

Implementation of
ISO/IEC 9072-2:1989

Information processing systems — Text communication — Remote Operations —

Part 2: Protocol specification

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Information Technology Systems Standards Policy Committee (IST/-) to Technical Committee IST/18, upon which the following bodies were represented:

- British Computer Society
- British Facsimile Industry Consultative Committee
- British Printing Industries Federation
- British Telecommunications plc
- Computing Services Association
- Department of Trade and Industry (Information Technology Division)
- EEA (The Electronics and Business Equipment Association)
- HM Treasury (Central Computer and Telecommunications Agency)
- Her Majesty's Stationery Office
- Joint Network Team
- Ministry of Defence
- National Computer Users' Forum
- National Computing Centre Ltd.
- SGML Users' Group
- Telecommunication Engineering and Manufacturing Association
- University of London
- User Standards Forum for Information Technology (Institute of Data Processing Management)

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National foreword

This British Standard reproduces verbatim ISO/IEC 9072-2:1989 and implements it as the UK national standard.

This British Standard is published under the direction of the Information Technology Systems Standards Policy Committee whose Technical Committee IST/18 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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A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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

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 19 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 9072-2

First edition
1989-11-15

Information processing systems — Text communication — Remote Operations —

Part 2 : Protocol specification

*Systèmes de traitement de l'information — Communication de texte — Opérations
à distance —*

Partie 2 : Spécification du protocole



Reference number
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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) together form a system for worldwide standardization as a whole. 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 approval before their acceptance as International Standards. They are approved in accordance with procedures requiring at least 75 % approval by the national bodies voting.

International Standard ISO/IEC 9072-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Introduction

This part of ISO/IEC 9072 specifies the protocol for the services provided by an application-service-element — the Remote Operations Service Element (ROSE) — to support interactive applications in a distributed open systems environment. This part of ISO 9072 is one of a set of International Standards defining sets of application-service-elements commonly used by a number of applications.

Interactions between entities of a distributed application are modeled as Remote Operations, and defined using a Remote Operations notation. A Remote Operation is requested by one entity; the other entity attempts to perform the Remote Operation and then reports the outcome of the attempt. Remote Operations are supported by the ROSE.

This part of ISO/IEC 9072 is technically aligned with CCITT Recommendation X.229.

1 Scope

This part of ISO/IEC 9072 specifies the protocol (abstract syntax) and procedures for the Remote Operation Service Element (part 1 of this International Standard). The ROSE services are provided in conjunction with the Association Control Service Element (ACSE) services (ISO 8649) and the ACSE protocol (ISO 8650), optionally the Reliable Transfer Service Element (RTSE) services (ISO/IEC 9066-1) and the RTSE protocol (ISO/IEC 9066-2), and the presentation-service (ISO 8822).

The ROSE procedures are defined in terms of

- a) the interactions between peer ROSE protocol machines through the use of RTSE services or the presentation-service;
- b) the interactions between the ROSE protocol machine and its service-user.

This part of ISO/IEC 9072 specifies conformance requirements for systems implementing these procedures.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 9072. At the time of publication, the editions were valid. All Standards are subject to revision, and parties to agreement based on this part of ISO/IEC 9072 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of ISO and IEC maintain Registers of currently valid International Standards.

ISO/IEC 7498:1984, *Information processing systems — Open Systems Interconnection — Basic Reference Model*.

ISO/TR 8509:1987, *Information processing systems — Open Systems Interconnection — Service Conventions*.

ISO 8649:1988, *Information processing systems — Open Systems Interconnection — Service definition for the Association Control Service Element*.

ISO 8650:1988, *Information processing systems — Open Systems Interconnection — Protocol specification for the Association Control Service Element*.

ISO 8822:1988, *Information processing systems — Open Systems Interconnection — Connection oriented presentation service definition*.

ISO 8824:1987, *Information processing systems — Open Systems Interconnection — Specification of Abstract Syntax Notation One (ASN.1)*.

ISO 8825:1987, *Information processing systems — Open Systems Interconnection — Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1)*.

ISO/IEC 9066-1:1989, *Information processing systems — Text communication — Reliable Transfer — Part 1: Model and service definition*.

ISO/IEC 9066-2:1989, *Information processing systems — Text communication — Reliable Transfer — Part 2: Protocol specification*.

ISO/IEC 9072-1:1989, *Information processing systems — Text communication — Remote Operations — Part 1: Model, notation and service definition*.

3 Definitions

3.1 Reference Model definitions

This part of ISO/IEC 9072 is based on the concepts developed in ISO/IEC 7498 and makes use of the following terms defined in it:

- a) Application Layer;
- b) application-process;
- c) application-entity;
- d) application-service-element;
- e) application-protocol-data-unit;
- f) application-protocol-control-information;
- g) presentation-service;
- h) presentation-connection;
- i) session-service;
- j) session-connection;
- k) transfer syntax; and
- l) user-element.

3.2 Service conventions definitions

This part of ISO/IEC 9072 makes use of the following terms defined in ISO/TR 8509:

- a) service-provider;
- b) service-user;