



SLOVENSKI STANDARD
SIST EN ISP 11188-1:1997
01-december-1997

Information technology - International Standardized Profile - Common upper layer requirements - Part 1: Basic connection oriented requirements (ISO/IEC ISP 11188-1:1995)

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Informatikstechnik - Internationale Profilnorm - Allgemeine Anforderungen an anwendungsorientierte OSI-Schichten - Teil 1: Anforderungen an verbindungsorientierten Basisdienst (ISO/IEC ISP 11188-1:1995)

Technologies de l'information - Profil normalisé international - Prescriptions communes pour la couche supérieure - Partie 1: Prescriptions orientées vers la connexion de base (ISO/IEC ISP 11188-1:1995)

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35.100.05 X^ • [[b ^ Á] [| æ } ã \ ^ Multilayer applications
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EUROPEAN STANDARD

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English version

**Information technology - International
Standardized Profile - Common upper layer
requirements - Part 1: Basic connection oriented
requirements (ISO/IEC ISP 11188-1:1995)**

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**REPUBLIKA SLOVENIJA
MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO
Urad RS za standardizacijo in meroslovje
LJUBLJANA**

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PREVZET PO METODI RAZGLASITVE

-12- 1997

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European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

The text of the International Standard from the Technical Committee ISO/IEC/JTC 1 "Information Technology" of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) has been taken over as a European Standard by the Technical Board of CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 1996, and conflicting national standards shall be withdrawn at the latest by October 1996.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO/IEC ISP 11188-1:1995 has been approved by CEN as a European Standard without any modification.

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INTERNATIONAL
STANDARDIZED
PROFILE

ISO/IEC
ISP
11188-1

First edition
1995-04-15

**Information technology — International
Standardized Profile — Common upper
layer requirements —**

Part 1:

(Basic connection oriented requirements)

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*Technologies de l'information — Profil normalisé international —
Prescriptions communes pour la couche supérieure —*

Partie 1: Prescriptions orientées vers la connexion de base



Reference number
ISO/IEC ISP 11188-1:1995(E)

ISO/IEC ISP 11188-1 : 1995 (E)

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form a 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 or 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 JTC1. In addition to developing International Standards, ISO/IEC JTC1 has created a Special Group on Functional Standardization for the elaboration of International Standardized Profiles.

An International Standardized Profile is an internationally agreed, harmonized document which identifies a standard or group of standards, together with options and parameters, necessary to accomplish a function or set of functions.

Draft International Standardized Profiles are circulated to national bodies for voting. Publication as an International Standardized Profile requires approval by at least 75 % of the national bodies casting a vote.

This part of ISO/IEC ISP 11 188 was prepared with the collaboration of

- Asia-Oceania Workshop (AOW);
- European Workshop for Open Systems (EWOS);
- OSE Implementors Workshop (OIW).

ISO/IEC ISP 11188 consists of the following parts, under the general title *Information technology - International Standardized Profile - Common upper layers requirements* :

- Part 1 : *Basic connection oriented requirements*
- Part 2 : *Basic connection oriented requirements for ROSE-based Profiles*
- Part 3 : *Minimal OSI upper layer facilities*

Annexes A and B form an integral part of this part of ISO/IEC ISP 11188. Annex C is for information only.

Introduction

This part of ISO/IEC ISP 11188 is defined within the context of Functional Standardization, in accordance with the principles specified by ISO/IEC TR 10000, "Framework and Taxonomy of International Standardized Profiles". The context of Functional Standardization is one part of the overall field of Information Technology (IT) standardization activities, covering base standards, profiles, and registration mechanisms. A profile defines a combination of base standards that collectively perform a specific well-defined IT function. Profiles standardize the use of options and other variations in the base standards, and provide a basis for the development of uniform, internationally recognized system tests.

ISO/IEC ISP 11188 as a multi-part ISP specifies general requirements on the use of OSI connection-mode protocols by A-profiles. These are identified as "Common Upper Layer Requirements".

The parts of this multi-part ISP can be referenced normatively by other ISPs or referencing specifications. In addition, a referencing ISP may specify further requirements on the protocols, provided it does not contradict this ISP.

The purpose of this multi-part ISP is to provide common text for ISPs or other referencing specifications which specify A-profiles. In addition to simplifying their drafting, it also facilitates the common implementation of the protocols for use in different A-profile contexts.

This part of ISO/IEC 11188 specifies the use of the connection-mode protocols of the ACSE, Presentation and Session layers of OSI.

Information technology - International Standardized Profile - Common upper layers requirements -

Part 1:

Basic connection oriented requirements

1 Scope

1.1 General

This part of ISO/IEC ISP 11188 specifies the common upper layers elements of A-profiles (see TR 10000-2, 5.5.3). The common elements are specified by reference to OSI connection-mode standards for the ACSE protocol, the presentation layer protocol, and the session layer protocol.

A specification defining an A-profile (see TR 10000-2, 5.5.3) may reference this part of ISO/IEC ISP 11188 as a common basis for the selection of elements of the upper layers protocols (ACSE, presentation and session) that it uses.

The use of this part of ISO/IEC ISP 11188 is supplemented by a statement of the specific upper layers requirements of the referencing specification for the use of ACSE, presentation and session protocol standards.

The rest of the A-profile definition, including, for instance, its use of standards for Application Service Elements (ASE, see also figure 1), follows the general rules of TR 10000-1.

1.2 Position within the taxonomy

This part of ISO/IEC ISP 11188 does not specify a full A-profile, and therefore has no place within the taxonomy of TR 10000-2.

1.3 Scenario

The model used is one of two end systems running an end-to-end association using the ACSE, presentation and session services and protocols (see figure 1).

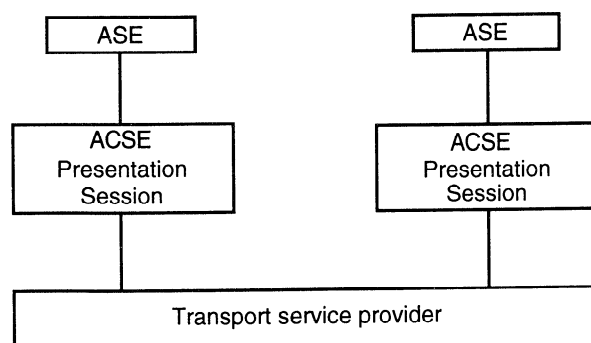


Figure 1 - Model of the supportive layers

2 Compliance

2.1 Compliance statement

A referencing specification may use the requirements in this part of ISO/IEC ISP 11188 and claim compliance to them, in one of the following ways:

- The referencing specification does not duplicate any of the requirements of this part of ISO/IEC ISP 11188 within its own specifications and instead requires the implementation to conform to the requirements of this part of ISO/IEC ISP 11188. This is the preferred method.
- The referencing specification replicates all of the requirements of this part of ISO/IEC ISP 11188 as part of its requirements and related conformance statements.

In the case of (b), a reference to this part of ISO/IEC ISP 11188 shall be included in clause 1 (Scope) as well as in clause 3 (Normative references) of the referencing specification.

2.1.1 A referencing specification that replicates all of the requirements of this part of ISO/IEC ISP 11188 complies if the specific upper layers requirements of the referencing specification do not conflict with the requirements of this part of ISO/IEC ISP 11188.

2.1.2 A specification that requires an implementation to conform to the requirements contained within this part of ISO/IEC ISP 11188 complies if

- the conformance requirement of the referencing specification states that an implementation shall conform to the requirements of this part of ISO/IEC ISP 11188; and
- the specific upper layers requirements of the referencing specification do not conflict with the requirements of this part of ISO/IEC ISP 11188.

2.1.3 This part of ISO/IEC ISP 11188 states requirements upon implementations to achieve interworking.

A claim of compliance is a claim that all requirements in the relevant base standards are satisfied, and that all requirements in this part of ISO/IEC ISP 11188 are satisfied. Annex A states the relationship between these requirements and those of the base standards.

Optional features of the referenced base standards for which no requirement is specified in clauses 6, 7, 8, 9 or in annex A, are considered as open for referencing specifications (see table 1 for a definition of "open").

2.2 Relationship with base standards

A compliant referencing specification shall require an implementation that claims conformance to the referencing specification to include the aspects specified in 2.2.1 through 2.2.4.

2.2.1 ACSE conformance

To conform to the Association Control Service Element (ACSE) protocol as constrained by this part of ISO/IEC ISP 11188, either the X.410-1984 mode, or the normal mode, or both shall be implemented.

2.2.2 Presentation layer conformance

To conform to the presentation protocol as constrained by this part of ISO/IEC ISP 11188, implementations shall implement either the normal mode or the X.410-1984 mode or both and shall implement the initiator role, responder role, or both roles, compatible with those in ACSE (identified in clause A.5).

2.2.3 Transfer syntax conformance

An implementation shall support the "Basic Encoding of a single ASN.1 type" (BER) as specified in ITU-T Rec. X.690 | ISO/IEC 8825-1, except where the referencing specification or the associated base standard specifies some other mandatory encoding, together with the additional rules defined in clause 8, for the generation of protocol encoding specified in ASN.1. The referencing specification may require support of this or other transfer syntaxes for any abstract syntaxes which it defines.

NOTE - At the time of publication, the BER was adequate to satisfy all proposed profiles.

2.2.4 Session layer conformance

To conform to the session protocol as constrained by this part of ISO/IEC ISP 11188, implementations shall implement all the features identified in A.6 as required to be implemented.

3 Normative references

The following ITU-T Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 11188. At the time of publication, the editions indicated were valid. All Recommendations and International Standards are subject to revision, and parties to agreements based on this part of ISO/IEC ISP 11188 are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and International Standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards and ISPs. The ITU-T secretariat maintains a list of currently valid Recommendations.

3.1 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.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 (1994) | ISO/IEC 8650-1:....³⁾, *Information technology - Open Systems Interconnection - Connection-oriented protocol for the Association Control Service Element : Protocol specification.*
- ITU-T Recommendation X.245 (1994) | ISO/IEC 8327-2:....¹⁾, *Information technology - Open Systems Interconnection - Connection-oriented session protocol : Protocol Implementation Conformance Statement (PICS) proforma.*
- ITU-T Recommendation X.246 (1994) | ISO/IEC 8823-2:—¹⁾, *Information technology - Open Systems Interconnection - Connection-oriented presentation protocol: Protocol Implementation Conformance Statement (PICS) proforma.*
- ITU-T Recommendation X.247 (1994) | ISO/IEC 8650-2:....³⁾, *Information technology - Open Systems Interconnection - Connection-oriented protocol for the Association Control Service Element - Protocol Implementation Conformance Statement (PICS) proforma.*
- ITU-T Recommendation X.680 (1994) | ISO/IEC 8824-1:....⁴⁾, *Information technology - Abstract Syntax Notation One (ASN.1) : Specification of basic notation.*
- ITU-T Recommendation X.680.1 (1994) | ISO/IEC 8824-1/Amd.1:....¹⁾, *Information technology - Abstract Syntax Notation One (ASN.1) : Specification of basic notation - Amendment 1 : Rules of Extensibility.*
- ITU-T Recommendation X.690 (1994) | ISO/IEC 8825-1:....⁵⁾, *Information technology - ASN.1 encoding rules : Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER).*

3.2 Additional references

- CCITT Recommendation X.650 (1992), *Open Systems Interconnection (OSI) - Reference model for naming and addressing.*

¹⁾Currently at stage of draft.

²⁾Revision of ISO 8327:1987. To be published.

³⁾Revision of ISO 8650:1988. To be published.

⁴⁾Revision of ISO/IEC 8824:1990. To be published.

⁵⁾Revision of ISO/IEC 8825:1990. To be published.

- ISO 7498-3:1988, *Information processing systems - Open Systems Interconnection - Basic Reference Model - Part 3: Naming and addressing.*
- ISO/IEC TR 10000-1:1992, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1 : Framework.*
- ISO/IEC TR 10000-2:1994, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2 : Principles and Taxonomy for OSI Profiles.*

NOTE - This part of ISO/IEC ISP 11188 makes detailed references to subclauses of the specified editions of some of the above references.

4 Definitions

For the purposes of this part of ISO/IEC ISP 11188, the following definitions apply.

Terms used in this part of ISO/IEC ISP 11188 are defined in the referenced base standards.

In addition the following terms are defined.

4.1 General

referencing specification : a specification of an A-profile which includes by reference or by replication, the requirements in this part of ISO/IEC 11188.

4.2 Support level

To specify the support level of protocol features for this part of ISO/IEC ISP 11188, the following terminology is defined :

- a) Column 1 of table 1 lists the support level identifiers for a profile used in this part of ISO/IEC ISP 11188;
- b) Column 2 of table 1 defines the use of these requirements classifications of column 1 by a referencing specification;
- c) Column 3 of table 1 defines the use of the requirements classifications by an implementation.

Table 1– Profile status identifiers

Identifier	Meaning when referenced by a specification	Meaning when referenced by an implementation
1 m	mandatory — The feature shall be required for support. The status of the feature shall remain mandatory in a referencing specification (see note). https://standards.iteh.ai/catalog/standards/sist/4cc0170a-229d-4116-84351ec4d53d/sist-en-isp-11188-1	mandatory — The implementation shall support the feature, i.e. its syntax and procedures shall be implemented as specified in the base standard or in this part of ISO/IEC ISP 11188. However, it is not a requirement that the feature shall be used in all instances of communication unless mandated by the base standard or stated otherwise in this part of ISO/IEC ISP 11188. The feature shall be the subject of an ISP conformance test (see note).
2 o	optional — The choice of whether this feature is supported or it is not supported is made by the implementation. The status of the feature shall remain optional in a referencing specification.	optional — The implementation may decide either to support or to not support the feature. <ul style="list-style-type: none"> • Supporting a feature means that the feature shall be handled as if it was mandatory. • Not supporting a feature depends on receiving or sending : <ul style="list-style-type: none"> For sending, the feature's capability is not used; For receiving an optional parameter, the syntax shall be implemented and the parameter may be ignored. The feature shall be the subject of an ISP conformance test.
3 *	open — The status of this feature shall be decided by the referencing specification. The referencing specification shall indicate that the status of the feature is mandatory, optional, or out of scope. Alternately, the referencing specification may keep the feature open.	open — same as optional
4 x	excluded — The feature shall not be used in a referencing specification. The status of the feature shall remain excluded in a referencing specification.	excluded — The implementation shall not support the feature. When completing the associated PICS Proforma table, the answer for the support column shall be that the feature has not been implemented. The implementation shall abort if the feature is received. The exclusion should be the subject of an ISP conformance test.