
Information and documentation — Interlibrary loan transactions

*Information et documentation — Transactions de prêt
interbibliothèques*

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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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 4, *Technical interoperability*.

This third edition cancels and replaces the second edition (ISO 18626:2017), which has been technically revised.

The main changes compared to the previous edition are as follows.

- Several elements have been added to handle identified use cases. As part of this, *SentVia* has been renamed *DeliveryMethod*, this element is now used in both the Request and Supplying Agency Messages. This is the only elimination of an element and has been done after consultation with implementers.
- [Annex B](#) has been rewritten to clarify the use of open codes.
- [Annex D](#) has been changed from including several use cases to one sample use case and a has been linked to additional use cases at the website (see [Annex A](#)).
- [Annex F](#) has been added with guidelines about the use of profiles with ISO 18626.
- [Annex G](#) has been added with guidelines about consortia.
- [Annex H](#) has been added with guidelines about handling negotiations using “retry” when the supplier cannot fulfil the first request.
- A *RetryInfo* section to Supplying Agency Message has been added.
- *ServiceInfo/PreferredFormat* has been renamed to *ServiceInfo/ItemFormat* and renamed *DeliveryInfo/DeliveredFormat* to *DeliveryInfo/ItemFormat* so that we only need one Open Code list for Formats.

- PhysicalAddress/Region has been changed from StandardCodes to free-text field to bring the PhysicalAddress structure in line with the PhysicalAddress structure used in NCIP (to simplify implementation).
- For requests, the element PreferredEdition has been added. For the purposes of this document, the element AnyEdition has been retained to ensure backward compatibility.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document is intended to succeed the old ISO interlibrary lending protocol (consisting of ISO 10160, ISO 10161-1 and ISO 10161-2). Unlike its predecessors, this document is well suited to the modern, web-based technological environment, which is based on XML and web services. Another important difference between the two standards is that while ISO 10160 is based on an outdated 1980s model of ILL transactions, its successor relies on and supports a modern, much simpler interlibrary loan (ILL) procedure.

This document specifies three simple messages: a Request, a Supplying Library Message and a Requesting Library Message. Implementer experiences gathered from the previous edition of this ILL protocol indicates that it is easier to implement than ISO 10160 and that the functionality provided meets the requirements of libraries' current ILL practices.

This document is the first part of a more general strategic initiative to standardize resource sharing in ISO/TC46/SC4. As part of this intention, the committee has aligned element names, transport and XML schema with similar functions in ANSI/NISO Z39.83^[Z].

In the next version of this document, AnyEdition will be deprecated in favour of PreferredEdition. It is recommended to upgrade from AnyEdition to PreferredEdition without unnecessary delay.

For additional information about implementation of this document, see [Annex A](#).

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Information and documentation — Interlibrary loan transactions

1 Scope

This document specifies the transactions between libraries or libraries and other agencies to handle requests for library items and the following exchange of messages.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2108, *Information and documentation — International Standard Book Number (ISBN)*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country code*

ISO 3297, *Information and documentation — International standard serial number (ISSN)*

ISO 4217, *Codes for the representation of currencies*

ISO 8601-1, *Date and time — Representations for information interchange — Part 1: Basic rules*

ISO/IEC 10646, *Information technology — Universal coded character set (UCS)*

ISO 10957, *Information and documentation — International standard music number (ISMN)*

ISO 15511, *Information and documentation — International standard identifier for libraries and related organizations (ISIL)*

ISO 20247, *Information and documentation — International library item identifier (ILII)*

ISO 26324, *Information and documentation — Digital object identifier system*

ISO 27729, *Information and documentation — International standard name identifier (ISNI)*

RFC 3629, *UTF-8, a transformation format of ISO 10646*

RFC 7230, *Hypertext Transfer Protocol (HTTP/1.1): Message Syntax and Routing*

RFC 7231, *Hypertext Transfer Protocol (HTTP/1.1): Semantics and Content*

RFC 7540, *Hypertext Transfer Protocol Version 2 (HTTP/2)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

agency

library (3.2), *library-related organization* (3.5) or other agencies such as an archive or a museum or a commercial document supplier

3.2

library

organization, or part of an organization, the main aim of which is to maintain a collection and to facilitate, by services of a staff, the use of such documents as are required to meet the informational, research, educational or recreational needs of its users

[SOURCE: ISO 2789:2013, 2.1.6]

3.3

library consortium

local, regional, or national cooperative association of *libraries* (3.2) that provides for the systematic and effective coordination of the resources of school, public, academic, or special libraries, information centres and other agencies, for improving services to the clientele of such libraries

3.4

library items

books, journals, articles, music, etc. or copies of these in physical or digital format

3.5

library-related organization

institution, company, consortium or other organization which handles ILL requests and/or receives requested *library items* (3.4) on behalf of one or more *libraries* (3.2)

3.6

requesting agency

agency (3.1), which may send requests for *library items* (3.4) and receive them from the *supplying agency* (3.7)

3.7

supplying agency

agency (3.1), which receives requests for *library items* (3.4) and delivers them to the *requesting agency* (3.6)

3.8

uniform resource identifier

URI

compact sequence of characters that identifies an abstract or physical resource

[SOURCE: ISO/IEC 12785-1:2009, 3.23]

3.9

uniform resource locator

URL

subset of URIs that provide a means of locating a resource by describing its primary access mechanism

[SOURCE: ISO/IEC 12785-1:2009, 3.24]

3.10

uniform resource name

URN

persistent, location-independent, resource identifier used for recognition of, and access to, characteristics of the resource or the resource itself

[SOURCE: RFC 8141]

4 Messages

4.1 General

This document specifies three messages and responses for handling interlibrary loan transactions:

- Request (see [Table 1](#)) and Request Confirmation (see [Table 2](#));
- Supplying Agency Message (see [Table 3](#)) and Supplying Agency Message Confirmation (see [Table 4](#));
- Requesting Agency Message (see [Table 5](#)) and Requesting Agency Message Confirmation (see [Table 6](#)).

See additional information on guidelines about the use of this document in [Annex D](#). [Annex D](#) is illustrative and does not cover all relevant use cases.

For Request, Supplying Agency Message and Requesting Agency Message, a confirmation message is sent immediately (see [4.3](#), [4.5](#) and [4.7](#)). The Request Confirmation message (see [Table 2](#)) is not a positive or negative response to the request; it indicates only that the Request message has been received. If the Request message contains problems, the Request Confirmation message shall include Error Data (see [4.10](#)).

Codes used in tables are as follows:

- R: Repeatable;
- M: Mandatory;
- CT: Complex Type;
- OC: Open Code List (i.e. Scheme Value Pair);
- CC: Closed Code List (i.e. the code list is part of the ILL standard);
- SC: Standard Code List.

Open Code Lists are predefined schemes, consisting of an enumerated list of possible values for a given data element that should be supported by applications conformant with this document. The Open Code Lists of values are not comprehensive and implementer groups may develop additional schemes for these enumerated types to cover their implementation requirements. Thus, an application may choose to support additional schemes for one or more Open Code Lists. Core lists of values to be supported by all implementations are defined in [Annex B](#).

The lists of values may be derived from standard lists of codes or other registries.

Standard Code Lists are based on code lists published in standards.

New schemes may be added to the Open Code List as described in [Annex B](#).

Complex Types are listed and defined in [4.8](#).

Closed Code Lists (see [4.9](#)) are a normative part of this document and shall be supported by applications conformant with this document. They are similar to Open Code Lists, except that Closed Code Lists of values are expected to be relatively comprehensive and stable. However, new closed code scheme elements and code values may be added to the future versions of this document.

Date and time shall always be provided in the form YYYY-MM-DDThh:mm:ssZ as specified by ISO 8601-1. Local date and time should not be used. When time is not significant, e.g. when a due date is given, use 23:59:59Z to indicate the time, for example, 2013-05-15T23:59:59Z.

Use of the country code referenced in [Table 7](#) shall be as specified in ISO 3166-1. Use of the currency symbols referenced in [Table 7](#) shall be as specified in ISO 4217. Use of the ISNI code referenced in [Table 1](#) shall be as specified in ISO 27729.

Use of the identifiers in [Table B.1](#) shall be according to the referred standards: ISIL according to ISO 15511, ISBN according to ISO 2108, ISSN according to ISO 3297, ISMN according to ISO 10957, ILII according to ISO 20247, and DOI according to ISO 26324.

4.2 Request

The Request contains information about the item and service requested.

The Request is sent from the requesting agency to the supplying agency.

The Request contains some or all of the following groups of data elements as shown in [Table 1](#).

- Header: administrative information
- BibliographicInfo: details of the item being requested
- PublicationInfo: information about the publication
- ServiceInfo: details of the service being requested
- SupplierInfo: list of potential suppliers
- RequestedDeliveryInfo: where and how to send the item
- RequestingAgencyInfo: details about the requesting agency
- PatronInfo: details about the patron
- BillingInfo: how to charge the requesting agency

Table 1 — Request

Element	Definition	Codes
Header	<i>Administrative information</i>	M
SupplyingAgencyId	Identification of supplying library (Complex Type AgencyId) SupplyingAgencyId shall be provided except for RequestSub-Type = PatronRequest and TransferRequest	CT
RequestingAgencyId	Identification of requesting library (Complex Type AgencyId)	M CT
ConsortialId	Identification of the consortium with which the request is associated For additional information on consortia, see Annex G (Complex Type AgencyId)	CT
MultipleItemRequestId	Identification of MultipleItemRequest	
Timestamp	Date and time of the transaction Ref. ISO 8601-1 Format: UTC: YYYY-MM-DDThh:mm:ssZ	M
RequestingAgencyRequestId	Requesting library's request identification or number	M
RequestingAgencyAuthentication	Authentication in supplying library system of the requesting library (Complex Type)	CT
BibliographicInfo	<i>Bibliographic information about the requested item</i>	M

Table 1 (continued)

Element	Definition	Codes
SupplierUniqueRecordId	SupplierUniqueRecordId should be used for the supplying library's internal unique identifier for the requested item, acquired from a preceding automatic holdings request. If this identifier is used, there should be no other identifiers in BibliographicInfo More information can be found in Annex E	
Title	Title of the requested item	
Author	Author of the requested item	
AuthorId	ISNI name identifier of the author Ref.: ISO 27729	
Subtitle	Subtitle of the requested item	
SeriesTitle	Title of the series	
Edition	Number or name of the edition	
TitleOfComponent	Title of the component part (e.g. article)	
AuthorOfComponent	Author of the component part	
Volume	Volume number	R
Issue	Issue number	
PagesRequested	Page from and page to	
EstimatedNoPages	Expected number of pages	
BibliographicItemId	Identification of a physical or electronic object (Complex Type)	R CT
Sponsor	Person or organization sponsoring the publication	
InformationSource	Description of where bibliographic information was found	
BibliographicRecordId	Identification of a bibliographic record (Complex Type)	CT R
PublicationInfo		
<i>Information about the publication</i>		
Publisher	Name of the publisher	
PublisherId	ISNI name identifier of the publisher Ref.: ISO 27729	
PublicationType	Type of publication	OC
PublicationDate	Date of publication For serials and serial articles, this should be the publication date of the component part such as issue, not the date when the serial was first issued	
PlaceOfPublication	Place of publication, e.g. a city	
ServiceInfo		
<i>Information about the requested service</i>		
RequestType	Type of request (New, Retry or Reminder) If no request type is specified, the default is "New" For additional information on the use of Retry, see Annex H	CC
RequestSubType	Sub type to qualify the request	R CC
RequestingAgencyPrevious-RequestId	Requesting agency's previous request number when a retry is sent. The Retry request may include updated data based on ReasonRetry	

Table 1 (continued)

Element	Definition	Codes
ServiceType	Type of service. Values: Copy, Loan or CopyOrLoan. If Copy is requested, then the requesting library is interested only in a copy. If Loan is requested, then the requesting library is interested only in a loan. If CopyOrLoan is requested, then the requesting library is willing to accept either a copy or a loan	M CC
ServiceLevel	Level of service If the requesting library is willing and is able to accept any service level, then the requesting library shall not include this element in the message	OC
ItemFormat	Format of medium requested If the requesting library is willing and is able to accept any format, then the requesting library shall not include this element in the message	OC
NeedBeforeDate	The request is not relevant after the stated date/time Ref. ISO 8601-1 Format: UTC: YYYY-MM-DDThh:mm:ssZ If the requesting library is willing and is able to accept the requested item at any time, then the requesting library shall not include this element in the message	
CopyrightCompliance	The requesting library's copyright compliance	OC
AnyEdition	Values Y or N. Yes for yes to any edition. No if only the specified edition is acceptable	
PreferredEdition	The edition the borrower would prefer to receive. Values are ThisEdition, AnyEdition, or the MostRecentEdition	CC
LoanCondition	Conditions for use of the item Used when submitting a Request Retry, after the supplying library indicates there is a loan condition that shall be met	OC R
StartDate	Start date for a Booking (RequestSubType) Ref: ISO 8601-1 Format: UTC: YYYY-MM-DDThh:mm:ssZ	
EndDate	End date for a Booking (RequestSubType) Ref: ISO 8601-1 Format: UTC: YYYY-MM-DDThh:mm:ssZ	
Note	Human readable note	
SupplierInfo	<i>When a request is sent to a brokering institution, the requesting library may provide a list of potential suppliers (in preference order) intended primarily for requests sent to brokers but may be used in other circumstances as well</i>	R
SortOrder	Value from 1 to 99 defining the order of preference of use	
SupplierCode	Code defining a potential supplier (Complex Type AgencyId)	CT
SupplierDescription	Textual information about supplier	
BibliographicRecordId	Identification of a bibliographic record used (Complex Type)	CT
CallNumber	Indication of the shelf position of the resource	
SummaryHoldings	Textual description of summary level holdings	
AvailabilityNote	Information about availability	

Table 1 (continued)

Element	Definition	Codes
RequestedDeliveryInfo	<i>A prioritized list of suggested delivery methods, each with its own delivery address</i>	R
SortOrder	Value from 1 to 99 according to the order	
Address	Description of the delivery address (Complex Type ElectronicAddress or PhysicalAddress)	CT
DeliveryMethod	The service via which the requested item should be sent If the requesting library is willing and is able to accept any delivery method, then the requesting library shall not include this element in the message	OC
CourierName	An identified courier to be used if DeliveryMethod value = "Courier" If the requesting library is willing and is able to accept any courier, then the requesting library shall not include this element in the message	OC
RequestingAgencyInfo	<i>Details of the requesting agency</i>	
Name	Name of the requesting agency	
ContactName	Name of contact. For example, ILL staff member	
Address	Description of how to contact the requesting agency (Complex Type ElectronicAddress or PhysicalAddress)	CT R
PatronInfo	<i>Details of the patron for whom the request is being made Only used according to 5.2.5.</i>	
PatronId	Identification of the patron	
Surname	Surname of the patron	
GivenName	First name of the patron	
PatronType	Type of patron	OC
SendToPatron	Only used with value "Y" if requesting library asks the supplying library to send the requested resource directly to the patron	
Address	Description of how to contact the patron. (Complex Type ElectronicAddress or PhysicalAddress)	CT R
BillingInfo	<i>Information about how the requesting agency expects to be billed for and pay for the item</i>	
PaymentMethod	The preferred payment method If the requesting library is willing and is able to accept any payment method, then the requesting library shall not include this element in the message	OC
MaximumCosts	The highest amount the requesting agency is prepared to pay for the service (Complex Type Costs) If the requesting library has no maximum costs, then the requesting library shall not include this element in the message.	CT
BillingMethod	Preferred billing method	OC
BillingName	Name of the contact person in finance department, etc.	
Address	Description of the billing address (Complex Type ElectronicAddress or PhysicalAddress)	CT

4.3 Request Confirmation

Table 2 — Request Confirmation

Element	Definition	Codes
Header	<i>Administrative information</i>	M
SupplyingAgencyId	Identification of the supplying library (Complex Type AgencyId)	CT
RequestingAgencyId	Identification of the requesting library (Complex Type AgencyId)	CT
Timestamp	Date and time of the confirmation transaction Ref. ISO 8601-1 Format: UTC: YYYY-MM-DDThh:mm:ssZ	M
RequestingAgencyRequestId	Requesting library's request identification	
TimestampReceived	Date and time of the confirmed request transaction Ref. ISO 8601-1 Format: UTC: YYYY-MM-DDThh:mm:ssZ	M
MessageStatus	Value "OK" or "ERROR"	M
ErrorData	If there are any errors, an error message is included; refer to 4.10 .	R

4.4 Supplying Agency Message

Supplying Agency Message is a message sent from the supplying library to the requesting library. The message may be in response to a request or a message from the requesting library or a message initiated by the supplying library. In all these cases, the same message is used.

The message contains the following groups of data elements as shown in [Table 3](#).

- Header: administrative information
- MessageInfo: responses and notes
- StatusInfo: current status; i.e. status after any changes because of the message being sent
- RetryInfo: information when Status = RetryPossible
- DeliveryInfo: information about the shipped item
- ShippingInfo: information about the shipment
- ReturnInfo: if the supplier asks the requesting library to return the item to another address

Table 3 — Supplying Agency Message

Element	Definition	Codes
Header	<i>Administrative information</i>	M
SupplyingAgencyId	Identification of the supplying library (Complex Type AgencyId)	M CT
RequestingAgencyId	Identification of the requesting library (Complex Type AgencyId)	M CT
Timestamp	Date and time of the transaction Ref. ISO 8601-1 Format: UTC: YYYY-MM-DDThh:mm:ssZ	M
RequestingAgencyRequestId	Requesting library's request identification or number	M
SupplyingAgencyRequestId	Supplying library's request identification or number	