded cases).</p> <p>2) SRS 5.10.2.9 specifies that, when changing the level, the driver can only choose from the priority table. This is not acceptable for fallback cases.</p>
Decision by CR-Board	<p>UNISIG 17/11/05</p> <p>Regards 1:</p> <p>1) An acknowledgement when changing the level is only required if requested by trackside information (see SRS 5.10.4.1)</p> <p>2) The setting up a safe radio connection when manually changing the level to 2 or 3 is a gap, to be filled as follows:</p> <ul style="list-style-type: none"> - Add new clause 3.5.3.4 d) to read: "if the driver has manually changed the level to 2 or 3 and valid RBC contact information is available" - Add new clause 5.10.2.9.1 to read: <p>" If the driver changes the level to 2 or 3, and no valid RBC ID/ phone number is available :</p> <ul style="list-style-type: none"> a)The ERTMS/ETCS on-board equipment shall offer the possibility to the driver to re-enter the Radio Network ID. b)If the status of the RBC-ID/phone number is "unknown", the ERTMS/ETCS on-board equipment shall request the driver to enter it. c)If the status of the RBC-ID/phone number is "invalid", the ERTMS/ETCS on-board equipment shall request the driver to re-validate or re-enter it." <p>Regards 2:</p> <p>Covered by CR 223</p>
References	SUBSET 026-5, V2.2.2, 5.10.2.9
Remarks of CR-Board	<p>UNISIG 17/11/05</p> <p>See attachment Analysis Manual Level Change by Driver 171105.doc</p>
Type of change	Operational / gap
Change backward compatible	
Economical evaluation	
List of attachments	Analysis Manual Level Change by Driver 171105.doc
Date of last modification	17.11.2005

Analysis Manual Level Change by Driver 171105.doc

ANALYSIS MANUAL LEVEL CHANGE BY DRIVER (17.11.05)

a) Current Situation

- On changing from L2 to L1 in OS/FS mode, T_CONTACT supervision for MA is lost
- On changing from L1 to L2 supervision in OS/FS mode, T_CONTACT supervision becomes immediately active (see CR decision 529), although there is no session open yet
- On changing to L2 from any other level except for L1 to L2, the train is tripped (lack of MA)
- On changing to L1 from any other level except for L2 to L1, the train is tripped (lack of MA)
- Changing level to L2, there is not trigger for to open a session

b) Modes where no manual level change is permitted

- SH, TR, PT, RV, (SF, IS) *no change*

Transitions

	To L1 : SB	To L1 : SR, FS, OS	To L1 : NL	To L1 : TR	To L2 : SB	To L2 : SR, FS, OS	To L2 : NL	To L2 : TR	To L0 : SB	To L0 : UN	To L0 : NL	To LSTM/Y : SB	To LSTM/Y : SE/SN	To LSTM/Y : NL
From L1 : SB					X				X			X		
From L1 : SR, FS, OS						X				X			X	
From L1 : NL							X				X			X
From L2 : SB	X								X			X		
From L2 : SR, FS, OS		X								X			X	
From L2 : NL			X								X			X
From L0 : SB	X				X							X		
From L0 : UN				X				X					X	
From L0 : NL			X				X							X
From LSTM/X : SB	X				X				X					
From LSTM/X : SE/SN				X				X					X	
From LSTM/X : NL			X				X							X

Annexe 1.66. CR U403: "Ack of train data also in TR and PT"

Request ID	0000000403
Problem Headline	Acknowledgement of train data also in TR and PT
Problem Description	<p>The message "Acknowledgement of Train Data" has to be deleted by the OBU in the modes Trip and Post Trip.</p> <p>Therefore it is not possible to change from Trip (Post Trip) to Full Supervision, when the OBU receives an RBC transition order during the Trip procedure or after a Trip during a transition to level 2 (the session is not established before the transition is executed).</p>
Decision by CR-Board	<p>Accepted.</p> <p>Modify table 4.8.4.2 row acknowledgement of Train Data, replace "R" with "A" for modes TR, PT</p>
References	<p>Subset 026-4, V2.2.2, 4.8.4.2 (Table/row: Acknowledgement of Train Data)</p> <p>Subset 026-3, V2.2.2, 3.15.1.3.6 (see also/exception)</p>
Remarks of CR-Board	
Type of change	Technical / inconsistency / minor
Change backward compatible	
Economical evaluation	
List of attachments	

Annexe 1.67. CR U529: "Reactivation of Radio link supervision"

Request ID	0000000529
Problem Headline	Reactivation of Radio link supervision after a radio hole
Problem Description	<p>Table 4.5.2.1 specifies that the safe connection is checked in Levels 2 and 3, modes FS and OS. This implies that, e.g., on a L1 to L2 border, the supervision starts right at the border, even if at that time there is no session established. The supervision will start in this case in reference to the timer of the last valid message received.</p> <p>Further, regarding 3.16.3.4.6 it is possible to deactivate the supervision of T_NVCONTACT for radio hole, but after reactivation the supervision regarding 3.16.3.4.1 is still made with the time stamp of the latest received message (before the radio hole)</p>
Decision by CR-Board	<p>UNISIG 22/10/04:</p> <p>Accepted.</p> <p>Add 3.16.3.4.6.1: " For reactivation of supervision of T_NVCONTACT after a radio hole the current onboard time stamp shall be used instead the time stamp of the latest valid received message (refer to 3.16.3.4.1)"</p> <p>Add new clause 3.16.3.4.1.1 : " For activation of supervision of T_NVCONTACT when entering Level 2 or 3 the current onboard time stamp shall be used instead the time stamp of the latest valid received message"</p>
References	SUBSET-026-3, v2.2.4, 3.16.3.4.6, 3.16.3.4.1
Remarks of CR-Board	
Type of change	Editorial/clarification
Change backward compatible	
Economical evaluation	
List of attachments	
Date of last modification	22.10.2004

ANNEXE 2. CR U170 : Operational scenario for passing a neutral section with change of voltage

Note: The information regarding the track condition is also placed on the TIU.

This scenario describes the information displayed on the DMI both for automatic handling of pantograph (optional function outside ETCS) and for manual operation by driver.

Involved track conditions:

Packet 68 with M_TRACKCOND = 3 (lower pantograph)

Packet 39 with M_TRACTION = "new traction", e.g. 25kV

Reference for the DMI: 04E2962- Operational DMI Information.

The operational scenario is given in figure 1 for a level 2 situation. For level 1 it is the same except where mentioned in the description.

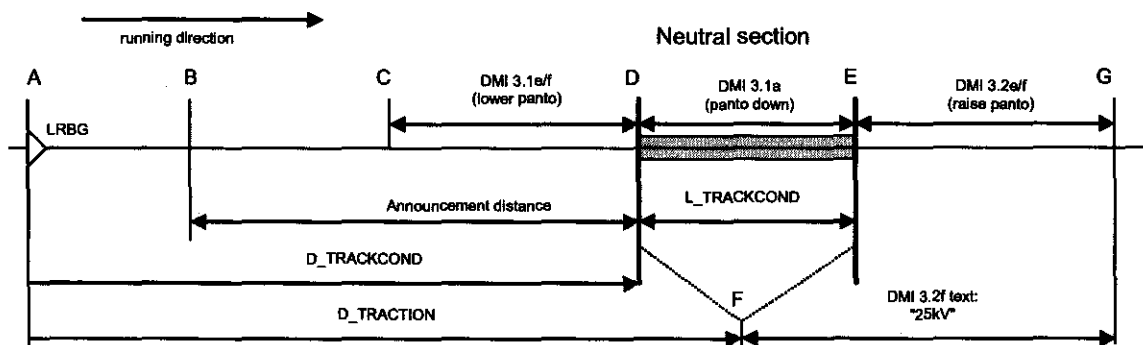


Figure 1 Passing a neutral section

Description of the locations in figure 1.

Location A is the LRBG which is the reference point for the distances given in packet 39 and 68.

Location B is the point where the information regarding the neutral section is given to the train. In this scenario it is assumed that packet 39 and 68 are transmitted in the same message. In level 1 the location B is by definition equal to location A.

Location C is the point where the icon DMI 3.1e (automatic operation) or 3.1f (manual operation) is displayed. It remains displayed from C to D.

Location D is the beginning of the neutral section. It is the location where the icon DMI 3.1a is displayed. It remains displayed from D to E.

Location E is the end of the neutral section. It is the location where the icon DMI 3.2e (automatic operation) or 3.2f (manual operation) is displayed. It remains displayed from E to G.

Location F is the point where the text message for the new traction, e.g. "25kV", is displayed, see DMI 3.2e/f. It remains displayed from F to G.

Location G is the point where icon DMI 3.2e/f and the text message for the new traction disappear.

Requirements to the locations in figure 1

Location A is the reference point.

Location B is defined by the minimum announcement distance B-D. This distance needs to be long enough to ensure that the driver (or an optional automatic system) is able to reduce the traction power, open the main switch and lower the pantograph before reaching the beginning of the neutral section.

The minimum distance B-D shall be based on a minimum time of 17s to pass from B to D, taking the actual line speed into account.

Location C is determined by the onboard system. It knows the time necessary to perform the required actions. It knows the actual train speed. It may know (optional) the position of the pantographs in the train. Based on all this information the onboard can determine the right location C.

Location D is defined in packet 68.

Location E is defined in packet 68.

Location F is defined in packet 39.

Note that according to the SRS the infrastructure manager is free to decide where to put location F, e.g. at the beginning of the neutral section or at the end of the neutral section.

Location G is defined by a fixed time of 5s after the rear end of the train has passed location E.

Neutral section without lowering of pantograph

Involved track conditions:

Packet 68 with M_TRACKCOND = 9 (main power switch)

Packet 39 not used

In this scenario the driver only has to operate the main switch. The scenario is similar to the scenario explained above with the following differences.

The minimum distance B-D shall be based on a minimum time of 11s to pass from B to D, taking the actual line speed into account.

C-D display DMI 3.20d

D-E display DMI 3.20c

E-G no display

F not relevant