

**Implementation of ISO/IEC TR 10000-2 :
1992**

**Information technology —
Framework and taxonomy of
International Standardized
Profiles —**

Part 2 : Taxonomy of OSI Profiles

UDC 681.3.621.39

National foreword

This British Standard reproduces verbatim ISO/IEC TR 10000-2 : 1992 and implements it as the UK national standard.

This British Standard is published under the direction of the Information Systems Technology Standards Policy Committee whose Coordinating Panel IST/-/2 has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international committee any enquiries on interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

NOTE. International and European Standards, as well as overseas standards, are available from BSI Sales Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

TECHNICAL REPORT

ISO/IEC TR 10000-2

Second edition
1992-12-15

Information technology — Framework and taxonomy of International Standardized Profiles —

Part 2: Taxonomy of OSI Profiles

*Technologies de l'information — Cadre et taxonomie des profils
internationaux normalisés —*

Partie 2: Taxonomie



Reference number
ISO/IEC TR 10000-2:1992(E)

AVA Documents
Document Sharing Hub

Contents

Page

Foreword	iv
Introduction	v
1..... Scope	1
2..... Normative references	1
3 Definitions.....	2
4 Abbreviations.....	2
4.1..... General abbreviations	2
4.2..... Abbreviations used in Profile identifiers	2
5..... The Taxonomy: Principles	3
5.1..... General.....	3
5.2..... The Class concept for OSI Profiles.....	3
5.3..... Relationship between OSI Profiles	5
5.3.1..... A/T and B/U Boundaries.....	5
5.3.2..... A/F and B/F Boundaries	5
5.4..... The Group concept for OSI Lower Layer Profiles	5
5.5..... Profile classes.....	6
5.5.1..... Transport Profiles.....	6
5.5.1.1..... Principles	6
5.5.1.2..... Transport Profile identifier	6
5.5.1.3..... Connection-mode Transport Service: Profile class T	6
5.5.1.4..... Connectionless-mode Transport Service: Profile class U	7
5.5.1.5..... Interworking between Transport Profile Groups.....	7
5.5.1.6..... Introduction to the Taxonomy of Subnetwork Profiles	8
5.5.1.6.1..... Packet Switched Data Network.....	8
5.5.1.6.2..... Digital Data Circuit	8
5.5.1.6.3..... Analogue Telephone Circuit.....	8
5.5.1.6.4..... Integrated Services Digital Network	8
5.5.1.6.5..... Local Area Networks	8
5.5.2..... Relay Profiles.....	8
5.5.2.1..... Principles	8
5.5.2.2..... Relay Profile identifier	8
5.5.3..... Application Profiles.....	9
5.5.3.1..... Principles	9
5.5.3.2..... Common Upper Layer Requirements.....	9
5.5.3.3..... Application Profile identifier	9

© ISO/IEC 1992

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

ISO/IEC Copyright Office • Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

5.5.3.4	Introduction to the Taxonomy of Application Profiles	9
5.5.3.4.1	File Transfer, Access and Management	9
5.5.3.4.2	Message Handling	9
5.5.3.4.3	Directory	10
5.5.3.4.4	Virtual Terminal	10
5.5.3.4.5	OSI Management	10
5.5.3.4.6	Transaction Processing	10
5.5.3.4.7	Remote Database Access	10
5.5.3.4.8	Manufacturing Messaging	10
5.5.3.4.9	Library and Documentation	10
5.5.4	Interchange Format and Representation Profiles	10
5.5.4.1	Principles	10
5.5.4.2	Interchange Format and Representation Profile identifier	10
5.5.4.3	Introduction to the Taxonomy of Interchange Format and Representation Profiles	10
5.5.4.3.1	Open Document Format	10
5.5.4.3.2	Computer Graphics Metafile Interchange Format	11
5.5.4.3.3	SGML Interchange Format	11
5.5.4.3.4	Directory Data Definitions	11
5.5.4.3.5	Virtual Terminal Environment	11
6	Taxonomy of Profiles	12
6.1	Transport Profiles	12
6.1.1	Taxonomy of Subnetworks	12
6.1.2	Transport Groups	13
6.2	Relay Profiles	13
6.2.1	Relaying the Network Internal Layer Service, as defined in ISO/IEC 10028	13
6.2.2	Network Layer Protocol Relaying	13
6.2.3	Relaying the MAC Service	13
6.2.4	CO/CL Interworking	13
6.3	Application Profiles	14
6.3.1	File Transfer, Access and Management	14
6.3.2	Message Handling	14
6.3.3	Directory	14
6.3.4	Virtual Terminal	14
6.3.5	OSI Management	15
6.3.6	Transaction Processing	15
6.3.7	Remote Database Access	15
6.3.8	Manufacturing Messaging	15
6.3.9	Library and Documentation	15
6.4	Interchange Format and Representation Profiles	16
6.4.1	Open Document Format	16
6.4.2	Computer Graphics Metafile Interchange Format	16
6.4.3	SGML Interchange Format	16
6.4.4	Directory Data Definitions	16
6.4.5	Virtual Terminal Environment	17
Annex A		18
	Bibliography of other referenced documents	18

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, but 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 10000-2, which is a Technical Report of type 3, was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

This second edition cancels and replaces the first edition (ISO/IEC TR 10000-2:1990), 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: *Framework*
- Part 2: *Taxonomy of OSI Profiles*

Annex A of this part of ISO/IEC TR 10000 is for information only.

Introduction

The context of Functional Standardization is one part of the overall field of Information Technology 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 Directives of JTC 1.

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 2: Taxonomy of OSI Profiles

1 Scope

The purpose of this part of ISO/IEC TR 10000 is to provide a classification for Profiles which may be or have been submitted for ratification as International Standardized Profiles (ISPs).

ISO/IEC TR 10000-1 defines the concept of Profiles, as documented in ISPs, and gives guidance to organizations making proposals for Draft ISPs, on the nature and content of the documents they are producing.

ISO/IEC TR 10000 is intended to be applied to Profiles in the area of competence of JTC 1, and within this, priority consideration has been given to Profiles in the OSI area, i.e. those which specify OSI base standards, and those which are expected to be used in conjunction with them. Nevertheless, it is also applicable to Profiles specifying the use of other JTC 1 and CCITT base standards.

The existence of a Profile classification in this part of ISO/IEC TR 10000 does not reflect a judgement by ISO/IEC JTC 1/SGFS that a Profile is required for such capability. It merely provides a capability to identify uniquely such a function and to enable evaluation of PDISPs.

Since Profiles will be proposed according to needs identified to SGFS and according to the progress of international base standardization, the Taxonomy will be periodically updated or have new parts added in order to reflect the progress reached. It is also recognized that there will be proposals for the extension of the Taxonomy to cover functions which were not identified during preparation of this edition of ISO/IEC TR 10000. These extensions may be identified by a variety of proposers and involve simple extensions to the existing Taxonomy or the addition of new functional areas not currently covered by ISO/IEC TR 10000. The inclusion of such extensions is administered following the procedures elaborated by SGFS.

A distinction has been made between a Profile and an ISP documenting one or more Profiles. The Taxonomy is only concerned with Profiles, but further information is given in the "Directory of ISPs and Profiles contained therein" as to which ISP contains the documentation of a Profile.

This *Directory* is maintained as an SGFS standing document SD-4 (see Annex A). For each draft Profile submitted to SGFS, it will also provide additional information, including the status of the identified Profiles.

2 Normative 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 listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 8073 : 1992, *Information technology - Telecommunications and information exchange between systems - Open Systems Interconnection - Protocol for providing the connection-mode transport service*.

ISO/IEC 8473 : 1988, *Information processing systems - Data communications - Protocol for providing the connectionless-mode network service*.

ISO/IEC 8602 : 1987, *Information processing systems - Open Systems Interconnection - Protocol for providing the connectionless-mode transport service*.

ISO/IEC 9506 : 1990, *Industrial automation systems - Manufacturing Messaging Specification*.

ISO/IEC TR 10000-1 : 1992, *Information technology - Framework and taxonomy of International Standardized Profiles Part 1: Framework*.

ISO/IEC 10021 : 1990, *Information technology - Text Communication - Message Oriented Text Interchange Systems (MOTIS)*.

ISO/IEC 10028 : 1992, *Information technology - Telecommunications and information exchange between systems - Definition of the relaying functions of a Network Layer intermediate system*.