

International Telecommunication Union

**ITU-T**

TELECOMMUNICATION  
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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)

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**Testing and Test Control Notation version 3:  
Using JSON with TTCN-3**

Recommendation ITU-T Z.171

ITU-T



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# Recommendation ITU-T Z.171

## Testing and Test Control Notation version 3: Using JSON with TTCN-3

### Summary

Recommendation ITU-T Z.171 specifies the rules to define schemas for JSON data structures in TTCN-3, to enable testing of JSON-based systems, interfaces and protocols, and the conversion rules between TTCN-3 and JSON to enable exchanging TTCN-3 data in JSON format between different systems.

### History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T Z.171	2017-10-14	17	<a href="http://handle.itu.int/11.1002/1000/13382">11.1002/1000/13382</a>
2.0	ITU-T Z.171	2018-10-14	17	<a href="http://handle.itu.int/11.1002/1000/13710">11.1002/1000/13710</a>

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\* 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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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.

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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.

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

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# Recommendation ITU-T Z.171

## Testing and Test Control Notation version 3: Using JSON with TTCN-3

### 1 Scope

This Recommendation specifies the rules to define schemas for JSON data structures in TTCN-3, to enable testing of JSON-based systems, interfaces and protocols, and the conversion rules between TTCN-3 and JSON to enable exchanging TTCN-3 data in JSON format between different systems.

### 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 201 873-11 V4.8.1]      ETSI ES 201 873-11 V4.8.1 (2018-05), *Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3: Part 11: Using JSON with TTCN-3*.

### 3 Definitions

#### 3.1 Terms defined elsewhere

None.

#### 3.2 Terms defined in this Recommendation

None.

### 4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

JSON      JavaScript Object Notation

TTCN      Testing and Test Control Notation

### 5 Conventions

None.

### 6 Endorsement

[ETSI ES 201 873-11 V4.8.1] was approved by ITU-T as the basis for Recommendation ITU-T Z.171.





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