

**Implementation of
ISO/IEC 10729-2 : 1995**

**Information technology —
Open Systems
Interconnection —
Conformance test suite for the
presentation layer**

**Part 2. Test suite structure and test
purposes for the ASN.1 basic encodings**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee IST/21, *Open systems interconnection, data management and open distributed processing*, upon which the following bodies were represented:

- British Computer Society
- British Telecommunications plc
- CCTA (the Government Centre for Information Systems)
- Department of Trade and Industry (IT Standards Unit (It6a))
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This British Standard, having been prepared under the direction of the Information Systems Technology Assembly, was published under the authority of the Standards Board and comes into effect on 15 October 1995

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The following BSI references relate to the work on this standard:
Committee reference IST/21
Draft for comment 93/643438 DC

ISBN 0 580 24812 7

Amendments issued since publication

Amd. No.	Date	Text affected

National foreword

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- 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;
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INTERNATIONAL
STANDARD

ISO/IEC
10729-2

First edition
1995-05-15

**Information technology — Open Systems
Interconnection — Conformance test suite
for the presentation layer —**

Part 2:

Test suite structure and test purposes for the
ASN.1 basic encodings

*Technologies de l'information — Interconnexion de systèmes ouverts
(OSI) — Suite d'essais de conformité pour la couche présentation —*

*Partie 2: Structure de la suite d'essais et objets des essais pour le codage
ASN.1 de base*



Reference number
ISO/IEC 10729-2:1995
Documents
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Printed in Switzerland

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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.

International Standard ISO/IEC 10729-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 21, *Open systems interconnection, data management and open distributed processing*.

ISO/IEC 10729 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Conformance test suite for the presentation layer*.

- *Part 1: Test suite structure and test purposes for the presentation protocol*
- *Part 2: Test suite structure and test purposes for the ASN.1 basic encodings*
- *Part 3: Common presentation abstract test suite*

Introduction

This part of ISO/IEC 10729 specifies a test suite structure and a set of test purposes for use by test suite specifiers as the basis for all standardized conformance test suites needed to evaluate conformance to the Basic Encoding Rules (BER) as defined in ISO/IEC 8825-1, for Abstract Syntax Notation One (ASN.1).

A fundamental objective of the related standardized conformance test suites is to establish uniform conformance testing and unambiguous evaluation procedures for checking the ability of the syntax transformation facility of a Presentation Layer implementation to operate according to ISO/IEC 8825-1. The standardization of these test suites should lead to comparability and wide acceptance of the test results produced by different test laboratories, and therefore minimize repeated conformance testing of the same implementation.

The conformance test suites based on this International Standard are designed for use by:

- a) test laboratories which provide a conformance testing service for the ASN.1 basic encoding rules;
- b) test realizers which provide a means of testing to be used by such test laboratories;
- c) implementors of ASN.1 BER encoding and/or decoding.

The purpose of conformance testing is to increase the probability that different implementations are able to interwork, although conformance testing alone cannot give a guarantee of interworking. Conformance testing increases the confidence that each implementation conforms to the encoding rules specification, by establishing that it has the required capabilities and that its behaviour conforms to the specification in representative instances of communication.

