International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Z.161

(10/2021)

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: TTCN-3 core language

Recommendation ITU-T Z.161

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Recommendation ITU-T Z.161

Testing and Test Control Notation version 3: TTCN-3 core language

Summary

Recommendation ITU-T Z.161 defines Testing and Test Control Notation 3 (TTCN-3) intended for specification of test suites that are independent of platforms, test methods, protocol layers and protocols. TTCN-3 can be used for specification of all types of reactive system tests over a variety of communication ports. Typical areas of application are protocol testing (including mobile and Internet protocols), service testing (including supplementary services), module testing, testing of Common Object Request Broker Architecture (CORBA) based platforms and application programming interfaces (APIs). The specification of test suites for physical layer protocols is outside the scope of this Recommendation.

The core language of TTCN-3 can be expressed in a variety of presentation formats. While this Recommendation defines the core language, Recommendation ITU-T Z.162 defines the tabular format for TTCN (TFT) and Recommendation ITU-T Z.163 defines the graphical format for TTCN (GFT). The specification of these formats is outside the scope of this Recommendation. The core language serves the following three purposes:

a) as a generalized text-based test language;

b) as a standardized interchange format of TTCN test suites between TTCN tools;

c) as the semantic basis (and where relevant, the syntactical basis) for the various presentation formats.

The core language may be used independently of the presentation formats. However, neither the tabular format nor the graphical format can be used without the core language. Use and implementation of these presentation formats shall be done on the basis of the core language.

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

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History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T Z.140	2001-07-22	10	11.1002/1000/5475
2.0	ITU-T Z.140	2003-04-22	17	11.1002/1000/6241
3.0	ITU-T Z.140	2006-03-16	17	11.1002/1000/8640
4.0	ITU-T Z.161	2007-11-13	17	11.1002/1000/9265
5.0	ITU-T Z.161	2011-03-16	17	11.1002/1000/11065
6.0	ITU-T Z.161	2012-05-29	17	11.1002/1000/11598
7.0	ITU-T Z.161	2013-07-14	17	11.1002/1000/11957
8.0	ITU-T Z.161	2014-11-13	17	11.1002/1000/12346
9.0	ITU-T Z.161	2015-10-29	17	11.1002/1000/12617
10.0	ITU-T Z.161	2016-10-14	17	11.1002/1000/13044
11.0	ITU-T Z.161	2017-10-14	17	11.1002/1000/13369
12.0	ITU-T Z.161	2018-10-14	17	11.1002/1000/13703
13.0	ITU-T Z.161	2019-10-14	17	11.1002/1000/14059
14.0	ITU-T Z.161	2020-10-29	17	11.1002/1000/14480
15.0	ITU-T Z.161	2021-10-14	17	11.1002/1000/14781

Keywords

Control notation, interoperability testing, protocol testing, protocols, service testing, testing, tools, TTCN-3.

* To access the Recommendation, type the URL http://handle.itu.int/ in the address field of your web browser, followed by the Recommendation's unique ID. For example, http://handle.itu.int/11.1002/1000/11830-en.

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