
British Standard for

Open Systems Interconnection: connection-oriented presentation service definition

[ISO title: Information processing systems—Open Systems Interconnection—Connection oriented presentation service definition]

Interconnexion de systèmes ouverts: Définition du service de présentation

Kommunikation Offener Systeme: Definition der verbindungsorientierten Dienste der Darstellungsschicht

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National foreword

This British Standard has been prepared under the direction of the Information Systems Technology Standards Policy Committee. It is identical with ISO 8822 : 1988 'Information processing systems—Open Systems Interconnection—Connection oriented presentation service definition'. The international standard was prepared and published by the International Organization for Standardization (ISO) with the active participation and approval of the UK. It is a revision of DD 101 : 1986 which is withdrawn.

Addenda to the international standard are planned to cover the following areas:

- (a) connectionless-mode presentation service;
- (b) presentation symmetric synchronization service;
- (c) use of session unlimited user data;
- (d) security features.

These addenda are expected to be incorporated in BS 7093 when they have been published by ISO.

This standard is closely related to the companion protocol standard BS 7094 'Open Systems Interconnection: connection-oriented presentation protocol specification'.

Up-to-date information on existing and projected British Standards publications for Open Systems Interconnection is included in the 'Basic List', published as part of the BSI Information Technology Services (BITS) initiative. For details contact: Marketing Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

Terminology and conventions. The text of the international standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

Wherever the words 'International Standard' or 'ISO 8822' appear, referring to this standard, they should be read as 'British Standard' or 'BS 7093' respectively.

Cross-references

International standard	Corresponding British Standard
ISO 7498 : 1984	BS 6568 Reference model of open systems interconnection Part 1 : 1988 Basic reference model (incorporating connectionless-mode transmission) (Identical)
ISO 8326 : 1987	BS 6960 : 1988 Open Systems Interconnection: basic connection-oriented session service definition (Identical)
ISO/TR 8509 : 1987	DD 108 : 1988 Open Systems Interconnection: service conventions (Identical)
ISO 8823 : 1988	BS 7094 : 1989 Open Systems Interconnection: connection-oriented presentation protocol specification (Identical)
ISO 8824 : 1987	BS 6962 : 1988 Open Systems Interconnection: specification for Abstract Syntax Notation One (ASN.1) (Identical)

The Technical Committee has reviewed the provisions of ISO 7498-3 and CCITT Recommendation X.410*, to which reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

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

* Available from Sales Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.



Implementation of Amendment 1

**Connectionless-mode presentation service
published and effective from 15 July 1992
to BS 7093 : 1989 (ISO 8822 : 1988)**

**Open Systems Interconnection : Connection-
oriented presentation service definition**

AMD 6946

ISO 8822 : 1988/
Amd 1 : 1991

AMD 6946
July 1992

National foreword

In line 3, after 'definition' insert, 'including Amendment 1'.

AMD 6946
July 1992

ISO text

Insert the attached as appropriate.

INTERNATIONAL STANDARD

**ISO
8822**

First edition
1988-08-15

AMENDMENT 1
1991-09-15

Information processing systems — Open Systems Interconnection — Connection oriented presentation service definition

AMENDMENT 1: Connectionless-mode presentation service

*Systèmes de traitement de l'information — Interconnexion de systèmes ouverts —
Définition du service de présentation en mode connexion —*

AMENDEMENT 1: Service de présentation en mode sans connexion



Reference number
ISO 8822 : 1988/Amd.1 : 1991 (E)

AVA Documents
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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 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 voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Amendment 1 to International Standard ISO 8822 : 1988 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Introduction to this amendment

This is amendment 1 to ISO 8822 : 1988 covering connectionless-mode Presentation Service.

This amendment defines connectionless-mode Presentation service which may be used by OSI applications for connectionless transmission.

Format and notation

This amendment is written as a “delta document.” That is, it will be merged with the base document, ISO 8822 : 1988. Editing instructions are in italic caps and are contained within { }:

{THIS IS AN EXAMPLE OF AN EDITING INSTRUCTION.}

Modifications to original text (i.e. ISO 8822 : 1988) are indicated as deletions (~~this is deleted text~~), and insertions that are italicized and within << >> (<<*This is inserted text.*>>). However, this notation is not used for replaced or inserted text.

Information processing systems — Open systems Interconnection — Connection oriented presentation service definition

AMENDMENT 1: Connectionless-mode presentation service.

{MOVE THE INTRODUCTION (THE ORIGINAL CLAUSE 0) TO THE FRONT OF THE INTERNATIONAL STANDARD AS A PRELIMINARY ELEMENT. WHEN THIS IS DONE, THE INTRODUCTION WILL BE ON PAGE "iv" AND THE NUMBERS PRECEDING THE PARAGRAPHS OF THE ORIGINAL CLAUSE 0 WILL BE DELETED.}

⊕ Introduction {NO CHANGE}
{NO CHANGE IS MADE TO THIS CLAUSE.}

~~1 Scope and field of application~~

{REPLACE CLAUSE 1.2 BY THE FOLLOWING PARAGRAPH}

1.2 The service defined in this International Standard is the connection-oriented service which is provided by the OSI connection-oriented presentation protocol and the connectionless service which is provided by the OSI connectionless presentation protocol, each in conjunction with the OSI session service.

The connection-oriented presentation service defined in this International Standard may be used by an OSI application protocol defined for connection-oriented transmission. The connectionless presentation service defined in this International Standard may be used by an OSI application protocol defined for connectionless transmission.

2 <<Normative>> references {ADD THE FOLLOWING REFERENCES}

ISO 7498/Add.1: 1987, *Information processing systems - Open Systems Interconnection - Basic Reference Model - Addendum 1: Connectionless-mode transmission.*

ISO 8326/Add.3: -¹⁾, *Information processing systems - Open Systems Interconnection - Basic connection oriented session service definition - Addendum 3: Connectionless-mode session service.*

ISO 9576: 1991, *Information processing systems - Open Systems Interconnection - Connectionless Presentation Protocol Specification.*

3 Definitions

3.1 Reference Model definitions

{REFERENCE ISO 7498/ADD.1 AS A SOURCE FOR ADDITIONAL DEFINITIONS}

{ADD TO THE LIST}

n) (N)-connectionless-mode transmission

3.4 Presentation-service definitions

{ADD TO THE END OF THE FIRST SENTENCE OF 3.4.10}

.... for a given presentation-connection or p-connectionless-mode transmission.

4 Abbreviations {NO CHANGE} {NO CHANGE IS MADE TO THIS CLAUSE.}

5 Conventions {NO CHANGE} {NO CHANGE IS MADE TO THIS CLAUSE.}

1) To be published.

Section 1: General

6 Overview Of the presentation service

6.1 Purpose

{ADD TO THE EXISTING TEXT}

.... between open systems (see ISO 7498 and ISO 7498/Add.1) utilizing connection oriented or connectionless-mode transmission.

6.2 Relationship to Application Layer

{ADD THE FOLLOWING CLAUSES}

6.2.5 For Connectionless-mode transmission, the abstract syntaxes used are determined by the sending application-entity. For successful communication to take place, these must be acceptable to the receiving application-entity.

6.2.6 For Connectionless-mode transmission, the presentation-entities do not negotiate transfer syntaxes. The transfer syntaxes used are determined by the sending application-entity. For successful communication to take place, these must be acceptable to the receiving application-entity. The abstract syntaxes and the associated transfer syntaxes may be explicitly stated in the 'Presentation context definition list' parameter as a user option.

6.3 Relationship to Session Layer

{ADD TO THE EXISTING TEXT}

.... facilities described in ISO 7498 and ISO 7498/Add.1.

6.4 Features of the Presentation Layer

{ADD THE FOLLOWING SENTENCE}

For connectionless-mode transmission, the sending presentation-entity selects the transfer syntaxes. No transfer syntax negotiation occurs.

6.7 Presentation context definition

{REPLACE THE FIRST SENTENCE OF 6.7.2 WITH THE FOLLOWING}

There are three services by which presentation contexts may be defined. These are the P-CONNECT, P-ALTER-CONTEXT and the P-UNIT-DATA services.

7 Facilities of the service

{ADD A NEW CLAUSE}

7.6 Connectionless information transfer facility

The connectionless-mode information transfer facility provides services which allow a PS-user to transfer a single presentation service data unit to another PS-user without the need for establishing a connection.

{ADD TO TABLE 1}

Name of service	Type of service	Purpose
Connectionless information transfer facility P-UNIT-DATA	Non-confirmed	(see the note)

8 Functional units

{ADD THE FOLLOWING}

8.5 The P-UNIT-DATA service operates independently of all defined presentation functional units.

9 Quality of Service {NO CHANGE}
{NO CHANGE IS MADE TO THIS CLAUSE.}

Section 2: Definition of Service Primitives

10 Presentation service primitives

{ADD TO TABLE 2}

SERVICE PRIMITIVE	PARAMETER
P-UNIT-DATA request	Calling-presentation-address Called-presentation-address Presentation context definition list Quality of service User data
P-UNIT-DATA indication	Calling-presentation-address Called-presentation-address Presentation context definition list User data

{ADD THE FOLLOWING}

10.24 P-UNIT-DATA service

This service is used to transmit a self-contained presentation-service-data-unit (PSDU) from one PSAP to another PSAP in a single presentation-service-access. The PSDU is self-contained in the sense that all of the information required to deliver the PSDU is presented to the

presentation-service-provider, together with the user data to be transmitted, in a single service access.

10.24.1 Structure

The structure of the component service primitive is shown in table 24.

Table 24 - P-UNIT-DATA service

Parameter Name	Request	Indication
Calling-presentation-address	M	M
Called-presentation-address	M	M
Presentation context definition list	U	C(=)
Quality of Service	S	
User Data	M	M(=)

Key:

- M : presence of the parameter is mandatory;
- U : Presence of the parameter is a user option;
- C : Presence of the parameter is conditional;

- S : parameter is as required by the session-service primitive which supports this service (see ISO 8326/Add.3);
- (=) : when appending to one of the above, the value of the parameter is equal to the value of the parameter indicated in the column to the left;
- blank : the parameter is not present.

10.24.1.1 Calling-presentation-address

This is a presentation-address (See ISO 7498-3).

10.24.1.2 Called-presentation-address

This is a presentation-address (See ISO 7498-3).

10.24.1.3 Presentation context definition list

This parameter is present when the PS-user requires to send presentation data values using one or more presentation contexts supporting named abstract syntaxes. It consists of a list of one or more items; each item contains two components, a presentation context identification and an abstract syntax name.

The presentation context identification components of this parameter exist to distinguish presentation contexts in communication between PS-users and the local presentation-entity. The unambiguous identification of the presentation context to be established is required. The way this is achieved in a real open system is an implementation matter.

Note- A separate presentation context is associated with each abstract syntax name in the list of names in the presentation context definition list parameter. If the same name occurs more than once, a separate and distinctly identified presentation context is generated to each occurrence.

10.24.1.4 Quality of service

This parameter provides the PS-user with access to the Quality of Service parameter of the session-service and is described for that parameter in ISO 8326/Add.3.

10.24.1.5 User data

This parameter is composed of one or more presentation data values (including any embedded presentation data values) from presentation contexts defined in the presentation context definition list parameter, if present. If the presentation context definition list parameter is not present, then the parameter is composed of one or more

presentation data values from the default context. The interpretation of this data is an Application Layer matter. No other significance is attached to the data by the presentation-service.

NOTE- The amount of user data which can be transferred is limited by the underlying the presentation service provider. See also ISO 8823/Add.2.

10.24.2 Unit-data procedure

10.24.2.1 The presentation-service provider conveys the calling-presentation-address, called-presentation-address and the user-data parameters from the sending to the receiving PS-user.

10.24.2.2 If the presentation-service provider cannot support all the abstract syntaxes used in the user-data parameter of the request primitive, the indication primitive is not issued.

11 Sequences

{ADD THE FOLLOWING}

11.10 P-UNIT-DATA service

11.10.1 Type of service

This service is non-confirmed.

11.10.2 Invocation restrictions

This service can be invoked at any time by either PS-user.

11.10.3 Disrupted service procedures

No presentation service procedure is disrupted by this service.

11.10.4 Disrupting services

The procedures of this service cannot be disrupted by any presentation services.

Implementation of Amendment 5
Additional session synchronization functionality to the
presentation service user
published and effective from 15 July 1993
to BS 7093 : 1989 (ISO 8822 : 1988)

Open Systems Interconnection: connection-oriented
presentation service definition

National foreword (as amended by Amendment 1)

In line 3, after 'definition' insert, 'including Amendment 1 and Amendment 5'.

AMD 7771/July 1993

ISO text

Insert the attached as appropriate.

AMD 7771/July 1993

**Information processing systems – Open
Systems Interconnection – Connection oriented
presentation service definition**

**AMENDMENT 5: Additional session
synchronization functionality to the presentation
service user**

*Systèmes de traitement de l'information – Interconnexion de systèmes
ouverts – Définition du service de présentation en mode connexion*

*AMENDEMENT 5: Fourniture de la fonction de synchronisation de
session supplémentaire à l'utilisateur du service de présentation*



Reference number
ISO 8822:1988/Amd. 5:1992 (E)