

International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

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SERIES Z: LANGUAGES AND GENERAL SOFTWARE
ASPECTS FOR TELECOMMUNICATION SYSTEMS

Formal description techniques (FDT) – Testing and Test
Control Notation (TTCN)

**Testing and Test Control Notation version 3:
Using ASN.1 with TTCN-3**

Recommendation ITU-T Z.167



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Recommendation ITU-T Z.167

Testing and Test Control Notation version 3: Using ASN.1 with TTCN-3

Summary

Recommendation ITU-T Z.167 defines a normative way of using ASN.1 as defined in Recommendations ITU-T X.680, ITU-T X.681, ITU-T X.682 and ITU-T X.683 with TTCN-3. The harmonization of other languages with TTCN-3 is not covered by this Recommendation.

The first revision of the Recommendation contains amendments (conformance and compatibility, requirements and descriptions related to the objid type have been moved to this Recommendation from all other ITU-T Z.16x Recommendations, supporting XML values within ASN.1 modules, conversion of the OID-IRI and RELATIVE-OID-IRI types, special real values and subtypes containing special values and exclusive bounds, updated predefined language strings, etc.), clarifications (e.g., on visibility of imported ASN.1 definitions, on the transformation rules) corrigenda and editorial corrections.

This revision of the Recommendation contains amendments, clarifications, corrigenda and editorial corrections.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T Z.146	2006-03-16	17
1.0	ITU-T Z.167	2006-03-16	17
2.0	ITU-T Z.167	2008-11-29	17
3.0	ITU-T Z.167	2011-03-16	17
4.0	ITU-T Z.167	2012-05-29	17
5.0	ITU-T Z.167	2013-07-14	17

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

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Recommendation ITU-T Z.167

Testing and Test Control Notation version 3: Using ASN.1 with TTCN-3

1 Scope

Recommendation ITU-T Z.167 defines a normative way of using ASN.1 as defined in [b-ITU-T X.680], [b-ITU-T X.681], [b-ITU-T X.682] and [b-ITU-T X.683] with TTCN-3. The harmonization of other languages with TTCN-3 is not covered by this Recommendation.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ETSI ES 201 873-7 V4.5.1] ETSI ES 201 873-7 V4.5.1 (2013-04), *Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3: Using ASN.1 with TTCN-3*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

None.

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ASN.1	Abstract Syntax Notation One
OID	Object Identifier
TTCN	Testing and Test Control Notation
XML	Extensible Markup Language

5 Conventions

None.

6 Endorsement

[ETSI ES 201 873-7 V4.5.1] was approved by ITU-T as the basis for Recommendation ITU-T Z.167.

Bibliography

- [b-ITU-T X.680] Recommendation ITU-T X.680 (2008) | ISO/IEC 8824-1:2008, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.*
- [b-ITU-T X.681] Recommendation ITU-T X.681 (2008) | ISO/IEC 8824-2:2008, *Information technology – Abstract Syntax Notation One (ASN.1): Information object specification.*
- [b-ITU-T X.682] Recommendation ITU-T X.682 (2008) | ISO/IEC 8824-3:2008, *Information technology – Abstract Syntax Notation One (ASN.1): Constraint specification.*
- [b-ITU-T X.683] Recommendation ITU-T X.683 (2008) | ISO/IEC 8824-4:2008, *Information technology – Abstract Syntax Notation One (ASN.1): Parameterization of ASN.1 specifications.*

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