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Information technology — Open Systems Interconnection — Protocol specification for the Association Control Service Element: Protocol Implementation Conformance Statement (PICS) proforma

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Spécification du protocole pour l'élément de service de contrôle
d'association: Proforme d'établissement de conformité pour la mise en
œuvre du protocole (PICS)*



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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 8650-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 21, *Open systems interconnection, data management and open distributed processing*, in collaboration with ITU-T. The identical text is published as ITU-T Recommendation X.247.

ISO/IEC 8650 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Protocol specification for the Association Control Service Element*:

— *Part 1: Protocol specification*

— *Part 2: Protocol Implementation Conformance Statement (PICS) proforma*

Annex A forms an integral part of this part of ISO/IEC 8650. Annex B is for information only.

Introduction

This Recommendation | International Standard is one of a set of Recommendations | International Standards produced to facilitate the interconnection of information processing systems. It is related to other Recommendations and International Standards in the set as defined by the Reference Model for Open Systems Interconnection (ITU-T Rec. X.200 | ISO/IEC 7498-1). The Reference Model subdivides the area of standardization for interconnection into a series of layers of specification, each of manageable size.

The goal of Open Systems Interconnection is to allow, with a minimum of technical agreement outside the interconnection standards, the interconnection of information processing systems:

- from different manufacturers;
- under different managements;
- of different levels of complexity; and
- of different technologies.

ITU-T Rec. X.227 | ISO/IEC 8650-1 specifies the connection-oriented mode protocol for the application-service-element for application-association control: the Association Control Service Element (ACSE). The ACSE connection-oriented mode provides services for establishing and releasing application-associations. The ACSE protocol also includes an optional functional unit for exchanging information to support authentication during association establishment. The ACSE services apply to a wide range of application-process communication requirements.

To evaluate the conformance of a particular implementation, it is necessary to have a description of the capabilities and options which have been implemented. Such a description is called a Protocol Implementation Conformance Statement (PICS).

This Recommendation | International Standard includes the PICS proforma for the connection-oriented ACSE protocol as defined in ITU-T Rec. X.227 | ISO/IEC 8650-1.

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

**INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION –
 PROTOCOL SPECIFICATION FOR THE ASSOCIATION CONTROL
 SERVICE ELEMENT: PROTOCOL IMPLEMENTATION
 CONFORMANCE STATEMENT (PICS) PROFORMA**

1 Scope

This Recommendation | International Standard provides the Protocol Implementation Conformance Statement (PICS) proforma for the connection-oriented ACSE protocol specified in ITU-T Rec. X.227 | ISO/IEC 8650-1. This PICS proforma is in compliance with the relevant requirements, and in accordance with the relevant guidance given in ITU-T Rec. X.296 | ISO/IEC 9646-7. Detail of the use of this proforma is provided in this Recommendation | International Standard.

The supplier of an implementation which is claimed to conform to ITU-T Rec. X.227 | ISO/IEC 8650-1 is required to complete a copy of the PICS proforma provided in Annex A, and is required to provide the information necessary to identify both the supplier and the implementation.

2 Normative references

The following Recommendations | International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and the parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunications Standardization Bureau of the ITU maintains a list of valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The basic model.*
- ITU-T Recommendation X.216 (1994) | ISO/IEC 8822:1994, *Information technology – Open Systems Interconnection – Presentation service definition.*
- ITU-T Recommendation X.217 (1995) | ISO/IEC 8649:—¹⁾, *Information technology – Open Systems Interconnection – Service definition for the Association Control Service Element.*
- ITU-T Recommendation X.225 (1994) | ISO/IEC 8327-1:—²⁾, *Information technology – Open Systems Interconnection – Connection-oriented session protocol: Protocol specification.*
- ITU-T Recommendation X.226 (1994) | ISO/IEC 8823-1:1994, *Information technology – Open Systems Interconnection – Connection-oriented presentation protocol: Protocol specification.*
- ITU-T Recommendation X.227 (1995) | ISO/IEC 8650-1:1995, *Information technology – Open Systems Interconnection – Connection-oriented protocol for the Association Control Service Element: Protocol specification.*

1) Currently under revision.

2) To be published.

2.2 Paired Recommendations | International Standards equivalent in technical contents

- ITU-T Recommendation X.290 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications - General concepts*.
ISO/IEC 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts*.
- ITU-T Recommendation X.296 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications - Implementation conformance statements*.
ISO/IEC 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation conformance statements*.

2.3 Additional references

- CCITT Recommendation X.410 (1984): *Message handling systems: Remote operations and reliable transfer server*.

3 Definitions

For the purposes of this Recommendation | International Standard, the following definitions apply:

3.1 Terms defined in ITU-T Rec. X.227 | ISO/IEC 8650-1

3.2 The following terms defined in ITU-T Rec. X.290 | ISO/IEC 9646-1:

- a) Implementation Conformance Statement proforma;
- b) Implementation Conformance Statement;
- c) Protocol Implementation Conformance Statement (PICS);
- d) PICS proforma.

3.3 Additional terms

- a) Requestor: the PPM that initiates a particular action;
- b) Acceptor: the PPM that accepts a particular action.

4 Abbreviations

For the purposes of this Recommendation, the following abbreviations apply:

ACSE	Association Control Service Element
APDU	Application Protocol Data Unit
ICS	Implementation Conformance Statement
PICS	Protocol Implementation Conformance Statement
PDU	Protocol Data Unit

5 Conformance

A conforming PICS proforma shall be technically equivalent to the ITU-T | ISO/IEC published PICS proforma and shall preserve the numbering and ordering of the items in the ITU-T | ISO/IEC PICS proforma.

A PICS which conforms to this Recommendation | International Standard shall:

- a) describe an implementation which conforms to ITU-T Rec. X.227 | ISO/IEC 8650-1;
- b) be a conforming PICS proforma, which has been completed in accordance with the instruction for completion given in A.2;
- c) include the information necessary to uniquely identify both the supplier and the implementation.