

**Methods for Testing and Specification (MTS);
The Testing and Test Control Notation version 3;
Part 6: TTCN-3 Control Interface (TCI)**

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/28b37075-2964-4e3f-ad54-997631e8189e/etsi-es-201-873-6-v3.4.1-2008-09>



Reference

RES/MTS-00108-6 T3 ed341 TCI

Keywordscontrol, interface, MTS, TCI,
testing, TTCN**ETSI**650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2008.
All rights reserved.

DECT™, PLUGTESTS™, UMTS™, TIPHON™, the TIPHON logo and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.

3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights	12
Foreword.....	12
1 Scope	13
2 References	13
2.1 Normative references	13
2.2 Informative references.....	14
3 Definitions and abbreviations.....	14
3.1 Definitions.....	14
3.2 Abbreviations	15
4 Introduction	15
5 Compliance.....	16
6 General structure of a TTCN-3 test system.....	16
6.1 Entities in a TTCN-3 test system.....	16
6.1.1 Test Management and Control (TMC).....	18
6.1.1.1 Test Management (TM)	18
6.1.1.2 Coding and Decoding (CD)	18
6.1.1.3 Component Handling (CH)	18
6.1.1.4 Test Logging (TL).....	20
6.1.2 TTCN-3 Executable (TE)	20
6.1.3 SUT Adaptor (SA).....	20
6.1.4 Platform Adaptor (PA).....	20
6.2 Execution requirements for a TTCN-3 test system.....	20
7 TTCN-3 control interface and operations.....	20
7.1 Overview of the TCI.....	20
7.1.1 Correlation between TTCN-3 and TCI operation invocations.....	21
7.2 TCI data.....	22
7.2.1 General abstract data types	22
7.2.1.1 Management.....	22
7.2.1.2 Communication.....	23
7.2.2 Abstract TTCN-3 data types and values	23
7.2.2.1 Abstract TTCN-3 data types	24
7.2.2.2 Abstract TTCN-3 values	25
7.2.2.2.1 The abstract data type Value	26
7.2.2.2.2 The abstract data type IntegerValue	26
7.2.2.2.3 The abstract data type FloatValue	26
7.2.2.2.4 The abstract data type BooleanValue	26
7.2.2.2.5 The abstract data type ObjidValue	26
7.2.2.2.6 The abstract data type CharstringValue	27
7.2.2.2.7 The abstract data type UniversalCharstringValue.....	27
7.2.2.2.8 The abstract data type BitstringValue.....	28
7.2.2.2.9 The abstract data type OctetstringValue.....	28
7.2.2.2.10 The abstract data type HexstringValue.....	29
7.2.2.2.11 The abstract data type RecordValue.....	29
7.2.2.2.12 The abstract data type RecordOfValue	30
7.2.2.2.13 The abstract data type UnionValue	30
7.2.2.2.14 The abstract data type EnumeratedValue	31
7.2.2.2.15 The abstract data type VerdictValue	31
7.2.2.2.16 The abstract data type AddressValue	31
7.2.3 Abstract logging types	32
7.2.3.1 The abstract data type TciValueTemplate.....	32
7.2.3.2 The abstract data type TciNonValueTemplate	32

7.2.3.3	The Value List and Mismatch Types	32
7.2.3.4	The Status Types	33
7.3	TCI operations	33
7.3.1	The TCI-TM interface	34
7.3.1.1	TCI-TM required.....	34
7.3.1.1.1	tciRootModule.....	34
7.3.1.1.2	tciGetImportedModules.....	35
7.3.1.1.3	tciGetModuleParameters	35
7.3.1.1.4	tciGetTestCases	35
7.3.1.1.5	tciGetTestCaseParameters	35
7.3.1.1.6	tciGetTestCaseTSI.....	35
7.3.1.1.7	tciStartTestCase	36
7.3.1.1.8	tciStopTestCase	36
7.3.1.1.9	tciStartControl	36
7.3.1.1.10	tciStopControl	36
7.3.1.2	TCI-TM provided.....	36
7.3.1.2.1	tciTestCaseStarted	37
7.3.1.2.2	tciTestCaseTerminated	37
7.3.1.2.3	tciControlTerminated	37
7.3.1.2.4	tciGetModulePar.....	37
7.3.1.2.5	tciError.....	38
7.3.2	The TCI-CD interface	38
7.3.2.1	TCI-CD required	38
7.3.2.1.1	getTypeForName	39
7.3.2.1.2	getInteger	39
7.3.2.1.3	getFloat	39
7.3.2.1.4	getBoolean.....	39
7.3.2.1.5	getObjid	39
7.3.2.1.6	getCharstring	39
7.3.2.1.7	getUniversalCharstring	40
7.3.2.1.8	getHexstring	40
7.3.2.1.9	getBitstring	40
7.3.2.1.10	getOctetstring	40
7.3.2.1.11	getVerdict	40
7.3.2.1.12	tciErrorReq	40
7.3.2.2	TCI-CD provided	40
7.3.2.2.1	decode.....	41
7.3.2.2.2	encode.....	41
7.3.3	The TCI-CH interface	41
7.3.3.1	TCI-CH required	42
7.3.3.1.1	tciEnqueueMsgConnected	42
7.3.3.1.2	tciEnqueueCallConnected	42
7.3.3.1.3	tciEnqueueReplyConnected.....	43
7.3.3.1.4	tciEnqueueRaiseConnected	43
7.3.3.1.5	tciCreateTestComponent	43
7.3.3.1.6	tciStartTestComponent	44
7.3.3.1.7	tciStopTestComponent	44
7.3.3.1.8	tciConnect.....	44
7.3.3.1.9	tciDisconnect	44
7.3.3.1.10	tciMap.....	45
7.3.3.1.11	tciUnmap	45
7.3.3.1.12	tciTestComponentTerminated	45
7.3.3.1.13	tciTestComponentRunning.....	45
7.3.3.1.14	tciTestComponentDone	45
7.3.3.1.15	tciGetMTC.....	46
7.3.3.1.16	tciExecuteTestCase.....	46
7.3.3.1.17	tciReset	46
7.3.3.1.18	tciKillTestComponent	46
7.3.3.1.19	tciTestComponentAlive.....	46
7.3.3.1.20	tciTestComponentKilled.....	47
7.3.3.2	TCI-CH provided	47
7.3.3.2.1	tciSendConnected	47

7.3.3.2.2	tciSendConnectedBC	47
7.3.3.2.3	tciSendConnectedMC	47
7.3.3.2.4	tciCallConnected	48
7.3.3.2.5	tciCallConnectedBC	48
7.3.3.2.6	tciCallConnectedMC	49
7.3.3.2.7	tciReplyConnected	49
7.3.3.2.8	tciReplyConnectedBC	50
7.3.3.2.9	tciReplyConnectedMC	50
7.3.3.2.10	tciRaiseConnected	51
7.3.3.2.11	tciRaiseConnectedBC	51
7.3.3.2.12	tciRaiseConnectedMC	51
7.3.3.2.13	tciCreateTestComponentReq	52
7.3.3.2.14	tciStartTestComponentReq	52
7.3.3.2.15	tciStopTestComponentReq	52
7.3.3.2.16	tciConnectReq	52
7.3.3.2.17	tciDisconnectReq	53
7.3.3.2.18	tciMapReq	53
7.3.3.2.19	tciUnmapReq	53
7.3.3.2.20	tciTestComponentTerminatedReq	53
7.3.3.2.21	tciTestComponentRunningReq	53
7.3.3.2.22	tciTestComponentDoneReq	54
7.3.3.2.23	tciGetMTCReq	54
7.3.3.2.24	tciExecuteTestCaseReq	54
7.3.3.2.25	tciResetReq	54
7.3.3.2.26	tciKillTestComponentReq	54
7.3.3.2.27	tciTestComponentAliveReq	55
7.3.3.2.28	tciTestComponentKilledReq	55
7.3.4	The TCI-TL interface	55
7.3.4.1	TCI-TL provided	55
7.3.4.1.1	tliTcExecute	56
7.3.4.1.2	tliTcStart	56
7.3.4.1.3	tliTcStop	56
7.3.4.1.4	tliTcStarted	57
7.3.4.1.5	tliTcTerminated	57
7.3.4.1.6	tliCtrlStart	57
7.3.4.1.7	tliCtrlStop	58
7.3.4.1.8	tliCtrlTerminated	58
7.3.4.1.9	tliMSend_m	58
7.3.4.1.10	tliMSend_m_BC	59
7.3.4.1.11	tliMSend_m_MC	59
7.3.4.1.12	tliMSend_c	60
7.3.4.1.13	tliMSend_c_BC	60
7.3.4.1.14	tliMSend_c_MC	60
7.3.4.1.15	tliMDetected_m	61
7.3.4.1.16	tliMDetected_c	61
7.3.4.1.17	tliMMismatch_m	62
7.3.4.1.18	tliMMismatch_c	62
7.3.4.1.19	tliMReceive_m	63
7.3.4.1.20	tliMReceive_c	63
7.3.4.1.21	tliPrCall_m	64
7.3.4.1.22	tliPrCall_m_BC	64
7.3.4.1.23	tliPrCall_m_MC	65
7.3.4.1.24	tliPrCall_c	65
7.3.4.1.25	tliPrCall_c_BC	66
7.3.4.1.26	tliPrCall_c_MC	66
7.3.4.1.27	tliPrGetCallDetected_m	67
7.3.4.1.28	tliPrGetCallDetected_c	67
7.3.4.1.29	tliPrGetCallMismatch_m	68
7.3.4.1.30	tliPrGetCallMismatch_c	68
7.3.4.1.31	tliPrGetCall_m	69
7.3.4.1.32	tliPrGetCall_c	69
7.3.4.1.33	tliPrReply_m	70

7.3.4.1.34	tliPrReply_m_BC	70
7.3.4.1.35	tliPrReply_m_MC	71
7.3.4.1.36	tliPrReply_c	71
7.3.4.1.37	tliPrReply_c_BC	72
7.3.4.1.38	tliPrReply_c_MC	72
7.3.4.1.39	tliPrGetReplyDetected_m	73
7.3.4.1.40	tliPrGetReplyDetected_c	73
7.3.4.1.41	tliPrGetReplyMismatch_m	74
7.3.4.1.42	tliPrGetReplyMismatch_c	74
7.3.4.1.43	tliPrGetReply_m	75
7.3.4.1.44	tliPrGetReply_c	75
7.3.4.1.45	tliPrRaise_m	76
7.3.4.1.46	tliPrRaise_m_BC	76
7.3.4.1.47	tliPrRaise_m_MC	77
7.3.4.1.48	tliPrRaise_c	77
7.3.4.1.49	tliPrRaise_c_BC	78
7.3.4.1.50	tliPrRaise_c_MC	78
7.3.4.1.51	tliPrCatchDetected_m	79
7.3.4.1.52	tliPrCatchDetected_c	79
7.3.4.1.53	tliPrCatchMismatch_m	80
7.3.4.1.54	tliPrCatchMismatch_c	80
7.3.4.1.55	tliPrCatch m	81
7.3.4.1.56	tliPrCatch c	81
7.3.4.1.57	tliPrCatchTimeoutDetected	82
7.3.4.1.58	tliPrCatchTimeout	82
7.3.4.1.59	tliCCreate	82
7.3.4.1.60	tliCStart	83
7.3.4.1.61	tliCRunning	83
7.3.4.1.62	tliCAlive	83
7.3.4.1.63	tliCStop	84
7.3.4.1.64	tliCKill	84
7.3.4.1.65	tliCDoneMismatch	84
7.3.4.1.66	tliCDone	85
7.3.4.1.67	tliCKilledMismatch	85
7.3.4.1.68	tliCKilled	85
7.3.4.1.69	tliCTerminated	86
7.3.4.1.70	tliPConnect	86
7.3.4.1.71	tliPDisconnect	86
7.3.4.1.72	tliPMap	87
7.3.4.1.73	tliPUnmap	87
7.3.4.1.74	tliPClear	87
7.3.4.1.75	tliPStart	88
7.3.4.1.76	tliPStop	88
7.3.4.1.77	tliPHalt	88
7.3.4.1.78	tliEncode	89
7.3.4.1.79	tliDecode	89
7.3.4.1.80	tliTTimeoutDetected	89
7.3.4.1.81	tliTTimeoutMismatch	90
7.3.4.1.82	tliTTimeout	90
7.3.4.1.83	tliTStart	90
7.3.4.1.84	tliTStop	91
7.3.4.1.85	tliTRead	91
7.3.4.1.86	tliTRunning	91
7.3.4.1.87	tliSEnter	92
7.3.4.1.88	tliSLeave	92
7.3.4.1.89	tliVar	92
7.3.4.1.90	tliModulePar	93
7.3.4.1.91	tliGetVerdict	93
7.3.4.1.92	tliSetVerdict	93
7.3.4.1.93	tliLog	94
7.3.4.1.94	tliAEnter	94
7.3.4.1.95	tliALeave	94

7.3.4.1.96	tliANomatch	94
7.3.4.1.97	tliARepeat	95
7.3.4.1.98	tliADefaults	95
7.3.4.1.99	tliAActivate	95
7.3.4.1.100	tliADeactivate	96
7.3.4.1.101	tliAWait	96
7.3.4.1.102	tliAction	96
7.3.4.1.103	tliMatch	96
7.3.4.1.104	tliMatchMismatch	97
7.3.4.1.105	tliInfo	97
8	Java language mapping	97
8.1	Introduction	97
8.2	Names and scopes	98
8.2.1	Names	98
8.2.2	Scopes	98
8.2.2.1	TciParameterType	99
8.2.2.2	TciParameterPassingModeType	99
8.2.2.3	TciParameterListType	100
8.2.2.4	TciTypeClassType	100
8.2.2.5	TciTestComponentKindType	101
8.2.2.6	TciBehaviourIdType	101
8.2.2.7	TciTestCaseIdType	101
8.2.2.8	TciModuleIdType	101
8.2.2.9	TciModuleParameterIdType	101
8.2.2.10	TciModuleParameterListType	101
8.2.2.11	TciModuleParameterType	102
8.2.2.12	TciParameterTypeListType	102
8.2.2.13	TciModuleIdListType	102
8.2.3	Abstract type mapping	103
8.2.3.1	Type	103
8.2.4	Abstract value mapping	103
8.2.4.1	Value	104
8.2.4.2	IntegerValue	104
8.2.4.3	FloatValue	104
8.2.4.4	BooleanValue	105
8.2.4.5	ObjidValue	105
8.2.4.6	TciObjId	105
8.2.4.7	TciObjIdElement	105
8.2.4.8	CharstringValue	106
8.2.4.9	BitstringValue	106
8.2.4.10	OctetstringValue	107
8.2.4.11	UniversalCharstringValue	108
8.2.4.12	HexstringValue	108
8.2.4.13	RecordValue	109
8.2.4.14	RecordOfValue	110
8.2.4.15	UnionValue	110
8.2.4.16	EnumeratedValue	111
8.2.4.17	VerdictValue	111
8.2.4.18	AddressValue	112
8.2.5	Abstract logging types mapping	112
8.2.5.1	TciValueTemplate	112
8.2.5.2	TciNonValueTemplate	112
8.2.5.3	TciValueList	113
8.2.5.4	TciValueDifference	113
8.2.5.5	TciValueDifferenceList	113
8.3	Constants	114
8.4	Mapping of interfaces	115
8.4.1	The TCI-TM interface	115
8.4.1.1	TCI-TM provided	115
8.4.1.2	TCI-TM required	115
8.4.2	The TCI-CD interface	116

8.4.2.1	TCI-CD provided	116
8.4.2.2	TCI-CD required	116
8.4.3	The TCI-CH interface	116
8.4.3.1	TCI-CH provided	116
8.4.3.2	TCI-CH required	117
8.4.4	The TCI-TL interface.....	118
8.4.4.1	TCI-TL provided.....	118
8.5	Optional parameters	122
8.6	TCI initialization	122
8.7	Error handling	122
9	ANSI C language mapping.....	122
9.1	Introduction	122
9.2	Value interfaces.....	122
9.3	Logging interface	126
9.4	Operation interfaces	126
9.4.1	The TCI-TM interface	126
9.4.1.1	TCI-TM provided.....	126
9.4.1.2	TCI-TM required.....	127
9.4.2	The TCI-CD interface	127
9.4.2.1	TCI-CD provided	127
9.4.2.2	TCI-CD required	127
9.4.3	The TCI-CH interface.....	127
9.4.3.1	TCI-CH provided	127
9.4.3.2	TCI-CH required	128
9.4.4	The TCI-TL interface.....	128
9.4.4.1	TCI-TL provided.....	128
9.5	Data	133
9.6	Miscellaneous.....	134
10	W3C XML mapping.....	135
10.1	Introduction	135
10.2	Scopes	135
10.3	Type mapping.....	135
10.3.1	Mapping of simple types.....	135
10.3.1.1	TBoolean.....	135
10.3.1.2	TString	135
10.3.1.3	TInteger.....	135
10.3.1.4	TriTimerDurationType.....	135
10.3.1.5	TciParameterPassingModeType.....	135
10.3.1.6	TriStatusType.....	136
10.3.1.7	TciStatusType	136
10.3.1.8	ComponentStatusType	136
10.3.1.9	TimerStatusType.....	136
10.3.1.10	PortStatusType.....	136
10.3.2	Complex type mapping	136
10.3.2.1	TriPortIdType.....	136
10.3.2.2	TriComponentIdType.....	136
10.3.2.3	TriComponentIdListType	137
10.3.2.4	Port.....	137
10.3.2.5	Id	137
10.3.2.6	TriMessageType.....	138
10.3.2.7	TriParameterType	138
10.3.2.8	TriParameterListType	138
10.3.2.9	TriAddressType	139
10.3.2.10	TriAddressListType	139
10.3.2.11	TriExceptionType	139
10.3.2.12	TriSignatureIdType.....	139
10.3.2.13	TriTimerIdType	140
10.3.2.14	TriTimerDurationType.....	140
10.3.2.15	QualifiedName	140
10.3.2.16	TciBehaviourIdType	140

10.3.2.17	TciTestCaseIdType	141
10.3.2.18	TciParameterType	141
10.3.2.19	TciParameterListType	141
10.3.3	Abstract value mapping	142
10.3.3.1	Value	142
10.3.3.2	IntegerValue	143
10.3.3.3	FloatValue	143
10.3.3.4	BooleanValue	144
10.3.3.5	ObjidValue	144
10.3.3.6	VerdictValue	144
10.3.3.7	BitstringValue	145
10.3.3.8	HexstringValue	145
10.3.3.9	OctetstringValue	145
10.3.3.10	CharstringValue	146
10.3.3.11	UniversalCharstringValue	146
10.3.3.12	RecordValue	147
10.3.3.13	RecordOfValue	148
10.3.3.14	SetValue	149
10.3.3.15	SetOfValue	150
10.3.3.16	EnumeratedValue	152
10.3.3.17	Union Value	152
10.3.3.18	AnytypeValue	153
10.3.3.19	AddressValue	154
10.3.4	Abstract logging types mapping	155
10.3.4.1	TciValueTemplate	155
10.3.4.2	TciNonValueTemplate	156
10.3.4.3	TciValueList	157
10.3.4.4	TciValueDifference	157
10.3.4.5	TciValueDifferenceList	157
10.4	Mapping of the operations on the logging interface	158
10.4.1	Event	158
10.4.2	The TCI-TL interface	158
10.4.2.1	TCI-TL provided	158
11	Use scenarios	177
11.1	Initialization, collecting information, logging	177
11.1.1	Use scenario: initialization	177
11.1.1.1	Sequence diagram	177
11.1.1.2	TTCN-3 fragment	178
11.1.2	Use scenario: requesting module parameters	178
11.1.2.1	Sequence diagram	178
11.1.2.2	TTCN-3 fragment	178
11.1.3	Use scenario: logging	178
11.1.3.1	Sequence diagram	179
11.1.3.2	TTCN-3 fragment	179
11.2	Execution of test cases and control	179
11.2.1	Use scenario: execution of control	179
11.2.1.1	Sequence diagram	179
11.2.1.2	TTCN-3 fragment	180
11.2.2	Use scenario: test case execution within control	180
11.2.2.1	Sequence diagram	180
11.2.2.2	TTCN-3 fragment	180
11.2.3	Use scenario: direct test case execution	180
11.2.3.1	Sequence diagram	181
11.2.3.2	TTCN-3 fragment	181
11.2.4	Use scenario: execute test case to TRI	181
11.2.4.1	Sequence diagram	181
11.2.4.2	TTCN-3 fragment	182
11.3	Component handling	182
11.3.1	Use scenario: local control component creation	182
11.3.1.1	Sequence diagram	182
11.3.1.2	TTCN-3 fragment	183

11.3.2	Use scenario: remote control component creation	183
11.3.2.1	Sequence diagram	183
11.3.2.2	TTCN-3 fragment	183
11.3.3	Use scenario: local MTC creation.....	184
11.3.3.1	Sequence diagram	184
11.3.3.2	TTCN-3 fragment	184
11.3.4	Use scenario: remote MTC creation	184
11.3.4.1	Sequence diagram	185
11.3.4.2	TTCN-3 fragment	185
11.3.5	Use scenario: component handling for test case execution within control	185
11.3.5.1	Sequence diagram	186
11.3.5.2	TTCN-3 fragment	186
11.3.6	Use scenario: component handling for direct test case execution.....	187
11.3.6.1	Sequence diagram	187
11.3.6.2	TTCN-3 fragment	188
11.3.7	Use scenario: propagation of map/connect	188
11.3.7.1	Sequence diagram	188
11.3.7.2	TTCN-3 fragment	188
11.3.8	Use scenario: propagation of unmap/disconnect.....	189
11.3.8.1	Sequence diagram	189
11.3.8.2	TTCN-3 fragment	189
11.4	Termination of test cases and control.....	189
11.4.1	Use scenario: stop a test case	189
11.4.1.1	Sequence diagram	190
11.4.1.2	TTCN-3 fragment	190
11.4.2	Use scenario: stop control.....	190
11.4.2.1	Sequence diagram	191
11.4.2.2	TTCN-3 fragment	191
11.4.3	Use scenario: termination of control after error.....	191
11.4.3.1	Sequence diagram	192
11.4.3.2	TTCN-3 fragment	192
11.4.4	Use scenario: termination of a test case after error.....	192
11.4.4.1	Sequence diagram	193
11.4.4.2	TTCN-3 fragment	194
11.4.5	Use scenario: reset	194
11.4.5.1	Sequence diagram	194
11.4.5.2	TTCN-3 fragment	194
11.5	Communication	194
11.5.1	Use scenario: local intercomponent communication	194
11.5.1.1	Sequence diagram	195
11.5.1.2	TTCN-3 fragment	195
11.5.2	Use scenario: internode communication between test components	195
11.5.2.1	Sequence diagram	196
11.5.2.2	TTCN-3 fragment	196
11.5.3	Use scenario: encoding	196
11.5.3.1	Sequence diagram	197
11.5.3.2	TTCN-3 fragment	197
11.5.4	Use scenario: decoding	197
11.5.4.1	Sequence diagram	198
11.5.4.2	TTCN-3 fragment	198
Annex A (normative):	IDL Specification of TCI.....	199
Annex B (normative):	XML Mapping for TCI TL Provided.....	215
B.1	TCI-TL XML Schema for Simple Types	215
B.2	TCI-TL XML Schema for Types	216
B.3	TCI-TL XML Schema for Values	218
B.4	TCI-TL XML Schema for Templates	223
B.5	TCI-TL XML Schema for Events	229

B.6 TCI-TL XML Schema for a Log.....	248
Annex C (informative): Bibliography.....	252
History	253

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Full standard:
<https://standards.iteh.ai/catalog/standards/sist/2fb37075-2964-4c3f-ad54-997631e8189e/etsi-es-201-873-6-v3.4.1-2008-09>

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://webapp.etsi.org/IPR/home.asp>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Methods for Testing and Specification (MTS), and is now submitted for the ETSI standards Membership Approval Procedure.

The present document is part 6 of a multi-part deliverable. Full details of the entire series can be found in part 1 [1].

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/2b37075-2964-4c3f-ad54-997631e8189e/etsi-es-201-873-6-v3.4.1-2008-09>

1 Scope

The present document specifies the control interfaces for TTCN-3 test system implementations. The TTCN-3 Control Interfaces provide a standardized adaptation for management, test component handling and encoding/decoding of a test system to a particular test platform. The present document defines the interfaces as a set of operations independent of a target language.

The interfaces are defined to be compatible with the TTCN-3 standard (see clause 2). The interface definition uses the CORBA Interface Definition Language (IDL) to specify the TCI completely. Clauses 8 and 9 present language mappings for this abstract specification to the target languages Java and ANSI C. A summary of the IDL-based interface specification is provided in annex A.

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
- Non-specific reference may be made only to a complete document or a part thereof and only in the following cases:
 - if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
 - for informative references.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

For online referenced documents, information sufficient to identify and locate the source shall be provided. Preferably, the primary source of the referenced document should be cited, in order to ensure traceability. Furthermore, the reference should, as far as possible, remain valid for the expected life of the document. The reference shall include the method of access to the referenced document and the full network address, with the same punctuation and use of upper case and lower case letters.

NOTE: While any hyperlinks included in this clause were valid at the time of publication ETSI cannot guarantee their long term validity.

2.1 Normative references

The following referenced documents are indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

- [1] ETSI ES 201 873-1: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 1: TTCN-3 Core Language".
- [2] ETSI ES 201 873-4: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 4: TTCN-3 Operational Semantics".
- [3] ETSI ES 201 873-5: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 5: TTCN-3 Runtime Interface (TRI)".
- [4] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [5] W3C Recommendation: "XML Schema Part 0: Primer".

NOTE: See at <http://www.w3.org/TR/2004/REC-xmlschema-0-20041028/>.