TCNOpen	Open Source Developement

TRDP

Train Real Time Data Protocol

Release Notes for TRDP 3.0.0.0

Document reference no: TCN-TRDP4-D-BOM-030-18

Author :	Armin-Hagen Weiss, Bernd Löhr, Christoph Wetzler
Organisation :	Alstom & NewTec GmbH
Document date:	21 December, 2023
Revision:	18
Status :	Released

Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom or its subsidiaries and others, 2013-2023. All rights reserved.

Restrictions and Obligations

TRDP software and documentation is subject of different license agreements. Please see chapter 2.2 for detailed information.

The information in this document and the product described by this document is subject to change without prior notice. We reserve all rights in this document and in the information contained therein.

Please note, that the code has been tested only in the lab and only for the test cases documented in [TestRep].

Participants		
Name and Surname	Organisation	Role
Armin-Hagen Weiss	Alstom	Lead, Editor
Peter Liesner	NewTec	Reviewer

History			
V1	11 June 13	Armin-H. Weiss	Initial version
V2	14 June 13	Armin-H. Weiss	Release 1.0.1.0
V3	21 Oct 13	Armin-H. Weiss	Release 1.1.0.0
V4	15 Dec 14	Armin-H. Weiss	Release 1.2.1.0
V5	30 May 17	Armin-H. Weiss	Release 1.3.2.0
V6	30 June 17	Armin-H. Weiss	Release 1.3.2.0, #160 added
V7	12 July 17	Armin-H. Weiss	Release 1.3.2.0, TRDP_SPY updated
V8	12 July 17	Armin-H. Weiss	Release 1.3.2.0, editorial changes
V9	13 July 17	Armin-H. Weiss	Release 1.3.3.0
V11	7 Nov 18	Armin-H. Weiss	Release 1.4.0.0
V12	15 Nov 18	Armin-H. Weiss	Release 1.4.1.0
V13	13 June 19	Armin-H. Weiss	Release 1.4.2.0
V14	28 Aug 19	Armin-H. Weiss	Release 2.0.1.0
V15	25 Oct 19	Bernd Löhr	Release 2.0.2.0
V16	9 Aug 20	Bernd Löhr	Release 2.0.3.0
V17	1 July 21	Armin-H. Weiss	Release 2.1.0.0
V18	21 Dec 23	Armin-H. Weiss	Release 3.0.0.0

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table of Contents

TABLE OF CONTENTS **3**

TABLE OF FIGURES **16**

TABLE OF TABLES **16**

1. INTRODUCTION **23**

1.1. PURPOSE 23
1.2. INTENDED AUDIENCE 23
1.3. REFERENCES/RELATED DOCUMENTS 23
1.4. ABBREVIATIONS AND DEFINITIONS 23

2. PRODUCT DEFINITION **24**

2.1. GENERAL DESCRIPTION 24
2.2. LICENSE AGREEMENTS 25
2.3. PRODUCT IDENTIFICATION 25
2.4. TARGETS 26
2.4.1. Primary Targets *26*
2.4.2. Secondary Targets *26*

3. DELIVERY **27**

3.1. PLATFORM 27
3.2. SDK 28
3.2.1. TRDPLight *29*
3.2.2. TRDPMarshall *30*
3.2.3. TRDPXML *30*
3.2.4. TRDPCTRL *31*
3.2.5. TRDPDNR *31*
3.2.6. TRDPTTI *31*
3.2.7. TRDPSOA *31*
3.2.8. TRDPSpy *32*
3.2.9. Build Environment *33*
3.2.10. Tests *33*
3.2.11. Examples *34*
3.3. DOCUMENTATION 34
3.4. RESTRICTIONS 34

4. INSTALLATION **35**

4.1. PLATFORM 35
4.2. SDK 35

5. HOW TO USE **36**

5.1. POSIX (LINUX, MACOS, QNX, INTEGRITY) 36
5.2. VXWORKS 36

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

5.3. WINDOWS 36
5.4. MACOS/IOS 36
5.5. ESP 36

6. CHANGES 37

6.1. TRDPLIGHT 37
6.1.1. Corrected Errors 37
6.1.2. New or Enhanced Functions 38
6.1.3. Known Errors 38
6.1.4. Compatibility to Earlier Releases 38
6.2. TRDPSOA 39
6.2.1. Corrected Errors 39
6.2.2. New or Enhanced Functions 39
6.2.3. Known Errors 39
6.2.4. Compatibility to Earlier Releases 39
6.3. TRDPMARSHALL 40
6.3.1. Corrected Errors 40
6.3.2. New or Enhanced Functions 40
6.3.3. Known Errors 40
6.3.4. Compatibility to Earlier Releases 40
6.4. TRDPXML 40
6.4.1. Corrected Errors 40
6.4.2. New or Enhanced Functions 40
6.4.3. Known Errors 41
6.4.4. Compatibility to Earlier Releases 41
6.5. TRDPCTRL 41
6.5.1. Corrected Errors 41
6.5.2. New or Enhanced Functions 41
6.5.3. Known Errors 41
6.5.4. Compatibility to Earlier Releases 41
6.6. TRDPDNR 42
6.6.1. Corrected Errors 42
6.6.2. New or Enhanced Functions 42
6.6.3. Known Errors 42
6.6.4. Compatibility to Earlier Releases 42
6.7. TRDPTTI 42
6.7.1. Corrected Errors 42
6.7.2. New or Enhanced Functions 43
6.7.3. Known Errors 43
6.7.4. Compatibility to Earlier Releases 43
6.8. TRDPSPY 43
6.8.1. Corrected Errors 43
6.8.2. New or Enhanced Functions 43
6.8.3. Known Errors 43
6.8.4. Compatibility to Earlier Releases 44

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

7. HISTORY RELEASE 1.1.0.0 45
7.1. TRDPLIGHT 45
7.1.1. Corrected Errors 45
7.1.2. New or Enhanced Functions 45
7.1.3. Known Errors 45
7.1.4. Compatibility to Earlier Releases 46
7.2. TRDPMARSHALL 46
7.2.1. Corrected Errors 46
7.2.2. New or Enhanced Functions 46
7.2.3. Known Errors 46
7.2.4. Compatibility to Earlier Releases 46
7.3. TRDPXML 47
7.3.1. Corrected Errors 47
7.3.2. New or Enhanced Functions 47
7.3.3. Known Errors 47
7.3.4. Compatibility to Earlier Releases 47
7.4. TRDPCTRL 47
7.5. TRDPSPY 47
7.5.1. Corrected Errors 47
7.5.2. New or Enhanced Functions 47
7.5.3. Known Errors 48
8. HISTORY RELEASE 1.2.1.0 49
8.1. TRDPLIGHT 49
8.1.1. Corrected Errors 49
8.1.2. New or Enhanced Functions 50
8.1.3. Known Errors 51
8.1.4. Compatibility to Earlier Releases 51
8.2. TRDPMARSHALL 51
8.2.1. Corrected Errors 51
8.2.2. New or Enhanced Functions 51
8.2.3. Known Errors 52
8.2.4. Compatibility to Earlier Releases 52
8.3. TRDPXML 52
8.3.1. Corrected Errors 52
8.3.2. New or Enhanced Functions 52
8.3.3. Known Errors 52
8.3.4. Compatibility to Earlier Releases 52
8.4. TRDPCTRL 53
8.4.1. Corrected Errors 53
8.4.2. New or Enhanced Functions 53
8.4.3. Known Errors 53
8.4.4. Compatibility to Earlier Releases 53
8.5. TRDPSPY 53
8.5.1. Corrected Errors 53

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

8.5.2. New or Enhanced Functions *53*
8.5.3. Known Errors *54*
8.5.4. Compatibility to Earlier Releases *54*

9. HISTORY RELEASE 1.3.0.0 ..... **55**
9.1. TRDPLIGHT 55
9.1.1. Corrected Errors *55*
9.1.2. New or Enhanced Functions *56*
9.1.3. Known Errors *56*
9.1.4. Compatibility to Earlier Releases *56*
9.2. TRDPMARSHALL 57
9.2.1. Corrected Errors *57*
9.2.2. New or Enhanced Functions *57*
9.2.3. Known Errors *57*
9.2.4. Compatibility to Earlier Releases *57*
9.3. TRDPXML 57
9.3.1. Corrected Errors *57*
9.3.2. New or Enhanced Functions *57*
9.3.3. Known Errors *58*
9.3.4. Compatibility to Earlier Releases *58*
9.4. TRDPCTRL 58
9.4.1. Corrected Errors *58*
9.4.2. New or Enhanced Functions *58*
9.4.3. Known Errors *58*
9.4.4. Compatibility to Earlier Releases *58*
9.5. TRDPDNR 59
9.5.1. Corrected Errors *59*
9.5.2. New or Enhanced Functions *59*
9.5.3. Known Errors *59*
9.5.4. Compatibility to Earlier Releases *59*
9.6. TRDPTTI 59
9.6.1. Corrected Errors *59*
9.6.2. New or Enhanced Functions *60*
9.6.3. Known Errors *60*
9.6.4. Compatibility to Earlier Releases *60*
9.7. TRDPSPY 60
9.7.1. Corrected Errors *60*
9.7.2. New or Enhanced Functions *60*

10. HISTORY RELEASE 1.3.1.0 ..... **61**
10.1. TRDPLIGHT 61
10.1.1. Corrected Errors *61*
10.1.2. New or Enhanced Functions *61*
10.1.3. Known Errors *61*
10.1.4. Compatibility to Earlier Releases *61*
10.2. TRDPMARSHALL 62

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

10.2.1. Corrected Errors ... *62*
10.2.2. New or Enhanced Functions ... *62*
10.2.3. Known Errors ... *62*
10.2.4. Compatibility to Earlier Releases ... *62*
10.3. TRDPXML ... 62
10.3.1. Corrected Errors ... *62*
10.3.2. New or Enhanced Functions ... *62*
10.3.3. Known Errors ... *62*
10.3.4. Compatibility to Earlier Releases ... *63*
10.4. TRDPCTRL ... 63
10.4.1. Corrected Errors ... *63*
10.4.2. New or Enhanced Functions ... *63*
10.4.3. Known Errors ... *63*
10.4.4. Compatibility to Earlier Releases ... *63*
10.5. TRDPDNR ... 63
10.5.1. Corrected Errors ... *63*
10.5.2. New or Enhanced Functions ... *63*
10.5.3. Known Errors ... *64*
10.5.4. Compatibility to Earlier Releases ... *64*
10.6. TRDPTTI ... 64
10.6.1. Corrected Errors ... *64*
10.6.2. New or Enhanced Functions ... *64*
10.6.3. Known Errors ... *64*
10.6.4. Compatibility to Earlier Releases ... *64*
10.7. TRDPSPY ... 65
10.7.1. Corrected Errors ... *65*
10.7.2. New or Enhanced Functions ... *65*
10.7.3. Known Errors ... *65*
10.7.4. Compatibility to Earlier Releases ... *65*

11. HISTORY RELEASE 1.3.2.0 ... 66

11.1. TRDPLIGHT ... 66
11.1.1. Corrected Errors ... *66*
11.1.2. New or Enhanced Functions ... *67*
11.1.3. Known Errors ... *67*
11.1.4. Compatibility to Earlier Releases ... *68*
11.2. TRDPMARSHALL ... 68
11.2.1. Corrected Errors ... *68*
11.2.2. New or Enhanced Functions ... *68*
11.2.3. Known Errors ... *68*
11.2.4. Compatibility to Earlier Releases ... *68*
11.3. TRDPXML ... 68
11.3.1. Corrected Errors ... *68*
11.3.2. New or Enhanced Functions ... *68*
11.3.3. Known Errors ... *69*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

11.3.4. Compatibility to Earlier Releases *69*
11.4. TRDPCTRL 69
11.4.1. Corrected Errors *69*
11.4.2. New or Enhanced Functions *69*
11.4.3. Known Errors *69*
11.4.4. Compatibility to Earlier Releases *69*
11.5. TRDPDNR 70
11.5.1. Corrected Errors *70*
11.5.2. New or Enhanced Functions *70*
11.5.3. Known Errors *70*
11.5.4. Compatibility to Earlier Releases *70*
11.6. TRDPTTI 70
11.6.1. Corrected Errors *70*
11.6.2. New or Enhanced Functions *70*
11.6.3. Known Errors *71*
11.6.4. Compatibility to Earlier Releases *71*
11.7. TRDPSPY 71
11.7.1. Corrected Errors *71*
11.7.2. New or Enhanced Functions *71*
11.7.3. Known Errors *71*
11.7.4. Compatibility to Earlier Releases *71*

12. HISTORY RELEASE 1.3.3.0 72

12.1. TRDPLIGHT 72
12.1.1. Corrected Errors *72*
12.1.2. New or Enhanced Functions *72*
12.1.3. Known Errors *72*
12.1.4. Compatibility to Earlier Releases *72*
12.2. TRDPMARSHALL 73
12.2.1. Corrected Errors *73*
12.2.2. New or Enhanced Functions *73*
12.2.3. Known Errors *73*
12.2.4. Compatibility to Earlier Releases *73*
12.3. TRDPXML 73
12.3.1. Corrected Errors *73*
12.3.2. New or Enhanced Functions *73*
12.3.3. Known Errors *74*
12.3.4. Compatibility to Earlier Releases *74*
12.4. TRDPCTRL 74
12.4.1. Corrected Errors *74*
12.4.2. New or Enhanced Functions *74*
12.4.3. Known Errors *74*
12.4.4. Compatibility to Earlier Releases *74*
12.5. TRDPDNR 75
12.5.1. Corrected Errors *75*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

12.5.2. New or Enhanced Functions *75*
12.5.3. Known Errors *75*
12.5.4. Compatibility to Earlier Releases *75*
12.6. TRDPTTI 75
12.6.1. Corrected Errors *75*
12.6.2. New or Enhanced Functions *75*
12.6.3. Known Errors *76*
12.6.4. Compatibility to Earlier Releases *76*
12.7. TRDPSPY 76
12.7.1. Corrected Errors *76*
12.7.2. New or Enhanced Functions *76*
12.7.3. Known Errors *76*
12.7.4. Compatibility to Earlier Releases *76*
13. HISTORY RELEASE 1.4.0.0 77
13.1. TRDPLIGHT 77
13.1.1. Corrected Errors *77*
13.1.2. New or Enhanced Functions *78*
13.1.3. Known Errors *78*
13.1.4. Compatibility to Earlier Releases *79*
13.2. TRDPMARSHALL 79
13.2.1. Corrected Errors *79*
13.2.2. New or Enhanced Functions *79*
13.2.3. Known Errors *79*
13.2.4. Compatibility to Earlier Releases *79*
13.3. TRDPXML 79
13.3.1. Corrected Errors *79*
13.3.2. New or Enhanced Functions *79*
13.3.3. Known Errors *80*
13.3.4. Compatibility to Earlier Releases *80*
13.4. TRDPCTRL 80
13.4.1. Corrected Errors *80*
13.4.2. New or Enhanced Functions *80*
13.4.3. Known Errors *80*
13.4.4. Compatibility to Earlier Releases *80*
13.5. TRDPDNR 81
13.5.1. Corrected Errors *81*
13.5.2. New or Enhanced Functions *81*
13.5.3. Known Errors *81*
13.5.4. Compatibility to Earlier Releases *81*
13.6. TRDPTTI 81
13.6.1. Corrected Errors *81*
13.6.2. New or Enhanced Functions *81*
13.6.3. Known Errors *82*
13.6.4. Compatibility to Earlier Releases *82*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

13.7. TRDPSPY 82
13.7.1. Corrected Errors *82*
13.7.2. New or Enhanced Functions *82*
13.7.3. Known Errors *82*
13.7.4. Compatibility to Earlier Releases *82*

14. HISTORY RELEASE 1.4.1.0 83

14.1. TRDPLIGHT 83
14.1.1. Corrected Errors *83*
14.1.2. New or Enhanced Functions *83*
14.1.3. Known Errors *83*
14.1.4. Compatibility to Earlier Releases *84*
14.2. TRDPMARSHALL 84
14.2.1. Corrected Errors *84*
14.2.2. New or Enhanced Functions *84*
14.2.3. Known Errors *84*
14.2.4. Compatibility to Earlier Releases *84*
14.3. TRDPXML 84
14.3.1. Corrected Errors *84*
14.3.2. New or Enhanced Functions *84*
14.3.3. Known Errors *85*
14.3.4. Compatibility to Earlier Releases *85*
14.4. TRDPCTRL 85
14.4.1. Corrected Errors *85*
14.4.2. New or Enhanced Functions *85*
14.4.3. Known Errors *85*
14.4.4. Compatibility to Earlier Releases *85*
14.5. TRDPDNR 86
14.5.1. Corrected Errors *86*
14.5.2. New or Enhanced Functions *86*
14.5.3. Known Errors *86*
14.5.4. Compatibility to Earlier Releases *86*
14.6. TRDPTTI 86
14.6.1. Corrected Errors *86*
14.6.2. New or Enhanced Functions *86*
14.6.3. Known Errors *87*
14.6.4. Compatibility to Earlier Releases *87*
14.7. TRDPSPY 87
14.7.1. Corrected Errors *87*
14.7.2. New or Enhanced Functions *87*
14.7.3. Compatibility to Earlier Releases *87*

15. HISTORY RELEASE 1.4.2.0 88

15.1. TRDPLIGHT 88
15.1.1. Corrected Errors *88*
15.1.1. Known Errors *88*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

15.1.2. New or Enhanced Functions ... *88*
15.1.3. Known Errors ... *89*
15.1.4. Compatibility to Earlier Releases ... *89*
15.2. TRDPMARSHALL ... 89
15.2.1. Corrected Errors ... *89*
15.2.2. New or Enhanced Functions ... *90*
15.2.3. Known Errors ... *90*
15.2.4. Compatibility to Earlier Releases ... *90*
15.3. TRDPXML ... 90
15.3.1. Corrected Errors ... *90*
15.3.2. New or Enhanced Functions ... *90*
15.3.3. Known Errors ... *90*
15.3.4. Compatibility to Earlier Releases ... *91*
15.4. TRDPCTRL ... 91
15.4.1. Corrected Errors ... *91*
15.4.2. New or Enhanced Functions ... *91*
15.4.3. Known Errors ... *91*
15.4.4. Compatibility to Earlier Releases ... *91*
15.5. TRDPDNR ... 91
15.5.1. Corrected Errors ... *91*
15.5.2. New or Enhanced Functions ... *92*
15.5.3. Known Errors ... *92*
15.5.4. Compatibility to Earlier Releases ... *92*
15.6. TRDPTTI ... 92
15.6.1. Corrected Errors ... *92*
15.6.2. New or Enhanced Functions ... *92*
15.6.3. Known Errors ... *93*
15.6.4. Compatibility to Earlier Releases ... *93*
15.7. TRDPSPY ... 93
15.7.1. Corrected Errors ... *93*
15.7.2. New or Enhanced Functions ... *93*
15.7.3. Known Errors ... *93*
15.7.4. Compatibility to Earlier Releases ... *93*

16. HISTORY RELEASE 2.0.1.0 ... 94

16.1. TRDPLIGHT ... 94
16.1.1. Corrected Errors ... *94*
16.1.2. New or Enhanced Functions ... *94*
16.1.3. Known Errors ... *94*
16.1.4. Compatibility to Earlier Releases ... *95*
16.2. TRDPMARSHALL ... 95
16.2.1. Corrected Errors ... *95*
16.2.2. New or Enhanced Functions ... *95*
16.2.3. Known Errors ... *96*
16.2.4. Compatibility to Earlier Releases ... *96*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

16.3. TRDPXML 96
16.3.1. Corrected Errors *96*
16.3.2. New or Enhanced Functions *96*
16.3.3. Known Errors *96*
16.3.4. Compatibility to Earlier Releases *96*
16.4. TRDPCTRL 96
16.4.1. Corrected Errors *96*
16.4.2. New or Enhanced Functions *97*
16.4.3. Known Errors *97*
16.4.4. Compatibility to Earlier Releases *97*
16.5. TRDPDNR 97
16.5.1. Corrected Errors *97*
16.5.2. New or Enhanced Functions *97*
16.5.3. Known Errors *97*
16.5.4. Compatibility to Earlier Releases *97*
16.6. TRDPTTI 98
16.6.1. Corrected Errors *98*
16.6.2. New or Enhanced Functions *98*
16.6.3. Known Errors *98*
16.6.4. Compatibility to Earlier Releases *98*
16.7. TRDPSPY 98
16.7.1. Corrected Errors *98*
16.7.2. New or Enhanced Functions *98*
16.7.3. Known Errors *99*
16.7.4. Compatibility to Earlier Releases *99*

17. HISTORY RELEASE 2.0.2.0 100

17.1. TRDPLIGHT 100
17.1.1. Corrected Errors *100*
17.1.2. New or Enhanced Functions *100*
17.1.3. Known Errors *100*
17.1.4. Compatibility to Earlier Releases *100*
17.1.5. tlc_presetIndexSession *101*
17.2. TRDPSOA 101
17.2.1. Corrected Errors *101*
17.2.2. New or Enhanced Functions *102*
17.2.3. Known Errors *102*
17.2.4. Compatibility to Earlier Releases *102*
17.3. TRDPMARSHALL 102
17.3.1. Corrected Errors *102*
17.3.2. New or Enhanced Functions *102*
17.3.3. Known Errors *102*
17.3.4. Compatibility to Earlier Releases *102*
17.4. TRDPXML 103
17.4.1. Corrected Errors *103*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

17.4.2. New or Enhanced Functions *103*
17.4.3. Known Errors *103*
17.4.4. Compatibility to Earlier Releases *103*
17.5. TRDPCTRL 103
17.5.1. Corrected Errors *103*
17.5.2. New or Enhanced Functions *103*
17.5.3. Known Errors *104*
17.5.4. Compatibility to Earlier Releases *104*
17.6. TRDPDNR 104
17.6.1. Corrected Errors *104*
17.6.2. New or Enhanced Functions *104*
17.6.3. Known Errors *104*
17.6.4. Compatibility to Earlier Releases *104*
17.7. TRDPTTI 105
17.7.1. Corrected Errors *105*
17.7.2. New or Enhanced Functions *105*
17.7.3. Known Errors *105*
17.7.4. Compatibility to Earlier Releases *105*
17.8. TRDPSPY 105
17.8.1. Corrected Errors *105*
17.8.2. New or Enhanced Functions *105*
17.8.3. Known Errors *106*
17.8.4. Compatibility to Earlier Releases *106*

18. HISTORY RELEASE 2.0.3.0 107

18.1. TRDPLIGHT 107
18.1.1. Corrected Errors *107*
18.1.2. New or Enhanced Functions *108*
18.1.3. Known Errors *108*
18.1.4. Compatibility to Earlier Releases *108*
18.2. TRDPSOA 108
18.2.1. Corrected Errors *108*
18.2.2. New or Enhanced Functions *109*
18.2.3. Known Errors *109*
18.2.4. Compatibility to Earlier Releases *109*
18.3. TRDPMARSHALL 109
18.3.1. Corrected Errors ..... ***Fehler! Textmarke nicht definiert.***
18.3.2. New or Enhanced Functions *109*
18.3.3. Known Errors *109*
18.3.4. Compatibility to Earlier Releases *109*
18.4. TRDPXML 109
18.4.1. Corrected Errors *109*
18.4.2. New or Enhanced Functions *110*
18.4.3. Known Errors *110*
18.4.4. Compatibility to Earlier Releases *110*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

18.5. TRDPCTRL 110
18.5.1. Corrected Errors *110*
18.5.2. New or Enhanced Functions *110*
18.5.3. Known Errors *110*
18.5.4. Compatibility to Earlier Releases *111*
18.6. TRDPDNR 111
18.6.1. Corrected Errors *111*
18.6.2. New or Enhanced Functions *111*
18.6.3. Known Errors *111*
18.6.4. Compatibility to Earlier Releases *111*
18.7. TRDPTTI 111
18.7.1. Corrected Errors *111*
18.7.2. New or Enhanced Functions *112*
18.7.3. Known Errors *112*
18.7.4. Compatibility to Earlier Releases *112*
18.8. TRDPSPY 112
18.8.1. Corrected Errors *112*
18.8.2. New or Enhanced Functions *112*
18.8.3. Known Errors *112*
18.8.4. Compatibility to Earlier Releases *112*

19. HISTORY RELEASE 2.1.0.0 113

19.1. TRDPLIGHT 113
19.1.1. Corrected Errors *113*
19.1.2. New or Enhanced Functions *114*
19.1.3. Known Errors *114*
19.1.4. Compatibility to Earlier Releases *114*
19.2. TRDPSOA 114
19.2.1. Corrected Errors *114*
19.2.2. New or Enhanced Functions *114*
19.2.3. Known Errors *115*
19.2.4. Compatibility to Earlier Releases *115*
19.3. TRDPMARSHALL 115
19.3.1. Corrected Errors *115*
19.3.2. New or Enhanced Functions *115*
19.3.3. Known Errors *115*
19.3.4. Compatibility to Earlier Releases *115*
19.4. TRDPXML 115
19.4.1. Corrected Errors *115*
19.4.2. New or Enhanced Functions *116*
19.4.3. Known Errors *116*
19.4.4. Compatibility to Earlier Releases *116*
19.5. TRDPCTRL 116
19.5.1. Corrected Errors *116*
19.5.2. New or Enhanced Functions *116*

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

19.5.3. Known Errors *116*
19.5.4. Compatibility to Earlier Releases *116*
19.6. TRDPDNR 117
19.6.1. Corrected Errors *117*
19.6.2. New or Enhanced Functions *117*
19.6.3. Known Errors *117*
19.6.4. Compatibility to Earlier Releases *117*
19.7. TRDPTTI 117
19.7.1. Corrected Errors *117*
19.7.2. New or Enhanced Functions *118*
19.7.3. Known Errors *118*
19.7.4. Compatibility to Earlier Releases *118*
19.8. TRDPSPY 118
19.8.1. Corrected Errors *118*
19.8.2. New or Enhanced Functions *118*
19.8.3. Known Errors *118*
19.8.4. Compatibility to Earlier Releases *119*
20. PROBLEM REPORTING 120

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table of Figures

Figure 1 TRDP Modular Structure....25

Table of Tables

Table 1: References....23
Table 2: Abbreviations and Definitions....23
Table 3: Product Identifications....26
Table 4: Primary Targets....26
Table 5: Secondary Targets....26
Table 6: Platform Delivery Content TRDPLight....27
Table 7: Platform Delivery Content TRDPMarshall....27
Table 8: Platform Delivery Content TRDPXML....27
Table 9: Platform Delivery Content TRDPCTRL....27
Table 10: Platform Delivery Content TRDPSpy....28
Table 11: SDK Delivery Directory Structure....29
Table 12: SDK Delivery Content – TRDPLight....30
Table 13: SDK Delivery Content – TRDPMarshall....30
Table 14: SDK Delivery Content – TRDPXML....31
Table 15: SDK Delivery Content – TRDPCTRL....31
Table 16: SDK Delivery Content – TRDPDNR....31
Table 17: SDK Delivery Content – TRDPTTI....31
Table 18: SDK Delivery Content – TRDPSOA....31
Table 19: SDK Delivery Content – TRDPSpy....32
Table 20: SDK Delivery Content – Build Environment....33
Table 21: SDK Delivery Content – Tests....33
Table 22: SDK Delivery Content – Examples....34
Table 23: SDK Delivery Content – Documentation....34
Table 24: Corrected Errors TRDPLight....38
Table 25: New or enhanced functions TRDPLight....38
Table 26: Known Errors TRDPLight....38
Table 27: Corrected Errors TRDPSOA....39
Table 28: New or enhanced functions TRDPSOA....39
Table 29: Known Errors TRDPSOA....39
Table 30: Corrected Errors TRDPMarshall....40
Table 31: New or enhanced functions TRDPMarshall....40
Table 32: Known Errors TRDPMarshall....40
Table 33: Corrected Errors TRDPXML....40
Table 34: New or enhanced functions TRDPXML....40
Table 35: Known Errors TRDPXML....41
Table 36: Corrected Errors TRDPCTRL....41
Table 37: New or enhanced functions TRDPCTRL....41
Table 38: Known Errors TRDPCTRL....41
Table 39: Corrected Errors TRDPDNR....42

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 40: New or enhanced functions TRDPDNR 42
Table 41: Known Errors TRDPDNR 42
Table 42: Corrected Errors TRDPTTI 42
Table 43: New or enhanced functions TRDPTTI 43
Table 44: Known Errors TRDPTTI 43
Table 45: Corrected Errors TRDPSpy 43
Table 46: New or enhanced functions TRDPSpy 43
Table 47: Known Errors TRDPSpy 44
Table 48: Corrected Errors TRDPLight 45
Table 49: New or enhanced functions TRDPLight 45
Table 50: Known Errors TRDPLight 46
Table 51: Corrected Errors TRDPMarshall 46
Table 52: New or enhanced functions TRDPMarshall 46
Table 53: Known Errors TRDPMarshall 46
Table 54: Corrected Errors TRDPXML 47
Table 55: New or enhanced functions TRDPXML 47
Table 56: Known Errors TRDPXML 47
Table 57: Corrected Errors TRDPSpy 47
Table 58: New or enhanced functions TRDPSpy 47
Table 59: Known Errors TRDPSpy 48
Table 60: Corrected Errors TRDPLight 50
Table 61: New or enhanced functions TRDPLight 50
Table 62: Known Errors TRDPLight 51
Table 63: Corrected Errors TRDPMarshall 51
Table 64: New or enhanced functions TRDPMarshall 51
Table 65: Known Errors TRDPMarshall 52
Table 66: Corrected Errors TRDPXML 52
Table 67: New or enhanced functions TRDPXML 52
Table 68: Known Errors TRDPXML 52
Table 69: Corrected Errors TRDPCTRL 53
Table 70: New or enhanced functions TRDPCTRL 53
Table 71: Known Errors TRDPCTRL 53
Table 72: Corrected Errors TRDPSpy 53
Table 73: New or enhanced functions TRDPSpy 53
Table 74: Known Errors TRDPSpy 54
Table 75: Corrected Errors TRDPLight 56
Table 76: New or enhanced functions TRDPLight 56
Table 77: Known Errors TRDPLight 56
Table 78: Corrected Errors TRDPMarshall 57
Table 79: New or enhanced functions TRDPMarshall 57
Table 80: Known Errors TRDPMarshall 57
Table 81: Corrected Errors TRDPXML 57
Table 82: New or enhanced functions TRDPXML 58
Table 83: Known Errors TRDPXML 58
Table 84: Corrected Errors TRDPCTRL 58
Table 85: New or enhanced functions TRDPCTRL 58
Table 86: Known Errors TRDPCTRL 58

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 87: Corrected Errors TRDPDNR 59
Table 88: New or enhanced functions TRDPDNR 59
Table 89: Known Errors TRDPDNR 59
Table 90: Corrected Errors TRDPTTI 59
Table 91: New or enhanced functions TRDPTTI 60
Table 92: Known Errors TRDPTTI 60
Table 93: Corrected Errors TRDPSpy 60
Table 94: New or enhanced functions TRDPSpy 60
Table 95: Corrected Errors TRDPLight 61
Table 96: New or enhanced functions TRDPLight 61
Table 97: Known Errors TRDPLight 61
Table 98: Corrected Errors TRDPMarshall 62
Table 99: New or enhanced functions TRDPMarshall 62
Table 100: Known Errors TRDPMarshall 62
Table 101: Corrected Errors TRDPXML 62
Table 102: New or enhanced functions TRDPXML 62
Table 103: Known Errors TRDPXML 62
Table 104: Corrected Errors TRDPCTRL 63
Table 105: New or enhanced functions TRDPCTRL 63
Table 106: Known Errors TRDPCTRL 63
Table 107: Corrected Errors TRDPDNR 63
Table 108: New or enhanced functions TRDPDNR 64
Table 109: Known Errors TRDPDNR 64
Table 110: Corrected Errors TRDPTTI 64
Table 111: New or enhanced functions TRDPTTI 64
Table 112: Known Errors TRDPTTI 64
Table 113: Corrected Errors TRDPSpy 65
Table 114: New or enhanced functions TRDPSpy 65
Table 115: Known Errors TRDPSpy 65
Table 116: Corrected Errors TRDPLight 67
Table 117: New or enhanced functions TRDPLight 67
Table 118: Known Errors TRDPLight 67
Table 119: Corrected Errors TRDPMarshall 68
Table 120: New or enhanced functions TRDPMarshall 68
Table 121: Known Errors TRDPMarshall 68
Table 122: Corrected Errors TRDPXML 68
Table 123: New or enhanced functions TRDPXML 68
Table 124: Known Errors TRDPXML 69
Table 125: Corrected Errors TRDPCTRL 69
Table 126: New or enhanced functions TRDPCTRL 69
Table 127: Known Errors TRDPCTRL 69
Table 128: Corrected Errors TRDPDNR 70
Table 129: New or enhanced functions TRDPDNR 70
Table 130: Known Errors TRDPDNR 70
Table 131: Corrected Errors TRDPTTI 70
Table 132: New or enhanced functions TRDPTTI 70
Table 133: Known Errors TRDPTTI 71

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 134: Corrected Errors TRDPSpy 71
Table 135: New or enhanced functions TRDPSpy 71
Table 136: Known Errors TRDPSpy 71
Table 137: Corrected Errors TRDPLight 72
Table 138: New or enhanced functions TRDPLight 72
Table 139: Known Errors TRDPLight 72
Table 140: Corrected Errors TRDPMarshall 73
Table 141: New or enhanced functions TRDPMarshall 73
Table 142: Known Errors TRDPMarshall 73
Table 143: Corrected Errors TRDPXML 73
Table 144: New or enhanced functions TRDPXML 73
Table 145: Known Errors TRDPXML 74
Table 146: Corrected Errors TRDPCTRL 74
Table 147: New or enhanced functions TRDPCTRL 74
Table 148: Known Errors TRDPCTRL 74
Table 149: Corrected Errors TRDPDNR 75
Table 150: New or enhanced functions TRDPDNR 75
Table 151: Known Errors TRDPDNR 75
Table 152: Corrected Errors TRDPTTI 75
Table 153: New or enhanced functions TRDPTTI 75
Table 154: Known Errors TRDPTTI 76
Table 155: Corrected Errors TRDPSpy 76
Table 156: New or enhanced functions TRDPSpy 76
Table 157: Known Errors TRDPSpy 76
Table 158: Corrected Errors TRDPLight 78
Table 159: New or enhanced functions TRDPLight 78
Table 160: Known Errors TRDPLight 78
Table 161: Corrected Errors TRDPMarshall 79
Table 162: New or enhanced functions TRDPMarshall 79
Table 163: Known Errors TRDPMarshall 79
Table 164: Corrected Errors TRDPXML 79
Table 165: New or enhanced functions TRDPXML 80
Table 166: Known Errors TRDPXML 80
Table 167: Corrected Errors TRDPCTRL 80
Table 168: New or enhanced functions TRDPCTRL 80
Table 169: Known Errors TRDPCTRL 80
Table 170: Corrected Errors TRDPDNR 81
Table 171: New or enhanced functions TRDPDNR 81
Table 172: Known Errors TRDPDNR 81
Table 173: Corrected Errors TRDPTTI 81
Table 174: New or enhanced functions TRDPTTI 81
Table 175: Known Errors TRDPTTI 82
Table 176: Corrected Errors TRDPSpy 82
Table 177: New or enhanced functions TRDPSpy 82
Table 178: Known Errors TRDPSpy 82
Table 179: Corrected Errors TRDPLight 83
Table 180: New or enhanced functions TRDPLight 83

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 181: Known Errors TRDPLight....83
Table 182: Corrected Errors TRDPMarshall....84
Table 183: New or enhanced functions TRDPMarshall....84
Table 184: Known Errors TRDPMarshall....84
Table 185: Corrected Errors TRDPXML....84
Table 186: New or enhanced functions TRDPXML....84
Table 187: Known Errors TRDPXML....85
Table 188: Corrected Errors TRDPCTRL....85
Table 189: New or enhanced functions TRDPCTRL....85
Table 190: Known Errors TRDPCTRL....85
Table 191: Corrected Errors TRDPDNR....86
Table 192: New or enhanced functions TRDPDNR....86
Table 193: Known Errors TRDPDNR....86
Table 194: Corrected Errors TRDPTTI....86
Table 195: New or enhanced functions TRDPTTI....86
Table 196: Known Errors TRDPTTI....87
Table 197: Corrected Errors TRDPSpy....87
Table 198: New or enhanced functions TRDPSpy....87
Table 199: Corrected Errors TRDPLight....88
Table 200: Known Errors TRDPSpy....88
Table 201: New or enhanced functions TRDPLight....88
Table 202: Known Errors TRDPLight....89
Table 203: Corrected Errors TRDPMarshall....90
Table 204: New or enhanced functions TRDPMarshall....90
Table 205: Known Errors TRDPMarshall....90
Table 206: Corrected Errors TRDPXML....90
Table 207: New or enhanced functions TRDPXML....90
Table 208: Known Errors TRDPXML....90
Table 209: Corrected Errors TRDPCTRL....91
Table 210: New or enhanced functions TRDPCTRL....91
Table 211: Known Errors TRDPCTRL....91
Table 212: Corrected Errors TRDPDNR....91
Table 213: New or enhanced functions TRDPDNR....92
Table 214: Known Errors TRDPDNR....92
Table 215: Corrected Errors TRDPTTI....92
Table 216: New or enhanced functions TRDPTTI....92
Table 217: Known Errors TRDPTTI....93
Table 218: Corrected Errors TRDPSpy....93
Table 219: New or enhanced functions TRDPSpy....93
Table 220: Known Errors TRDPSpy....93
Table 221: Corrected Errors TRDPLight....94
Table 222: New or enhanced functions TRDPLight....94
Table 223: Known Errors TRDPLight....95
Table 224: Corrected Errors TRDPMarshall....95
Table 225: New or enhanced functions TRDPMarshall....95
Table 226: Known Errors TRDPMarshall....96
Table 227: Corrected Errors TRDPXML....96

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 228: New or enhanced functions TRDPXML 96
Table 229: Known Errors TRDPXML 96
Table 230: Corrected Errors TRDPCTRL 96
Table 231: New or enhanced functions TRDPCTRL 97
Table 232: Known Errors TRDPCTRL 97
Table 233: Corrected Errors TRDPDNR 97
Table 234: New or enhanced functions TRDPDNR 97
Table 235: Known Errors TRDPDNR 97
Table 236: Corrected Errors TRDPTTI 98
Table 237: New or enhanced functions TRDPTTI 98
Table 238: Known Errors TRDPTTI 98
Table 239: Corrected Errors TRDPSpy 98
Table 240: New or enhanced functions TRDPSpy 98
Table 241: Known Errors TRDPSpy 99
Table 242: Corrected Errors TRDPLight 100
Table 243: New or enhanced functions TRDPLight 100
Table 244: Known Errors TRDPLight 100
Table 245: Corrected Errors TRDPSOA 102
Table 246: New or enhanced functions TRDPSOA 102
Table 247: Known Errors TRDPSOA 102
Table 248: Corrected Errors TRDPMarshall 102
Table 249: New or enhanced functions TRDPMarshall 102
Table 250: Known Errors TRDPMarshall 102
Table 251: Corrected Errors TRDPXML 103
Table 252: New or enhanced functions TRDPXML 103
Table 253: Known Errors TRDPXML 103
Table 254: Corrected Errors TRDPCTRL 103
Table 255: New or enhanced functions TRDPCTRL 103
Table 256: Known Errors TRDPCTRL 104
Table 257: Corrected Errors TRDPDNR 104
Table 258: New or enhanced functions TRDPDNR 104
Table 259: Known Errors TRDPDNR 104
Table 260: Corrected Errors TRDPTTI 105
Table 261: New or enhanced functions TRDPTTI 105
Table 262: Known Errors TRDPTTI 105
Table 263: Corrected Errors TRDPSpy 105
Table 264: New or enhanced functions TRDPSpy 105
Table 265: Known Errors TRDPSpy 106
Table 266: Corrected Errors TRDPLight 107
Table 267: New or enhanced functions TRDPLight 108
Table 268: Known Errors TRDPLight 108
Table 269: Corrected Errors TRDPSOA 108
Table 270: New or enhanced functions TRDPSOA 109
Table 271: Known Errors TRDPSOA 109
Table 272: Corrected Errors TRDPMarshall ..... **Fehler! Textmarke nicht definiert.**
Table 273: New or enhanced functions TRDPMarshall 109
Table 274: Known Errors TRDPMarshall 109

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 275: Corrected Errors TRDPXML....109
Table 276: New or enhanced functions TRDPXML....110
Table 277: Known Errors TRDPXML....110
Table 278: Corrected Errors TRDPCTRL....110
Table 279: New or enhanced functions TRDPCTRL....110
Table 280: Known Errors TRDPCTRL....110
Table 281: Corrected Errors TRDPDNR....111
Table 282: New or enhanced functions TRDPDNR....111
Table 283: Known Errors TRDPDNR....111
Table 284: Corrected Errors TRDPTTI....112
Table 285: New or enhanced functions TRDPTTI....112
Table 286: Known Errors TRDPTTI....112
Table 287: Corrected Errors TRDPSpy....112
Table 288: New or enhanced functions TRDPSpy....112
Table 289: Known Errors TRDPSpy....112
Table 290: Corrected Errors TRDPLight....113
Table 291: New or enhanced functions TRDPLight....114
Table 292: Known Errors TRDPLight....114
Table 293: Corrected Errors TRDPSOA....114
Table 294: New or enhanced functions TRDPSOA....115
Table 295: Known Errors TRDPSOA....115
Table 296: Corrected Errors TRDPMarshall....115
Table 297: New or enhanced functions TRDPMarshall....115
Table 298: Known Errors TRDPMarshall....115
Table 299: Corrected Errors TRDPXML....116
Table 300: New or enhanced functions TRDPXML....116
Table 301: Known Errors TRDPXML....116
Table 302: Corrected Errors TRDPCTRL....116
Table 303: New or enhanced functions TRDPCTRL....116
Table 304: Known Errors TRDPCTRL....116
Table 305: Corrected Errors TRDPDNR....117
Table 306: New or enhanced functions TRDPDNR....117
Table 307: Known Errors TRDPDNR....117
Table 308: Corrected Errors TRDPTTI....118
Table 309: New or enhanced functions TRDPTTI....118
Table 310: Known Errors TRDPTTI....118
Table 311: Corrected Errors TRDPSpy....118
Table 312: New or enhanced functions TRDPSpy....118
Table 313: Known Errors TRDPSpy....118

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

1. Introduction

1.1. Purpose

This document is the Release Notes for the Bombardier* Release of TCNOpen* TRDP* Version as implementation of the communication profile defined in [Wire].

1.2. Intended Audience

The audience of this document and the users of the release are software engineers that want to adapt or to use TCNOpen* TRDP* as implementation of the communication profile defined in [Wire].

1.3. References/Related Documents

Reference	Number	Title
[Wire]	IEC61375-2-3 IS	Communication Profile
[TestRep]	TCN-TRDP2-D-BOM-032-08	TRDP Conformance Test Report 2.0.2.0
[UserMan]	TCN-TRDP2-D-BOM-011	TRDP User's Manual
[RefMan]	TCN-TRDP2-D-BOM-033	TRDP Reference Manual

Table 1: References

1.4. Abbreviations and Definitions

Abbreviation	Definition
ETBN	Ethernet Train Backbone Node
PD	"Process Data" Part of the in [Wire] defined communication protocol used for cyclic data transmissions based on UDP protocol.
SOA	Service Oriented Architecture
TCP-MD	"UDP Message Data" Part of the in [Wire] defined communication protocol used for event driven data transmissions based on TCP protocol.
TSN	Time Sensitive Network
UDP-MD	"UDP Message Data" Part of the in [Wire] defined communication protocol used for event driven data transmissions based on UDP protocol.

Table 2: Abbreviations and Definitions

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

2. Product Definition

2.1. General Description

The TCNOpen TRDP is an open source implementation of communication profile described in [Wire] and does not include compiled libraries but source code and build instructions to be used for other platforms as well as examples for reference implementation.
TCNOpen TRDP includes:

- TRDPLight (the communication protocol stack and API for PD, UDP-MD and TCP-MD)
- TRDP Marshall – a service for marshalling/unmarshalling TRDP user data
- TRDP XML – a service for reading TCNOpen TRDP XML configuration files
- TRDP CTRL – a service to control the ETBN functionality
- TRDP DNR – a service for IP-URI address translation
- TRDP TTI – a service to access the train topology information data base of the ETBN
- TRDP SOA – a service to support service-oriented architecture (preliminary)
- TRDP SPY – a Wireshark plugin to interpret TRDP telegrams

It does not include but provides basic support for:

- TRDP LADDER – ladder support acc. To IEC61375-3-4
- TRDP SDT – a service for safe data transmission according to the definition in [Wire]

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

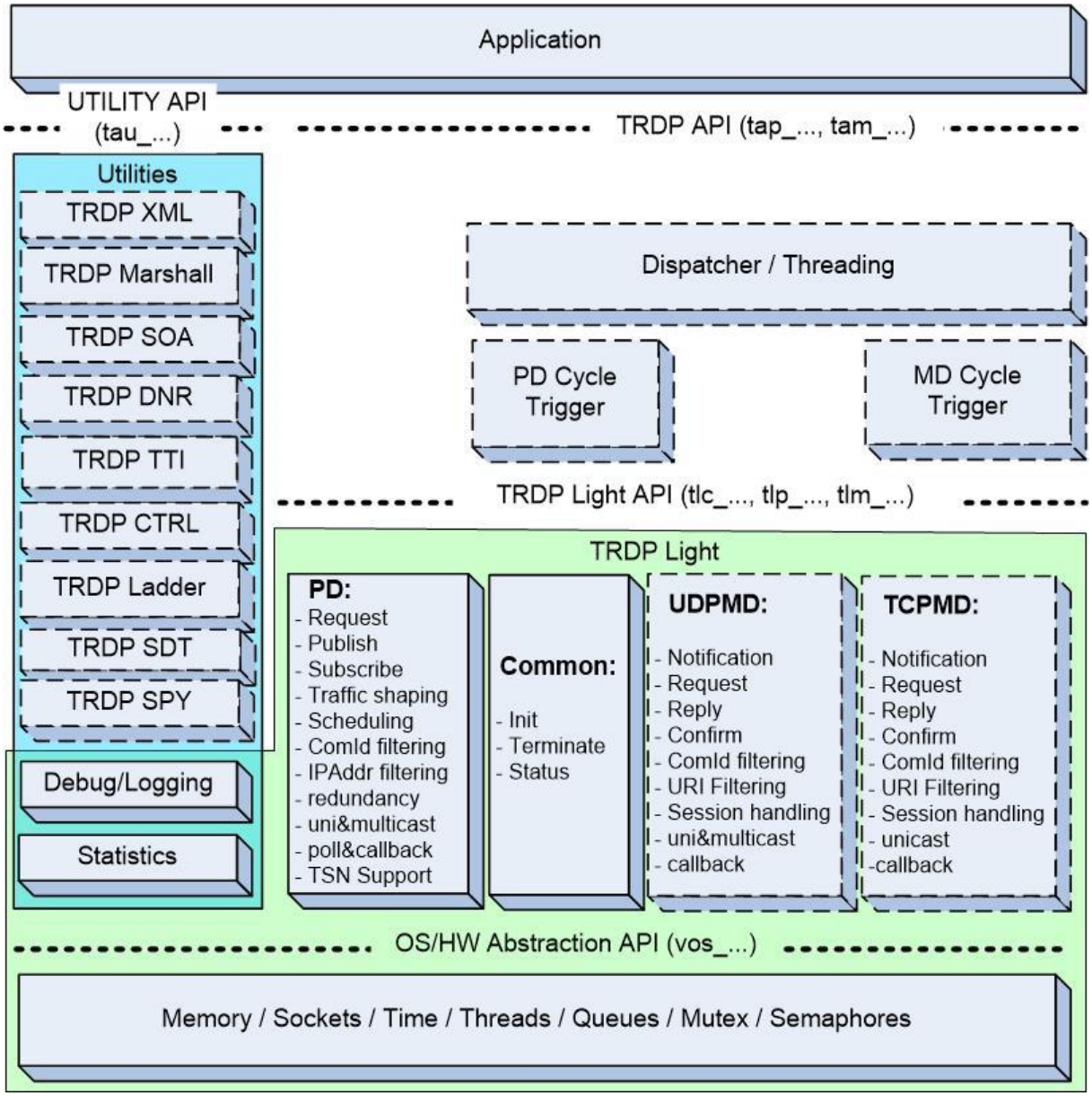

Figure 1 TRDP Modular Structure

2.2. License Agreements

The TRDP Source Code (except the TRDPSpy source code) is subject to the terms of the Mozilla Public License, v. 2.0.
If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
The TRDPSpy Source Code Form is subject to the terms of the GPL.

2.3. Product Identification

TCNOpen TRDP contains the following parts:

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Abbreviation	Identification	Remark
TRDPLight		
TRDPMarshall		
TRDPXML		
TRDPSpy		only Win64 and Linux64
TRDPCTRL		Not tested
TRDPLadder		Separate Subdirectory, not tested
TRDPDNR		
TRDPTTI		
TRDPSOA		preliminary
~~TRDPSDT~~		Only under special license agreement with Bombardier

Table 3: Product Identifications

2.4. Targets

2.4.1. Primary Targets

TCNOpen TRDP is provided for a set of primary targets. Outputs for these have been verified during the release process. Binaries (libraries/executables) are **not** included in the delivery.

Target	Use	OS	CPU-HW
Linux PC	General	Linux 64 bit	x86 comp.
Windows PC	General	Windows 10 64 bit	x86 comp.
Apple Macintosh	General	MacOS, Darwin 64 bit	x86 comp.

Table 4: Primary Targets

2.4.2. Secondary Targets

TCNOpen TRDP is also delivered as an SDK with source code and example make-files only. The make-files serve as examples for building the binaries for different platforms and can be used as a template for specific platform builds. The following table shows the builds which have not been thoroughly tested but have been taken care of within the source code.

Target	Use	OS	CPU-HW
Linux PC	General	Linux 32 bit	x86 comp, PowerPC, ARM
Windows PC	General	Windows7 32/64 bit	x86
Embedded Controller	General	VxWorks	PowerPC
iPad	General	iOS/iPadOS	ARM

Table 5: Secondary Targets

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

3. Delivery

3.1. Platform

Target	File	Description
Windows PC[1], VxWorks[2], Linux (POSIX)[3], macOS[4], iOS[4], QNX (POSIX)		This version does not include ready compiled libraries and DLL but source code and build environments.

Table 6: Platform Delivery Content TRDPLight

Target	File	Description
Windows PC[1], VxWorks[2], Linux (POSIX)[3], macOS[4], iOS[4], QNX (POSIX)		This version does not include ready compiled libraries and DLL but source code and build environments.

Table 7: Platform Delivery Content TRDPMarshall

Target	File	Description
Windows PC[1], VxWorks[2], Linux PC[3], macOS[4], iOS[4], QNX (POSIX)		This version does not include ready compiled libraries and DLL but source code and build environments.

Table 8: Platform Delivery Content TRDPXML

Target	File	Description
Windows PC[1], VxWorks[2], Linux PC[3], macOS[4], iOS[4], QNX (POSIX)		This version does not include ready compiled libraries and DLL but source code and build environments.

Table 9: Platform Delivery Content TRDPCTRL

Target	File	Description
Linux32	..\spy\linux32\packet-trdp_spy.so	Linux32 Wireshark plugin
Win64	..\spy\win64\trdp_spy.dll	Win64 Wireshark plugin
Win64	..\spy\win64\readme.txt	Readme for Win64 Wireshark plugin

[1] 32 bit and 64 bit (WIN32, WIN64)

[2] Not tested

[3] 32 bit and 64 bit

[4] 64 bit only

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 10: Platform Delivery Content TRDPSpy

3.2. SDK

To also support other targets than the platform does, TCNOpen TRDP is delivered as an SDK (Software Development Kit). The release is available under SourceForge (https://svn.code.sf.net/p/tcnopen/trdp/tags/trdp/2.0.3.0)". The release comprises items according to the tables below using the following file structure:

DirLevel1	DirLevel2	DirLevel3	Description
config			XML configuration structure and build environment configurations
doc			Documentation
resources			Open source resources used within TRDP
	windows		
		getopt	getopt functionality for test programs
src			TRDP source code
	api		TRDP API header files
	common		TRDP source code files
	example		TRDP example application files
	vos		VOS source code and header files
		api	VOS API header files
		common	VOS target independing source code files
		posix	VOS POSIX depending source code files
		vxworks	VOS VXWORKS depending source code files
		windows	VOS WIN32 depending source code files
		esp	VOS freeRTOS depending source files
		integrity	Place holder
spy			Wireshark plugin for TRDP
	doc		Documentation
	src		Source code for wireshark plugin
	linux32		Plugin for Linux32
	Win64		Plugin for Win64
test			
	diverse		Test diverse functions of the library
	laddermdtest		Test of the TRDP ladder MD functionality
	ladderpdtest		Test of the TRDP ladder MD functionality
	localtest		Tests API extensions and issues (Ticket #) multi-homing
	lint		PCLint profile for Windows
	marshalling		Test of marshalling/un-marshalling

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

DirLevel1	DirLevel2	DirLevel3	Description
	mdpatterns		Test of the TRDP MD patterns
	pdpatterns		Test of the TRDP PD patterns
	udpmdcom		Test of the UDP MD communication
	xml		Test of the TRDP XML configuration
example			Examples for TRDP use
VSEx-press2019			Visual Studio Express 2019 project files for TRDP library and related test examples
Xcode			Xcode 3.2 compatible project for TRDP library and related test examples

Table 11: SDK Delivery Directory Structure

3.2.1. TRDPLight

The TRDPLight contains the base functionality for PD, UDP-MD and TCP-MD.

File	Description
..\src\api\iec61375-2-3.h	TRDP protocol definitions
..\src\api\trdp_types.h	TRDP type definitions
..\src\api\trdp_if_light.h	TRDP light API definitions
..\src\api\trdp_serviceRegistry.h	TRDP service registry definitions
..\src\api\trdp_if_tsn_def.h	TRDP TSN definitions
..\src\common\trdp_if.c	TRDP light API
..\src\common\trdp_if.h	TRDP light API internal definitions
..\src\common\tlc_if.h	TRDP light API internal definitions
..\src\common\tlc_if.c	TRDP light common API internal
..\src\common\tlm_if.c	TRDP light MD API internal
..\src\common\tlp_if.c	TRDP light PD API internal
..\src\common\trdp_pdindex.h	TRDP high performance support
..\src\common\trdp_pdindex.c	TRDP high performance support
..\src\common\trdp_dllmain.c	TRDP light Windows DLL stub
..\src\common\trdp_mdcom.c	TRDP light MD functionality
..\src\common\trdp_mdcom.h	TRDP light MD functionality definitions
..\src\common\trdp_pdcom.c	TRDP light PD functionality
..\src\common\trdp_pdcom.h	TRDP light PD functionality definitions
..\src\common\trdp_private.h	TRDP light private definitions
..\src\common\trdp_stats.c	TRDP light statistics functionality
..\src\common\trdp_stats.h	TRDP light statistics functionality definitions
..\src\common\trdp_utils.c	TRDP light utilities
..\src\common\trdp_utils.h	TRDP light MD utilities definitions
..\src\vos\api\vos_mem.h	VOS memory management functionality definitions

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

File	Description
..\src\vos\api\vos_shared_mem.h	VOS shared memory management functionality definitions
..\src\vos\api\vos_sock.h	VOS IP network and socket management functionality definitions
..\src\vos\api\vos_thread.h	VOS thread and timer management functionality definitions
..\src\vos\api\vos_types.h	VOS type definitions
..\src\vos\api\vos_utils.h	VOS utility definitions
..\src\vos\common\vos_mem.c	VOS memory management functionality
..\src\vos\common\utils.c	VOS utilities
..\src\vos\posix\vos_private.h	VOS private definitions
..\src\vos\posix\vos_shared_mem.c	VOS shared memory management functionality
..\src\vos\posix\vos_sock.c	VOS IP network and socket management functionality
..\src\vos\posix\vos_sockTSN.c	VOS IP network and socket management functionality for TSN
..\src\vos\posix\vos_thread.c	VOS thread and timer management functionality
..\src\vos\windows\vos_private.h	VOS private definitions
..\src\vos\windows\vos_shared_mem.c	VOS shared memory management functionality
..\src\vos\windows\vos_sock.c	VOS IP network and socket management functionality
..\src\vos\windows\vos_thread.c	VOS thread and timer management functionality using native Windows threads
..\src\vos\vxworks\vos_private.h	VOS private definitions
..\src\vos\vxworks\vos_shared_mem.c	VOS shared memory management functionality
..\src\vos\vxworks\vos_sock.c	VOS IP network and socket management functionality
..\src\vos\vxworks\vos_thread.c	VOS thread and timer management functionality

Table 12: SDK Delivery Content – TRDPLight

3.2.2. TRDPMarshall

The TRDPMarshall contains the marshalling/un-marshalling functionality.

File	Description
..\src\common\tau_marshall.c	Marshalling/un-marshalling functionality
..\src\api\tau_marshall.h	Marshalling/un-marshalling definitions

Table 13: SDK Delivery Content – TRDPMarshall

3.2.3. TRDPXML

The TRDPXML contains the functionality for reading TRDP XML configuration files.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

File	Description
..\src\common\tau_xml.c	Read TRDP XML configuration functionality
..\src\api\tau_xml.h	Read TRDP XML configuration definitions
..\src\api\trdp-config.xsd	TRDP configuration XML schema

Table 14: SDK Delivery Content – TRDPXML

3.2.4. TRDPCTRL

The TRDPCTRL contains the functionality for controlling the ETB.

File	Description
..\src\common\tau_ctrl.c	ETB control functionality
..\src\api\tau_ctrl.h	ETB control definitions
..\src\api\tau_ctrl_types.h	ETB control types

Table 15: SDK Delivery Content – TRDPCTRL

3.2.5. TRDPDNR

The TRDPDNR contains the functionality for URI/IP address translation

File	Description
..\src\common\tau_dnr.c	Address translation functionality using DNR
..\src\api\tau_dnr.h	Address translation definitions

Table 16: SDK Delivery Content – TRDPDNR

3.2.6. TRDPTTI

The TRDPTTI contains the functionality for train topology information access

File	Description
..\src\common\tau_tti.c	Train topology information access functionality
..\src\common\tau_cstinfo.c	Train topology information access functionality
..\src\api\tau_tti.h	Train topology information access definitions

Table 17: SDK Delivery Content – TRDPTTI

3.2.7. TRDPSOA

The TRDPSOA contains the functionality for SOA

File	Description
..\src\common\tau_so_if.c	SOA functionality
..\src\api\tau_so_if.h	SOA functionality

Table 18: SDK Delivery Content – TRDPSOA

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

3.2.8. TRDPSpy

The TRDPSpy contains the wireshark plugin for interpreting TRDP telegrams.

File	Description
..\spy\readme.txt	Readme spy
..\spy\plugins\readme.txt	Readme spy plugin
..\spy\plugins\2.6\epan\trdp_spy.so	Linux64 Wireshark 2.6 plugin (not included)
..\spy\plugins\3.0\epan\trdp_spy.so	Linux64 Wireshark 3.0 plugin (not included)
..\spy\plugins\2.6\epan\trdp_spy.dll	Win64 Wireshark 2.6 plugin
..\spy\plugins\3.0\epan\trdp_spy.dll	Win64 Wireshark 3.0 plugin
..\spy\src\CmakeListsCustom.txt	Installation guide for Wireshark plugin SDK
..\spy\src\trdp_spy\CmakeLists.txt	
..\spy\src\trdp_spy\doxyfile\	For doc generation
..\spy\src\trdp_spy\doc\costum\blueTtit-leGraphic.png	For doc generation
..\spy\src\trdp_spy\doc\costum\docend.tex	For doc generation
..\spy\src\trdp_spy\doc\costum\docstart.tex	For doc generation
..\spy\src\trdp_spy\doc\costum\interface Di-agram.png	For doc generation
..\spy\src\trdp_spy\doc\costum\seqDia-gram.png	For doc generation
..\spy\src\trdp_spy\doc\costum\TCNO-pen.png	For doc generation
..\spy\src\trdp_spy\packet-trdp_spy.cpp	
..\spy\src\trdp_spy\packet-trdp_spy.h	
..\spy\src\trdp_spy\trdp_env.cpp	
..\spy\src\trdp_spy\trdp_env.h	
..\spy\src\trdp_spy\trdpDict.cpp	
..\spy\src\trdp_spy\trdpDict.h	

Table 19: SDK Delivery Content – TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

3.2.9. Build Environment

The following files for the build environment are included in the delivery.

File	Description
..\makefile	Makefile for TRDP Light
..\readme-makefile.txt	Makefile configuration instruction
..\config\ buildset-tings_posix_TEMPLATE	Makefile configuration settings
..\VSExpress2019*	Visual Studio Express 2019 configuration files to build the WIN32/WIN64 TRDP library as well as the different test applications.
..\Xcode*	Xcode configuration files to build the TRDP library as well as the different test applications.

Table 20: SDK Delivery Content – Build Environment

3.2.10. Tests

The following test programs are included in the delivery.

File	Description
..\test\diverse*	Diverse tests for TRDP library
..\test\lint*	PCLint 8.0.w configuration for Windows and Linux
..\test\localtest*	Applications providing module regression and ticket verification tests
..\test\marshalling*	Marshalling test
..\test\mdpatterns*	MD pattern tests
..\test\pdpatterns*	PD pattern tests
..\test\udpmdcom*	UDP MD communication test
..\test\xml*	XML configuration test
..\test\laddermdtest*	Ladder MD test
..\test\ladderpdtest*	Ladder PD test

Table 21: SDK Delivery Content – Tests

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

3.2.11. Examples

The following example programs are included in the delivery.

File	Description
..\example\example.xml	TRDP example configuration
..\example\interoperability_test.xml	TRDP example configuration
..\example\echoPolling.c	PD polling example
..\example\echoCallback.c	PD select example
..\example\sendData.c	PD send example
..\example\receiveHello.c	PD receive example
..\example\sendHello.c	PD send example
..\example\SRM*	Service Registry handling example (preliminary)
..\example\TSN*	TSN example (preliminary)
..\example\sourceFilter*	Sample for PD source filtering
..\example\TAUL_PD*	Samples for ladder communication (unsupported)
..\example\SenderDemo*	Sample GUI application (macOS only)

Table 22: SDK Delivery Content – Examples

3.3. Documentation

The following documents are related to the delivered product but not part of the delivery.

#	Document	Revision	Identification
1	TRDP Coding Rules	09	TCN-TRDP1-A-BOM-008
2	TRDP System Requirement Specification	10	TCN-TRDP1-D-BOM-003
3	TRDP Architecture & Design Specification	10	TCN-TRDP2-D-BOM-019
4	TRDP Conformance Test Specification	03	TCN-TRDP2-D-BOM-031
5	TRDP Conformance Test Report	08	TCN-TRDP2-D-BOM-032
6	TRDP User's Manual	33	TCN-TRDP2-D-BOM-011
7	TRDP Reference Manual	09	TCN-TRDP2-D-BOM-033

Table 23: SDK Delivery Content – Documentation

3.4. Restrictions

TSN interface is defined but underlaying functions are realised for the POSIX interface (VOS), only.

The service-oriented API (SOA, CFLAG option SOA_SUPPORT) is defined as purely preliminary/informal.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

4. Installation

4.1. Platform

This version does not contain ready-made libraries or DLL (except for TRDP SPY) but only the SDK including the build environment configurations.

4.2. SDK

1. Unpack the file “TCNOpenTRDP 3.0.0.0.zip” into your development work area.
2. Check the files in config/ and src/vos for targets which fits your target
3. Use `make help` and `make myTarget_config` to select a tool configuration. Duplicate and edit a config/*_config file to customize your configuration, if necessary.
4. For windows environments, open the VSExpress2019/Win_TRDP_VS2019.sln file with MS Visual Studio Express 2019.

All source files/libraries/executables can be found in the folders described in chapter 3.2.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

5. How to use

5.1. POSIX (Linux, macOS, QNX, Integrity)

Adapt the delivered configuration (config/*_config) for the makefile and compile the TRDP library and/or example and test applications.

5.2. VxWorks

Adapt the delivered configuration (config/*_config) for the makefile and compile the TRDP library.

NOTE: VxWorks version is not tested in normal release process.

5.3. Windows

Adapt and use the delivered Visual Studio Express 2019 (32/64 Bit) configuration and compile the TRDP library and/or example and test applications.

5.4. MacOS/iOS

Adapt and use the delivered Xcode project file (64 Bit only) and compile the TRDP library and/or example and test applications.

5.5. ESP

For use with the ESP32 development framework, copy the ‘trdp’ directory into the ‘components’ directory of your project. The ESP’s build system will include the ‘component.mk’ file.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

6. Changes

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

6.1. TRDPLight

6.1.1. Corrected Errors

TICKET #	Description
#444	Lint
#443	tlc_if: tlc_reinitSession doesn't perform multicast socket join for MD sockets listed in MDListenQueue
#442	VOS: adaptions for VxWorks 23.03 and latest adaptions from stack side
#441	tlp_putImmediate missing checks handling on packet header
#439	Date Time dependency of publishing PD telegrams Multicast.
#437	Loss of UDP messages if a distant equipment is not available
#435	Cleanup VLAN and TSN options at different places
#434	Code adaption due to TSN header version 2 removal.
#433	TSN PD shall use the same header like non-TSN PD
#432	Update reserved statistics ComIds
#431	MC sending on multihoming interface
#430	PC Lint Analysis and Fix
#420	Infinite loop in tlp_get() on unrecoverable errors
#419	PDTestFastBase2 fails when send-cycles are set to 256ms
#417	trdp-md-tests always report errors on multicast test-cases 7 and 11
#414	Fix compiler warnings in VOS Windows_sim
#413	In Windows export gPDebugFunction and gRefCon
#411	Performace fix in windows_sim vos_mutexLock
#410	Performace fix in windows_sim vos_select
#408	thread-safe localtime - but be aware of static pTimeString
#407	Interval not updated in trdp_indexCheckPending if Hight performance index with no subscriptions
#406	Socket handling: check for EAGAIN missing for Linux/Posix
#405	Problem with GLIBC > 2.34
#404	Fix of trdp/test/localtest/api_test_4.c
#403	POSIX: Create mutexes with priority inheritance
#398	In trdp_mdCheckTimeouts timeOut variable not reset in all cases
#396	vos/windows_sim/vos_thread.c has a faulty code path
#395	PD subscriber statistics when publisher start earlier
#394	Statistics of missed PD packets when publisher restarts
#393	Incorrect behaviour if MD timeout occurs

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

TICKET #	Description
#391	Allow PD request without reply
#390	Please do not checkin build artifacts
#389	Add API to register existing TimeSync thread
#387	tlp_if: tlp_putImmediate copies data to unallocated member of object of type struct PD_PACKET_T
#386	Support for TimeSync multicore
#385	Increase simtecc prefix string size
#384	Add #include <Windows.h> to vos WindowsSim files
#381	SimTRDP for Windows in release
#351	Callback returns TRDP_TO_DEFAULT as timeout behavior
#341	Updating TSN / VLAN / RT-thread code
#342	VOS socket options: QoS/Priorities setting do not set kernel queues
#326	vxWorks integration lacks some thread functionality
#325	Better VLAN & TSN Support by using RAW Sockets

Table 24: Corrected Errors TRDPLight

6.1.2. New or Enhanced Functions

Ticket #	Description
#399	API change proposal to allow custom implementations of sockets
#380	Add base 2 cycle time support for high performance PD
#325	Better VLAN & TSN Support by using RAW Sockets

Table 25: New or enhanced functions TRDPLight

6.1.3. Known Errors

Ticket #	Description
#340	No flag to disable statistics in the xml configuration file
#316	WON'T FIX: Redundancy handling tlp_request
#301	WON'T FIX: MD Requester accepting replies with lower sequenceCount
#261	MD reply/add listener do not use send parameters (API change)
#5	WON'T FIX: MD: For sent unicast MD TRDP assumes that only one reply may be received (XLS #37).

Table 26: Known Errors TRDPLight

6.1.4. Compatibility to Earlier Releases

Incompatible to previous release.

1. New socket handle (VOS_SOCK_T) used in related vos_ functions due to with #399 introduced socket abstraction layer.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

2. Attention: vos_select() does not need anymore incrementing of first parameter. This is done internally now.
3. The different functions to send and receive PD have no parameter anymore to modify the send/receive parameter. These will be set only once in the tlc_openSession() / tlc_configSession().
4. The types TRDP_SEND_PARAM_T, TRDP_REC_PARAM_T and TRDP_COM_PARAM_T were identical. Only the last one has been kept.
5. Reserved ComIDs changed according to upcoming revision of [Wire].
6. For extensive use of unicast PD compiler switch PD_UNICAST_SUPPORT shall be used. Otherwise send sockets might be blocked by telegrams waiting to be sent to un-reachable EDs. Disadvantage is the use of more sockets. Recommended is the use of multicast for PD.

6.2. TRDPSOA

6.2.1. Corrected Errors

Ticket #	Description
#392	Misleading compiler warning if SOA_SUPPORT disabled

Table 27: Corrected Errors TRDPSOA

6.2.2. New or Enhanced Functions

Ticket #	Description
#412	Add API tlp_republishService

Table 28: New or enhanced functions TRDPSOA

6.2.3. Known Errors

Ticket #	Description
None	

Table 29: Known Errors TRDPSOA

6.2.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

6.3. TRDPMarshall

6.3.1. Corrected Errors

Ticket #	Description
None	

Table 30: Corrected Errors TRDPMarshall

6.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 31: New or enhanced functions TRDPMarshall

6.3.3. Known Errors

Ticket #	Description
None	

Table 32: Known Errors TRDPMarshall

6.3.4. Compatibility to Earlier Releases

Compatible to previous release.

6.4. TRDPXML

6.4.1. Corrected Errors

Ticket #	Description
#415	trdp_XMLGet Attribute: ULONG_MAX should be an allowed value

Table 33: Corrected Errors TRDPXML

6.4.2. New or Enhanced Functions

Ticket #	Description
#424	trdp-config.xsd split sdtv2 and sdtv4 parameters
#423	trdp-config.xsd add support to set sdtv4 parameters to service instance

Table 34: New or enhanced functions TRDPXML

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

6.4.3. Known Errors

Ticket #	Description
#323	Bugs in XML stack

Table 35: Known Errors TRDPXML

6.4.4. Compatibility to Earlier Releases

Compatible to previous release.

6.5. TRDPCTRL

6.5.1. Corrected Errors

Ticket #	Description
None	

Table 36: Corrected Errors TRDPCTRL

6.5.2. New or Enhanced Functions

Ticket #	Description
422	Include redundancy support in ECSP control

Table 37: New or enhanced functions TRDPCTRL

6.5.3. Known Errors

Ticket #	Description
None	

Table 38: Known Errors TRDPCTRL

6.5.4. Compatibility to Earlier Releases

Compatible to previous release.

.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

6.6. TRDPDNR

6.6.1. Corrected Errors

Ticket #	Description
#409	In_updateTCNDNSentry(), the parameter noDesc of vos_select() is uninitialized if tlc_getInterval() fails

Table 39: Corrected Errors TRDPDNR

6.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 40: New or enhanced functions TRDPDNR

6.6.3. Known Errors

Ticket #	Description
None	

Table 41: Known Errors TRDPDNR

6.6.4. Compatibility to Earlier Releases

Compatible to previous release.

6.7. TRDPTTI

6.7.1. Corrected Errors

Ticket #	Description
#421	TTI: tau_getTrnDirectory() compares different topographie counters
#416	TTI: Complete abstraction of internal TTDB
#402	vehCnt and fctCnt already rotated when retrieved
#379	tau_tti: tau_getOwnIds return TRDP_NO_ERR even if not found in cst info
#378	tau_tti: Static vehicle properties written out of memory
#377	tau_tti: tau_getOwnIds doesn't check the cache correct

Table 42: Corrected Errors TRDPTTI

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

6.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 43: New or enhanced functions TRDPTTI

6.7.3. Known Errors

Ticket #	Description
None	

Table 44: Known Errors TRDPTTI

6.7.4. Compatibility to Earlier Releases

Not compatible to previous release.

1. For consist and vehicle information now pointers are used and memory is allocated within vehicle info and consist info.
2. Dynamic memory allocated by tau_getVehInfo() / tau_getStaticVrhInfo() / tau_getCstInfo() needs to be freed by the application.
3. Naming unified tau_getTrDir()/tau_getOpTrDir() -> tau_getTrnDir()/tau_getOpTrn-Dir()

6.8. TRDPSpy

6.8.1. Corrected Errors

Ticket #	Description
#357	More than one XML file for dissection needed

Table 45: Corrected Errors TRDPSpy

6.8.2. New or Enhanced Functions

Ticket #	Description
#428	Spy support for Wireshark 4.0

Table 46: New or enhanced functions TRDPSpy

6.8.3. Known Errors

Ticket #	Description
#383	SPY plugin not working for some TCP packets.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Ticket #	Description
#358	Telegram attribute data-set-id is optional for MD

Table 47: Known Errors TRDPSpy

6.8.4. Compatibility to Earlier Releases

Plugin only compatible to Wireshark 3.4. For Wireshark 1.8.3 use plugin of release 1.3.1.0.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

7. History Release 1.1.0.0

7.1. TRDPLight

7.1.1. Corrected Errors

TICKET #	Description
XLS #109	vos_getInterfaces for WIN32 does not read subnet masks
XLS #125	After TRDP rev. 891, if own IP address != 0; Subscriber becomes not able to register the socket discriptor which is created in tlp_subscribe() by the Subscriber. After that, Subscriber can not receive PD packet any more.
XLS #126	The TCP reception is not handling properly (WSA)ECONNRESET.
XLS #130	Although the maximum length of PDDATA is 1432 octets in the specification, a PD packet with 1436 octets of PDDATASET is allowed to be sent.
XLS #132	The statistic information gotton with tlc_getPubStatistics() is not for publisher but for subscriber.
XLS #133	Subscriber performs Join multicast. When numJoin is obtained in tlc_getStatistics(), the value is always 0.
XLS #134	While sending PD packet is performed repeatedly in Linux, when the clock time is turned back, sending PD packet is stopped. After that, when the clock time is set forward than the previous time not altered, sending PD packets is restarted.
XLS #135	Although Publisher sends PD packets, the value of numSend obtained in tlc_getPubStatistics() is always 0.

Table 48: Corrected Errors TRDPLight

7.1.2. New or Enhanced Functions

Ticket #	Description
XLS #25	vos_shared_mem.c - WIN32 implementation missing
XLS #29	vos_thread.c semaphore implementation missing
XLS #57	vos_thread.c mailbox implementation

Table 49: New or enhanced functions TRDPLight

7.1.3. Known Errors

Ticket #	Description
#1 (XLS #30)	MD/PD: For performance reasons a un-join shall be done after un-subscribing.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Ticket #	Description
#3 (XLS #131)	TRDPSTATS: Incorrect counter for received packets on dual interface
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#101	Optional callback function on PD send

Table 50: Known Errors TRDPLight

7.1.4. Compatibility to Earlier Releases

Compatible to earlier releases.

7.2. TRDPMarshall

7.2.1. Corrected Errors

Ticket #	Description
#374	Compiler Warning test_marshalling.c

Table 51: Corrected Errors TRDPMarshall

7.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 52: New or enhanced functions TRDPMarshall

7.2.3. Known Errors

Ticket #	Description
None	

Table 53: Known Errors TRDPMarshall

7.2.4. Compatibility to Earlier Releases

Compatible to earlier releases.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

7.3. TRDPXML

7.3.1. Corrected Errors

Ticket #	Description
None	

Table 54: Corrected Errors TRDPXML

7.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 55: New or enhanced functions TRDPXML

7.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing

Table 56: Known Errors TRDPXML

7.3.4. Compatibility to Earlier Releases

Compatible to earlier releases.

7.4. TRDPCTRL

First release in 1.2.0.0.

7.5. TRDPSpy

7.5.1. Corrected Errors

Ticket #	Description
None	

Table 57: Corrected Errors TRDPSpy

7.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 58: New or enhanced functions TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

7.5.3. Known Errors

Ticket #	Description
None	

Table 59: Known Errors TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

8. History Release 1.2.1.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

8.1. TRDPLight

8.1.1. Corrected Errors

TICKET #	Description
#10	TRDPPD: PD send cycle can shift by the time
#14	PD: In the case of PD Pull pattern Publisher with Traffic-shaping = ON and Inte setting tlp_publish() is failed
#15	VOS: In case of POSIX, vos_queueReceive()fails for a miss of taking semaphore.
#16	VOS: In case of POSIX, vos_queueReceive() does not release semaphore
#17	tlp_subscribe() returns wrong *pSubHandle
#19	tlc_reinitSession(): rejoin for UDP MD missing
#20	vos_memInit() does not handle provided memory pool
#22	ADR should be named Name Resolution
#23	tlc_getInterval() always returning 10ms
#24	trdp_if.c won't compile without MD_SUPPORT
#25	CRC32 calculation is not according IEEE802.3
#29	TRDP: user references shall be void pointer
#30	TRDP tlc_getListStatistics() implementation is missing
#31	TRDP: tlc_getRedStatistics() implementation missing
#32	IP addresses in TRDP_PD_INFO_T differ depending on functions and are not useful
#35	VOS: currently unused function cyclic_thread does not consider time for actual thread function
#36	VOS: big/little endian auto detection does not work in any environment
#37	Packet defines in tau_ctrl_types.h do not match FDIS-draft
#38	Scheduling policy values do not match pthread/Posix value
#39	Check of protocol version
#40	Feature needed: Option to ignore sequence counter on PD subscriptions
#41	PD sequence counter is not bound to source address
#42	Usage of memcmp() in the trdp_pdReceive() function
#43	Usage of memset() in the trdp_pdReceive() function
#44	Reception of its own sending multicast packets
#45	"validity-behavior" tag spelling

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

TICKET #	Description
#46	Protocol change: operational topocount needed
#47	Protocol change: no FCS for data part of telegrams
#49	Endianess Setting in Visual C Project incorrect
#51	VOS: change underlying function for vos_dottedIP
#53	Interface clean-up
#54	MS Windows Win32TRDP_XMLPDTest not updated with latest API
#55	Allow specific callback within tlp_subscribe and tlm_addListener
#56	Sequence counter reset failure
#57	Padding bytes after user data
#58	Dataset expanding to multiples of 4
#59	MD: user status of reply and confirm not set in telegram
#60	Second sourceIP parameter in tlp_subscribe() is not used
#61	tlm_readdListener() and tlp_resubscribe() implementation missing
#62	MD test (md-test) is failing and crashing
#63	Function am_big_endian not needed
#64	MDCOM module needs some restructuring and correction after static analysis
#66	Memory corruption when sending a reply with data size longer than data size of request message
#67	Memory leak when receiving long messages
#68	Telegram statistics for TCP not consistent
#69	Make framework broken for certain make targets
#70	TRDPLight: Automatic Transmission of 'Me' Message accd. A.7.7.2 2nd and 5th Paragraph is missing
#71	TRDPLight: timout==0 shall mean infinit time is not yet implemented
#72	TRDPLight: Windows7 vos_getInterfaces() bug
#73	TRDPLight: Multicast "join" fails on Windows system with two ethernet interfaces
#74	TRDPLight: topo counts check doesn't take into account local communication

Table 60: Corrected Errors TRDPLight

8.1.2. New or Enhanced Functions

Ticket #	Description
#6	VOS: Add VxWorks support–
#12	VOS: Add INTEGRITY support for POSIX interface
#48	Implement message data unicast retry protocol

Table 61: New or enhanced functions TRDPLight

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

8.1.3. Known Errors

Ticket #	Description
#1 (XLS #30)	MD/PD: For performance reasons a un-join shall be done after un-subscribing.
#3 (XLS #131)	TRDPSTATS: Incorrect counter for received packets on dual inter-face
#1	PD/MD: For performance reasons a unjoin shall be done after unsub-scribing (XLS #30)
#3	TRDPSTATS: Incorrect counter for received packets on dual inter-face (XLS #131)
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#7	TRDP_TTI: Add topology information support
#8	TRDP DNR: Add URI-IP address translation support
#11	VOS: Complete VxWorks functionality regarding shared memory
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#101	Optional callback function on PD send

Table 62: Known Errors TRDPLight

8.1.4. Compatibility to Earlier Releases

Incompatible to earlier releases due to #46, #47, #53.

8.2. TRDPMarshall

8.2.1. Corrected Errors

Ticket #	Description
#27	Mashalling/unmarshalling does not work for 32 bit or higher data types on a 16 bit platform
#28	Marshalling: I request to remove the static declaration for find_DS()

Table 63: Corrected Errors TRDPMarshall

8.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 64: New or enhanced functions TRDPMarshall

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

8.2.3. Known Errors

Ticket #	Description
#33	TRDP marshall and unmarshall functions shall check source size

Table 65: Known Errors TRDPMarshall

8.2.4. Compatibility to Earlier Releases

Incompatible to earlier releases.

8.3. TRDPXML

8.3.1. Corrected Errors

Ticket #	Description
#9	TAU XML:The offset-address in PD Paramter form XML Config is not included in parsePdParameter().
#18	TAU_XML: In case of setting multiple values to level parameters in debug config of XML Configuration, only the first parameter value is effective in parseDebugConfiguration()

Table 66: Corrected Errors TRDPXML

8.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 67: New or enhanced functions TRDPXML

8.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing
#65	XML - Publish and Subscribe telegram identification

Table 68: Known Errors TRDPXML

8.3.4. Compatibility to Earlier Releases

Incompatible to earlier releases.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

8.4. TRDPCTRL

8.4.1. Corrected Errors

Ticket #	Description
None	

Table 69: Corrected Errors TRDPCTRL

8.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 70: New or enhanced functions TRDPCTRL

8.4.3. Known Errors

Ticket #	Description
None	

Table 71: Known Errors TRDPCTRL

8.4.4. Compatibility to Earlier Releases

First release.

8.5. TRDPSpy

8.5.1. Corrected Errors

Ticket #	Description
#4 (XLS #141)	TRDPSPY: Incorrect visualisation of data packets > 1MTU
#26	TRDP Spy CRC calculation needs fix
#52	Wireshark plugin needs to be adapted to protocol changes

Table 72: Corrected Errors TRDPSpy

8.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 73: New or enhanced functions TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

8.5.3. Known Errors

Ticket #	Description
None	

Table 74: Known Errors TRDPSpy

8.5.4. Compatibility to Earlier Releases

Incompatible to earlier releases.due to #52.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

9. History Release 1.3.0.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

9.1. TRDPLight

9.1.1. Corrected Errors

TICKET #	Description
#11	VOS: Complete VxWorks functionality
#34	Subscribe to multicast address fails
#70	TRDPLight: Automatic Transmission of 'Me' Message accd. A.7.7.2 2nd and 5t missing
#71	TRDPLight: timout==0 shall mean infinit time is not yet implemented
#72	TRDPLight: Windows7 vos_getInterfaces() bug
#73	TRDPLight: Multicast "join" fails on Windows system with two ethernet interfaces
#74	TRDPLight: topo counts check doesn't take into account local communication
#75	TRDP IF: session mutex not freed in tlc_terminate()
#76	TRDP PD: Wrong initialisation of frame pointer
#77	TRDP UTILS: wrong argument for vos_sockJoinMC()
#78	VOS: When the schedule policy is set to VOS_THREAD_POLICY_OTHER and the priority to '0' in Linux, creating thread is failed.
#80	PD/MD: Call back and counting of received multicast packets duplicated in dual homing interfaces
#81	PD/MD: Counts for packet loss needed
#84	Statistics: trdp_getStats() returns error if heap memory is used
#85	PD recovery in case of undetected sequenceCounter overflow
#86	Fix SendHello/ReceiveHello examples
#88	Cleanup makefiles, remove dependencies on external libraries
#89	TCPMD: In case of wrong length or CRC in the header the TCP connection gets unusable
#91	Update User Manual
#92	Update default UDP and TCP port numbers
#94	TRDP_REDUNDANT flag never evaluated
#96	TRDPSTATS: Distinguish between UDP and TCP listener statistics
#97	rdp-xmlpd-test.c subscribed telegram issue.
#98	Telegram Attribute for auto/non-auto configuration needed

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

TICKET #	Description
#99	userRef in debug-output (TRDP_PRINT_DBG_T) is always NULL
#103	C++ Interface
#104	PD telegrams with no data is never sent
#105	ERROR_INSUFFICIENT_BUFFER in Windows
#106	Add a build flag to indicate if user need to be informed on every received PD packet
#107	tlm_addListener does not allow to set source filtering
#108	tau_marshall does not always work
#111	'unit', 'scale', 'offset' attributes missing in TRDP_DATASET_ELEMENT
#115	MD: Missing parameter pktFlags in tlm_reply() and tlm_replyQuery()

Table 75: Corrected Errors TRDPLight

9.1.2. New or Enhanced Functions

Ticket #	Description
#90	Independent versioning for VOS

Table 76: New or enhanced functions TRDPLight

9.1.3. Known Errors

Ticket #	Description
#1 (XLS #30)	MD/PD: For performance reasons a un-join shall be done after unsubscribing.
#3 (XLS #131)	TRDPSTATS: Incorrect counter for received packets on dual interface
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#101	Optional callback function on PD send

Table 77: Known Errors TRDPLight

9.1.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

9.2. TRDPMarshall

9.2.1. Corrected Errors

Ticket #	Description
#33	TRDP marshall and unmarshall functions shall check source size
#100	Marshalling/Unmarshalling functions do not allow to add datasets later
#109	unmarshalling: size mismatch when swapping datasetlength
#110	Missing: marshalling/unmarshalling when using message data
#112	Marshalling sets wrong datasetLength (PD)

Table 78: Corrected Errors TRDPMarshall

9.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 79: New or enhanced functions TRDPMarshall

9.2.3. Known Errors

Ticket #	Description
None	

Table 80: Known Errors TRDPMarshall

9.2.4. Compatibility to Earlier Releases

Compatible to previous release.

9.3. TRDPXML

9.3.1. Corrected Errors

Ticket #	Description
#65	XML – Publish and Subscribe telegram identification
#102	XML parser needed
#113	tau_xml: parsing of dataset element “type” always returns 0

Table 81: Corrected Errors TRDPXML

9.3.2. New or Enhanced Functions

Ticket #	Description
None	

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 82: New or enhanced functions TRDPXML

9.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing
#65	XML – Publish and Subscribe telegram identification

Table 83: Known Errors TRDPXML

9.3.4. Compatibility to Earlier Releases

Compatible to previous release.

9.4. TRDPCTRL

9.4.1. Corrected Errors

Ticket #	Description
#13	Add ETBN control support
#79	TRDP Ctrl: tau_initEcspCtrl sets data size permanently as 0

Table 84: Corrected Errors TRDPCTRL

9.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 85: New or enhanced functions TRDPCTRL

9.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 86: Known Errors TRDPCTRL

9.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

9.5. TRDPDNR

9.5.1. Corrected Errors

Ticket #	Description
#93	DNR interface definition does not account for multiple network interfaces

Table 87: Corrected Errors TRDPDNR

9.5.2. New or Enhanced Functions

Ticket #	Description
#8	TRDP DNR: Add URI-IP address translation support

Table 88: New or enhanced functions TRDPDNR

9.5.3. Known Errors

Ticket #	Description
#125	tau_dnr: TCN DNS support missing

Table 89: Known Errors TRDPDNR

9.5.4. Compatibility to Earlier Releases

First release.

9.6. TRDPTTI

9.6.1. Corrected Errors

Ticket #	Description
#82	TTI: type for etbId in TRDP_TRAIN_DIR_T not conform to standard
#83	TTI: description for cstClass not acc. standard
#114	CRC computation for OP_TRAIN_DIRECTORY_STATE does not accord with the standard.

Table 90: Corrected Errors TRDPTTI

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

9.6.2. New or Enhanced Functions

Ticket #	Description
#7	TRDPTTI: Add train topology information support

Table 91: New or enhanced functions TRDPTTI

9.6.3. Known Errors

Ticket #	Description
None	

Table 92: Known Errors TRDPTTI

9.6.4. Compatibility to Earlier Releases

First release.

9.7. TRDPSpy

9.7.1. Corrected Errors

Ticket #	Description
#95	TRDPSpy: Update port numbers and remove local path names

Table 93: Corrected Errors TRDPSpy

9.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 94: New or enhanced functions TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

10. History Release 1.3.1.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

10.1. TRDPLight

10.1.1. Corrected Errors

TICKET #	Description
None	

Table 95: Corrected Errors TRDPLight

10.1.2. New or Enhanced Functions

Ticket #	Description
None	

Table 96: New or enhanced functions TRDPLight

10.1.3. Known Errors

Ticket #	Description
#1 (XLS #30)	MD/PD: For performance reasons a un-join shall be done after un-subscribing.
#3 (XLS #131)	TRDPSTATS: Incorrect counter for received packets on dual inter-face
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#101	Optional callback function on PD send

Table 97: Known Errors TRDPLight

10.1.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

10.2. TRDPMarshall

10.2.1. Corrected Errors

Ticket #	Description
None	

Table 98: Corrected Errors TRDPMarshall

10.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 99: New or enhanced functions TRDPMarshall

10.2.3. Known Errors

Ticket #	Description
None	

Table 100: Known Errors TRDPMarshall

10.2.4. Compatibility to Earlier Releases

Compatible to previous release.

10.3. TRDPXML

10.3.1. Corrected Errors

Ticket #	Description
#116	Memory corruption using new XML library

Table 101: Corrected Errors TRDPXML

10.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 102: New or enhanced functions TRDPXML

10.3.3. Known Errors

Ticket #	Description
None	

Table 103: Known Errors TRDPXML

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

10.3.4. Compatibility to Earlier Releases

Compatible to previous release.

10.4. TRDPCTRL

10.4.1. Corrected Errors

Ticket #	Description
None	

Table 104: Corrected Errors TRDPCTRL

10.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 105: New or enhanced functions TRDPCTRL

10.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 106: Known Errors TRDPCTRL

10.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

10.5. TRDPDNR

10.5.1. Corrected Errors

Ticket #	Description
None	

Table 107: Corrected Errors TRDPDNR

10.5.2. New or Enhanced Functions

Ticket #	Description
None	

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 108: New or enhanced functions TRDPDNR

10.5.3. Known Errors

Ticket #	Description
#125	tau_dnr: TCN DNS support missing

Table 109: Known Errors TRDPDNR

10.5.4. Compatibility to Earlier Releases

Compatible to previous release.

10.6. TRDPTTI

10.6.1. Corrected Errors

Ticket #	Description
None	

Table 110: Corrected Errors TRDPTTI

10.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 111: New or enhanced functions TRDPTTI

10.6.3. Known Errors

Ticket #	Description
None	

Table 112: Known Errors TRDPTTI

10.6.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

10.7. TRDPSpy

10.7.1. Corrected Errors

Ticket #	Description
None	

Table 113: Corrected Errors TRDPSpy

10.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 114: New or enhanced functions TRDPSpy

10.7.3. Known Errors

Ticket #	Description
None	

Table 115: Known Errors TRDPSpy

10.7.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

11. History Release 1.3.2.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

11.1. TRDPLight

11.1.1. Corrected Errors

TICKET #	Description
#117	PD Status packet is not sent on request
#118	Defines in iec61375-2-3.h do not match IEC IS
#119	tlc_getInterval() repeatedly returns 0 after timeout
#120	ComID messed up in 61375-2-3: Which one to use?
#121	Timeout-ed PD receiver should trigger callback after receiving packet again
#122	64Bit Problem: Definition of VOS_TIME_T is not compatible
#123	TopoCount check does not follow standard (Table A.3)
#124	tau_dnr: Cache keeps etbTopoCount only
#126	Opened UDP socket is not released if join or bind failed in trdp_requestSocket()
#127	MD notify message: Invalid session identifier
#128	PD: Support of ComId == 0
#129	Found a bug which yields wrong output params and potentially seg-faults
#130	PD Pull: Request is always sent to the same ip address
#132	tlp_publish: Check of datasize wrong if using marshaller
#133	Accelerate PD packet reception
#134	Example trdp-xmlpd-test crash due to zero elemSize.
#136	PD topography counter with faulty behavior
#137	tlc_closeSession should close the tcp socket used for md communi-cation
#138	Erroneous closing of receive md socket
#139	Swap parameter in tlm_reply
#140	tlp_get reports immediately TRDP_TIMEOUT_ERR for a subscrip-tion with TRDP_TIMER_FOREVER
#141	PD: Pull request with replyComId==0 and ComId!=0 fails
#142	Compiler warnings / MISRA-C 2012 issues
#143	What is tlm_replyErr() for?

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

TICKET #	Description
#144	32bit mode enforcement not complete
#145	Optional callback for each received valid PD
#146	On Timeout, PD Callback is always called with no data/datasize == 0
#147	No timeout with TCP if destination is not reachable
#148	Wrong element used in trdp_mdCheckTimeouts() to invoke the callback
#149	SourceUri and DestinationUri don't with 32 characters
#150	Destination IP address is not copied to md_info on TCP-Layer
#151	tlp_request: timeout-flag is not cleared
#152	tlp_publish: Error if srcIpAddr is a multicast-address
#153	Two replies on one pull-request at multicast address
#154	ComIds and DSIds literals (#define TRDP_...) in trdp_proto.h too long
#155	Kill trdp_proto.h - move definitions to iec61375-2-3.h
#156	Recursion counter never decremented
#158	MdReplyTimeout: Standard defines 0 as infinite time and not -1
#159	Is there any plan to include the SDTv2 implementation?
#160	TRDP MD Test 4 (TCP request/reply) fails with reply timeout

Table 116: Corrected Errors TRDPLight

11.1.2. New or Enhanced Functions

Ticket #	Description

Table 117: New or enhanced functions TRDPLight

11.1.3. Known Errors

Ticket #	Description
#1	PD/MD: For performance reasons a unjoin shall be done after unsubscribing (XLS #30)
#3	TRDPSTATS: Incorrect counter for received packets on dual interface (XLS #131)
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#101	Optional callback function on PD send
#161	Increase performance
#162	Independent handling of PD and MD to reduce jitter

Table 118: Known Errors TRDPLight

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

11.1.4. Compatibility to Earlier Releases

ICompatible to previous release.

11.2. TRDPMarshall

11.2.1. Corrected Errors

Ticket #	Description
None	

Table 119: Corrected Errors TRDPMarshall

11.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 120: New or enhanced functions TRDPMarshall

11.2.3. Known Errors

Ticket #	Description
None	

Table 121: Known Errors TRDPMarshall

11.2.4. Compatibility to Earlier Releases

Compatible to previous release.

11.3. TRDPXML

11.3.1. Corrected Errors

Ticket #	Description
None	

Table 122: Corrected Errors TRDPXML

11.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 123: New or enhanced functions TRDPXML

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

11.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing

Table 124: Known Errors TRDPXML

11.3.4. Compatibility to Earlier Releases

Compatible to previous release.

11.4. TRDPCTRL

11.4.1. Corrected Errors

Ticket #	Description
#131	TRDP_ECSP_CTRL_T in the tau_ctrl_types.h should not include the leadVehOfCst field

Table 125: Corrected Errors TRDPCTRL

11.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 126: New or enhanced functions TRDPCTRL

11.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 127: Known Errors TRDPCTRL

11.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

11.5. TRDPDNR

11.5.1. Corrected Errors

Ticket #	Description
None	

Table 128: Corrected Errors TRDPDNR

11.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 129: New or enhanced functions TRDPDNR

11.5.3. Known Errors

Ticket #	Description
#125	tau_dnr: TCN DNS support missing

Table 130: Known Errors TRDPDNR

11.5.4. Compatibility to Earlier Releases

Compatible to previous release.

11.6. TRDPTTI

11.6.1. Corrected Errors

Ticket #	Description
None	

Table 131: Corrected Errors TRDPTTI

11.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 132: New or enhanced functions TRDPTTI

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

11.6.3. Known Errors

Ticket #	Description
None	

Table 133: Known Errors TRDPTTI

11.6.4. Compatibility to Earlier Releases

Compatible to previous release.

11.7. TRDPSpy

11.7.1. Corrected Errors

Ticket #	Description
#157	TRDP Spy needs update for newer Wireshark versions (> 1.8.3)

Table 134: Corrected Errors TRDPSpy

11.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 135: New or enhanced functions TRDPSpy

11.7.3. Known Errors

Ticket #	Description
#157	TRDP Spy needs update for newer Wireshark versions (> 1.8.3) XML parsing still open for Wireshark 2.x

Table 136: Known Errors TRDPSpy

11.7.4. Compatibility to Earlier Releases

DLL only compatible to Wireshark 2.x. For Wireshark 1.8.3 the previous release needs to be used

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

12. History Release 1.3.3.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

12.1. TRDPLight

12.1.1. Corrected Errors

TICKET #	Description
#164	tlp_request: EXOR used to clear a bit

Table 137: Corrected Errors TRDPLight

12.1.2. New or Enhanced Functions

Ticket #	Description

Table 138: New or enhanced functions TRDPLight

12.1.3. Known Errors

Ticket #	Description
#1	PD/MD: For performance reasons a unjoin shall be done after unsubscribing (XLS #30)
#3	TRDPSTATS: Incorrect counter for received packets on dual interface (XLS #131)
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#101	Optional callback function on PD send
#161	Increase performance
#162	Independent handling of PD and MD to reduce jitter

Table 139: Known Errors TRDPLight

12.1.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

12.2. TRDPMarshall

12.2.1. Corrected Errors

Ticket #	Description
None	

Table 140: Corrected Errors TRDPMarshall

12.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 141: New or enhanced functions TRDPMarshall

12.2.3. Known Errors

Ticket #	Description
None	

Table 142: Known Errors TRDPMarshall

12.2.4. Compatibility to Earlier Releases

Compatible to previous release.

12.3. TRDPXML

12.3.1. Corrected Errors

Ticket #	Description
None	

Table 143: Corrected Errors TRDPXML

12.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 144: New or enhanced functions TRDPXML

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

12.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing

Table 145: Known Errors TRDPXML

12.3.4. Compatibility to Earlier Releases

Compatible to previous release.

12.4. TRDPCTRL

12.4.1. Corrected Errors

Ticket #	Description
None	

Table 146: Corrected Errors TRDPCTRL

12.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 147: New or enhanced functions TRDPCTRL

12.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 148: Known Errors TRDPCTRL

12.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

12.5. TRDPDNR

12.5.1. Corrected Errors

Ticket #	Description
None	

Table 149: Corrected Errors TRDPDNR

12.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 150: New or enhanced functions TRDPDNR

12.5.3. Known Errors

Ticket #	Description
#125	tau_dnr: TCN DNS support missing

Table 151: Known Errors TRDPDNR

12.5.4. Compatibility to Earlier Releases

Compatible to previous release.

12.6. TRDPTTI

12.6.1. Corrected Errors

Ticket #	Description
None	

Table 152: Corrected Errors TRDPTTI

12.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 153: New or enhanced functions TRDPTTI

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

12.6.3. Known Errors

Ticket #	Description
None	

Table 154: Known Errors TRDPTTI

12.6.4. Compatibility to Earlier Releases

Compatible to previous release.

12.7. TRDPSpy

12.7.1. Corrected Errors

Ticket #	Description
None	

Table 155: Corrected Errors TRDPSpy

12.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 156: New or enhanced functions TRDPSpy

12.7.3. Known Errors

Ticket #	Description
#157	TRDP Spy needs update for newer Wireshark versions (> 1.8.3) XML parsing still open for Wireshark 2.x

Table 157: Known Errors TRDPSpy

12.7.4. Compatibility to Earlier Releases

DLL only compatible to Wireshark 2.x. For Wireshark 1.8.3 use plugin of release 1.3.1.0

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

13. History Release 1.4.0.0

13.1. TRDPLight

13.1.1. Corrected Errors

TICKET #	Description
#1	PD/MD: For performance reasons a unjoin shall be done after unsubscribing (XLS #30)
#101	Optional callback function on PD send
#166	Bug in trdp_pdReceive() “if data have changed()
#165	VxWorks vos_dottedIP() bug
#167	Window vos_dottedIP() bug
#168	Unnecessary multicast join on tlp_publish()
#170	VxWorks: Multicast TTL setsockopt has wrong size
#171	Wrong socket binding for multicast request messages
#172	Infinite loop of message sending after PD Pull Request when registered in mult
#174	Socket is closed, even if in use
#175	PD: Handling of sequence counter
#176	TRDP_LABEL_T breaks field alignment
#177	Should a UDP receive socket for MD be closed in case of TRDP_BLOCK_ERR
#178	trdp_releaseSocket does not cleanup tcpParams
#179	maxNumRetries in tlm_request() are not limited
#180	Filtering rules for DestinationURI does not follow the standard
#181	Missing padding bytes in user dataset of PD-PDU
#182	Missing padding bytes in user dataset of MD-PDU
#183	tau_getOwnIds declared but not defined
#184	Building with VS 2015: WIN64 and Windows threads (was: time spec redefined)
#185	MD reply: Infinite timeout wrong handled
#186	Potential SEGFAULT in case of PD timeout
#188	Typo in the TRDP_VAR_SIZE definition
#189	timeout-value not parsed in tau_xml
#190	Source filtering (IP-range) for PD subscribe
#192	Compiler warnings on Windows (minGW)
#194	Platform independent format specifiers in vos_printLog
#195	Invalid thread handle (SEGFAULT)
#196	setRedundant with RedID = 0 stops all publishers
#197	Incorrect Marshalling/Unmarshalling for nested datasets
#199	Setting redId on tlp_request() has no effect

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

TICKET #	Description
#200	Notify 'sender element' fields, set twice
#201	tlp_setRedundant return value if redId is 0
#202	vos_mutexTrylock return value
#203	Incorrect unmarshalling of datasets containing TIMEDATE64 array.
#204	tlp_publish should take default callback function if flags == DEFAULT
#205	tlm_addListener() does not acknowledge TRDP_FLAGS_DEFAULT flag
#206	trdp-md-test fails for several test cases
#207	tlp_put() and variable dataSize
#208	vos_getInterfaces returning incorrect "name" and "linkState" on windows.
#209	vos_getInterfaces returning incorrect "name" and "linkState" on windows.
#210	IF condition for DNS Options incorrect in tau_uri2Addr()

Table 158: Corrected Errors TRDPLight

13.1.2. New or Enhanced Functions

Ticket #	Description

Table 159: New or enhanced functions TRDPLight

13.1.3. Known Errors

Ticket #	Description
#3	TRDPSTATS: Incorrect counter for received packets on dual interface (XLS #131)
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#161	Increase performance
#162	Independent handling of PD and MD to reduce jitter
#169	WON'T FIX: Encapsulate declaration of packed structures within a macro
#173	WON'T FIX: Invalid refCon in callbacks
#191	Add provisions for TSN / Hard Real Time

Table 160: Known Errors TRDPLight

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

13.1.4. Compatibility to Earlier Releases

Compatible to earlier releases.

13.2. TRDPMarshall

13.2.1. Corrected Errors

Ticket #	Description
None	

Table 161: Corrected Errors TRDPMarshall

13.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 162: New or enhanced functions TRDPMarshall

13.2.3. Known Errors

Ticket #	Description
None	

Table 163: Known Errors TRDPMarshall

13.2.4. Compatibility to Earlier Releases

Compatible to previous release.

13.3. TRDPXML

13.3.1. Corrected Errors

Ticket #	Description
#211	XML handling: Dataset Name should be stored in TRDP_DATASET_ELEMENT_T

Table 164: Corrected Errors TRDPXML

13.3.2. New or Enhanced Functions

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing
#163	Extend XML test to include SDT for MD

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Ticket #	Description

Table 165: New or enhanced functions TRDPXML

13.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing

Table 166: Known Errors TRDPXML

13.3.4. Compatibility to Earlier Releases

Compatible to previous release.

13.4. TRDPCTRL

13.4.1. Corrected Errors

Ticket #	Description
#131	TRDP_ECSP_CTRL_T in the tau_ctrl_types.h should not include the leadVehOfCst field

Table 167: Corrected Errors TRDPCTRL

13.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 168: New or enhanced functions TRDPCTRL

13.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 169: Known Errors TRDPCTRL

13.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

13.5. TRDPDNR

13.5.1. Corrected Errors

Ticket #	Description
None	

Table 170: Corrected Errors TRDPDNR

13.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 171: New or enhanced functions TRDPDNR

13.5.3. Known Errors

Ticket #	Description
#125	tau_dnr: TCN DNS support missing

Table 172: Known Errors TRDPDNR

13.5.4. Compatibility to Earlier Releases

Compatible to previous release.

13.6. TRDPTTI

13.6.1. Corrected Errors

Ticket #	Description
None	

Table 173: Corrected Errors TRDPTTI

13.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 174: New or enhanced functions TRDPTTI

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

13.6.3. Known Errors

Ticket #	Description
None	

Table 175: Known Errors TRDPTTI

13.6.4. Compatibility to Earlier Releases

Compatible to previous release.

13.7. TRDPSpy

13.7.1. Corrected Errors

Ticket #	Description
#157	Linux: TRDP Spy needs update for newer Wireshark versions (> 1.8.3)
#187	Linux: TRDP Spy dissector always expects 16 Bits variable size for arrays

Table 176: Corrected Errors TRDPSpy

13.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 177: New or enhanced functions TRDPSpy

13.7.3. Known Errors

Ticket #	Description
#157	Windows: TRDP Spy needs update for newer Wireshark versions (> 1.8.3)
#187	Windows: TRDP Spy dissector always expects 16 Bits variable size for arrays

Table 178: Known Errors TRDPSpy

13.7.4. Compatibility to Earlier Releases

Plugin only compatible to Wireshark 2.x. For Wireshark 1.8.3 the previous release needs to be used

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

14. History Release 1.4.1.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

14.1. TRDPLight

14.1.1. Corrected Errors

TICKET #	Description
#222	CRC Test in LibraryTests.c fails
#223	Windows: Excessive error reporting when polling (rcvmsg)
#224	TCP/UDP MD Listening will fail to respond to UDP MD requests

Table 179: Corrected Errors TRDPLight

14.1.2. New or Enhanced Functions

Ticket #	Description
None	

Table 180: New or enhanced functions TRDPLight

14.1.3. Known Errors

Ticket #	Description
#3	TRDPSTATS: Incorrect counter for received packets on dual interface (XLS #131)
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#161	Increase performance
#162	Independent handling of PD and MD to reduce jitter
#169	WON'T FIX: Encapsulate declaration of packed structures within a macro
#173	WON'T FIX: Invalid refCon in callbacks
#191	Add provisions for TSN / Hard Real Time
#192	WON'T FIX: Compiler warnings on Windows (minGW)
#193	WON'T FIX: MinGW Unused params warnings
#198	WON'T FIX: PD Timeout cannot be disabled.

Table 181: Known Errors TRDPLight

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

14.1.4. Compatibility to Earlier Releases

Compatible to previous release.

14.2. TRDPMarshall

14.2.1. Corrected Errors

Ticket #	Description
None	

Table 182: Corrected Errors TRDPMarshall

14.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 183: New or enhanced functions TRDPMarshall

14.2.3. Known Errors

Ticket #	Description
None	

Table 184: Known Errors TRDPMarshall

14.2.4. Compatibility to Earlier Releases

Compatible to previous release.

14.3. TRDPXML

14.3.1. Corrected Errors

Ticket #	Description
None	

Table 185: Corrected Errors TRDPXML

14.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 186: New or enhanced functions TRDPXML

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

14.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing
#163	Extend XML test to include SDT for MD

Table 187: Known Errors TRDPXML

14.3.4. Compatibility to Earlier Releases

Compatible to previous release.

14.4. TRDPCTRL

14.4.1. Corrected Errors

Ticket #	Description
None	

Table 188: Corrected Errors TRDPCTRL

14.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 189: New or enhanced functions TRDPCTRL

14.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 190: Known Errors TRDPCTRL

14.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

14.5. TRDPDNR

14.5.1. Corrected Errors

Ticket #	Description
#125	tau_dnr: TCN DNS support missing

Table 191: Corrected Errors TRDPDNR

14.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 192: New or enhanced functions TRDPDNR

14.5.3. Known Errors

Ticket #	Description
None	

Table 193: Known Errors TRDPDNR

14.5.4. Compatibility to Earlier Releases

Compatible to previous release.

14.6. TRDPTTI

14.6.1. Corrected Errors

Ticket #	Description
None	

Table 194: Corrected Errors TRDPTTI

14.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 195: New or enhanced functions TRDPTTI

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

14.6.3. Known Errors

Ticket #	Description
None	

Table 196: Known Errors TRDPTTI

14.6.4. Compatibility to Earlier Releases

Compatible to previous release.

14.7. TRDPSpy

14.7.1. Corrected Errors

Ticket #	Description
#157	Windows: TRDP Spy needs update for newer Wireshark versions (> 1.8.3)
#187	Windows: TRDP Spy dissector always expects 16 Bits variable size for arrays

Table 197: Corrected Errors TRDPSpy

14.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 198: New or enhanced functions TRDPSpy

14.7.3. Compatibility to Earlier Releases

Plugin only compatible to Wireshark 2.x. For Wireshark 1.8.3 use plugin of release 1.3.1.0.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

15. History Release 1.4.2.0

15.1. TRDPLight

15.1.1. Corrected Errors

TICKET #	Description
#225	Issue in Doxygen comment for vos_sc32()
#226	Branch 1.3.1.0: Handle QoS value correctly
#230	multiple Subscribers with same comId, sourceIPs but different destinationIPs not wor
#233	Write Access to XML file is not necessary
#234	ComIds for Statistics Interface do not align with IEC61375-2-3
#235	TRDP MD Listener issue if both unicast and multicast is used on the same com id
#236	[TRDP MD] Incorrect Socket Handling for Mixed Unicast and Multicast useage
#238	VOS: Public API headers include private header file
#241	MDCallback: MsgType and reply status not set correctly
#243	Function to add specialized subscriber in addition to general subscriber on same comId
#246	Incorrect reading of "user" part of source uri and destination uri
#249	Issue when parsing memory block configuration from config file
#256	PD: possibility to "register" ComIDs subscribing on several multicast addresses
#259	Shared memory name not stored in VOS_SHRD_T handle (posix)
#260	Error in vos_threadCreate() not handled properly (vxworks)

Table 199: Corrected Errors TRDPLight

15.1.1. Known Errors

Ticket #	Description
None	

Table 200: Known Errors TRDPSpy

15.1.2. New or Enhanced Functions

Ticket #	Description
#244	Extend SendParameters to support VLAN Id and TSN

Table 201: New or enhanced functions TRDPLight

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

15.1.3. Known Errors

Ticket #	Description
#3	TRDPSTATS: Incorrect counter for received packets on dual interface (XLS #131)
#5 (XLS #37)	MD: For sent unicast MD TRDP assumes that only one reply may be received.
#21	Time dependent functions may fail in 2038 (wrap around of timeval)
#87	Example application for backbone-aware network is missing
#161	Increase performance
#162	Independent handling of PD and MD to reduce jitter
#169	WON'T FIX: Encapsulate declaration of packed structures within a macro
#173	WON'T FIX: Invalid refCon in callbacks
#191	Add provisions for TSN / Hard Real Time
#192	WON'T FIX: Compiler warnings on Windows (minGW)
#193	WON'T FIX: MinGW Unused params warnings
#198	WON'T FIX: PD Timeout cannot be disabled.
#227	Possibility to set interface default name used by vos
#229	Test application to change topocounter (emulate ETB gateway)
#239	WON'T FIX: VOS: Problematic type definitions
#240	WON'T FIX: TRDP topography counter check not standard conform
#242	System Requirements Doc: TRDP4025 contradicts standard
#251	WON'T FIX: BITSET types
#261	MD reply/add listener does not use send parameters

Table 202: Known Errors TRDPLight

15.1.4. Compatibility to Earlier Releases

Compatible to previous release.

15.2. TRDPMarshall

15.2.1. Corrected Errors

Ticket #	Description
#252	Bug in unmarshalling/marshalling of TIMEDATE48 and TIMEDATE64

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 203: Corrected Errors TRDPMarshall

15.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 204: New or enhanced functions TRDPMarshall

15.2.3. Known Errors

Ticket #	Description
None	

Table 205: Known Errors TRDPMarshall

15.2.4. Compatibility to Earlier Releases

Compatible to previous release.

15.3. TRDPXML

15.3.1. Corrected Errors

Ticket #	Description
#228	TRDP_XMLPDTest.exe multicast issuer
#231	XML config from stream buffer
#232	Write Access to XML file is not necessary
#250	Attribute missing in sdt-parameter element of XML configuration?
#262	XML Parsing Bug Fixes for Debug Output Print Level and SDTv2 Parameters

Table 206: Corrected Errors TRDPXML

15.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 207: New or enhanced functions TRDPXML

15.3.3. Known Errors

Ticket #	Description
#2 (XLS #64)	TRDPXML: Support of mapped devices missing
#163	WON'T FIX: Extend XML test to include SDT for MD

Table 208: Known Errors TRDPXML

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

15.3.4. Compatibility to Earlier Releases

Compatible to previous release.

15.4. TRDPCTRL

15.4.1. Corrected Errors

Ticket #	Description
None	

Table 209: Corrected Errors TRDPCTRL

15.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 210: New or enhanced functions TRDPCTRL

15.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 211: Known Errors TRDPCTRL

15.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

15.5. TRDPDNR

15.5.1. Corrected Errors

Ticket #	Description
#237	Option to reduce wait times for DNR
#247	tau_uri2Addr() NULL check for pDNR

Table 212: Corrected Errors TRDPDNR

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

15.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 213: New or enhanced functions TRDPDNR

15.5.3. Known Errors

Ticket #	Description
None	

Table 214: Known Errors TRDPDNR

15.5.4. Compatibility to Earlier Releases

Compatible to previous release.

15.6. TRDPTTI

15.6.1. Corrected Errors

Ticket #	Description
#245	Incorrect storing of TTDB_OP_TRAIN_DIRECTORY_INFO from network packet into local copy
#248	tau_uri2Addr() : check for non zero IP address while searching cache
#253	Incorrect storing of TTDB_STATIC_CONSIST_INFO_REPLY from network packet into local copy
#254	API of TTI to get OwnOpCstNo and OwnTrnCstNo
#255	opTrnState of pTTDB isn't copied completely
#257	TTI: register for ComID100 PD to both valid multicast addresses

Table 215: Corrected Errors TRDPTTI

15.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 216: New or enhanced functions TRDPTTI

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

15.6.3. Known Errors

Ticket #	Description
#258	TTI subsystem should provide un-marshalled data to be used with SDT

Table 217: Known Errors TRDPTTI

15.6.4. Compatibility to Earlier Releases

Compatible to previous release.

15.7. TRDPSpy

15.7.1. Corrected Errors

Ticket #	Description
#157	Windows: TRDP Spy needs update for newer Wireshark versions (> 1.8.3)
#187	Windows: TRDP Spy dissector always expects 16 Bits variable size for arrays

Table 218: Corrected Errors TRDPSpy

15.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 219: New or enhanced functions TRDPSpy

15.7.3. Known Errors

Ticket #	Description
None	

Table 220: Known Errors TRDPSpy

15.7.4. Compatibility to Earlier Releases

Plugins compatible to Wireshark 2.x. For Wireshark 1.8.3 use plugin of release 1.3.1.0.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

16. History Release 2.0.1.0

16.1. TRDPLight

16.1.1. Corrected Errors

TICKET #	Description
#21	Time dependent functions may fail on 32bit systems in 2038 (wrap around of timeval)
#161	Increase performance
#162	Independent handling of PD and MD to reduce jitter
#191	Add provisions for TSN / Hard Real Time
#227	Possibility to set interface default name used by vos
#242	System Requirements Doc: TRDP4025 contradicts standard
#267	Incorrect values for fields WireError, CRCError and TopoCountError in Statistics for MD
#270	Bug in handling of PD telegrams with new topocounters after inauguration
#271	Ladder support is orphan: To be dropped or still supported?
#272	Missing initialization of values in Global Statistics
#273	Units for certain standard timeout values inconsistent with their intended usage
#274	Cyclic thread parameters must not use stack
#275	Multiple Subscribers with same comId not always found (HIGH_PERF_INDEXED)
#276	Bug with PD requests and replies in high performance mode

Table 221: Corrected Errors TRDPLight

16.1.2. New or Enhanced Functions

Ticket #	Description
#264	Provide service oriented interface

Table 222: New or enhanced functions TRDPLight

16.1.3. Known Errors

Ticket #	Description
#3	WON'T FIX: TRDPSTATS: Incorrect counter for received packets on dual interface (XLS #131)
#5	MD: For sent unicast MD TRDP assumes that only one reply may be received (XLS #37)
#87	Example application for backbone-aware network is missing
#169	WON'T FIX: Encapsulate declaration of packed structures within a macro

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Ticket #	Description
#173	WON'T FIX: Invalid refCon in callbacks
#192	WON'T FIX: Compiler warnings on Windows (minGW)
#193	WON'T FIX: MinGW Unused params warnings
#198	WON'T FIX: PD Timeout cannot be disabled.
#229	Test application to change topocounter (emulate ETB gateway)
#239	WON'T FIX: VOS: Problematic type definitions
#240	WON'T FIX: TRDP topography counter check not standard conform
#251	WON'T FIX: BITSET types
#258	WON'T FIX: TTI subsystem should provide un-marshalled data to be used with SDT
#261	MD reply/add listener do not use send parameters
#263	WON'T FIX: Incorrect dataSize check in MD notify, request, reply and replyQuery APIs

Table 223: Known Errors TRDPLight

16.1.4. Compatibility to Earlier Releases

Compatible to previous release.

16.2. TRDPMarshall

16.2.1. Corrected Errors

Ticket #	Description
#252	Bug in unmarshalling/marshalling of TIMEDATE48 and TIMEDATE64
#265	tau_marshall: Bug in maxSizeOfDSMember

Table 224: Corrected Errors TRDPMarshall

16.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 225: New or enhanced functions TRDPMarshall

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

16.2.3. Known Errors

Ticket #	Description
None	

Table 226: Known Errors TRDPMarshall

16.2.4. Compatibility to Earlier Releases

Compatible to previous release.

16.3. TRDPXML

16.3.1. Corrected Errors

Ticket #	Description
#265	tau_marshall: Bug in maxSizeOfDSMember

Table 227: Corrected Errors TRDPXML

16.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 228: New or enhanced functions TRDPXML

16.3.3. Known Errors

Ticket #	Description
#2	TRDPXML: Support of mapped devices missing (XLS #64)
#163	WON'T FIX: Extend XML test to include SDT for MD

Table 229: Known Errors TRDPXML

16.3.4. Compatibility to Earlier Releases

Compatible to previous release.

16.4. TRDPCTRL

16.4.1. Corrected Errors

Ticket #	Description
#13	TRDP CTRL: Add ETBN control functionality

Table 230: Corrected Errors TRDPCTRL

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

16.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 231: New or enhanced functions TRDPCTRL

16.4.3. Known Errors

Ticket #	Description
#13	Implemented but not yet tested with ETBN

Table 232: Known Errors TRDPCTRL

16.4.4. Compatibility to Earlier Releases

Compatible to previous release.

.

16.5. TRDPDNR

16.5.1. Corrected Errors

Ticket #	Description
None	

Table 233: Corrected Errors TRDPDNR

16.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 234: New or enhanced functions TRDPDNR

16.5.3. Known Errors

Ticket #	Description
None	

Table 235: Known Errors TRDPDNR

16.5.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

16.6. TRDPTTI

16.6.1. Corrected Errors

Ticket #	Description
#268	Handling Redundancy Switchover of DNS/ECSP server
#269	tau_initTTI: leave standard MC fails

Table 236: Corrected Errors TRDPTTI

16.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 237: New or enhanced functions TRDPTTI

16.6.3. Known Errors

Ticket #	Description
#258	WON'T FIX: TTI subsystem should provide un-marshalled data to be used with SDT

Table 238: Known Errors TRDPTTI

16.6.4. Compatibility to Earlier Releases

Compatible to previous release.

16.7. TRDPSpy

16.7.1. Corrected Errors

Ticket #	Description
#266	Update TRDPSpy for Wireshark 2.6 and 3.0

Table 239: Corrected Errors TRDPSpy

16.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 240: New or enhanced functions TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

16.7.3. Known Errors

Ticket #	Description
None	

Table 241: Known Errors TRDPSpy

16.7.4. Compatibility to Earlier Releases

Plugin only compatible to Wireshark 2.6/3.0. For Wireshark 1.8.3 use plugin of release 1.3.1.0.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

17. History Release 2.0.2.0

17.1. TRDPLight

17.1.1. Corrected Errors

TICKET #	Description
#278	Don't check if a socket is < 0
#279	Wrong parameter type setting blocking/non blocking mode via ioctl() for VxWorks
#280	Application crash during tlm_abortSession()
#283	Automatic PD sequence counter reset after timeout
#288	Why is not tlm_reply() exported from the DLL

Table 242: Corrected Errors TRDPLight

17.1.2. New or Enhanced Functions

Ticket #	Description
#282	Preset index table size and depth to prevent memory fragmentation
#287	Enhancement performance while receiving (HIGH_PERF_INDEXED mode)

Table 243: New or enhanced functions TRDPLight

17.1.3. Known Errors

Ticket #	Description
#285	MD replies are not sending source URIs
#286	tlm_reply() is missing a sourceURI parameter as defined in the standard
#281	TRDP_NOSESSION_ERR should be returned from tlm_reply() and tlm_replyQuery() in case of incorrect session (id)
#261	MD reply/add listener do not use send parameters
#5	MD: For sent unicast MD TRDP assumes that only one reply may be received (XLS #37).

Table 244: Known Errors TRDPLight

17.1.4. Compatibility to Earlier Releases

Compatible to previous release.

An additional user-callable function has been introduced to realize ticket # 282 (API extension to reduce possible memory fragmentation).

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

17.1.5. tlc_presetIndexSession

Name	tlc_presetIndexSession	

Synopsis C	`TRDP_ERR_T tlc_presetIndexSession (`
	`  TRDP_APP_SESSION_T  appHandle,`
	`  TRDP_IDX_TABLE_T  *pIndexTableSizes);`	

Synopsis C++	`TRDP_ERR_T tlc:: presetIndexSession (TRDP_IDX_TABLE_T *pIndexTableSizes = NULL);`	

Abstract	Pre-sets the sizes and depths for the index tables used to accelerate and optimize the handling of ingress and egress traffic to be used by the high-performance targets. It shall be called before the first publishers or subscribers are added and is presumably used to avoid memory fragmentation for multi-application environments.
	When called with `pIndexTableSizes == NULL`, the following defaults are used:
	`100 /**< Max. number of expected subscriptions with intervals <= 100ms  */`
	`200 /**< Max. number of expected subscriptions with intervals <= 1000ms */`
	`10  /**< Max. number of expected subscriptions with intervals > 1000ms  */`
	`100 /**< Max. number of expected publishers with intervals <= 100ms  */`
	`15  /**< depth / overlapped publishers with intervals <= 100ms  */`
	`200 /**< Max. number of expected publishers with intervals <= 1000ms  */`
	`15  /**< depth / overlapped publishers with intervals <= 1000ms  */`
	`10  /**< Max. number of expected publishers with intervals <= 10000ms  */`
	`5  /**< depth / overlapped publishers with intervals <= 10000ms  */`
	`10  /**< Max. number of expected publishers with intervals > 10000ms  */`
	On a 64Bit system, this accounts for the additional pre-allocation of
	2 x blocks of 2480 Bytes (subscribers)
	1 x block of 12000 Bytes (publishers)
	1 x block of 24000 Bytes
	1 x block of 12000 Bytes
	1 x block of 120 Bytes
	1 x block of 80 Bytes
	If a later change in configuration demands larger table sizes, the memory will be re-allocated (and possibly fragmented) and a warning will be issued.
	This function is currently a no-op on standard targets.	

Parameters	`appHandle`	(C) handle returned by tlc_openSession()
Returns C	0 if OK, !=0 if error, see chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**. of the User's Manual. TRDP_NO_ERR no error TRDP_INIT_ERR not yet inited TRDP_MEM_ERR parameter error	
Returns C++	0 if OK, if error exception thrown according to chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**. of the User's Manual.	

17.2. TRDPSOA

17.2.1. Corrected Errors

Ticket #	Description
#277	Bug in tau_so_if.c when not waiting for completion

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 245: Corrected Errors TRDPSOA

17.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 246: New or enhanced functions TRDPSOA

17.2.3. Known Errors

Ticket #	Description
None	

Table 247: Known Errors TRDPSOA

17.2.4. Compatibility to Earlier Releases

Compatible to previous release.

17.3. TRDPMarshall

17.3.1. Corrected Errors

Ticket #	Description
None	

Table 248: Corrected Errors TRDPMarshall

17.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 249: New or enhanced functions TRDPMarshall

17.3.3. Known Errors

Ticket #	Description
None	

Table 250: Known Errors TRDPMarshall

17.3.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

17.4. TRDPXML

17.4.1. Corrected Errors

Ticket #	Description
None	

Table 251: Corrected Errors TRDPXML

17.4.2. New or Enhanced Functions

Ticket #	Description
#2	TRDPXML: Support of mapped devices missing (XLS #64)

Table 252: New or enhanced functions TRDPXML

17.4.3. Known Errors

Ticket #	Description
#284	Parsing Unsigned Values from Config XML

Table 253: Known Errors TRDPXML

17.4.4. Compatibility to Earlier Releases

Compatible to previous release.

17.5. TRDPCTRL

17.5.1. Corrected Errors

Ticket #	Description
None	

Table 254: Corrected Errors TRDPCTRL

17.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 255: New or enhanced functions TRDPCTRL

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

17.5.3. Known Errors

Ticket #	Description
None	

Table 256: Known Errors TRDPCTRL

17.5.4. Compatibility to Earlier Releases

Compatible to previous release.

.

17.6. TRDPDNR

17.6.1. Corrected Errors

Ticket #	Description
None	

Table 257: Corrected Errors TRDPDNR

17.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 258: New or enhanced functions TRDPDNR

17.6.3. Known Errors

Ticket #	Description
None	

Table 259: Known Errors TRDPDNR

17.6.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

17.7. TRDPTTI

17.7.1. Corrected Errors

Ticket #	Description
None	

Table 260: Corrected Errors TRDPTTI

17.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 261: New or enhanced functions TRDPTTI

17.7.3. Known Errors

Ticket #	Description
None	

Table 262: Known Errors TRDPTTI

17.7.4. Compatibility to Earlier Releases

Compatible to previous release.

17.8. TRDPSpy

17.8.1. Corrected Errors

Ticket #	Description
None	

Table 263: Corrected Errors TRDPSpy

17.8.2. New or Enhanced Functions

Ticket #	Description
None	

Table 264: New or enhanced functions TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

17.8.3. Known Errors

Ticket #	Description
None	

Table 265: Known Errors TRDPSpy

17.8.4. Compatibility to Earlier Releases

Plugin only compatible to Wireshark 2.6/3.0. For Wireshark 1.8.3 use plugin of release 1.3.1.0.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

18. History Release 2.0.3.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

18.1. TRDPLight

18.1.1. Corrected Errors

TICKET #	Description
#337	PD request in multithread application, concurrency problems with msg/sockets
#336	MD structures handling in multithread application
#335	MD UDP notification sometimes dropped at listener side
#334	dirent.h not part of delivery
#333	Insufficient memory allocation in posix vos_semaCreate
#332	Error reading from TSN PD header
#329	dataSize is taken from wrong header type for received TSN messages
#328	tlp_put() writes out of memory for TSN telegrams
#327	'Me' missing for unicast 'Mr' to not registered listener or with topo count
#324	Mutex issues with MD send queue
#319	Protocol Version is defined twice
#318	PD Request - sequence counter not incremented
#317	Bug in trdp_indexedFindSubAddr() (HIGH_PERFORMANCE Mode)
#315	tlp_publish and heap allocation failed leads to wrong error behaviour
#314	Timeout supervision does not restart after PD request
#313	MD Notifications with wrong topography counts are still being sent out
#311	Wrong starting sequence counter when creating two publishers with same comId
#309	Sessions remain open after deleting or updating a listener
#303	UUID creation does not always conform to standard
#302	HIGH_PERF_INDEXED: Rebuild tables completely on tlc_update
#289	Reduce max. time-out value returned by tlc_getInterval
#286	tlm_reply() is missing a sourceURI parameter as defined in the standard
#285	Fixed with #286: MD replies are not sending source URIs (API change)

Table 266: Corrected Errors TRDPLight

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

18.1.2. New or Enhanced Functions

Ticket #	Description
#321	Move TRDP_TIMER_GRANULARITY to public API
#312	TCN-TRDP2-D-BOM-011-33_-_TRDP_User_s_Manual.docx PD High Performance
#304	The reception of any incorrect message causes it to exit the loop
#300	Can error message in tlp_setRedundant() be changed to warning?
#282	Preset index table size and depth to prevent memory fragmentation

Table 267: New or enhanced functions TRDPLight

18.1.3. Known Errors

Ticket #	Description
#326	vxWorks integration lacks some thread functionality
#325	Better VLAN & TSN Support by using RAW Sockets
#322	Subscriber multicast message routing in multi-home device
#316	WON'T FIX: Redundancy handling tlp_request
#301	WON'T FIX: MD Requester accepting replies with lower sequenceCount
#291	Upgrade to Visual Studio 2019
#281	TRDP_NOSESSION_ERR should be returned from tlm_reply() and tlm_replyQuery() in case of incorrect session (id)
#261	MD reply/add listener do not use send parameters (API change)
#5	WON'T FIX: MD: For sent unicast MD TRDP assumes that only one reply may be received (XLS #37).

Table 268: Known Errors TRDPLight

18.1.4. Compatibility to Earlier Releases

Compatible to previous release. Due to this #286 is only fixed setting #CONFORMANCE_API

18.2. TRDPSOA

18.2.1. Corrected Errors

Ticket #	Description
None	

Table 269: Corrected Errors TRDPSOA

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

18.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 270: New or enhanced functions TRDPSOA

18.2.3. Known Errors

Ticket #	Description
None	

Table 271: Known Errors TRDPSOA

18.2.4. Compatibility to Earlier Releases

Compatible to previous release.

18.3. TRDPMarshall

18.3.1. New or Enhanced Functions

Ticket #	Description
None	

Table 272: New or enhanced functions TRDPMarshall

18.3.2. Known Errors

Ticket #	Description
None	

Table 273: Known Errors TRDPMarshall

18.3.3. Compatibility to Earlier Releases

Compatible to previous release.

18.4. TRDPXML

18.4.1. Corrected Errors

Ticket #	Description
#284	Parsing Unsigned Values from Config XML
#338	XML: Attribute Callback always does not work

Table 274: Corrected Errors TRDPXML

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

18.4.1. Corrected Errors

Ticket #	Description
None	

Table 275: Corrected Errors TRDPMarshall

18.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 276: New or enhanced functions TRDPXML

18.4.3. Known Errors

Ticket #	Description
#323	Bugs in XML stack

Table 277: Known Errors TRDPXML

18.4.4. Compatibility to Earlier Releases

Compatible to previous release.

18.5. TRDPCTRL

18.5.1. Corrected Errors

Ticket #	Description
#320	Wrong ETB_CTRL_TO_US value

Table 278: Corrected Errors TRDPCTRL

18.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 279: New or enhanced functions TRDPCTRL

18.5.3. Known Errors

Ticket #	Description
None	

Table 280: Known Errors TRDPCTRL

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

18.5.4. Compatibility to Earlier Releases

Compatible to previous release.

.

18.6. TRDPDNR

18.6.1. Corrected Errors

Ticket #	Description
None	

Table 281: Corrected Errors TRDPDNR

18.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 282: New or enhanced functions TRDPDNR

18.6.3. Known Errors

Ticket #	Description
#296	Rework updateTCNDNSentry() single thread for Windows Sim

Table 283: Known Errors TRDPDNR

18.6.4. Compatibility to Earlier Releases

Compatible to previous release.

18.7. TRDPTTI

18.7.1. Corrected Errors

Ticket #	Description
#299	ComId 100 shall be subscribed from two sources but only one needs to be received
#298	Create consist info entry error
#297	Store Operation Train Dir error
#292	tau_getTrnVehCnt( ) not working if OpTrnDir is not already valid

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 284: Corrected Errors TRDPTTI

18.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 285: New or enhanced functions TRDPTTI

18.7.3. Known Errors

Ticket #	Description
None	

Table 286: Known Errors TRDPTTI

18.7.4. Compatibility to Earlier Releases

Compatible to previous release.

18.8. TRDPSpy

18.8.1. Corrected Errors

Ticket #	Description
None	

Table 287: Corrected Errors TRDPSpy

18.8.2. New or Enhanced Functions

Ticket #	Description
None	

Table 288: New or enhanced functions TRDPSpy

18.8.3. Known Errors

Ticket #	Description
None	

Table 289: Known Errors TRDPSpy

18.8.4. Compatibility to Earlier Releases

Plugin only compatible to Wireshark 2.6/3.0. For Wireshark 1.8.3 use plugin of release 1.3.1.0.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

19. History Release 2.1.0.0

The following changes have been implemented since the previous release. The column '*Ticket #.*' Contains the ticket number at https://sourceforge.net/p/tcnopen/tickets/. Ticket numbers marked with "XLS" referring to the now closed list "trdp/BugTracking.xls".

19.1. TRDPLight

19.1.1. Corrected Errors

TICKET #	Description
#375	Replace parameters of vos_memCount with TRDP_MEM_STATISTICS_T
#372	Possible infinite loop in vos_getInterfaces
#370	Number of Listeners in MD statistics not counted correctly
#369	Variable sized arrays are not supported if marshalling is active
#368	tau_tti: tau getOwnIds: error in index handling in vehInfoList
#360	Adaption for VxWorks7
#359	XML Parser Bug for red-uri in service device
#356	Conflicting tau_ctrl_types packed definitions with marshalling
#355	Redundant PD default state should be follower
#354	Sequence counter synchronization error working in redundancy mode
#353	Change of variable "dataSize" in tlp_put leads to error
#352	Header dependency for VS2019
#347	Allow dynamic sized arrays for PD
#346	UDP MD: In case of wrong data length (too big) in the header the package won't be released
#345	Blocked indefinitely in the nanosleep() call
#344	TRDP PULL Communication Pattern request message with reply IP as multicast address doesn't work
#343	userStatus parameter size in tlm_reply and tlm_replyQuery
#339	PD subscriptions limit
#307	Avoid vos functions to block TimeSync
#306	Improve TerminateThread in SIM
#295	vos_sockSendUDP some times report err 183 in Windows Sim
#294	tau_requestEcspConfirm invalid call to tlm_request
#281	TRDP_NOSESSION_ERR should be returned from tlm_reply() and tlm_replyQuery() in case of incorrect session (id)

Table 290: Corrected Errors TRDPLight

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

19.1.2. New or Enhanced Functions

Ticket #	Description
#331	Add VLAN support for Sim
#330	Extend TRDP_PDTest with TSN support
#322	Subscriber multicast message routing in multi-home device
#308	Add vos Sim function to API
#293	Add version to TCNOpen dll
#291	Upgrade to Visual Studio 2019
#290	Add support for Virtualization on Windows

Table 291: New or enhanced functions TRDPLight

19.1.3. Known Errors

Ticket #	Description
#351	Callback returns TRDP_TO_DEFAULT as timeout behavior
#340	No flag to disable statistics in the xml configuration file
#326	vxWorks integration lacks some thread functionality
#325	Better VLAN & TSN Support by using RAW Sockets
#316	WON'T FIX: Redundancy handling tlp_request
#301	WON'T FIX: MD Requester accepting replies with lower sequenceCount
#261	MD reply/add listener do not use send parameters (API change)
#5	WON'T FIX: MD: For sent unicast MD TRDP assumes that only one reply may be received (XLS #37).

Table 292: Known Errors TRDPLight

19.1.4. Compatibility to Earlier Releases

Not compatible to previous release due to #286.

19.2. TRDPSOA

19.2.1. Corrected Errors

Ticket #	Description
None	

Table 293: Corrected Errors TRDPSOA

19.2.2. New or Enhanced Functions

Ticket #	Description
None	

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 294: New or enhanced functions TRDPSOA

19.2.3. Known Errors

Ticket #	Description
None	

Table 295: Known Errors TRDPSOA

19.2.4. Compatibility to Earlier Releases

Compatible to previous release.

19.3. TRDPMarshall

19.3.1. Corrected Errors

Ticket #	Description
None	

Table 296: Corrected Errors TRDPMarshall

19.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 297: New or enhanced functions TRDPMarshall

19.3.3. Known Errors

Ticket #	Description
None	

Table 298: Known Errors TRDPMarshall

19.3.4. Compatibility to Earlier Releases

Compatible to previous release.

19.4. TRDPXML

19.4.1. Corrected Errors

Ticket #	Description
#249	support for parsing "dataset name" and "device type"
#248	example XML validation

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 299: Corrected Errors TRDPXML

19.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 300: New or enhanced functions TRDPXML

19.4.3. Known Errors

Ticket #	Description
#323	Bugs in XML stack

Table 301: Known Errors TRDPXML

19.4.4. Compatibility to Earlier Releases

Compatible to previous release.

19.5. TRDPCTRL

19.5.1. Corrected Errors

Ticket #	Description
#373	tau_requestEcspConfirm callback not working
#320	Wrong ETB_CTRL_TO_US value

Table 302: Corrected Errors TRDPCTRL

19.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 303: New or enhanced functions TRDPCTRL

19.5.3. Known Errors

Ticket #	Description
None	

Table 304: Known Errors TRDPCTRL

19.5.4. Compatibility to Earlier Releases

Compatible to previous release.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

.

19.6. TRDPDNR

19.6.1. Corrected Errors

Ticket #	Description
#367	Cashed DNS only invalid if both etbTopoCnt and opTrnTopoCnt is changed
#296	Rework updateTCNDNSentry() single thread for Windows Sim

Table 305: Corrected Errors TRDPDNR

19.6.2. New or Enhanced Functions

Ticket #	Description
None	

Table 306: New or enhanced functions TRDPDNR

19.6.3. Known Errors

Ticket #	Description
None	

Table 307: Known Errors TRDPDNR

19.6.4. Compatibility to Earlier Releases

Compatible to previous release.

19.7. TRDPTTI

19.7.1. Corrected Errors

Ticket #	Description
#366	OwnIds invalid resolved to a group name
#365	All FctInfo are stored at index 0
#364	All vehicle, closed train, ETB info in Consist info is stored at index 0
#363	noOfCachedCst never assigned to actual value nor set to 0
#362	trnNetDir read from wrong address in ttiStoreTrnNetDir
#361	add tau_cstinfo header file - needed for alternative make/build

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

Table 308: Corrected Errors TRDPTTI

19.7.2. New or Enhanced Functions

Ticket #	Description
None	

Table 309: New or enhanced functions TRDPTTI

19.7.3. Known Errors

Ticket #	Description
None	

Table 310: Known Errors TRDPTTI

19.7.4. Compatibility to Earlier Releases

Compatible to previous release.

19.8. TRDPSpy

19.8.1. Corrected Errors

Ticket #	Description
#371	Wrong ComId for ComId > 2147483647
#350	SPY: BITSET8 visualized as BOOL

Table 311: Corrected Errors TRDPSpy

19.8.2. New or Enhanced Functions

Ticket #	Description
None	

Table 312: New or enhanced functions TRDPSpy

19.8.3. Known Errors

Ticket #	Description
#358	Telegram attribute data-set-id is optional for MD
#357	More than one XML file for dissection needed

Table 313: Known Errors TRDPSpy

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

19.8.4. Compatibility to Earlier Releases

Plugin only compatible to Wireshark 3.4. For Wireshark 1.8.3 use plugin of release 1.3.1.0.

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, You can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.

20. Problem reporting

Please report detected problems with this release to
https://sourceforge.net/p/tcnopen/tickets

This document is subject to the terms of the Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with this document, you can obtain one at http://mozilla.org/MPL/2.0/.
© Alstom SA or its subsidiaries and others, 2013-2023. All rights reserved.