AS 3616—1989
ISO 8823:1988

Australian Standard®

# Information processing systems—

# Open Systems Interconnection—Connection oriented presentation protocol specification

This Australian Standard was prepared by Committee IS/1, Information Processing Systems. It was approved on behalf of the Council of Standards Australia on 23 January 1989 and published on 13 March 1989.

---

The following interests are represented on Committee IS/1:

Australian Association of Permanent Building Societies
Australian Bankers' Association
Australian Bureau of Statistics
Australian Computer Equipment Manufacturers Association
Australian Computer Society
Australian Computer Users Association
Australian Computing Services Association
Australian Information Industry Association
CSIRO
CSIRONET
Department of Defence
Department of Industry, Technology and Commerce
Life Insurance Federation of Australia
Public Service Board, N.S.W.
Telecom Australia
Universities and colleges

---

AS 3616—1989

Australian Standard®

# Information processing systems—

# Open Systems Interconnection—Connection oriented presentation protocol specification

First published as AS 3616—1989.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 5517 3

# PREFACE

This Standard was prepared by the Standards Australia's Committee on Information Processing Systems. It is identical with and has been reproduced from International Standard ISO 8823-1988: *Information processing systems—Open Systems Interconnection—Connection oriented presentation protocol specification.*

The Standard is one of a series of Open Systems Interconnection (OSI) Standards which are currently under development. Since OSI Standards are developmental, there may be some minor difficulties encountered in their implementation. For this reason, Standards Australia will be providing a limited interpretation service to coordinate and disseminate information concerning difficulties which are identified in using this Standard.

For the purpose of this Australian Standard, the text of the ISO Standard given herein should be modified as follows:

(a) *Terminology.* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.

(b) *References.* The references to International Standards should be replaced by references to Australian Standards as follows:

| *Reference to international Standard* | | *Australian Standard* | |
|---|---|---|---|
| ISO | | AS | |
| 7498 | Information processing systems—Open Systems Interconnection—Basic reference model | 2777 | Information processing systems—Open Systems Interconnection—Basic reference model |
| 7498.3 | Information processing systems—Open Systems Interconnection—Basic reference model Part 3: Naming and addressing | 2777.3 | Information processing systems—Open Systems Interconnection—Basic reference model—Part 3: Naming and addressing |
| 8326 | Information processing systems—Open Systems Interconnection—Basic connection oriented session—Service definition | 3591 | Information processing systems—Open Systems Interconnection—Basic connection oriented session service definition |
| 8824 | Information processing systems—Open Systems Interconnection—Specification of Abstract Syntax Notation One (ASN.1) | 3625 | Information processing systems—Open Systems Interconnection—Specification of Abstract Syntax Notation One (ASN.1) |
| 8825 | Information processing systems—Open Systems Interconnection—Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1) | 3626 | Information processing systems—Open Systems Interconnection—Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1) |
| 8822 | Information processing systems—Open Systems Interconnection—Connection oriented presentation service definition | 3615 | Information processing systems—Open Systems Interconnection—Connection oriented presentation service definition |
| TR8509 | Information processing systems—Open Systems Interconnection—Service conventions | 3620 | Information processing systems—Open System Interconnection—Service conventions |
| CCITT | Recommendation X.410, Message handling systems: Remote operations and reliable transfer serve (1984) | — | |

**Contents**

Page

# Information processing systems — Open Systems Interconnection — Connection oriented presentation protocol specification

## 0 Introduction

This International Standard is one of a set of International Standards produced to facilitate the interconnection of information processing systems. It is related to other International Standards in the set as defined by the Reference Model for Open Systems Interconnection (ISO 7498). The Reference Model subdivides the area of standardization for interconnection into a series of layers of specification, each of manageable size.

This International Standard specifies a common encoding and a number of functional units of presentation protocol procedures to be used to meet the needs of presentation-service-users. It is intended that the presentation protocol should be simple but general enough to cater for the total range of presentation-service-user needs without restricting future extensions.

The primary aim of this International Standard is to provide a set of rules for communication expressed in terms of the procedures to be carried out by peer entities at the time of communication. These rules for communication are intended to provide a sound basis for development in order to serve a variety of purposes:

a) as a guide for implementors and designers;

b) for use in the testing and procurement of equipment;

c) as part of an agreement for the admittance of systems into the open systems environment;

d) as a refinement of the understanding of OSI.

It is expected that the initial users of this International Standard will be designers and implementors of equipment and therefore it contains, in notes or in annexes, guidance on the implementation of its procedures.

It has not been possible as yet to prepare a product standard containing a set of objective tests for conformance to this International Standard but it does contain a section on conformance of equipment claiming to implement the procedures it specifies. Attention is drawn to the fact that this International Standard does not contain any tests to demonstrate this conformance and cannot, therefore, be considered as a complete product standard. The variations and options available within this International Standard are essential to enable a presentation-service to be provided for a wide variety of applications. Thus, a minimally conforming implementation will not be suitable for use in all possible circumstances. It is necessary, therefore, to qualify all references to this International Standard with statements of the options provided or required, or with statements of the intended purpose of provision or use.

## 1 Scope and field of application[1)]

**1.1** This International Standard specifies

a) procedures for the transfer of data and control information from one presentation-entity to a peer presentation-entity;

b) the means of selecting, by means of functional units, the procedures to be used by the presentation-entities;

c) the structure and encoding of the presentation-protocol-data-units used for the transfer of data and control information.

The procedures are defined in terms of

d) the interactions between peer presentation-entities through the exchange of presentation-protocol-data-units;

e) the interactions between a presentation-entity and the presentation-service-user in the same system through the exchange of presentation-service primitives;

f) the interactions between a presentation-entity and the session-service-provider through the exchange of session-service primitives.

**1.2** These procedures are defined in the main text of this International Standard supplemented by state tables in annex A.

**1.3** These procedures are applicable to instances of communication between systems which support the Presentation Layer of the OSI Reference Model and which wish to interconnect in an OSI environment.

**1.4** This International Standard also specifies conformance criteria for systems implementing these

---

[1)] The implementation and use of this International Standard for Open Systems Interconnection requires the public assignment of values of ASN.1 type OBJECT IDENTIFIER to specifications of abstract syntaxes and transfer syntaxes. Public specification and naming of abstract syntaxes and transfer syntaxes can occur in ISO standards or CCITT Recommendations, or under the mechanisms identified in the Registration Authority procedures. A Registration Authority procedures specification is under development.