
**Information technology — Open Systems
Interconnection — Distributed Transaction
Processing —**

Part 5:

Application context proforma and guidelines
when using OSI TP

*Technologies de l'information — Interconnexion de systèmes
ouverts (OSI) — Traitement transactionnel réparti —*

*Partie 5: Proforme de contexte d'application et lignes directrices en
utilisation OSI TP*



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 10026-5 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 21, *Open systems interconnection, data management and open distributed processing*.

ISO/IEC 10026 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Distributed Transaction Processing*:

- *Part 1: OSI TP Model*
- *Part 2: OSI TP Service*
- *Part 3: Protocol specification*
- *Part 4: Protocol Implementation Conformance Statement (PICS) proforma*
- *Part 5: Application context proforma and guidelines when using OSI TP*
- *Part 6: Unstructured Data Transfer*
- *Part 7: Message queueing*

Annex A forms an integral part of this part of ISO/IEC 10026. Annex B is for information only.

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Information technology - Open Systems Interconnection - Distributed Transaction Processing -

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Application context proforma and guidelines when using OSI TP

ISO/IEC 10026 is one of a set of standards produced to facilitate the interconnection of computer systems. It is related to other International Standards in the set as defined by the Reference Model for Open Systems Interconnection (ISO 7498). The Reference Model subdivides the area of standardisation 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:

- a) from different manufacturers;
- b) under different management;
- c) of different levels of complexity; and,
- d) of different technologies.

ISO/IEC 10026 defines a Model, and Service, and specifies a Communication Protocol within the Application Layer of the OSI Reference Model.

1 Scope

This part of ISO/IEC 10026 specifies requirements specific to OSI TP that should be contained in an application context definition, in addition to the general requirements for an application context definition. It does not specify individual implementations or products, nor does it constrain the implementation of entities or interfaces within a computer system.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 10026. 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 10026 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 9545:1993, *Information Processing Systems - Open Systems Interconnection - Application Layer structure*.

ISO/IEC 10026-1:1998, *Information technology - Open Systems Interconnection - Distributed Transaction Processing - Part 1: OSI TP Model*.

3 Definitions

For the purposes of this part of ISO/IEC 10026, the definitions given in ISO/IEC 10026-1 and the following definitions apply.

3.1 Application Layer Structure definitions

This International Standard makes use of the following terms defined in ISO/IEC 9545:

- a) application-context-definition; and
- c) control-function.

4 Abbreviations

For the purposes of this part of ISO/IEC 10026, the abbreviations given in ISO/IEC 10026-1 and the following abbreviations apply.

FU Functional Unit

5 Overview of the TP application context proforma

This part of ISO/IEC 10026 specifies what must be contained in an application context where use is made of the facilities of OSI TP. Such an application context may define rules for the correct interaction of the various ASEs (ACSE, the TP-ASE, possibly CCR, and one or more User-ASEs) controlled by the TP MACF and SACF, in addition to listing the ASEs which are used. The remainder of this part of ISO/IEC 10026 provides guidelines for the specification of such rules and options.

6 TP application context contents

This clause contains guidelines for defining an application context which contains OSI TP, together with general guidelines which would apply to any application context. (These general guidelines are included for completeness, and appear in *italics*.) An application context proforma is contained in annex A; this annex includes information which always appears in the definition of an application context which contains OSI TP. The subclauses in this clause correspond to clauses which would be included in an application context definition (as listed in annex A).

Such an application context definition always includes the information described in 6.1, 6.2, 6.3, 6.5, 6.9 and 6.11 of this clause. Information described in the other subclauses (6.4, 6.6-6.8, 6.10, 6.12) should be included when necessary.

OSI TP does not state where the modules responsible for maintaining the MACF rules for User-ASEs (if there are such rules) are located. The understanding here is that the MACF rules for User-ASEs are implemented inside the TPSUI (which for this purpose is subdivided into a User-MACF and a multiple association service user invocation (MASUI)), which is the receiver of the genuine multiple association service).

Application specific control functions which include OSI TP are constrained by the very strict control which OSI TP exercises on the PSAPs (choosing presentation services; closing, opening PSAPs; etc).

6.1 Application context name

A globally unambiguous name of ASN.1 datatype OBJECT IDENTIFIER which identifies the application context definition.

An application context name has to be registered to ensure that the name is unambiguous, in accordance with ISO/IEC 7498-3. This registration may be done by recording the definition and the allocated name in a Standard. Alternatively, a name may be obtained by applying to a Registration Authority that has the authority to assign application context names in accordance with the procedures of ISO/IEC 9834-1.

Note - Obtaining an appropriate object identifier requires using the rules of ISO/IEC 9834-1, Registration Authorities, and ISO 8805, Basic Encoding Rules. If this application context is to be standardised internationally or nationally, then its name should be taken from the registration authority for the international or national name space. If it is to be a private name, it can be taken from a private name space, but still following the basic rules of object identifiers.

6.2 Purpose and scope

A brief outline of the purpose of the application context, together with a brief scope statement.

6.3 Referenced standards

A list of those standards which are referenced by the application context being defined.

6.4 Referenced application contexts

If any other application contexts are referenced as part of this context they shall be listed, along with their Object Identifier names.

This list will include application contexts that will be used on other associations if there are dialogue trees within which this association and one of the other associations are adjacent at either end of this association. Other application contexts need only be included if the semantic exchanges under this application context require the use of the other application contexts.

6.5 Component ASEs

This section lists the ASEs required for the application context being defined. For each ASE in the application context, include subclauses as follows:

- 6.5.n** *name*
- 6.5.n.1** *reference (eg ISO/IEC standard number)*
- 6.5.n.2** *version number*
- 6.5.n.3** *brief description*

with a value 'n' for each specific ASE.

In addition to the two mandatory ASEs (TP-ASE and ACSE), other ASEs (eg CCR), and the User-ASEs incorporated in the application context are to be listed.

Note - At least one User-ASE will always be required, unless the context only applies to a TP Channel.

6.6 Use of other related ASEs

If the application context requires the knowledge of the use of other ASEs on other associations in the AEs at one or both ends of the association, this clause lists them.

This will include ASEs whose services will be invoked on other associations to support the semantics of the exchanges on the association using this application context.

For an application context which contains OSI TP, these other associations may include those supporting dialogues of a dialogue tree, one of whose dialogues is supported by an association with this application context.

Note - In a particular instance, a real system using this application context may use on other dialogues of the dialogue tree ASEs that are not listed here. ASEs are only listed here if the semantics of exchanges under this application context necessarily require the use of the ASE on another association.

6.7 Persistent application context rules

This section defines any additional rules to be enforced by this application context, that supplement and impose restrictions in addition to those specified in the referenced base standards, concerning information that has a lifetime that is greater than that of an association.

The OSI TP SACF procedures defined in clause 10 of ISO/IEC 10026-3 relating to association establishment and release should be noted.

6.8 Control function (SACF/MACF) rules