BS ISO 10161-2:2014

BSI Standards Publication

Information and documentation — Open Systems Interconnection — Interlibrary Loan Application Protocol Specification

Part 2: Protocol implementation conformance statement (PICS) proforma

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National foreword

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INTERNATIONAL STANDARD

ISO 10161-2

Second edition
2014-10-15

Information and documentation — Open Systems Interconnection — Interlibrary Loan Application Protocol Specification —

Part 2: Protocol implementation conformance statement (PICS) proforma

Information et documentation — Interconnexion de systèmes ouverts (OSI) — Spécification du protocole d'application pour les prêts entre bibliothèques —

Partie 2: Proforma d'établissement de conformité pour la mise en oeuvre du protocole (PICS)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 46, *Information and documentation*, Subcommittee SC 4, *Technical interoperability*.

This second edition cancels and replaces the first edition (ISO 10161-2:1997) of which it constitutes a minor revision.

ISO 10161 consists of the following parts, under the general title *Information and documentation — Open Systems Interconnection — Interlibrary Loan Application Protocol Specification*:

— *Part 1: Protocol specification*

— *Part 2: Protocol implementation conformance statement (PICS) proforma*

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Introduction

To evaluate conformance of a particular implementation of an OSI protocol, it is necessary to have a description of the capabilities and options which have been implemented. Such a description is called a Protocol Implementation Conformance Statement (PICS).

A PICS *proforma* is developed as a companion standard to an OSI protocol standard. It is developed in the form of a questionnaire to be filled out by a supplier of a product claiming to implement the protocol. The filled-out questionnaire becomes the PICS for the product. It indicates which capabilities and options have been implemented and what limitations might prevent interworking. It allows a customer of the product to evaluate its conformance to the standard and to determine whether the product meets the customer's requirements.

This part of ISO 10161 defines a protocol implementation conformance statement (PICS) proforma for the detailed expression of the conformance requirements of ISO 10161-1 which incorporates Defect Reports 1-22 and Amendment 1: ILL Support for Electronic Document Delivery. Detail of the use of this proforma is provided in this part of ISO 10161.

The level of detail required in the proforma exceeds that of the protocol specification by requiring details of the implementer in addition to details of the implementation.

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Information and documentation — Open Systems Interconnection — Interlibrary Loan Application Protocol Specification —

Part 2: Protocol implementation conformance statement (PICS) proforma

1 Scope

This part of ISO 10161 defines the protocol implementation conformance statement (PICS) proforma for the ILL protocol as specified in ISO 10161-1, in compliance with the relevant requirements, and in accordance with the relevant guidance for a PICS proforma, given in ISO/IEC 9646-2.

Implementers claiming conformance to ISO 10161-1 complete the proforma as part of the conformance requirements.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 9646-1, *Information technology — Open Systems Interconnection — Conformance testing methodology and framework — Part 1: General concepts*[1)]

ISO 10161-1:2014, *Information and documentation — Open Systems Interconnection — Interlibrary Loan Application Protocol Specification — Part 1: Protocol specification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 9646-1 and the following apply.

3.1
PICS proforma
document, in the form of a questionnaire, designed by the protocol specifier or conformance test suite specifier, which when completed for an OSI implementation or system becomes the PICS

3.2
protocol implementation conformance statement
PICS
statement made by the supplier of an OSI implementation or system stating which capabilities have been implemented for a given OSI protocol

1) ISO/IEC 9646-1:1994 supersedes ISO/IEC 9646-1:1991. However, when this part of ISO 10161 was under development, the previous edition was valid and this part of ISO 10161 is therefore based on that edition.

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4 Abbreviations

This part of ISO 10161 uses the following abbreviations.

APDU Application Protocol Data Unit ASN.1 — Abstract Syntax Notation One EDIFACT — Electronic Data Interchange for Administration, Commerce and Transport

ILL Interlibrary Loan

OSI Open Systems Interconnection

PICS Protocol Implementation Conformance Statement

5 Layout

Annex A contains the actual proforma to be filled in by an implementer claiming conformance to ISO 10161-1. The PICS proforma has been designed to be a self-contained section of this part of ISO 10161, for use in testing and procurement.

6 Conformance

A conforming PICS shall:

a) be technically equivalent to the ISO published PICS proforma and shall preserve the numbering and ordering of the items in the ISO PICS proforma;

b) include the information necessary to uniquely identify both the supplier and the implementation.

A supplier shall complete this PICS proforma in accordance with the instructions for completion given in Clauses 7 and 9.

7 Notations defined in the proforma

7.1 General

In order to reduce the size of the tables in the proforma, a number of abbreviations have been introduced. The definition of each of these follows:

For column headings:

“D”: Defined in ISO 10161. This column indicates the level of support required for conformance to ISO 10161.

“I”: Implementation indicator. This column shows which parameters or other details have or have not been implemented.

7.2 “D” Column

“m”: mandatory: support for this feature is required for conformance to ISO 10161.

“o”: optional: support for this feature is permitted, but is not required for conformance to ISO 10161. However, if this feature is implemented, it must conform to the specifications and restrictions contained in ISO 10161. These restrictions may affect the optionality of other features.

“c”: conditional: support for this feature is mandatory if certain conditions as specified in ISO 10161-1 are met. The conditions to be met are indicated by an integer referencing a table of conditions at the end of each proforma section.

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"cc": conditional on supporting communication service: support for this feature is mandatory if the supporting communication service is store-and-forward service; support is optional if the supporting communication service is connection oriented.

"-": not applicable.

7.3 "I" Column

The "I" column shall be completed by the supplier or implementer to indicate the level of implementation of each feature. The proforma has been designed such that the only entries required in the "I" column are:

"Y": Yes, the feature has been implemented

"N": No. the feature has not been implemented

"-": Not applicable to this implementation

7.4 "Reference, usage or range of values" column

The "Reference, usage or range of values" column requires the specification of information pertaining to the usage or range of values implemented for a feature, where relevant and/or where the implementation has restrictions or limits not present in ISO 10161-1.

If the proforma has insufficient room for a complete description of the usage or range of values for any particular feature, a reference to an attachment on a separate page may be given here.

8 PICS Numbers

Each line in the PICS proforma which requires implementation detail to be supplied is numbered at the left-hand edge of the line. This numbering is included as a means of uniquely identifying all possible implementation details within the proforma. The need for such unique referencing has been identified by testing bodies.

The means of referencing individual responses shall be to specify the smallest subclause enclosing the relevant item and the reference number of the row in which the response appears.

9 Completion of the PICS

The implementer shall complete all "[ ]" entries in the proforma, in addition to other specifically identified sections. In certain clauses further guidance for completion is included. Such guidance supplements the guidance given in this clause and its scope is restricted to the clause in which it appears.

Other specifically identified information shall be provided by the implementer where requested.

No changes shall be made to the proforma except the addition of responses as required. Recognizing that the level of detail required may, in some instances, exceed the space available for responses, the implementer may continue the response on separate paper (so indicating in the space provided) and provide a reference (see Clause 8).

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Annex A
(normative)

Protocol Implementation Conformance Statement (PICS) proforma for the Interlibrary Loan Protocol[2)]

Section One — General information

A.1 Implementation details

A.1.1 Date of statement

1	Date of Statement (YYYY-MM-DD):	

A.1.2 Identification of the implementation

1	Implementation Supplier:	
2	Implementation Name:	
3	Implementation Version Number:	
4	Machine Name:	
5	Machine Version Number:	
6	Operating System Name:	
7	Operating System Version Number:	
8	Other Operating Systems:	
9	Other Hardware:	
10	System Name (if different):	
11	Resources Required:	
12	Contact Name:	
13	Contact Address:	
14	Contact Telephone:	

A.2 Global statement of conformance

1	Are all mandatory features of ISO 10161-1 implemented?	[ ]

2) Copyright release for PICS proforma: Users of this part of ISO 10161 may freely reproduce this PICS proforma so that it can be used for its intended purpose and may further publish the completed PICS.

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Section Two — General details

A.3 ISO 10161 details

1	Protocol Version Number(s) that this PICS describes:	
2	Other Version Number(s) supported:	
3	Defect Report Number(s) implemented:	
4	Amendment(s) implemented:	

A.4 Application-context names

List the names and object identifiers of the application-contexts recognized or provided by this implementation.

Ref	Application-Context Name	Object Identifier

A.5 Roles supported

Ref		D	I
1	Requester	o	[ ]
2	Responder	o	[ ]
3	Intermediary	o	[ ]

NOTE At least one role must be supported by an implementation.

A.6 ILL Service types supported

Ref	Service Type	Requester		Responder		Intermediary	
		D	I	D	I	D	I
1	Loan	o	[ ]	o	[ ]	o	[ ]
2	Copy/Non-returnable	o	[ ]	o	[ ]	o	[ ]
3	Locations	o	[ ]	o	[ ]	o	[ ]
4	Estimate	o	[ ]	o	[ ]	o	[ ]
5	Responder-specific	o	[ ]	o	[ ]	o	[ ]

A.7 Transaction types supported

Ref	Transaction Type	Requester		Responder		Intermediary	
		D	I	D	I	D	I
1	Simple	m	[ ]	m	[ ]	—	[ ]
2	Chained	o	[ ]	o	[ ]	o	[ ]
3	Partitioned	o	[ ]	o	[ ]	o	[ ]

NOTE 1 For chained transactions, requester support implies the ability to permit chained transactions; responder support implies the ability to send the SHIPPED message; intermediary support implies the ability to initiate chained subtransactions.

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NOTE 2 For partitioned transactions, requester support implies the ability to permit partitioned transactions and to interact with different parties for the processing and tracking phases of a transaction; responder support implies the ability to send the SHIPPED message and to interact directly with the requester during the tracking phase of the transaction; intermediary support implies the ability to initiate partitioned sub-transactions.

NOTE 3 Implementation of the intermediary role implies support for at least one of the chained or partitioned transaction types.

Section Three — Syntaxes

A.8 Syntaxes

This section identifies the requirements for support of the various possible syntaxes associated with the ILL protocol. Support for a particular syntax implies that an implementation is capable of generation and reception of information defined by that syntax.

A.8.1 Abstract syntaxes supported

Indicate below what abstract syntaxes are supported by the implementation. Registered syntaxes may be identified by citing the assigned object identifier; other syntaxes should be fully defined using ASN.1 notation, if appropriate, in an attachment.

Ref	Parameter	D	I	Abstract-Syntax Name	Object Identifier
1	ILL-APDU	m	[ ]	ill-apdus	1 0 10161 2 1
2	responder-specific service	o	[ ]		
3	national-bibliography-no	o	[ ]		
4	system-no	o	[ ]		
5	responder-specific-results (for reason-unfilled)	o	[ ]		
6	responder-specific-results (for reason-locs-provided)	o	[ ]		
7	responder-specific-results (for reason-not-available)	o	[ ]		
8	responder-specific-results (for conditions)	o	[ ]		
9	responder-specific-results (for reason-will-supply))	o	[ ]		
10	supplemental-item- descrip-tion	o	[ ]		

A.8.2 Transfer syntaxes

For each abstract syntax identified in A.8.1, multiple transfer syntaxes are possible. Two transfer syntaxes for ILL APDUs have been identified in the base standard, one based on ASN.1 encoding rules (ISO 8825, “basic-encoding”), and the other based on the EDIFACT syntax (ISO 9735).

For each abstract syntax name shown as supported in A.8.1, state below which transfer syntax(es) is/are supported.

Ref	Abstract Syntax	Object Identifier	Transfer Syntax	Object Identifier	D	I
1.1	ill-apdus	1 0 10161 2 1	basic-encoding	2 1 1	m	[ ]
1.2	ill-apdus	1 0 10161 2 1	EDIFACT-encoding	1 0 10161 3 1	o	[ ]

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