

# INTERNATIONAL STANDARD

# ISO/IEC 9646-7

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## **Information technology — Open Systems Interconnection — Conformance testing methodology and framework —**

### **Part 7:**

### **Implementation Conformance Statements**

*Technologies de l'information — Interconnexion de systèmes ouverts  
(OSI) — Essais de conformité — Méthodologie générale et  
procédures —*

*Partie 7: Déclarations de conformité des mises en œuvre*



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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in field of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

International Standard ISO/IEC 9646-7 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee 21, *Open Systems Interconnection, data management and open distributed processing*.

ISO/IEC 9646 consists of the following parts, under the general title *Information technology - Open Systems Interconnection - Conformance testing methodology and framework*:

- *Part 1: General concepts*
- *Part 2: Abstract Test Suite specification*
- *Part 3: Tree and Tabular Combined Notation*
- *Part 4: Test realization*
- *Part 5: Requirements on test laboratories and clients for the conformance assessment process*
- *Part 6: Protocol profile test specification*
- *Part 7: Implementation Conformance Statements*

Annexes A to I of this part of ISO/IEC 9646 are for information only.

## Introduction

ISO/IEC 9646-1 defines terminology and introduces general concepts for both protocol and profile testing. ISO/IEC 9646-2 specifies the requirements on the production of OSI conformance testing standards and standardized abstract test suites. ISO/IEC 9646-3 defines a standardized test notation, the Tree and Tabular Combined Notation (TTCN) for the specification of a standardized Abstract Test Suite. ISO/IEC 9646-4 places requirements on test realization and ISO/IEC 9646-5 places requirements on the conformance assessment process. ISO/IEC 9646-6 specifies requirements for the production of OSI protocol Profile Test Specifications.

This part of ISO/IEC 9646 specifies requirements for the development of Implementation Conformance Statements (ICS) for protocols, profiles and information objects (such as managed objects).

An ICS contains the necessary information required for conformance testing to the relevant requirements specified in OSI specifications and their related profiles.

The ICS proforma is in the form of a questionnaire or check-list that is intended to cover all requirements, all optional and conditional functions, elements of procedure, parameters, PDUs, timers, etc. and other capabilities identified in the specification. The ICS proforma is to be completed by the supplier or the implementor.

An overview of the System Conformance Statements (SCSs), ICSs and their proformas is given in clause 6.

Clause 7 describes the structure of SCS proformas.

Clause 8 describes the requirements and layout of ICS proforma specifications and profile Requirements Lists (RLs).

Clause 9 provides a complete specification for ICS proformas, as well as profile RLs, and describes requirements on the notation.

Annex A provides guidance on the meaning of ICS status values and support answers.

Annex B provides examples of profile RLs and profile specific ICSs.

Annex C provides examples of PICS proforma tables and profile RL tables.

Annex D provides guidance for interpreting additional status notations.

Annex E provides guidance on IXIT proformas.

Annex F provides information on information objects.

Annex G provides guidance on multi-specification dependencies.

Annex H provides guidance on status values for parameters on received Protocol Data Units.

Annex I provides guidance on ICS templates.

This part of ISO/IEC 9646 is also to be published by ITU as ITU-T Recommendation X.296, but not as identical text.

# Information technology – Open Systems Interconnection – Conformance testing methodology and framework - Part 7: Implementation Conformance Statements

## 1 Scope

This part of ISO/IEC 9646 gives guidance on the concepts of Implementation Conformance Statements (ICSs) and System Conformance Statements (SCSs) related to OSI specifications and specifies requirements and gives guidance on the production of ICSs, ICS proformas, ICS templates and profile Requirements Lists (RLs).

This part of ISO/IEC 9646 specifies for these documents, the structure, the questions to be asked, the syntax and notation to be used and the semantics of the questions and expected answers.

No generic ICS template is provided because of the wide variety of OSI specifications for which conformance requirements are stated. Nevertheless, this part of ISO/IEC 9646 specifies general requirements that are applicable to any OSI specification.

Other than guidance on the relation between an ICS and Implementation eXtra Information for Testing (IXIT), requirements and guidance on IXIT are outside the scope of this part of ISO/IEC 9646.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9646. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 9646 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 7498-1: 1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model*. (See also ITU-T Recommendation X.200 (1994)).

ISO/IEC 9646-1: 1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework - Part 1: General concepts*. (See also ITU-T Recommendation X.290 (1995)).

ISO/IEC 9646-2: 1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework - Part 2: Abstract Test Suite specification*. (See also ITU-T Recommendation X.291 (1995)).

ISO/IEC 9646-5: 1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process*. (See also ITU-T Recommendation X.294 (1995)).

ISO/IEC 9646-6: 1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework - Part 6: Protocol profile test specification*. (See also ITU-T Recommendation X.295 (1995)).

ISO/IEC 10165-6: 1994, *Information technology – Open Systems Interconnection – Structure of management information: requirements and guidelines for implementation conformance statement proformas associated with OSI management*. (See also ITU-T Recommendation X.724 (1993)).

ISO/IEC TR 10000-1: 1990, *Information technology – Framework and taxonomy of International Standardized Profiles – Part 1: Framework*.