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STANDARD

ISO/IEC
9041-1

Second edition
1997-06-15

**Information technology — Open Systems
Interconnection — Virtual Terminal Basic
Class Protocol —**

Part 1:
Specification

Technologies de l'information — Interconnexion de systèmes ouverts

(OSI) — Protocole de classe de base de terminal virtuel —

Partie 1: Spécification



Reference number
ISO/IEC 9041-1:1997(E)

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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 and 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 JTC1. 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 9041-1 was prepared by Joint Technical Committee ISO/IEC JTC1, *Information technology, Subcommittee SC21, Open systems interconnection, data management and open distributed processing*.

This second edition cancels and replaces the first edition (ISO/IEC 9041-1:1990), which has been technically revised. It also incorporates Amendment 2:1992, Technical Corrigendum 1:1992 and Technical Corrigendum 2:1993.

ISO/IEC 9041 consists of the following parts, under the general title *Information technology – Open Systems Interconnection – Virtual Terminal Basic Class Protocol*:

– *Part 1: Specification*

– *Part 2: Implementation Conformance Statement (PICS) Proforma*

Annexes A and B form an integral part of this part of ISO/IEC 9041.

Introduction

ISO/IEC 9041 is one of a set of International Standards produced to facilitate the interconnection of computer systems. It is related to other International Standards in the set as defined in the Reference Model for Open Systems Interconnection (ISO/IEC 7498-1). The Reference Model subdivides the area of standardization for interconnection into a series of layers of specification, each of manageable size.

This part of ISO/IEC 9041 defines the manner in which two protocol machines (called Virtual Terminal Protocol Machines or VTPMs) in the Application Layer of the Reference Model for Open Systems Interconnection communicate in order to provide the Virtual Terminal Basic Class Service defined in ISO/IEC 9040 making use of the Presentation Layer and of the association control service of ACSE within the Application Layer.

Part 2 of ISO/IEC 9041 includes the Protocol Implementation Conformance Statement (PICS) proforma for the Virtual Terminal Basic Class Protocol as defined in this part of ISO/IEC 9041.

Information technology – Open Systems Interconnection – Virtual Terminal Basic Class Protocol – Part 1: Specification

1 Scope

This part of ISO/IEC 9041 specifies:

- a) a set of procedures for the connection-oriented transfer of data, control and reference information between protocol machines which implement the functions of a provider of the Basic Class Virtual Terminal Service;
- b) the two modes in which those procedures operate;
- c) the structure of protocol elements used for the transfer of data and control information and the mapping of these protocol elements onto ACSE and lower layer services;
- d) the means of negotiating the functional units to be used by the protocol machines and the parameters of the service;
- e) the structure and mapping of protocol elements used for the transfer of data and control information.

The procedures are defined in terms of:

- f) the interactions between Virtual Terminal Protocol Machines through the exchange of Virtual Terminal protocol elements;
- g) the interactions between a Virtual Terminal Protocol Machine and the Virtual Terminal service user in the same system through the exchange of Virtual Terminal service primitives;
- h) the interactions between a Virtual Terminal Protocol Machine and the ACSE and Presentation Service providers through the exchange of service primitives.

This part of ISO/IEC 9041 also specifies conformance requirements (see clause 13) for systems implementing these procedures. It does not contain tests which can be used to demonstrate this conformance.

These procedures are applicable to instances of communication between systems that support the Basic Class Virtual Terminal Service in the Application Layer of the Reference Model for Open Systems Interconnection and which wish to interconnect in an open systems environment.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9041. 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 9040 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 2022:1994, *Information technology – Character code structure and extension techniques (fourth edition)*.

ISO/IEC 6429:1992, *Information technology – Control functions for coded character sets (third edition)*.

ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model*.

ISO/IEC 7498-3:1997, *Information technology – Open Systems Interconnection – Basic Reference Model: Naming and addressing*.

ISO/IEC 8326:1996, *Information technology – Open System Interconnection – Session service definition (second edition)*.

ISO/IEC 8649:1996, *Information technology – Open Systems Interconnection – Service definition for the Association Control Service Element (second edition)*.

ISO/IEC 8822:1994, *Information technology – Open Systems Interconnection – Presentation service definition*.

ISO/IEC 8824-1:1995, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation*.

ISO/IEC 8825-1:1994, *Information technology – ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)*.

ISO/IEC 9040:1997, *Information technology – Open Systems Interconnection – Virtual Terminal Basic Class Service*.

ISO/IEC 10731:1994, *Information technology – Open Systems Interconnection – Basic Reference Model – Conventions for the definition of OSI services*.

The International Register of Coded Character Sets to be used
with Escape Sequences. ¹⁾

1) Available from the European Computer Manufacturers Association (ECMA), 114 Rue du Rhône, CH 1204 Genève, Switzerland.