

TECHNICAL REPORT

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Information technology — Framework and taxonomy of International Standardized Profiles —

Part 1:

General principles and documentation
framework

*Technologies de l'information — Cadre et taxonomie des profils
normalisés internationaux —
Partie 1: Principes généraux et cadre de documentation*



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Documents

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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.

The main task of technical committees is to prepare International Standards. In exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/IEC TR 10000-1, which is a Technical Report of type 3, was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

This third edition cancels and replaces the second edition (ISO/IEC TR 10000-1:1992), which has been technically revised.

ISO/IEC TR 10000 consists of the following parts, under the general title *Information technology — Framework and taxonomy of International Standardized Profiles*:

- Part 1: *General principles and documentation framework*
- Part 2: *Principles and Taxonomy for OSI profiles*
- Part 3: *Principles and Taxonomy for Open System Environment profiles*

Introduction

The context of Functional Standardization is one part of the overall field of IT standardization activities covering

- Base Standards, which define fundamentals and generalized procedures. They provide an infrastructure that can be used by a variety of applications, each of which can make its own selection from the options offered by them.
- Profiles, which define conforming subsets or combinations of base standards used to provide specific functions. Profiles identify the use of particular options available in the base standards, and provide a basis for the development of uniform, internationally recognized, conformance tests.
- Registration Mechanisms, which provide the means to specify detailed parameterization within the framework of the base standards or profiles.

Within ISO/IEC JTC 1, the process of Functional Standardization is concerned with the methodology of defining profiles, and their publication in documents called "International Standardized Profiles" (ISPs) in accordance with procedures contained in the Directives of JTC 1. The scope of Information Technology standardization to which this process is being applied is that which corresponds to the generally understood, but loosely defined, concept of "Open Systems". The objective is to facilitate the specification of IT systems characterized by a high degree of interoperability and portability of their components.

In addition to ISO/IEC TR 10000, the secretariat of the Special Group on Functional Standardization maintains a standing document (SD-4) entitled "Directory of ISPs and Profiles contained therein". This is a factual record of which ISPs exist, or are in preparation, together with an executive summary of each profile. It is subject to regular updating by the Secretariat of ISO/IEC JTC 1/SGFS.

Information technology - Framework and taxonomy of International Standardized Profiles -

Part 1:

General principles and documentation framework

1 Scope

This part of ISO/IEC TR 10000 defines the concept of profiles, and the way in which they are documented in International Standardized Profiles. It gives guidance to organizations making proposals for Draft International Standardized Profiles on the nature and content of the documents they are producing.

This part of ISO/IEC/TR 10000 outlines concepts of profiles and taxonomies (or Classification Schemes), and the format and content of ISPs. Annex A gives details of the format and the content of ISPs as required by ISO/IEC JTC 1.

ISO/IEC TR 10000-2 provides principles and a classification scheme for OSI profiles which may be or have been submitted for ratification as International Standardized Profiles.

NOTE - These OSI profiles specify OSI base standards, and those base standards concerned with interchange formats and data representation which are expected to be used in conjunction with them.

ISO/IEC TR 10000-3 provides the context for functional standardization in support of Open System Environments (OSE), and principles and a classification scheme for OSE profiles which may be or have been submitted for ratification as International Standardized Profiles. It outlines the basic OSE objectives and concepts, and defines an approach and format for OSE profiles specified by International Standardized Profiles and, along with this part of ISO/IEC TR 10000, gives guidance to organizations making proposals for Draft ISPs on the nature and content of the documents they produce.

Part 2 and Part 3 may be extended for OSI and OSE profiles respectively and further parts of ISO/IEC TR 10000 may be developed to define other classes of profiles.

ISO/IEC TR 10000 is applicable to all International Standardized Profiles of ISO and IEC. Its primary

focus is the area of competence of ISO/IEC JTC 1, but by mutual agreement with JTC 1, other Technical Committees may undertake similar functional standardization activities leading to the inclusion of additional material in this Technical Report.

2 References

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC TR 10000. 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 TR 10000 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 9834-1:1993 *Information technology - Open Systems Interconnection - Procedures for the operation of OSI Registration Authorities - Part 1: General procedures. (Corresponds to ITU-T Recommendation X.660)*

ISO/IEC TR 10000-2: 1995, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and Taxonomy for OSI profiles.*

ISO/IEC TR 10000-3: 1995, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 3: Principles and Taxonomy for Open System Environment profiles.*

IEC/ISO Directives Part 3: 1989, *Drafting and presentation of International Standards.*

ISO/IEC JTC 1 Directives: 1995, *Procedures for the technical work of ISO/IEC JTC 1 on Information Technology.*

3 Definitions

For the purposes of this part of ISO/IEC TR 10000, the following definitions apply.

3.1 Terms defined in this part of ISO/IEC TR 10000

3.1.1 base standard: An approved International Standard or ITU-T Recommendation.

3.1.2 International Standardized Profile: An internationally agreed-to, harmonized document which describes one or more profiles.

3.1.3 IT system: A set of IT resources providing services at one or more interfaces.

3.1.4 profile: A set of one or more base standards and/or ISPs, and, where applicable, the identification of chosen classes, conforming subsets, options and parameters of those base standards, or ISPs necessary to accomplish a particular function.

NOTE - JTC 1 allows on exceptional basis references to other specifications.

3.1.5 taxonomy: A classification scheme for referencing profiles or sets of profiles unambiguously.

3.2 Terms defined in ISO/IEC PDTR 14252, "Guide to the POSIX Open System Environment (OSE)"

The following terms are defined in ISO/IEC PDTR 14252, "Guide to the POSIX OSE", and are included here for convenience.

NOTE - Since PDTR 14252 is currently under ballot, this text will be updated when the ballot resolution process is completed.

3.2.1 interoperability: The ability of two or more IT systems to exchange information and to make mutual use of the information that has been exchanged.

3.2.2 Open System Environment: The comprehensive set of interfaces, services, and supporting formats, plus user aspects, for interoperability and/or portability of applications, data, or people, as specified by information technology standards and profiles.

3.3 Conformance terminology

This part of ISO/IEC TR 10000 uses the following term related to conformance:

3.3.1 Implementation Conformance Statement [ICS]: A statement made by the supplier of an implementation or IT system claimed to conform to one or more specifications, stating which capabilities have been implemented, specifically including the relevant optional capabilities and limits.

NOTE - The ICS can take several forms (e.g. in OSI it can be a profile ICS, protocol ICS, information object ICS or profile specific ICS, as defined in ITU-T Rec. X.290 | ISO/IEC 9646-1, and in POSIX it is a POSIX Conformance Document as defined in ISO/IEC DIS 13210).

4 Abbreviations

ICS	Implementation Conformance Statement
ISP	International Standardized Profile
OSE	Open System Environment
OSI	Open Systems Interconnection