

TCI /TRI Quick Reference Card

- PDF has links to TTCN-3 online Standards and browseable API -

For TTCN-3 V4.13.1 (edition 2021).

Designed and edited by [Axel Rennoch](#) and [Claude Desroches](#)

Contents	
1) TTCN-3 Control interface (CD)	
A.1	TCI-CD interface 2
B.1	JAVA mapping 2
2) TTCN-3 Runtime interface	
A.2a	triPlatform interface 4
A.2b	triCommunication interface 4
B.2	JAVA mapping 5
3) TTCN-3 Logging interface (TLI)	
A.3	TCI-TL interface 6
B.3	TCI-TL types (W3C XML mapping) 7
TCI/TRI interface overview 8	

Document overview:

- [1] [ES 201 873-1](#) (2021-08) TTCN-3 part 1 (V4.13.1): **Core Language (CL)** [\[ITU-T Z.161\]](#)
- [2] [ES 201 873-2](#) (2007-02) TTCN-3 part 2 (V3.2.1): **Tabular Presentation format (TFT)** (historical - not maintained!) [\[ITU-T Z.162\]](#)
- [3] [ES 201 873-3](#) (2007-02) TTCN-3 part 3 (V3.2.1): **Graphical Presentation format (GFT)** [\[ITU-T Z.163\]](#)
- [4] [ES 201 873-4](#) (2017-05) TTCN-3 part 4 (V4.6.1): **Operational Semantics (OS)** [\[ITU-T Z.164\]](#)
- [5] [ES 201 873-5](#) (2017-05) TTCN-3 part 5 (V4.8.1): **TTCN-3 Runtime Interface (TRI)** [\[ITU-T Z.165\]](#)
- [6] [ES 201 873-6](#) (2020-05) TTCN-3 part 6 (V4.12.1): **TTCN-3 Control Interface (TCI)** [\[ITU-T Z.166\]](#)
- [7] [ES 201 873-7](#) (2021-05) TTCN-3 part 7 (V4.9.1): **Using ASN.1 with TTCN-3** [\[ITU-T Z.167\]](#)
- [8] [ES 201 873-8](#) (2021-06) TTCN-3 part 8 (V4.8.1): **The IDL to TTCN-3 Mapping** [\[ITU-T Z.168\]](#)
- [9] [ES 201 873-9](#) (2021-06) TTCN-3 part 9 (V4.12.1): **Using XML schema with TTCN-3** [\[ITU-T Z.169\]](#)
- [10] [ES 201 873-10](#) (2013-04) TTCN-3 part 10 (V4.5.1): **TTCN-3 Documentation Comment Specification** [\[ITU-T Z.170\]](#)
- [11] [ES 201 873-11](#) (2021-06) TTCN-3 part 11 (V4.9.1): **Using JSON with TTCN-3** [\[ITU-T Z.171\]](#)
- [12] [ES 202 781](#) (2021-06) TTCN-3 Language Extensions (V1.8.1): **Configuration and Deployment Support** [\[ITU-T Z.161.2\]](#)
- [13] [ES 202 782](#) (2015-06) TTCN-3 Language Extensions (V1.3.1): **TTCN-3 Performance and Real Time Testing** [\[ITU-T Z.161.5\]](#)
- [14] [ES 202 784](#) (2021-06) TTCN-3 Language Extensions (V1.8.1): **Advanced Parameterization** [\[ITU-T Z.161.3\]](#)
- [15] [ES 202 785](#) (2021-06) TTCN-3 Language Extensions (V1.8.1): **Behaviour Types** [\[ITU-T Z.161.4\]](#)
- [16] [ES 202 786](#) (2017-05) TTCN-3 Language Extensions (V1.4.1): **Support of interfaces with continuous signals** [\[ITU-T Z.161.1\]](#)
- [17] [ES 202 789](#) (2020-05) TTCN-3 Language Extensions (V1.5.1): **Extended TRI** [\[ITU-T Z.165.1\]](#)
- [18] [ES 203 022](#) (2020-05) TTCN-3 Language Extensions (V1.4.1): **Advanced Matching** [\[ITU-T Z.161.6\]](#)
- [19] [ES 203 790](#) (2021-05) TTCN-3 Language Extensions (V1.3.1): **Object-Oriented Features** [\[ITU-T Z.161.7\]](#)
- [20] [TS 102 995](#) (2010-11) **Proforma for TTCN-3 reference test suite** (V1.1.1)

A.1 TCI-CD INTERFACE

RESULT	OPERATION	PARAMETERS	NOTES	§ [6]
Value	<i>decode</i>	(in TriMessageType <i>message</i> , in Type <i>decodingHypothesis</i>)	TCI-CD provided	7.3.2.2.1
TriMessageType	<i>encode</i>	(in Value <i>value</i>)		7.3.2.2.2
TInteger	<i>decodeValue</i>	(in TriMessageType <i>message</i> , in Type <i>decodingHypothesis</i> in TString <i>encodingInfo</i> , out Value <i>decodedValue</i>)		7.3.2.2.3
TriMessageType	<i>encodeValue</i>	(in Value <i>value</i> , in TString <i>encodingInfo</i>)		7.3.2.2.4
Type	<i>getTypeForName</i>	(in TString <i>typeName</i>)	TCI-CD required	7.3.2.1.1
Type	<i>getInteger</i>	()		7.3.2.1.2
Type	<i>getFloat</i>	()		7.3.2.1.3
Type	<i>getBoolean</i>	()		7.3.2.1.4
Type	<i>getCharstring</i>	()		7.3.2.1.6
Type	<i>getUniversalCharstring</i>	()		7.3.2.1.7
Type	<i>getHexstring</i>	()		7.3.2.1.8
Type	<i>getBitstring</i>	()		7.3.2.1.9
Type	<i>getOctetstring</i>	()		7.3.2.1.10
Type	<i>getVerdict</i>	()		7.3.2.1.11
void	<i>tciErrorReq</i>	(in TString <i>message</i>)		7.3.2.1.12

B.1 JAVA MAPPING (package org.etsi.ttcn.tci)

IDL (java interface)	METHODS	NOTES	§ [6]
public interface Type	public TciModuleId getDefiningModule (); public String getName (); public int getTypeClass (); public Value newInstance (); public String getTypeEncoding (); public String getTypeEncodingVariant(); public String[] getEncodeAttributes(); public String[] getVariantAttributes (String <i>encoding</i>); public String[] getTypeExtension(); public Value parseValue (String <i>val</i>); public MatchingMechanism newTemplate (int <i>matchingType</i>); public RangeBoundary getLowerTypeBoundary(); public RangeBoundary getUpperTypeBoundary(); public LengthRestriction getTypeLengthRestriction(); public MatchingMechanism getTypeMatchingMechanism();		8.3.3.1
public interface Value	public Type getType(); public boolean notPresent(); public String getValueEncoding(); public String getValueEncodingVariant(); public String[] getEncodeAttributes(); public String[] getVariantAttributes (String <i>encoding</i>); public boolean isMatchingSymbol(); public String valueToString (); public boolean isLazy(); public boolean isFuzzy(); public boolean isEvaluated(); public LengthRestriction getLengthRestriction (); public LengthRestriction newLengthRestriction (); public void setLengthRestriction (LengthRestriction <i>restriction</i>); public boolean isIfPresentEnabled (); public void setIfPresentEnabled (boolean <i>enabled</i>); public boolean isOptional();		8.3.4.1
public interface IntegerValue	public void setInteger(int <i>value</i>); public int getInteger();		8.3.4.2
public interface FloatValue	public void setFloat(float <i>value</i>); public float getFloat(); public void setDouble(double <i>value</i>); public float getDouble(); public void setBigDecimal(BigDecimal <i>value</i>); public BigDecimal getBigDecimal();		8.3.4.3
public interface BooleanValue	public void setBoolean(boolean <i>value</i>); public boolean getBoolean();		8.3.4.4
public interface CharstringValue	String getString (); void setString (String <i>value</i>); char getChar (int <i>position</i>); void setChar (int <i>position</i> , char <i>value</i>); int getLength (); void setLength (int <i>len</i>);		8.3.4.5
public interface BitstringValue	String getString (); void setString (String <i>value</i>); int getBit (int <i>position</i>); void setBit (int <i>position</i> , int <i>value</i>); int getLength (); void setLength (int <i>len</i>); public java.io.InputStream getInputStream(); public void setInputStream (java.io.InputStream <i>stream</i> , int <i>numberOfBits</i>); boolean isMatchingAt (int <i>position</i>); MatchingMechanism getMatchingAt (int <i>position</i>); void setMatchingAt (int <i>position</i> , MatchingMechanism <i>template</i>);	<div style="background-color: red; color: white; padding: 2px; display: inline-block;">NEW NEW</div>	8.3.4.6
public interface OctetstringValue	String getString (); void setString (String <i>value</i>); int getOctet (int <i>position</i>); void setOctet (int <i>position</i> , int <i>value</i>); int getLength ();		8.3.4.7

	void setLength (<i>int len</i>); public java.io.InputStream getInputStream(); public void setInputStream (<i>java.io.InputStream stream</i>); boolean isMatchingAt (<i>int position</i>); MatchingMechanism getMatchingAt (<i>int position</i>); void setMatchingAt (<i>int position, MatchingMechanism template</i>);	NEW NEW	
public interface UniversalCharstringValue	String getString (); void setString (String value); int getChar (<i>int position</i>); void setChar (<i>int position, int value</i>); int getLength (); void setLength (<i>int len</i>);		8.3.4.8
public interface HexstringValue	String getString (); void setString (String value); int getHex (<i>int position</i>); void setHex (<i>int position, int value</i>); int getLength (); void setLength (<i>int len</i>); public java.io.InputStream getInputStream(); public void setInputStream (<i>java.io.InputStream stream, int numberOfItems</i>); boolean isMatchingAt (<i>int position</i>); MatchingMechanism getMatchingAt (<i>int position</i>); void setMatchingAt (<i>int position, MatchingMechanism template</i>);	NEW NEW	8.3.4.9
public interface RecordValue	public Value getField(String fieldName) ; public void setField(String fieldName, Value value) ; public String[] getFieldNames() ; public void setFieldOmitted(String fieldName);		8.3.4.10
public interface RecordOfValue	public Value getField(String fieldName) ; public void setField (<i>int position, Value value</i>) ; public void appendField (<i>Value value</i>) ; public Type getElementType() ; public int getLength() ; public void setLength(<i>int len</i>) ; public int getOffset() ; public int getPermutationCount () ; public Permutation getPermutation (<i>int index</i>); public Permutation newPermutation () ; public void definePermutation (<i>Permutation permutation</i>); public void removePermutation (<i>int index</i>); public void clearPermutations () ;		8.3.4.11
public interface UnionValue	Value getVariant (<i>String variantName</i>); void setVariant (<i>String variantName, Value value</i>); String getPresentVariantName (); String[] getVariantNames ();		8.3.4.12
public interface EnumeratedValue	String getEnum (); void setEnum (String enumValue); int getInt(); void setInt(<i>int intValue</i>);		8.3.4.13
public interface VerdictValue	public static final int NONE = 0 ; public static final int PASS = 1 ; public static final int INCONC = 2 ; public static final int FAIL = 3 ; public static final int ERROR = 4 ; public int getVerdict() ; public void setVerdict(<i>int verdict</i>) ;		8.3.4.14
public interface AddressValue	public int getAddress() ; public void setAddress(<i>Value value</i>) ;		8.3.4.15
TBoolean TFloat TInteger TString TStringSeq	boolean float int java.lang.String java.lang.String[]	Basic type mapping	8.3.1

A.2a triPlatform INTERFACE

RESULT	OPERATION	PARAMETERS	NOTES	§ [5]
TriStatusType	triPReset	()	Reset	5.6.1
TriStatusType	triStartTimer	(in TriTimerIdType <i>timerId</i> , in TriTimerDurationType <i>timerDuration</i>);	Timer handling	5.6.2.1
TriStatusType	triStopTimer	(in TriTimerIdType <i>timerId</i>);		5.6.2.2
TriStatusType	triReadTimer	(in TriTimerIdType <i>timerId</i> , out TriTimerDurationType <i>elapsedTime</i>);		5.6.2.3
TriStatusType	triTimerRunning	(in TriTimerIdType <i>timerId</i> , out boolean <i>running</i>);		5.6.2.4
void	triTimeout	(in TriTimerIdType <i>timerId</i>);		5.6.2.5
TriStatusType	triExternalFunction	(in TriFunctionIdType <i>functionId</i> , inout TriParameterListType <i>parameterList</i> , out TriParameterType <i>returnValue</i>);	Miscellaneous	5.6.3.1
TriComponentId	triSelf	()		5.6.3.2
TriMessage	triRnd	(in TriComponentIdType <i>componentId</i> , in TriMessage <i>seed</i>)		5.6.3.3
void	triPErrorReq	(in string <i>message</i>);	Error Handling	5.2.2

A.2b triCommunication INTERFACE

RESULT	OPERATION	PARAMETERS	NOTES	§ [5]
TriStatusType	triSAReset	()	TE -> SA (SAprovided)	5.5.1
TriStatusType	triExecuteTestCase	(in TriTestCaselIdType <i>testCaselId</i> , in TriPortIdListType <i>tsiPortList</i>);		5.5.2.1
TriStatusType	triMap	(in TriPortIdType <i>compPortId</i> , in TriPortIdType <i>tsiPortId</i>)		5.5.2.2
TriStatusType	triMapParam	(in TriPortIdType <i>compPortId</i> , in TriPortIdType <i>tsiPortId</i> , in TriParameterListType <i>paramList</i>);		5.5.2.3
TriStatusType	triUnmap	(in TriPortIdType <i>compPortId</i> , in TriPortIdType <i>tsiPortId</i>);		5.5.2.4
TriStatusType	triUnmapParam	(in TriPortIdType <i>compPortId</i> , in TriPortIdType <i>tsiPortId</i> , in TriParameterListType <i>paramList</i>);		5.5.2.5
TriStatusType	triEndTestCase	()		5.5.2.6
TriStatusType	triSend	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriMessageType <i>sendMessage</i>);		5.5.3.1
TriStatusType	triSendBC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriMessageType <i>sendMessage</i>);		5.5.3.2
TriStatusType	triSendMC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressListType <i>SUAddresses</i> , in TriMessageType <i>sendMessage</i>);		5.5.3.3
TriStatusType	triCall	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i>);		5.5.4.1
TriStatusType	triCallBC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i>);		5.5.4.2
TriStatusType	triCallMC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressListType <i>SUAddresses</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i>);		5.5.4.3
TriStatusType	triReply	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i> , in TriParameterType <i>returnValue</i>);		5.5.4.4
TriStatusType	triReplyBC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i> , in TriParameterType <i>returnValue</i>);		5.5.4.5
TriStatusType	triReplyMC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressListType <i>SUAddresses</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i> , in TriParameterType <i>returnValue</i>);		5.5.4.6
TriStatusType	triRaise	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriSignatureIdType <i>signatureId</i> , in TriExceptionType <i>exc</i>);		5.5.4.7
TriStatusType	triRaiseBC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriSignatureIdType <i>signatureId</i> , in TriExceptionType <i>exc</i>);		5.5.4.8
TriStatusType	triRaiseMC	(in TriComponentIdType <i>componentId</i> , in TriPortIdType <i>tsiPortId</i> , in TriAddressListType <i>SUAddresses</i> , in TriSignatureIdType <i>signatureId</i> , in TriExceptionType <i>exc</i>);		5.5.4.9
TriStatusType	triSUTactionInformal	(in string <i>description</i>);		5.5.5.1
void	triEnqueueMsg	(in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriComponentIdType <i>componentId</i> , in TriMessageType <i>receivedMessage</i>);	SA -> TE (SArequired)	5.5.3.4
void	triEnqueueCall	(in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriComponentIdType <i>componentId</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i>);		5.5.4.10
void	triEnqueueReply	(in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriComponentIdType <i>componentId</i> , in TriSignatureIdType <i>signatureId</i> , in TriParameterListType <i>parameterList</i> , in TriParameterType <i>returnValue</i>);		5.5.4.11
void	triEnqueueException	(in TriPortIdType <i>tsiPortId</i> , in TriAddressType <i>SUAddress</i> , in TriComponentIdType <i>componentId</i> , in TriSignatureIdType <i>signatureId</i> , in TriExceptionType <i>exc</i>);		5.5.4.12
void	triSAErrorReq	(in string <i>message</i>);		5.2.1

B.2 JAVA MAPPING (package org.etsi.ttcn.tri)

IDL (java interface)	METHODS	NOTES	§ [5]
public interface TriBoolean	public void setBooleanValue (boolean value); public boolean getBooleanValue ();		6.3.1.1
string	java.lang.String	no range checking / bounds for characters in string	6.3.1.2
public interface TriPortId	public String getPortName (); public String getPortTypeName (); public TriComponentId getComponent (); public boolean isArray (); public int getPortIndex ();		6.3.2.1
public interface TriPortIdList	public int size (); public boolean isEmpty (); public java.util.Enumeration getPortIds (); public TriPortId get (int index);		6.3.2.2
public interface TriComponentId	public String getComponentId (); public String getComponentName (); public String getComponentTypeName (); public TriPortIdList getPortList (); public boolean equals (TriComponentId component);		6.3.2.3
public interface TriComponentIdListType	public int size (); public boolean isEmpty (); public java.util.Enumeration getComponents (); public TriComponentId get (int index); public void clear (); public void add (TriComponentId comp);		6.3.2.4
public interface TriMessage	public byte[] getEncodedMessage (); public void setEncodedMessage (byte[] message); public int getNumberOfBits (); public void setNumberOfBits (int amount); public boolean equals (TriMessage message);		6.3.2.5
public interface TriAddress	public byte[] getEncodedAddress (); public void setEncodedAddress (byte[] address); public int getNumberOfBits (); public void setNumberOfBits (int amount); public boolean equals (TriAddress address);		6.3.2.6
public interface TriAddressListType	public int size(); public boolean isEmpty (); public java.util.Enumeration getAddresses (); public TriAddress get (int index); public void clear (); public void add (TriAddress addr);		6.3.2.7
public interface TriSignatureId	public String getSignatureName (); public void setSignatureName (String sigName); public boolean equals (TriSignatureId sig);		6.3.2.8
public interface TriParameter	public String getParameterName (); public void setParameterName (String name); public int getNumberOfBits (); public void setNumberOfBits (int amount); public int getParameterPassingMode (); public void setParameterPassingMode (TriParameterPassingMode mode); public byte[] getEncodedParameter (); public void setEncodedParameter (byte[] parameter);		6.3.2.9
public interface TriParameterPassingMode	public final static int TRI_IN = 0; public final static int TRI_INOUT = 1; public final static int TRI_OUT = 2;		6.3.2.10
public interface TriParameterList	public int size (); public boolean isEmpty (); public java.util.Enumeration getParameters (); public TriParameter get (int index); public void clear (); public void add (TriParameter parameter);		6.3.2.11
public interface TriException	public byte[] getEncodedException (); public void setEncodedException (byte[] message); public int getNumberOfBits (); public void setNumberOfBits (int amount); public boolean equals (TriException exc);		6.3.2.12
public interface TriTimerId	public String getTimerName (); public boolean equals (TriTimerId timer);		6.3.2.13
public interface TriTimerDuration	public double getDuration(); public void setDuration(double duration); public boolean equals(TriTimerDuration duration);		6.3.2.14
public interface TriFunctionId	public String toString(); public String getFunctionName(); public boolean equals(TriFunctionId fun);		6.3.2.15
public interface TriTestCaseld	public String toString (); public String getTestCaseName (); public boolean equals (TriTestCaseld tc);		6.3.2.16
public interface TriStatus	public final static int TRI_OK = 0; public final static int TRI_ERROR = -1; public String toString (); public int getStatus(); public void setStatus (int status); public boolean equals (TriStatus status);		6.3.2.18

A.3 TCI-TL INTERFACE

OPERATION	NOTES	§ [6]
tliCExecute	testcases	7.3.4.1.1
tliCStart		7.3.4.1.2
tliCStop		7.3.4.1.3
tliCStarted		7.3.4.1.4
tliCTerminated		7.3.4.1.5
tliCtrlStart	control	7.3.4.1.6
tliCtrlStop		7.3.4.1.7
tliCtrlTerminated		7.3.4.1.8
tliMSend_m	asynchronous communication	7.3.4.1.9
tliMSend_m_BC		7.3.4.1.10
tliMSend_m_MC		7.3.4.1.11
tliMSend_c		7.3.4.1.12
tliMSend_c_BC		7.3.4.1.13
tliMSend_c_MC		7.3.4.1.14
tliMDetected_m		7.3.4.1.15
tliMDetected_c		7.3.4.1.16
tliMMismatch_m		7.3.4.1.17
tliMMismatch_c		7.3.4.1.18
tliMReceive_m		7.3.4.1.19
tliMReceive_c		7.3.4.1.20
tliPrCall_m	synchronous communication	7.3.4.1.21
tliPrCall_m_BC		7.3.4.1.22
tliPrCall_m_MC		7.3.4.1.23
tliPrCall_c		7.3.4.1.24
tliPrCall_c_BC		7.3.4.1.25
tliPrCall_c_MC		7.3.4.1.26
tliPrGetCallDetected_m		7.3.4.1.27
tliPrGetCallDetected_c		7.3.4.1.28
tliPrGetCallMismatch_m		7.3.4.1.29
tliPrGetCallMismatch_c		7.3.4.1.30
tliPrGetCall_m		7.3.4.1.31
tliPrGetCall_c		7.3.4.1.32
tliPrReply_m		7.3.4.1.33
tliPrReply_m_BC		7.3.4.1.34
tliPrReply_m_MC		7.3.4.1.35
tliPrReply_c		7.3.4.1.36
tliPrReply_c_BC		7.3.4.1.37
tliPrReply_c_MC		7.3.4.1.38
tliPrGetReplyDetected_m		7.3.4.1.39
tliPrGetReplyDetected_c		7.3.4.1.40
tliPrGetReplyMismatch_m		7.3.4.1.41
tliPrGetReplyMismatch_c		7.3.4.1.42
tliPrGetReply_m		7.3.4.1.43
tliPrGetReply_c		7.3.4.1.44
tliPrRaise_m		7.3.4.1.45
tliPrRaise_m_BC		7.3.4.1.46
tliPrRaise_m_MC		7.3.4.1.47
tliPrRaise_c	7.3.4.1.48	
tliPrRaise_c_BC	7.3.4.1.49	
tliPrRaise_c_MC	7.3.4.1.50	
tliPrCatchDetected_m	7.3.4.1.51	
tliPrCatchDetected_c	7.3.4.1.52	
tliPrCatchMismatch_m	7.3.4.1.53	
tliPrCatchMismatch_c	7.3.4.1.54	
tliPrCatch_m	7.3.4.1.55	
tliPrCatch_c	7.3.4.1.56	
tliPrCatchTimeoutDetected	7.3.4.1.57	
tliPrCatchTimeout	7.3.4.1.58	

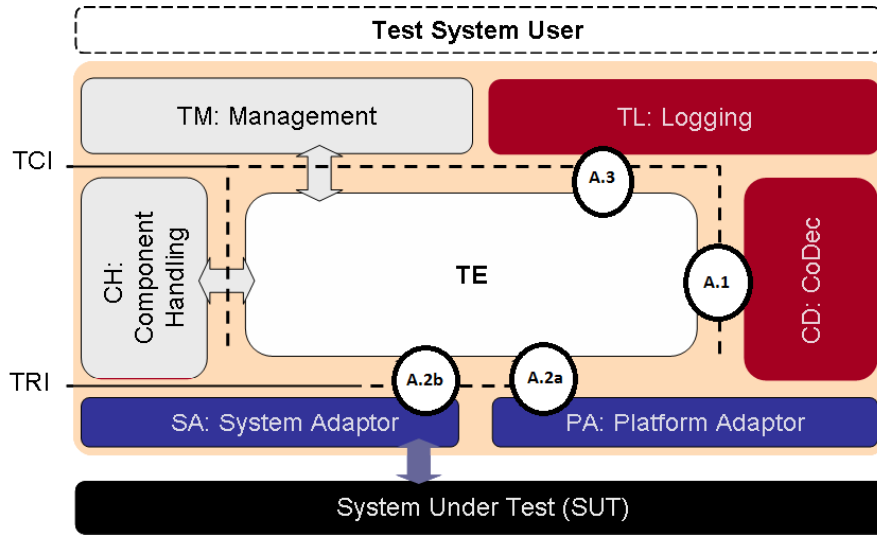
OPERATION	NOTES	§ [6]	
tliCCreate	components	7.3.4.1.59	
tliCStart		7.3.4.1.60	
tliCRunning		7.3.4.1.61	
tliCAlive		7.3.4.1.62	
tliCStop		7.3.4.1.63	
tliCKill		7.3.4.1.64	
tliCDoneMismatch		7.3.4.1.65	
tliCDone		7.3.4.1.66	
tliCKilledMismatch		7.3.4.1.67	
tliCKilled		7.3.4.1.68	
tliCTerminated		7.3.4.1.69	
tliPConnect		ports	7.3.4.1.70
tliPDisconnect			7.3.4.1.71
tliPMap			7.3.4.1.72
tliPMapParam			7.3.4.1.73
tliPUnmap			7.3.4.1.74
tliPUnmapParam			7.3.4.1.75
tliPClear			7.3.4.1.76
tliPStart			7.3.4.1.77
tliPStop	7.3.4.1.78		
tliPHalt	7.3.4.1.79		
tliEncode	codec	7.3.4.1.80	
tliDecode		7.3.4.1.81	
tliTimeoutDetected	timers	7.3.4.1.82	
tliTimeoutMismatch		7.3.4.1.83	
tliTimeout		7.3.4.1.84	
tliTStart		7.3.4.1.85	
tliTStop		7.3.4.1.86	
tliTRead		7.3.4.1.87	
tliTRunning	7.3.4.1.88		
tliSEnter	scope	7.3.4.1.89	
tliSLeave		7.3.4.1.90	
tliVar	variables	7.3.4.1.91	
tliModulePar	module par	7.3.4.1.92	
tliGetVerdict	verdicts	7.3.4.1.93	
tliSetVerdict		7.3.4.1.94	
tliLog	log	7.3.4.1.95	
tliAEnter	alt	7.3.4.1.96	
tliALeave		7.3.4.1.97	
tliANomatch		7.3.4.1.98	
tliARepeat		7.3.4.1.99	
tliADefaults		7.3.4.1.100	
tliAActivate		7.3.4.1.101	
tliADeactivate		7.3.4.1.102	
tliAWait	7.3.4.1.103		
tliAction	action	7.3.4.1.104	
tliMatch	match	7.3.4.1.105	
tliMatchMismatch	operation	7.3.4.1.106	
tliInfo	tool dependent	7.3.4.1.107	
tliMChecked_m	check operation	7.3.4.1.108	
tliMChecked_c		7.3.4.1.109	
tliPrGetCallChecked_m		7.3.4.1.110	
tliPrGetCallChecked_c		7.3.4.1.111	
tliPrGetReplyChecked_m		7.3.4.1.112	
tliPrGetReplyChecked_c		7.3.4.1.113	
tliPrCatchChecked_m		7.3.4.1.114	
tliPrCatchChecked_c		7.3.4.1.115	
tliCheckedAny_m		7.3.4.1.116	
tliCheckedAny_c		7.3.4.1.117	
tliCheckAnyMismatch_m	7.3.4.1.118		
tliCheckAnyMismatch_c	7.3.4.1.119		
tliRnd		7.3.4.1.120	
tliEvaluate		7.3.4.1.121	
tliCCall	NEW call component	7.3.4.1.122	
tliCCallTerminated		7.3.4.1.123	
tliCtrlStartWithParameters	NEW control function	7.3.4.1.124	
tliCtrlTerminatedWithResult		7.3.4.1.125	

W3C XML mapping of the operations on the logging interface is provided in § [11.4 \[6\]](#).

B.3 TCI-TL TYPES (W3C XML mapping)

IDL simple types	XSD	XSD string enumeration values	NOTES	§ [6]
TBoolean	boolean			11.3.1.1
TString	string			11.3.1.2
TInteger	integer			11.3.1.3
TriTimerDuration	float			11.3.1.4
TciParameterPassingModeType	string	"in", "out", "inout"		11.3.1.5
TriStatusType	string	"TRI_OK", "TRI_Error"		11.3.1.6
TciStatusType	string	"TCI_OK", "TCI_Error"		11.3.1.7
ComponentStatusType	string	"inactiveC", "running", "stoppedC", "killedC", "nullC"		11.3.1.8
TimerStatusType	string	"runningT", "inactiveT", "expiredT", "nullT"		11.3.1.9
PortStatusType	string	"startedP", "haltedP", "stopped"		11.3.1.10
IDL complex types	XSD sequence elements	XSD attributes	NOTES	§ [6]
TriPortIdType	comp, port			11.3.2.1
TriComponentIdType	id, null			11.3.2.2
TriComponentIdListType	comp			11.3.2.3
Port	id, index			11.3.2.4
Id	name, id, type			11.3.2.5
TriMessageType		val, paddingBits		11.3.2.6
TriParameterType		val, paddingBits, name, mode		11.3.2.7
TriParameterListType	par			11.3.2.8
TriAddressType		val, paddingBits		11.3.2.9
TriAddressListType	addr			11.3.2.10
TriExceptionType		val, paddingBits		11.3.2.11
TriSignatureIdType		val		11.3.2.12
TriTimerIdType	id			11.3.2.13
TriTimerDurationType			restriction float	11.3.2.14
QualifiedName		moduleName, baseName		11.3.2.15
TciBehaviourType	name			11.3.2.16
TciTestCaseldType	name			11.3.2.17
TciParameterType	val	name, mode		11.3.2.18
TciParameterListType	par			11.3.2.19
TriPortIdListType	port			11.3.2.20
IDL abstract values	XSD elements	XSD attributes	NOTES	§ [6]
Value	integer, float, boolean, verdicttype, bitstring, hexstring, octetstring, charstring, universal_charstring, record, record_of, array, set, set_of, enumerated, union, anytype, address, component, port, default, timer			11.3.3.1
IntegerValue				11.3.3.2
FloatValue				11.3.3.3
BooleanValue				11.3.3.4
VerdictValue				11.3.3.6
BitstringValue				11.3.3.7
HexstringValue				11.3.3.8
OctetstringValue				11.3.3.9
CharstringValue				11.3.3.10
UniversalCharstringValue				11.3.3.11
RecordValue	integer, float, boolean, verdicttype, bitstring, hexstring, octetstring, charstring, universal_charstring, record, record_of, array, set, set_of, enumerated, union, anytype, address, component, default, null, omit, matching_symbol, not_evaluated	name, type, module, modifier, annotation		11.3.3.12
RecordOfValue				11.3.3.13
SetValue				11.3.3.15
SetOfValue				11.3.3.16
UnionValue				11.3.3.18
ArrayValue	integer, float, boolean, verdicttype, bitstring, hexstring, octetstring, charstring, universal_charstring, record, record_of, array, set, set_of, enumerated, union, anytype, address, component, port, default, timer, null, omit, matching_symbol, not_evaluated			11.3.3.14
EnumeratedValue	value, intValue, null, omit, matching_symbol, not_evaluated			11.3.3.17
AnytypeValue	integer, float, boolean, verdicttype, bitstring, hexstring, octetstring, charstring, universal_charstring, record, record_of, array, set, set_of, enumerated, union, address, null, omit, matching_symbol, not_evaluated			11.3.3.19
AddressValue	integer, float, boolean, verdicttype, bitstring, hexstring, octetstring, charstring, universal_charstring, record, record_of, array, set, set_of, enumerated, union, anytype, null, omit, matching_symbol, not_evaluated			11.3.3.20
ComponentValue	value, null, omit, matching_symbol, not_evaluated			11.3.3.21
PortValue				11.3.3.22
TimerValue	value, null, omit			11.3.3.24
DefaultValue	value, null, omit, not_evaluated			11.3.3.23
MatchingMechanism				11.3.3.25
MatchingList				11.3.3.26
ValueRange				11.3.3.27
CharacterPattern				11.3.3.28
MatchDecodedContent				11.3.3.29
IDL abstract logging type	XSD elements	XSD attributes	NOTES	§ [6]
TciValueTemplate	choice: integer, float, boolean, verdicttype, bitstring, hexstring, octetstring, charstring, universal_string, record, record_of, array, set, set_of, enumerated, union, anytype, address, omit, any, anyoromit, templateDef			11.3.4.1
TciNonValueTemplate	choice: any, all, templateDef, null			11.3.4.2
TciValueList	sequence: val			11.3.4.3
TciValueDifference	sequence: val, tmpl	name, type, module, annotation, desc		11.3.4.4
TciValueDifferenceList	sequence: diff			11.3.4.5

TCI / TRI interface overview



Related EVENTS



19-21 October 2021 (UCAAT)



06 -10 December 2021 (STV)

NOTES:

This Reference Card summarizes interfaces, operations and language mappings to support developers of TTCN-3 Codec and adaptations. The document is not part of a standard, not warranted error-free, and a 'work in progress'. For comments or suggestions, please contact the editors via ttn3-qrc@blukactus.com.

Numbers in the right-hand column of the tables refer to sections or annex in ETSI standards ES 201873-5 and -6.

NEW Interface operations/types introduced/modified in V4.11.1 (edition 2019) have been marked.