

**Implementation of
ISO/IEC 10040:1992**

**Information
technology —
Open Systems
Interconnection —
Systems management
overview**

UDC 681.3:691.39

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- British Telecommunications plc
- Ccta (the Government Centre for Information Systems)
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Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
Foreword	iii
Text of ISO/IEC 10040	1

National foreword

This British Standard reproduces verbatim ISO/IEC 10040:1992 including Technical Corrigendum 1, 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 Technical Committee IST/21 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.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ISO/IEC title page, pages ii to iv, pages 1 to 23 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

INTERNATIONAL STANDARD

ISO/IEC 10040

First edition
1992-11-01

Information technology — Open Systems Interconnection — Systems management overview

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Aperçu général de la gestion-système*



Reference number
ISO/IEC 10040:1992(E)

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Contents

	Page
Foreword	iii
1 Scope	1
2 Normative references	1
2.1 Identical CCITT Recommendations International Standards	1
2.2 Paired Recommendations International Standards equivalent in technical content	2
2.3 Additional references	2
3 Definitions	3
3.1 Basic reference model definitions	3
3.2 Management framework definitions	3
3.3 CMISE definitions	3
3.4 Management information model definitions	3
3.5 OSI conformance testing methodology and framework definitions	3
3.6 Systems management overview definitions	3
4 Abbreviations	5
5 Systems management	5
6 Systems management model	6
6.1 Introduction	6
6.2 Information aspects	7
6.3 Functional aspects	9
6.4 OSI communications aspects	9
6.5 Organizational aspects	12
7 Systems management standards	14
7.1 Architecture and structure	14
7.2 Communication of management information	14
7.3 Structure of management information	14
7.4 Systems management functions	15
8 Conformance and compliance	15
8.1 Compliance to this Recommendation International Standard	16
8.2 Conformance to this Recommendation International Standard	18
Annex A Application context for systems management	19
Annex B Scope statement for systems management functions	22
Figure 1 — Systems management interactions	7
Figure 2 — Relationship between information and communication aspects of the systems management model	8
Figure 3 — Communication support for notifications and managements operations	10
Figure 4 — Management and the application layer	11
Figure 5 — Views of shared management knowledge	12
Figure 6 — Concept of management domains	13
Figure 7 — Relationship between standards	16

Descriptors: Data processing, information interchange, network interconnection, open systems interconnection, systems management, management, generalities.

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 participate 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 10040 was prepared by the Joint Technical Committee ISO/IEC JTC1, *Information technology*, in collaboration with CCITT. The identical text is published as CCITT Recommendation X.701.

Annex A forms an integral part of ISO/IEC 10040.

Annex B is for information only.

1 Scope

This Recommendation | International Standard

- provides an overview to the family of systems management standards;
- establishes the basis for partitioning the systems management standards into separate groups, specifying the scope of each group and identifying the principal components within each group;
- gives guidance on the development of systems management standards and identifies the way they relate to each other;
- defines terms for use by other systems management standards.
- is applicable to the definition of all systems management standards and to all aspects of systems management of whatever scale;
- is applicable to situations in which the responsibility for systems management is centralised and those where it is decentralised;
- establishes a model for systems management, identifies several aspects of systems management (i.e., information, functional, communications, and organizational), and further refines the model to clarify these aspects;
- identifies the principles governing conformance requirements and conformance claims to systems management standards.

There are no conformance requirements on the main body of this Recommendation | International Standard, however it does specify requirements on standards claiming compliance to systems management.

Annex A of this Recommendation | International Standard defines an application context for systems management and specifies the rules for negotiating systems management functional units. There are conformance requirements associated with these rules.

2 Normative references

The following CCITT Recommendations and 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 parties to agreement based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent editions of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The CCITT Secretariat maintains a list of the currently valid CCITT Recommendations.

2.1 Identical CCITT Recommendations | International Standards

- CCITT Recommendation X.720 (1992) | ISO/IEC 10165-1:1992, *Information technology — Open Systems Interconnection — Structure of management information: Management information model.*
- CCITT Recommendation X.721 (1992) | ISO/IEC 10165-2:1992, *Information technology — Open Systems Interconnection — Structure of management information: Definition of management information.*
- CCITT Recommendation X.722 (1992) | ISO/IEC 10165-4:1992, *Information technology — Open Systems Interconnection — Structure of management information: Guidelines for the definition of managed objects.*
- CCITT Recommendation X.730 (1992) | ISO/IEC 10164-1:1992, *Information technology — Open Systems Interconnection — Systems Management: Object management function.*
- CCITT Recommendation X.731 (1992) | ISO/IEC 10164-2:1992, *Information technology — Open Systems Interconnection — Systems Management: State management function.*
- CCITT Recommendation X.732 (1992) | ISO/IEC 10164-3:1992, *Information technology — Open Systems Interconnection — Systems Management: Attributes for representing relationships.*
- CCITT Recommendation X.733 (1992) | ISO/IEC 10164-4:1992, *Information technology — Open Systems Interconnection — Systems Management: Alarm reporting function.*

- CCITT Recommendation X.734¹⁾ (1992) | ISO/IEC 10164-5:1992, *Information technology — Open Systems Interconnection — Systems Management: Event report management function*.
- CCITT Recommendation X.735¹⁾ (1992) | ISO/IEC 10164-6:1992, *Information technology — Open Systems Interconnection — Systems Management: Log control function*.
- CCITT Recommendation X.736 (1992) | ISO/IEC 10164-7:1992, *Information technology — Open Systems Interconnection — Systems Management: Security alarm reporting function*.

2.2 Paired Recommendations | International Standards equivalent in technical content

- CCITT Recommendation X.200 (1988), *Reference Model of Open Systems Interconnection for CCITT Applications*.
- ISO 7498:1984, *Information processing systems — Open Systems Interconnection — Basic Reference Model*.
- CCITT Recommendation X.700¹⁾, *Management Framework Definition for Open Systems Interconnection (OSI) for CCITT Applications*.
- ISO/IEC 7498-4:1989, *Information processing systems — Open Systems Interconnection — Basic Reference Model — Part 4: Management framework*.
- CCITT Recommendation X.209 (1988), *Specification of basic encoding rules for abstract syntax notation one (ASN.1)*.
- ISO/IEC 8825:1990, *Information technology — Open Systems Interconnection — Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)*.
- CCITT Recommendation X.217 (1988), *Association control service definition for Open Systems Interconnection for CCITT Applications*.
- ISO 8649:1988, *Information processing systems — Open Systems Interconnection — Service definition of the Association Control Service Element*.
- CCITT Recommendation X.227 (1988), *Association Control Protocol Specification for Open Systems Interconnection for CCITT Applications*.
- ISO 8650:1988, *Information processing systems — Open Systems Interconnection — Protocol specification for the Association Control Service Element*.

- CCITT Recommendation X.219 (1988), *Remote Operations: model, notation and service definition*.
- ISO/IEC 9072-1:1989, *Information processing — Text communication — Remote Operations — Part 1: Model, notation and service definition*.
- CCITT Recommendation X.229 (1988), *Remote Operations: Protocol specification*.
- ISO/IEC 9072-2:1989, *Information processing systems — Text communication — Remote Operations — Part 2: Protocol specification*.
- CCITT Recommendation X.290 (1992), *OSI Conformance testing Methodology and Framework for Protocol Recommendations for CCITT Applications — General Concepts*.
- ISO/IEC 9646-1:1991, *Information technology — Open Systems Interconnection — Conformance testing methodology and framework — Part 1: General concepts*.
- CCITT Recommendation X.710 (1991), *Common management information service definition for CCITT applications*.
- ISO/IEC 9595:1991, *Information technology — Open Systems Interconnection — Common management information service definition*.
- CCITT Recommendation X.711 (1991), *Common management information protocol specification for CCITT applications*.
- ISO/IEC 9596-1:1991, *Information technology — Open Systems Interconnection — Common management information protocol — Part 1: Specification*.

2.3 Additional references

- ISO/IEC 8571:1989, *Information processing systems — Open Systems Interconnection — File Transfer, Access and Management*.
- ISO/IEC 9545:1989, *Information technology — Open Systems Interconnection — Application Layer structure*.
- ISO/IEC 10026: ...²⁾, *Information technology — Open Systems Interconnection — Distributed Transaction Processing*.

¹⁾ Presently at state of draft Recommendation.

²⁾ To be published.