
**Information technology — Open Systems
Interconnection — Conformance test suite
for the presentation layer —**

Part 1:

Test suite structure and test purposes for the
presentation protocol

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Suite d'essais de conformité pour la couche présentation —*

*Partie 1: Structure de la suite d'essais et objets des essais pour le
protocole de présentation*



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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 fields 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 10729-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Sub-Committee SC 21, *Open systems interconnection, data management and open distributed processing*.

ISO/IEC 10729 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Conformance test suite for the presentation layer*.

- *Part 1: Test suite structure and test purposes for the presentation protocol*
- *Part 2: Test suite structure and test purposes for ASN.1 encodings*

Introduction

The purpose of conformance testing is to increase the probability that different implementations are able to interwork, although conformance testing alone cannot give a guarantee of interworking. Conformance testing increase the confidence that each implementation conforms to the protocol specification by establishing that it has the required capabilities and that its behaviour conforms to the protocol specification in representative instances of communication.

A fundamental objective of the related standardized conformance tests is to establish uniform conformance testing and unambiguous evaluation procedures for checking the ability of a protocol implementation to operate according to the relevant protocol standards. The standardization of these test suites should lead to comparability and wide acceptance of test results produced by different test laboratories, and therefore minimize repeated conformance testing of the same presentation protocol implementation.

This International Standard specifies a test suite structure and a set of test purposes for use by test suite specifiers as the basis for all standardized conformance test suites needed to evaluate conformance to ISO/IEC 8823, the connection-oriented presentation protocol specification.

The conformance test suites based on this part of this multi-part International Standard are designed for use by:

- a) test laboratories which provide a conformance testing service for the presentation protocol;
- b) test realizers which provide a means of testing to be used by such test laboratories;
- c) implementors of the presentation protocol.

Information technology — Open Systems Interconnection — Conformance test suite for the presentation layer —

Part 1:

Test suite structure and test purposes for the presentation protocol

1 Scope

This part of ISO/IEC 10729 specifies a test suite structure and test purposes for the presentation protocol excluding X.410-1984 mode, as defined in ISO 8823. This part of ISO/IEC 10729 does not specify how the conformance tests are to be realized or used, nor how the test results are to be presented or used.

NOTE — The choice of the test method may restrict the test purposes which can be realized.

This part of ISO/IEC 10729 applies to conformance test suites for testing presentation protocol implementations which operate over a connection oriented session service (ISO 8326) and which claim conformance to ISO 8823.

This part of ISO/IEC 10729 does not include a general assessment of performance, reliability or robustness of relevant protocol implementations, nor an assessment of the design of the protocol itself.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 10729. 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 10729 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 7498: 1984, *Information processing systems - Open Systems Interconnection - Basic reference model*.

ISO 8326: 1987, *Information processing systems - Open Systems Interconnection - Basic connection oriented session service definition*.

ISO/TR 8509: 1987, *Information processing systems - Open Systems Interconnection - Service conventions*.

ISO 8822: 1988, *Information processing systems - Open Systems Interconnection - Connection oriented presentation service definition*.

ISO 8823: 1988, *Information processing systems - Open Systems Interconnection - Connection oriented presentation protocol specification*.

ISO/IEC 8824: 1990, *Information technology - Open Systems Interconnection - Specification of Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 8825: 1990, *Information technology - Open Systems Interconnection - Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 9646-1: 1991, *Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts*.

ISO/IEC 9646-2: 1991, *Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification*.

3 Definitions

For the purposes of this part of ISO/IEC 10729, the following definitions apply.

3.1 Reference model definitions

This part of ISO/IEC 10729 uses the following terms defined in ISO 7498:

- a) concrete syntax;
- b) presentation-connection;
- c) Presentation Layer;
- d) presentation-protocol-control-information;
- e) presentation-protocol-data-unit;
- f) presentation-service;
- g) presentation-service-access-point;
- h) presentation-service-data-unit;
- i) session-connection;
- j) Session Layer;
- k) session-service;
- l) session-service-access-point;