TCNOpen	Open Source Developement

TRDP

Train Real Time Data Protocol

Release Notes for TRDP 1.2.1.0

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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)	

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 is not yet used in a real project and has been tested only in the lab and only for the test cases documented in [TestRep].

Participants		
Name and Surname	Organisation	Role
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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

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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 FDIS	Communication Profile
[TestRep]	TCN-TRDP2-D-BOM-032	TRDP Conformance Test Report
[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
PD	"Process Data" Part of the in [Wire] defined communication protocol used for cyclic data transmissions based on UDP protocol.
UDP-MD	"UDP Message Data" Part of the in [Wire] defined communication protocol used for event driven data transmissions based on UDP protocol.
TCP-MD	"UDP Message Data" Part of the in [Wire] defined communication protocol used for event driven data transmissions based on TCP protocol.
ETBN	Ethernet Train Backbone Node

Table 2: Abbreviations and Definitions

2. Product Definition

2.1. General Description

The TCNOpen TRDP is an open source implementation of communication profile described in [Wire] and includes compiled libraries for primary targets and source code to be used for other platforms as well as examples for reference implementation.
TCNOpen TRDP includes:

- TRDPLight (the communication protocol stack 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 SPY – a wireshark plugin to interprete TRDP telegrams

It does not yet include:

- TRDP LADDER – ladder support acc. to IEC61375-3-4
- TRDP TTI – a service to access the train topology information data base of the ETBN
- TRDP ADR – a service for IP-URI address translation
- TRDP SDT – a service for safe data transmission according to the definition in [Wire]

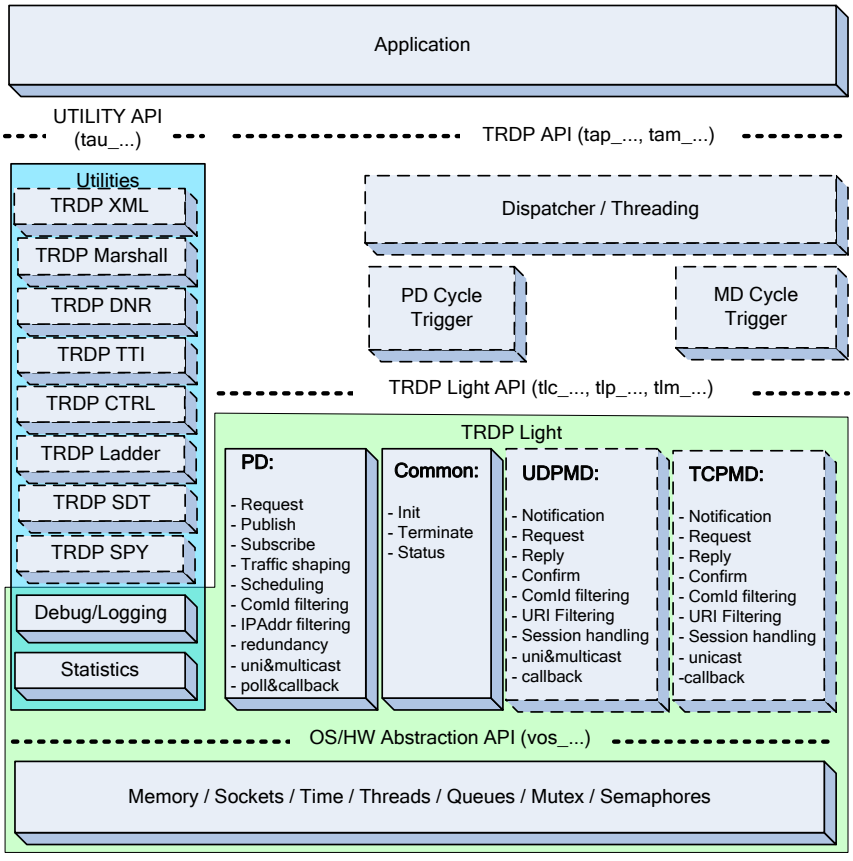

Figure 1 TRDP Modular Structure

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:

Abbreviation	Identification	Remark
TRDPLight		
TRDPMarshall		
TRDPXML		only Win32
TRDPSpy		only Win32 and Linux
TRDPCTRL		
~~TRDPLadder~~		
~~TRDPDNR~~		
~~TRDPTTI~~		
~~TRDPSDT~~		

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.

Target	Use	OS	CPU-HW
Linux PC	General	Linux 32bit	x86 comp, Power PC
Windows PC	General	Windows XP	x86 comp.
Apple MAC	General	MacOS	x86 comp.
Embedded Controller	General	VxWorks	PowerPC

Table 4: Primary Targets

2.4.2. Secondary Targets

TCNOpen TRDP is also delivered as an SDK with source code and example makefiles only. The makefiles 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 tested but have been taken care of within the source code.

Target	Use	OS	CPU-HW
Windows PC	General	Windows7 32/64	x86

Table 5: Secondary Targets

3. Delivery

3.1. Platform

Target	File	Description
Windows PC, VxWorks, Linux (Posix), MAC (Posix), QNX (Posix), Integrity (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, VxWorks, Linux (Posix), MAC (Posix), QNX (Posix), Integrity (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
Linux PC, Windows PC,		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
Linux PC, Windows PC,		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
Win32	..\spy\win32\trdp_spy.dll	Win32 Wireshark plugin
Win32	..\spy\win32\libxml2.dll	Resources for Win32 Wireshark plugin
Win32	..\spy\win32\iconv.dll	Resources for Win32 Wireshark plugin
Win32	..\spy\win32\readme.txt	Readme for Win32 Wireshark plugin

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/1.2.0.0)". 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
	posix		
	windows		
		getopt	getopt functionality for test programs
		iconv	XML Parser functionality
		libxml	XML parser functionality
		pthread	Posix threads for vos functionality
		wireshark	Wireshark win32 1.8.3
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
spy			Wireshark plugin for TRDP
	doc		Documentation
	src		Source code for wireshark plugin
	linux32		Plugin for Linux32
	win32		Plugin for Win32
test			
	diverse		Test diverse functions of the library
	laddermdtest		Test of the TRDP ladder MD functionality
	ladderpdtest		Test of the TRDP ladder MD functionality
	lint		PCLint profile for Windows
	marshalling		Test of marshalling/un-marshalling
	mdpatterns		Test of the TRDP MD patterns

DirLevel1	DirLevel2	DirLevel3	Description
	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
VisualC			VisualC 2010 configuration for TRDP library and related test examples
XCode			Xcode configuration 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\trdp_proto.h	TRDP protocol definitions
..\src\api\trdp_types.h	TRDP type definitions
..\src\api\trdp_if_light.h	TRDP light API definitions
..\src\common\trdp_if.c	TRDP light API
..\src\common\trdp_if.h	TRDP light API internal definitions
..\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
..\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

File	Description
..\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_thread.c	VOS thread and timer management functionality
..\src\vos\windows\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
..\src\vos\vxworks\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.

NOTE: This source code needs the resources iconv and libxml.

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

File	Description
..\src\api\tau_ctrl_types.h	ETB control types

Table 15: SDK Delivery Content – TRDPCTRL

3.2.5. TRDPSpy

The TRDPSpy contains the wireshark plugin for interpreting TRDP telegrams.

NOTE: The source code needs the resources iconv and libxml.

File	Description
..\spy\linux32\packet-trdp_spy.so	Linux32 Wireshark plugin
..\spy\linux32\trdp_spy.dll	Win32 Wireshark plugin
..\spy\win32\libxml2.dll	Resources for Win32 Wireshark plugin
..\spy\win32\iconv.dll	Resources for Win32 Wireshark plugin
..\spy\win32\readme.txt	Readme for Win32 Wireshark plugin
..\spy\src\ INSTALL.txt	Installation guide for Wireshark plugin SDK
..\spy\src\trdp_spy\README.txt	Build instruction
..\spy\src\trdp_spy\plugin.rc.in	
..\spy\src\trdp_spy\plugin.c	
..\spy\src\trdp_spy\parsebody.h	
..\spy\src\trdp_spy\parsebody.c	
..\spy\src\trdp_spy\packet-trdp_spy.h	
..\spy\src\trdp_spy\packet-trdp_spy.c	
..\spy\src\trdp_spy\moduleinfo.nmake	
..\spy\src\trdp_spy\moduleinfo.h	
..\spy\src\trdp_spy\Makefile.nmake	
..\spy\src\trdp_spy\Makefile.common	
..\spy\src\trdp_spy\Makefile.am	
..\spy\src\trdp_spy\Makefile	
..\spy\src\trdp_spy\CMakeLists.txt	
..\spy\src\trdp_spy\clean.bat	
..\spy\src\trdp_spy\build.sh	
..\spy\src\trdp_spy\build.bat	

Table 16: SDK Delivery Content - TRDPSpy

3.2.6. Resources

The following open source resources are needed for the below described functionality of the TRDP library are included in the delivery.

File	Description
..\resources\windows\getopt*	Windows getopt implementation for testing
..\resources\windows\iconv*	Iconv for XML configuration interpretation
..\resources\windows\libxml*	Libxml for XML configuration interpretation
..\resources\windows\pthread*	Posix thread implementation for Windows for VOS
..\resources\windows\wireshark*	Wireshark 1.8.3 for TRDP Spy

Table 17: SDK Delivery Content – Resources

3.2.7. 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\ buildsettings_posix_TEMPLATE	Makefile configuration settings
..\VisualC*	VisualC 2010 configuration files to build the 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 18: SDK Delivery Content – Build Environment

3.2.8. 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\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 19: SDK Delivery Content - Tests

3.2.9. Examples

The following example programs are included in the delivery.

File	Description
..\example\example.xml	TRDP example configuration
..\example\echoPolling.c	PD polling example
..\example\echoSelect.c	PD select example
..\example\echoSelectCmdLine.c	PD select example
..\example mdManager.c	UDP MD example
..\example\mdManagerTCP.c	TCP MD example
..\example\receiveHello.c	PD receive example
..\example\sendHello.c	PD send example
..\example\ladder\ladderApplication.c	Ladder application example

Table 20: SDK Delivery Content - Examples

3.3. Documentation

The following documents are related to the delivered product and part of the delivery.

#	Document	Revision	Identification
1	TRDP Coding Rules	07	TCN-TRDP1-A-BOM-008
2	TRDP System Requirement Specification	10	TCN-TRDP1-D-BOM-003
3	TRDP Architecture & Design Specification	06	TCN-TRDP2-D-BOM-019
4	TRDP Conformance Test Specification	02	TCN-TRDP2-D-BOM-031
5	TRDP Conformance Test Report	02	TCN-TRDP2-D-BOM-032
6	TRDP User's Manual	21	TCN-TRDP2-D-BOM-011
7	TRDP Reference Manual	02	TCN-TRDP2-D-BOM-033

Table 21: SDK Delivery Content - Documentation

3.4. Restrictions

None

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 1.2.0.0.zip" into your development work area.
2. Check the files in src/vos for targets which fits your target
3. Edit the Makefile by adding or changing your configuration.
4. For windows environments, open the VisualC/Win32TRDP_VS2010.sln file with MS Visual Studio 2010.

.

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

5. How to use

5.1. Posix (Linux, MAC, QNX, Integrity)

Adapt the delivered configuration for the makefile and compile the TRDP library.

5.2. VxWorks

Adapt the delivered configuration for the makefile and compile the TRDP library.

5.3. Windows

Adapt and use the delivered VisualC 2010 configuration and compile the TRDP library.

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
#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 In 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 escriptor escriptor

TICKET #	Description
#44	Reception of its own sending multicast packets
#45	“validity-behavior” tag spelling
#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 22: Corrected Errors TRDPLight

6.1.2. 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 23: New or enhanced functions TRDPLight

6.1.3. 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 interface
#1	PD/MD: For performance reasons a unjoin shall be done after un-subscribing (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.
#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)

Table 24: Known Errors TRDPLight

6.1.4. Compatibility to Earlier Releases

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

6.2. TRDPMarshall

6.2.1. 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 25: Corrected Errors TRDPMarshall

6.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 26: New or enhanced functions TRDPMarshall

6.2.3. Known Errors

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

Table 27: Known Errors TRDPMarshall

6.2.4. Compatibility to Earlier Releases

Incompatible to earlier releases.

6.3. TRDPXML

6.3.1. 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 28: Corrected Errors TRDPXML

6.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 29: New or enhanced functions TRDPXML

6.3.3. Known Errors

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

Table 30: Known Errors TRDPXML

6.3.4. Compatibility to Earlier Releases

Incompatible to earlier releases.

6.4. TRDPCTRL

6.4.1. Corrected Errors

Ticket #	Description
None	

Table 31: Corrected Errors TRDPCTRL

6.4.2. New or Enhanced Functions

Ticket #	Description
None	

Table 32: New or enhanced functions TRDPCTRL

6.4.3. Known Errors

Ticket #	Description
None	

Table 33: Known Errors TRDPCTRL

6.4.4. Compatibility to Earlier Releases

First release.

6.5. TRDPSpy

6.5.1. 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 34: Corrected Errors TRDPSpy

6.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 35: New or enhanced functions TRDPSpy

6.5.3. Known Errors

Ticket #	Description
None	

Table 36: Known Errors TRDPSpy

6.5.4. Compatibility to Earlier Releases

Incompatible to earlier releases.due to #52.

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 37: 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 38: 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-

Ticket #	Description
	subscribing.
#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.

Table 39: Known Errors TRDPLight

7.1.4. Compatibility to Earlier Releases

Compatible to earlier releases.

7.2. TRDPMarshall

7.2.1. Corrected Errors

Ticket #	Description
XLS #137	The size of Dataset obtained with tau_calcDatasetSizeByComId() is wrong.
XLS #138	The size of Dataset unmarshlled with tau_unmarshall() does not return to the same size as before marshalling.
XLS #139	A part of Dataset is missing after marshalling with tau_marshall().

Table 40: Corrected Errors TRDPMarshall

7.2.2. New or Enhanced Functions

Ticket #	Description
None	

Table 41: New or enhanced functions TRDPMarshall

7.2.3. Known Errors

Ticket #	Description
None	

Table 42: Known Errors TRDPMarshall

7.2.4. Compatibility to Earlier Releases

Compatible to earlier releases.

7.3. TRDPXML

7.3.1. Corrected Errors

Ticket #	Description
None	

Table 43: Corrected Errors TRDPXML

7.3.2. New or Enhanced Functions

Ticket #	Description
None	

Table 44: New or enhanced functions TRDPXML

7.3.3. Known Errors

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

Table 45: 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 46: Corrected Errors TRDPSpy

7.5.2. New or Enhanced Functions

Ticket #	Description
None	

Table 47: New or enhanced functions TRDPSpy

7.5.3. Known Errors

Ticket #	Description
#4 (XLS #141)	TRDPSPY: Incorrect visualisation of data packets > 1MTU

Table 48: Known Errors TRDPSpy

8. Problem reporting

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