

ARROW: Detailed Message Descriptions

Version 0.25, 1st July 2010

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Change control

The following changes have been made since version 0.2 of this document.

Where this was not done before, code lists have been explicitly referenced for all message elements that utilize controlled values. These include: ResourceIDType, RecordIDType, ManifestationIDType, ClusterIDType and WorkIDType. Similarly, code list values are explicitly presented for various parties in the ARROW process, including Licensor, Licensee, ReferenceSource and RecordSource.

Alongside these references, a small section has been introduced (see elsewhere on this page) to describe the main sources of code lists used and how each is used and maintained. Examples have also been provided toward the end of the document to show more clearly the structure of certain key identifiers, namely ResourceIdentifier, WorkIdentifier and ManifestationIdentifier. Current expectations concerning the types of MARC records being exchanged have been documented at the request of BnF.

The definition of RecordIdentifier has been clarified to better explain TEL's ability to provide URLs for all the MARC records it generates or stores.

Introduction

In this document, each of the ARROW messages is described in a standardized format, as follows.

The first column carries a line number, purely for reference. The XML message structures are then presented on the left-hand side of each page, with definitions, comments and expected code values on the right-hand side of the page. The last column on the right carries the cardinality of the element in question: it shows whether the element is optional, with a value of "0", or mandatory, with a value of "1" or more. Where the element is repeatable a number of times, this is shown by a range, for example "0-n".

To clarify the presentation somewhat, various composite elements are defined more completely after the main body of the message. Similarly, many composite elements are defined only once and then cross-referred, in order to minimize repetition.

Two specific composite elements are more fully described at the end of the document since they are relatively long and frequently referenced in the other message descriptions. These are the ARROW Short Description and the ARROW Work Description. Also described at the end of the document are the set of bundled usages defined as ARROW Permission Sets.

For further information on the ARROW family of messages, two companion documents are available. The *ARROW: Message Format Overview* describes ARROW's main business partners, requirements and workflows: it explains the general structure common to all the messages and illustrates the choreography involved in message exchange. The *ARROW: Glossary of Terms Used in Messages* collects and defines all the elements and some of the related concepts that have been used to create the messages.

Code lists

Code lists, each containing a series of controlled and defined values, are used extensively in the ARROW messages. Most of those used for ARROW are drawn from the ONIX for Books code lists, maintained by EDItEUR: these are simply referred to, for example, as *Code list 16*. If only a subset of a code list is relevant for ARROW, then this is mentioned in the message description and the subset of permissible values is described. Other code lists are drawn from ONIX-PL and ONIX for ISTC Registration.

An ARROW namespace has been created for controlled values specifically requested by ARROW participants. These are represented as in the example *arrow:TELClusterID*. The ARROW team is responsible for deciding upon any amendments or additions to values in this namespace, although the list will be technically maintained by EDItEUR.

All of the code lists and values used in the ARROW messages are defined in the file *ARROW_CodeLists.xsd*, supplied along with the XML schemas for the messages. Additionally, the full ONIX for Books and ONIX-PL code lists are available via the EDItEUR website www.editeur.org.

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Message M1Q: Request for license to digitize and use
Latest update 1 July 2010

| | | | |
|----|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWInitialResourceAndUsageRequest version="0.2"> | A request from a library to the ARROW service. It asks ARROW to identify a <TargetResource> held by the library, assist in locating rightsholder(s) for the corresponding work, and convey details of the usages for which license or other permissions are sought. | 1 |
| 2 | <Header> | A composite (described below) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is the Library and the <Addressee> is ARROW. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Repeatable, since this first (batch) message can carry many records (each one describing a <TargetResource>, see below) from the Library to ARROW. | 1-n |
| 4 | <RequesterTransactionReference> | A unique transaction reference allocated by the requesting library. Mandatory in this message, because no <ARROWTransactionID> has yet been assigned by the ARROW central service, it may also be of continuing value to link with internal library identifiers and processes. | 1 |
| 5 | <TargetResource> | A composite that identifies and describes the resource (a printed book or digitized version thereof) for whose usage a library wishes to obtain a license or other permission. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for the <TargetResource>. Repeatable, and it is strongly recommended that any public standard identifiers, such as ISBN, are included if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which specifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded below) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. | 1 |
| 11 | <Licensee> | A composite that identifies a library or other cultural institution (such as a museum, archive or equivalent non-profit making institution) which is requesting a license or has been granted a license, and which is authorised to act under such a license agreement. The composite may also be used to identify another party (such as a consortium) on whose behalf the requester is acting. | 1 |
| 12 | <LicenseeIdentifier> | A composite that carries an identifier for a licensee. Either this composite or <LicenseeName> must appear. | 0-1 |
| 13 | <LicenseeIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Subset of code list 44, values 01, 06, 08, 09, plus arrow:ARROWNetworkParticipants. | 1 |
| 14 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <LicenseeIDType> element indicates a proprietary scheme. | 0-1 |
| 15 | <IDValue> | An identifier of the type specified in the <LicenseeIDType> element. | 1 |

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| 16 | | <LicenseeName> | An element that carries the name of the licensee. Either this element or the <LicenseeIdentifier> composite must appear. | 0-1 |
| 17 | | <PostalAddress> | Free text to carry a postal address. | 0-1 |
| 18 | | <Country> | A code identifying a country. Code list 91: ISO 3166-1 two-character codes. | 0-1 |
| 19 | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the licensee organization. | 0-1 |
| 20 | | <CommunicationDetails> | A composite that carries communication details. | 0-1 |
| 21 | | <Telephone> | A telephone number. | 0-1 |
| 22 | | <Fax> | A fax number. | 0-1 |
| 23 | | <Email> | An email address. | 0-1 |
| 24 | | <RequestedPermissionSet> | A composite that carries details of permission sets requested by a library through the ARROW process. The requested usages may eventually be specified either as one pre-defined Permission Set (as in this composite) or one or more ONIX-PL usages (see <RequestedUsage> composite, below). For the Alpha and Beta pilots, it has been decided that ONLY the Permission Set approach will be used, so that this composite is effectively mandatory. | 1 See note |
| 25 | | <PermissionSet> | An ARROW controlled value denoting a permission set that may be requested, granted or refused. Permission sets represent a simplified group of compound usages, designed to address scenarios frequently encountered and to simplify permission and usage statements during pilot phases of ARROW. Proposed values to date are these: arrow:DigitizeForPreservation arrow:DigitizeForUseInLibrary arrow:DigitizeForOpenUse arrow:DigitizeForAcademicUse arrow:DigitizeForPrintDocumentSupply arrow:EmployDigitizedResourceForUseInLibrary arrow:EmployDigitizedResourceForOpenUse arrow:EmployDigitizedResourceForAcademicUse arrow:EmployDigitizedResourceForPrintDocumentSupply arrow:DigitizeForDigitalDocumentSupply arrow:EmployDigitizedResourceForDigitalDocumentSupply | 1-n |
| 26 | | <RequestedUsage> | A composite that expresses in formal ONIX-PL terms details of specific usage requests made by a library. The requested usages may eventually be specified either as one pre-defined Permission Set (see <RequestedPermissionSet> composite, above) or one or more ONIX-PL usages (as in THIS composite). For the Alpha and Beta pilots, it has been decided that ONLY the Permission Set approach will be used, so that this composite should not appear. | 0 See note |
| 27 | | <UsageType> | A controlled ONIX value that specifies a type of a usage (and by implication a usage verb). Examples include MakeDigitalCopy or PrintCopy. Other values are defined within the ONIX-PL dictionary. | 1 |
| 28 | | <User> | Either an agent label or a controlled term specifying an agent that performs a usage. An example is AuthorisedUsers, namely those to whom the requesting Library intend to give access to the digitised version. Other values are defined within the ONIX-PL dictionary. | 1-n |

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| 29 | | <UsagePurpose> | A controlled value specifying a purpose for which a usage is permitted or prohibited. Examples include AcademicUse and TrainingAuthorisedUsers. Other values are defined within the ONIX-PL dictionary. | 0-n |
| 30 | | <UsageMethod> | A controlled value specifying a method of performing a usage that is permitted or prohibited. Examples include PublicNetwork and SecureAuthentication. Other values are defined within the ONIX-PL dictionary. | 0-n |
| 31 | | <UsageQuantity> | A composite that specifies a quantity attribute of a usage. For further information see the ONIX-PL documentation. | 0-n |
| 32 | | <UsageRelatedAgent> | A composite that specifies a reference between usage and a related agent For further information see the ONIX-PL documentation. | 0-n |
| 33 | | <UsageRelatedResource> | A composite that specifies a reference between usage and a related resource. For further information see the ONIX-PL documentation. | 0-n |
| 34 | | <UsageRelatedTimePoint> | A composite that specifies a reference between usage and a related time point. Defines any time points or periods relevant to a license request, for example the duration of the license sought. Examples include SpecifiedTerm and Perpetual. For further information see the ONIX-PL documentation. | 0-n |
| 35 | | <UsageRelatedPlace> | A composite that specifies a reference between usage and a related place. Defines any places, including countries or regions, relevant to a license request. Examples include TerritoriallyRestricted and TerritoriallyUnrestricted. For further information see the ONIX-PL documentation. | 0-n |
| 36 | <Summary> | | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 37 | | <NumberOfTargetResources> | A control element within a message summary, carrying the total number of target resources contained within the message. | 1 |
| 38 | | | | |
| 39 | <Header> expanded: | | | |
| 40 | <Header> | | | 1 |
| 41 | | <Sender> | A composite that specifies the sender of an ONIX ARROW message. | 1 |
| 42 | | <SenderIdentifier> | A composite that carries a coded identifier of the sender. Either <SenderIdentifier> or <SenderEmail> must appear. | 0-n |
| 43 | | <SenderIDType> | An ONIX code identifying a scheme from which an identifier in the corresponding <IDValue> within this composite is taken. Permissible values here: subset of Code list 44 - Proprietary, GLN, MARC21 organisation code, ISIL - plus arrow:ARROWNetworkParticipants. | 1 |
| 44 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the corresponding <SenderIDType> element indicates a proprietary scheme. | 0-1 |
| 45 | | <IDValue> | An identifier of the type specified in the <SenderIDType> element. | 1 |
| 46 | | <SenderName> | The name of the sender organization, which should always be stated in a standard form agreed with the addressee. | 0-1 |
| 47 | | <SenderContact> | Free text giving the name, department, phone number, etc for a contact person in the sender organization who is responsible for the content of the message. | 0-1 |
| 48 | | <SenderEmail> | An email address for a contact person in the sender organization who is responsible for the content of the message. Either <SenderEmail> or <SenderIdentifier> must appear. | 0-1 |
| 49 | <Addressee> | | A composite that specifies the addressee of an ONIX ARROW message. | 1 |

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|----|--------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 50 | | <AddresseeIdentifier> | | A composite that carries a coded identifier of the addressee. Either <AddresseeIdentifier> or <AddresseeEmail> must appear. | 0-n |
| 51 | | | <AddresseeIDType> | An ONIX code identifying a scheme from which an identifier in the corresponding <IDValue> within this composite is taken. Permissible values here: subset of Code list 44 - Proprietary, GLN, MARC21 organisation code, ISIL - plus arrow:ARROWNetworkParticipants. | |
| 52 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the corresponding <AddresseeIDType> element indicates a proprietary scheme. | |
| 53 | | | <IDValue> | An identifier of the type specified in the <AddresseeIDType> element. | |
| 54 | | <AddresseeName> | The name of the addressee organization, which should always be stated in a standard form agreed with the addressee. | 0-1 | |
| 55 | | <AddresseeContact> | Free text giving the name, department, phone number, etc for a contact person in the addressee organization. | 0-1 | |
| 56 | | <AddresseeEmail> | An email address for a contact person in the addressee organization who is responsible for the content of the message. Either <AddresseeEmail> or <AddresseeIdentifier> must appear. | 0-1 | |
| 57 | | <MessageNumber> | A sequence number of the messages in a series sent between business partners, to enable the receiver to check against gaps and duplicates. This is assigned by the sending system. | 1 | |
| 58 | | <MessageRepeatNumber> | A number which distinguishes any repeat transmissions of a message. This is included in case it is necessary to resend a message, for example when the receiving system is unavailable during the first attempt. | 1 | |
| 59 | | <ResponseCode> | A controlled value acknowledging simple message receipt. Intended only for "response" messages and in cases where sending and receiving systems are in contact in real-time or near real-time. Permissible values: CannotProcessRequest, ErrorInRequest, ProcessingRequest, ServiceUnavailable. | 0-1 | |
| 60 | <SentDateTime> | The date on which the message is sent (and optionally also the time). Format: YYYYMMDDHHMM | 1 | | |
| 61 | <MessageNote> | Free text giving additional information about the message. | 0 | | |
| 62 | </Header> | | | | |
| 63 | | | | | |
| 64 | <Description> expanded: | | | | |
| 65 | <Description> | | | A composite that carries a description of a resource. It includes details of the source and format of a resource record, as well as the resource record itself. | |
| 66 | | <RecordIdentifier> | | A composite that carries a coded identifier for a record. Normally, it is expected that full records will be exchanged between ARROW participants. However, note that TEL will make available a <RecordIdentifier> in the form of a URL for each MARC records that it generates or stores. TEL will include full MARC records in any outgoing messages it sends to ARROW, but for incoming messages from ARROW it will only be necessary to include the appropriate URLs for these records. | 0-1 |
| 67 | | | <RecordIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 35. | 1 |
| 68 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <RecordIDType> element indicates a proprietary scheme. | 0-1 |
| 69 | | | <IDValue> | An identifier of the type specified in the <RecordIDType> element. | 1 |

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| 70 | | <RecordFormat> | A controlled value carrying the format of a resource record. Permissible values are arrow:ARROWShortDescription, arrow:ONIXforBooks2.1, arrow:ONIXforBooks3.0, MARC21XML and UNIMARCXML. | 1 |
| 71 | | <RecordSource> | A composite that carries details of a source or organization that provides or is responsible for a record. | 1 |
| 72 | | <RecordSourceIdentifier> | A composite that defines an identifier of the organization which is the source of a record, eg an ONIX record. It is mandatory to include either <RecordSourceIdentifier> or <RecordSourceName>. | 0-n |
| 73 | | <RecordSourceIDType> | An ONIX code identifying the scheme from which the identifier in the <IDValue> in this composite is taken. Subset of code list 44, values 01, 06, 08, 09, plus arrow:ARROWNetworkParticipants. | 1 |
| 74 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <RecordSourceIDType> element indicates a proprietary scheme. | 0-1 |
| 75 | | <IDValue> | An identifier of the type specified in the <RecordSourceIDType> element. | 1 |
| 76 | | <RecordSourceName> | Free text to convey the name of the party which issued a record, eg an ONIX record. It is mandatory to include either <RecordSourceName> or <RecordSourceIdentifier>. | 0-1 |
| 77 | | <ResourceRecord> | The payload of a resource description, eg a MARC or ONIX for Books record | 0-1 |
| 78 | </Description> | | | |

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Message M1R: Acknowledge library request and correlate Library and ARROW identifiers
Latest update 1 July 2010

| | | | | |
|----|------------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWInitialResourceAndUsageResponse version="0.2"> | | A response from the ARROW service to a library. It acknowledges the library's request and assigns a persistent transaction identifier to the request to support further operations or inquiries. | 1 |
| 2 | <Header> | | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is ARROW and the <Addressee> is the Library. | 1 |
| 3 | <ARROWTransaction> | | A composite that carries the detailed payload of an ARROW message. Repeatable, since this first (batch) message can carry many records (each one describing a <TargetResource>, see below) from the Library to ARROW. | 1-n |
| 4 | | <RequesterTransactionReference> | A unique transaction reference allocated by the requesting library. Mandatory in this message, to correlate with the <ARROWTransactionID> assigned by the ARROW central service, it may also be of continuing value to link with internal library identifiers and processes. | 1 |
| 5 | | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 6 | | <TargetResource> | A composite that identifies and describes the resource (a printed book or digitized version thereof) for whose usage a library wishes to obtain a license or other permission. | 1 |
| 7 | | <ResourceIdentifier> | A composite that carries a coded identifier for the <TargetResource>. Repeatable, and it is strongly recommended that any public standard identifiers, such as ISBN, are included if available. Here it correlates the ID or IDs assigned to that resource by the requesting Library with the unique ARROWResourceID assigned to the same resource. | 2-n |
| 8 | | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID. | 1 |
| 9 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 10 | | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 11 | <Summary> | | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 12 | | <NumberOfTargetResources> | A control element within a message summary, carrying the total number of target resources contained within the message | 1 |

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Version 0.25

Message M2Q: Request to identify or confirm the identity of a particular resource
Latest update 1 July 2010

| | | | |
|----|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWResourceIdentificationRequest version="0.2"> | A request from the ARROW service to a reference source (initially TEL). It asks the reference source to identify or confirm the identity of a published <TargetResource> held by a library. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is ARROW and the <Addressee> is TEL. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | A composite that identifies and describes the resource (a printed book or digitized version thereof) for whose usage a library wishes to obtain a license or other permission. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for the <TargetResource>. The ARROWResourceID is mandatory here and it is strongly recommended that any public standard identifiers, such as ISBN, are included if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. The Library's MARC record is mandatory here and the ARROWShortDescription (described at the end of this section) is optional if available. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. | 1 |
| 11 | <Country> | A country against whose national library files the record should be matched. Code list 91: ISO 3166-1 two-character codes. | 0-1 |

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Message M2R: Results of matching target resource against national/international library records
Latest update 1 July 2010

| | | | |
|----|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWResourceIdentificationResponse version="0.2"> | A response from a reference source (initially TEL) to the ARROW service. It communicates the results of attempts to match details of a library's <TargetResource> with the reference source's own records. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is TEL and the <Addressee> is ARROW. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | A composite that identifies and describes the resource (a printed book or digitized version thereof) for whose usage a library wishes to obtain a license or other permission. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |
| 11 | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here it carries the results of matching the <TargetResource> against TEL's databases. | 1 |
| 12 | <Summary> | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 13 | <NumberWithMatchTypeExact> | A control element within a message summary, carrying the total number of matches in the message with match type exact. | 1 |
| 14 | <NumberWithMatchTypePartial> | A control element within a message summary, carrying the total number of matches in the message with match type partial. | 1 |
| 15 | | | |
| 16 | <MatchWithReferenceSource> expanded: | | |
| 17 | <MatchWithReferenceSource> | | |
| 18 | <ReferenceSource> | A composite (expanded below) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |

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| 19 | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. If N, then the composite <ProposedMatch> does not appear. Also, a value of N here implies that the <TargetResource> should be referred back to the Library for clarification or more information. | 1 |
| 20 | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. | 0-n |
| 21 | | <MatchType> | A controlled value stating whether a reference source believes a proposed match to be exact or partial. Permissible values are arrow:Exact and arrow:Partial. | 1 |
| 22 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 23 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 24 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 25 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 26 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 0-n |
| 27 | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 28 | </MatchWithReferenceSource> | | | |
| 29 | | | | |
| 30 | <ReferenceSource> expanded: | | | |
| 31 | <ReferenceSource> | | | |
| 32 | | <ReferenceSourceIdentifier> | A composite that carries a coded identifier for a reference source. Either this or the <ReferenceSourceName> element is mandatory in this composite. | 0-1 |
| 33 | | <ReferenceSourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Subset of code list 44, values 01, 06, 08, 09, plus arrow:ARROWNetworkParticipants. | 1 |
| 34 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ReferenceSourceIDType> element indicates a proprietary scheme. | 0-1 |
| 35 | | <IDValue> | An identifier of the type specified in the <ReferenceSourceIDType> element. | 1 |
| 36 | | <ReferenceSourceName> | The name of a reference source. Either this or the <ReferenceSourceIdentifier> composite is mandatory in this composite. | 0-1 |
| 37 | </ReferenceSource> | | | |

ARROW Detailed Message Descriptions
Version 0.25

Message M3Q: Request to review matching, select manifestation(s) or enhance description of target resource
Latest update 1 July 2010

| | | | |
|----|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWManifestationMatchingReviewRequest version="0.2"> | A request from the ARROW service to a library. It asks the library to review the results of attempts by a reference source (initially TEL) to match details of the library's <TargetResource> with the reference source's own records. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is ARROW and the <Addressee> is the Library. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | A composite that identifies and describes the resource (a printed book or digitized version thereof) for whose usage a library wishes to obtain a license or other permission. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |

ARROW Detailed Message Descriptions
Version 0.25

| | | | | | |
|----|---------------------------------------------------|--|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 11 | | | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here it carries the results of matching the <TargetResource> against TEL's databases. | 1 |
| 12 | <Summary> | | | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 13 | | | <NumberWithMatchTypeExact> | A control element within a message summary, carrying the total number of matches in the message with match type exact. | 1 |
| 14 | | | <NumberWithMatchTypePartial> | A control element within a message summary, carrying the total number of matches in the message with match type partial. | 1 |
| 15 | | | | | |
| 16 | <MatchWithReferenceSource> expanded: | | | | |
| 17 | <MatchWithReferenceSource> | | | | |
| 18 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 19 | | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. If N, then the composite <ProposedMatch> does not appear. Also, a value of N here implies that the <TargetResource> should be referred back to the Library for clarification or more information. | 1 |
| 20 | | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. | 0-n |
| 21 | | | <MatchType> | A controlled value stating whether a reference source believes a proposed match to be exact or partial. Permissible values are arrow:Exact and arrow:Partial. | 1 |
| 22 | | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 23 | | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 24 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 25 | | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 26 | | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. | 0-n |
| 27 | | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 28 | </MatchWithReferenceSource> | | | | |

ARROW Detailed Message Descriptions
Version 0.25

Message 3R: Response that reviews matches, selecting manifestation(s) and/or providing an enhanced description of the <TargetResource>
Latest update 1 July 2010

| | | | |
|----|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWManifestationMatchingReviewResponse version="0.2"> | A response from a library to the ARROW service. It communicates the results of the library's review of matches submitted by a reference source (initially TEL) between the library's <TargetResource> and the reference source's own records. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is the Library and the <Addressee> is ARROW. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | A composite that identifies and describes the resource (a printed book or digitized version thereof) for whose usage a library wishes to obtain a license or other permission. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. | 1-n |
| 11 | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here it carries the results of matching the <TargetResource> against TEL's databases. | 1 |
| 12 | <Summary> | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 13 | <NumberWithMatchTypeExactStatusConfirmed> | A control element within a message summary, carrying the total number of matches in the message with match type exact and status confirmed. | 1 |
| 14 | <NumberWithMatchTypeExactStatusRejected> | A control element within a message summary, carrying the total number of matches in the message with match type exact and status rejected. | 1 |
| 15 | <NumberWithMatchTypePartialStatusConfirmed> | A control element within a message summary, carrying the total number of matches in the message with match type partial and status confirmed. | 1 |
| 16 | <NumberWithMatchTypePartialStatusRejected> | A control element within a message summary, carrying the total number of matches in the message with match type partial and status rejected. | 1 |
| 17 | | | |

ARROW Detailed Message Descriptions
Version 0.25

| | | | |
|----|---------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18 | <MatchWithReferenceSource> expanded: | | |
| 19 | <MatchWithReferenceSource> | | |
| 20 | <ReferenceSource> | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. 1 |
| 21 | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. If N, then the composite <ProposedMatch> does not appear. Also, a value of N here implies that the <TargetResource> should be referred back to the Library for clarification or more information. 1 |
| 22 | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. 0-n |
| 23 | | <MatchType> | A controlled value stating whether a reference source believes a proposed match to be exact or partial. Permissible values are arrow:Exact and arrow:Partial. 1 |
| 24 | | <MatchStatus> | A controlled value carrying a reviewer's decision on whether a proposed match is confirmed or rejected. Permissible values are arrow:Confirmed and arrow:Rejected. 1 |
| 25 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. 1 |
| 26 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. 1 |
| 27 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. 0-1 |
| 28 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. 1 |
| 29 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. 0-n |
| 30 | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. 0-1 |
| 31 | | <MatchReviewNote> | Free text to amplify or qualify a reviewer's decision and the match status chosen. 0-1 |
| 32 | | <MatchReviewAuthority> | A composite that carries details identifying a person or organization that has reviewed a proposed match suggested by a reference source. 1 |
| 33 | | <ReviewerName> | The name of a reviewer. 0-1 |
| 34 | | <ReviewerOrganization> | The organization to which a reviewer belongs or is affiliated. 1 |
| 35 | <ReviewerEmail> | The email address of a reviewer. 0-1 | |
| 36 | </MatchWithReferenceSource> | | |

ARROW Detailed Message Descriptions
Version 0.25

Message M4Q: Request to create cluster for an exact match
Latest update 1 July 2010

| | | | | |
|----|---------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWClusterCreationRequest version="0.2"> | | A request from the ARROW service to a reference source (initially TEL). It conveys details of a particular manifestation and asks the reference source to return details of one or more clusters of other manifestations/works from its own records that appear to be related to that manifestation. | 1 |
| 2 | <Header> | | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is ARROW and the <Addressee> is TEL. | 1 |
| 3 | <ARROWTransaction> | | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | | A composite that identifies and describes the resource (a printed book or digitized version thereof) for whose usage a library wishes to obtain a license or other permission. | 1 |
| 6 | <ResourceIdentifier> | | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |
| 11 | <MatchWithReferenceSource> | | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here it carries the results of matching the <TargetResource> against TEL's databases. | 1 |
| 12 | | | | |
| 13 | <MatchWithReferenceSource> expanded: | | | |
| 14 | <MatchWithReferenceSource> | | | |
| 15 | <ReferenceSource> | | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 16 | <ManifestationIdentifier> | | A composite that carries a coded identifier for a manifestation. | 1-n |
| 17 | <ManifestationIDType> | | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |

ARROW Detailed Message Descriptions
Version 0.25

| | | | | | |
|----|--|-----------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 18 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 19 | | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 20 | | <Description> | | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. | 0-n |
| 21 | | </MatchWithReferenceSource> | | | |

ARROW Detailed Message Descriptions
Version 0.25

Message M4R: Communicate cluster details, work & manifestations
Latest update 1 July 2010

| | | | |
|----|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWClusterCreationResponse version="0.2"> | A response from a reference source (initially TEL) to the ARROW service. It communicates the results of attempts to identify clusters of manifestations/works from the reference source's own records, based upon the manifestation originally submitted. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is TEL and the <Addressee> is ARROW. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | The resource (i.e. the physical manifestation) explicitly signalled by the requesting Library. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |
| 11 | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here it carries the results of matching the <TargetResource> against TEL's databases. | 1 |
| 12 | <PrimaryCluster> | A composite (expanded below) that contains a group of manifestations that share the same underlying intellectual work as the <TargetResource>, the manifestation of which the <TargetResource> is an instance and also the underlying work itself. | 1 |
| 13 | <SecondaryCluster> | A composite (expanded below) that contains a group of manifestations sharing the same underlying intellectual work as well as the work itself. A <SecondaryCluster> contains other manifestations which may be relevant for purposes of rights clearance related to the <TargetResource>. | 0-n |
| 14 | <Summary> | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 15 | <NumberOfClusters> | A control element within a message summary, carrying the total number of clusters contained within the message. | 1 |
| 16 | <NumberOfDescriptions> | A control element within a message summary, carrying the total number of descriptions contained within the message | 0-1 |

ARROW Detailed Message Descriptions
Version 0.25

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|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------|------------------------------------------------------------------|-----|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------|---------------------------------------------------------------------------|---|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------|-------------------------------------------------------|-----|--|
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | <MatchWithReferenceSource> expanded: | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | <MatchWithReferenceSource> | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><ReferenceSource></td> <td>A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL.</td> <td style="text-align: right;">1</td> </tr> <tr> <td><ManifestationIdentifier></td> <td>A composite that carries a coded identifier for a manifestation.</td> <td style="text-align: right;">1-n</td> </tr> <tr> <td style="padding-left: 20px;"><ManifestationIDType></td> <td>An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID.</td> <td style="text-align: right;">1</td> </tr> <tr> <td style="padding-left: 20px;"><IDTypeName></td> <td>A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme.</td> <td style="text-align: right;">0-1</td> </tr> <tr> <td style="padding-left: 20px;"><IDValue></td> <td>An identifier of the type specified in the <ManifestationIDType> element.</td> <td style="text-align: right;">1</td> </tr> </table> | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1-n | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 | | | | | | | | | | |
| <ReferenceSource> | | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| <ManifestationIdentifier> | | A composite that carries a coded identifier for a manifestation. | 1-n | | | | | | | | | | | | | | | | | | | | | | | |
| <ManifestationIDType> | | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| <IDTypeName> | | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 | | | | | | | | | | | | | | | | | | | | | | | |
| <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. | 0-n | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | <PrimaryCluster> expanded: | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | <PrimaryCluster> | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><ReferenceSource></td> <td>A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL.</td> <td style="text-align: right;">1</td> </tr> <tr> <td><ClusterIdentifier></td> <td>A composite that defines a coded identifier of a cluster</td> <td style="text-align: right;">1-n</td> </tr> <tr> <td style="padding-left: 20px;"><ClusterIDType></td> <td>An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID.</td> <td style="text-align: right;">1</td> </tr> <tr> <td style="padding-left: 20px;"><IDTypeName></td> <td>A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme.</td> <td style="text-align: right;">0-1</td> </tr> <tr> <td style="padding-left: 20px;"><IDValue></td> <td>An identifier of the type specified in the <ClusterIDType> element.</td> <td style="text-align: right;">1</td> </tr> <tr> <td><IdentifiedWork></td> <td>A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource></td> <td style="text-align: right;">0-1</td> </tr> <tr> <td style="padding-left: 20px;"><ReferenceSource></td> <td>A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL.</td> <td style="text-align: right;">1</td> </tr> <tr> <td style="padding-left: 20px;"><WorkIdentifier></td> <td>A composite that carries a coded identifier of a work</td> <td style="text-align: right;">1-n</td> </tr> </table> | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 | <IdentifiedWork> | A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource> | 0-1 | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n | |
| <ReferenceSource> | | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| <ClusterIdentifier> | | A composite that defines a coded identifier of a cluster | 1-n | | | | | | | | | | | | | | | | | | | | | | | |
| <ClusterIDType> | | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| <IDTypeName> | | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 | | | | | | | | | | | | | | | | | | | | | | | |
| <IDValue> | | An identifier of the type specified in the <ClusterIDType> element. | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| <IdentifiedWork> | | A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource> | 0-1 | | | | | | | | | | | | | | | | | | | | | | | |
| <ReferenceSource> | | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 | | | | | | | | | | | | | | | | | | | | | | | |

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|----|--|-------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 39 | | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 40 | | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 41 | | <MatchesFound> | | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. Values are Y if one or more matches reported or N if none found. If N, then the composite <ProposedMatch> does not appear. For the pilot phases, it is agreed (see next line) that only the value 'Y' will be encountered, because of the inclusion of the 'closest matching' manifestation in all cases. | 1 |
| 42 | | <ProposedMatch> | | A composite that gives details of any match(es) found with information in the database(s) of a reference source. In the clustering prototype implemented to date, the 'closest matching' manifestation will always be included in the <PrimaryCluster>, hence the minimum cardinality of 1 here. | 1-n |
| 43 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 44 | | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value 01 = "Manifestation of". | 0-1 |
| 45 | | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 46 | | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 47 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 48 | | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 49 | | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is MARC21 XML or UNIMARC XML. | 1-n |
| 50 | | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 51 | | | | | |
| 52 | | <SecondaryCluster> expanded: | | | |
| 53 | | <SecondaryCluster> | | | 1 |
| 54 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 55 | | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 56 | | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 57 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 58 | | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 59 | | | <RelatedWork> | A composite that describes the underlying intellectual work shared by the manifestations within a <SecondaryCluster>. | 0-1 |

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|----|---------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 60 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 61 | | <RelatorCode> | A controlled value expressing a relationship between one work and another work. Code list 164. | 0-1 |
| 62 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 63 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 64 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 65 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 66 | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 67 | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. Values are Y if one or more matches reported or N if none found. If N, then the composite <ProposedMatch> does not appear. For the pilot phases, it is agreed (see next line) that only the value 'Y' will be encountered, because of the inclusion of the 'closest matching' manifestation in all cases. | 1 |
| 68 | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. In the clustering prototype implemented to date, the 'closest matching' manifestation will always be included in the <PrimaryCluster>, hence the minimum cardinality of 1 here. | 1-n |
| 69 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 70 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value Manifestation of. | 0-1 |
| 71 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 72 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 73 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 74 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 75 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is MARC21 XML or UNIMARC XML. | 1-n |
| 76 | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 77 | </SecondaryCluster> | | | |

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Message M5Q: Request to review clustering outputs
Latest update 1 July 2010

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|----|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWClusterReviewRequest version="0.2"> | A request from the ARROW service to a library. It asks the library to review the results of attempts by a reference source (initially TEL) to identify clusters of manifestations/works from the reference source's own records, based upon the manifestation originally submitted. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is ARROW and the <Addressee> is the Library. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | The resource (i.e. the physical manifestation) explicitly signalled by the requesting Library. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |
| 11 | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here it carries the results of matching the <TargetResource> against TEL's databases. | 1 |
| 12 | <PrimaryCluster> | A composite (expanded below) that contains a group of manifestations that share the same underlying intellectual work as the <TargetResource>, the manifestation of which the <TargetResource> is an instance and also the underlying work itself. | 1 |
| 13 | <SecondaryCluster> | A composite (expanded below) that contains a group of manifestations sharing the same underlying intellectual work as well as the work itself. A <SecondaryCluster> contains other manifestations which may be relevant for purposes of rights clearance related to the <TargetResource>. | 0-n |
| 14 | <Summary> | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 15 | <NumberOfRelatedWorks> | A control element within a message summary, carrying the total number of related works contained within the message. | 0-1 |
| 16 | <NumberOfProposedMatches> | A control element within a message summary, carrying the total number of proposed matches contained within the message. | 1 |

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| | | | | |
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| 17 | | <NumberOfDescriptions> | A control element within a message summary, carrying the total number of descriptions contained within the message. | 0-1 |
| 18 | | | | |
| 19 | <MatchWithReferenceSource> expanded: | | | |
| 20 | <MatchWithReferenceSource> | | | |
| 21 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 22 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1-n |
| 23 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 24 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 25 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 26 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML. | 0-n |
| 27 | </MatchWithReferenceSource> | | | |
| 28 | | | | |
| 29 | <PrimaryCluster> expanded: | | | |
| 30 | <PrimaryCluster> | | | |
| 31 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 32 | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster. | 1-n |
| 33 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 34 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 35 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 36 | | <IdentifiedWork> | A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource>. | 0-1 |
| 37 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 38 | | <WorkIdentifier> | A composite that carries a coded identifier of a work. | 1-n |
| 39 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |

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|----|-------------------------------------------|--|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 40 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 41 | | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 42 | | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 43 | | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. Values are Y if one or more matches reported or N if none found. If N, then the composite <ProposedMatch> does not appear. For the pilot phases, it is agreed (see next line) that only the value 'Y' will be encountered, because of the inclusion of the 'closest matching' manifestation in all cases. | 1 |
| 44 | | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. In the clustering prototype implemented to date, the 'closest matching' manifestation will always be included in the <PrimaryCluster>, hence the minimum cardinality of 1 here. | 1-n |
| 45 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 46 | | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value 01 = "Manifestation of". | 0-1 |
| 47 | | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 48 | | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 49 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 50 | | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 51 | | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is MARC21 XML or UNIMARC XML. | 1-n |
| 52 | | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 53 | </PrimaryCluster> | | | | |
| 54 | | | | | |
| 55 | <SecondaryCluster> expanded: | | | | |
| 56 | <SecondaryCluster> | | | | |
| 57 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 58 | | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 59 | | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |

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|----|--|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 60 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 61 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 62 | | <RelatedWork> | A composite that describes the underlying intellectual work shared by the manifestations within a <SecondaryCluster>. | 0-1 |
| 63 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 64 | | <RelatorCode> | A controlled value expressing a relationship between one work and another work. Code list 164. | 0-1 |
| 65 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 66 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 67 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 68 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 69 | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 70 | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. Values are Y if one or more matches reported or N if none found. If N, then the composite <ProposedMatch> does not appear. For the pilot phases, it is agreed (see next line) that only the value 'Y' will be encountered, because of the inclusion of the 'closest matching' manifestation in all cases. | 1 |
| 71 | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. In the clustering prototype implemented to date, the 'closest matching' manifestation will always be included in the <PrimaryCluster>, hence the minimum cardinality of 1 here. | 1-n |
| 72 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 73 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value Manifestation of. | 0-1 |
| 74 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 75 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 76 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 77 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 78 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is MARC21 XML or UNIMARC XML. | 1-n |

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| | | | | | |
|----|---------------------|--|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----|
| 79 | | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 80 | </SecondaryCluster> | | | | |

ARROW Detailed Message Descriptions
Version 0.25

Message M5R: Response with reviewed clustering outputs
Last updated 1 July 2010

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|----|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWClusterReviewResponse version="0.2"> | A response from a library to the ARROW service. It communicates the results of the library's review of clusters submitted by a reference source (initially TEL) based upon manifestations related to the library's <TargetResource> and the reference source's own records. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is the Library and the <Addressee> is ARROW. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | The resource (i.e. the physical manifestation) explicitly signalled by the requesting Library. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |
| 11 | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here it carries the results of matching the <TargetResource> against TEL's databases. | 1 |
| 12 | <PrimaryCluster> | A composite (expanded below) that contains a group of manifestations that share the same underlying intellectual work as the <TargetResource>, the manifestation of which the <TargetResource> is an instance and also the underlying work itself. | 1 |
| 13 | <SecondaryCluster> | A composite (expanded below) that contains a group of manifestations sharing the same underlying intellectual work as well as the work itself. A <SecondaryCluster> contains other manifestations which may be relevant for purposes of rights clearance related to the <TargetResource>. | 0-1 |
| 14 | <Summary> | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 15 | <NumberWithMatchTypeExactStatusConfirmed> | A control element within a message summary, carrying the total number of matches in the message with match type exact and status confirmed. | 1 |
| 16 | <NumberWithMatchTypeExactStatusRejected> | A control element within a message summary, carrying the total number of matches in the message with match type exact and status rejected. | 1 |

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|----|---------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 17 | | <NumberWithMatchTypePartialStatusConfirmed> | A control element within a message summary, carrying the total number of matches in the message with match type partial and status confirmed. | 1 |
| 18 | | <NumberWithMatchTypePartialStatusRejected> | A control element within a message summary, carrying the total number of matches in the message with match type partial and status rejected. | 1 |
| 19 | | <NumberOfDescriptions> | A control element within a message summary, carrying the total number of descriptions contained within the message. | 0-1 |
| 20 | | | | |
| 21 | <MatchWithReferenceSource> expanded: | | | |
| 22 | <MatchWithReferenceSource> | | | |
| 23 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 24 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1-n |
| 25 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 26 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 27 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 28 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 0-n |
| 29 | </MatchWithReferenceSource> | | | |
| 30 | | | | |
| 31 | <PrimaryCluster> expanded: | | | |
| 32 | <PrimaryCluster> | | | |
| 33 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 34 | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 35 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 36 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 37 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 38 | | <IdentifiedWork> | A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource> | 0-1 |
| 39 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 40 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |

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| 41 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 42 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 43 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 44 | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 45 | | <MatchStatus> | A controlled value carrying a reviewer's decision on whether a proposed match is confirmed or rejected. Permissible values are arrow:Confirmed and arrow:Rejected. | 1 |
| 46 | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. Values are Y if one or more matches reported or N if none found. If N, then the composite <ProposedMatch> does not appear. For the pilot phases, it is agreed (see next line) that only the value 'Y' will be encountered, because of the inclusion of the 'closest matching' manifestation in all cases. | 1 |
| 47 | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. In the clustering prototype implemented to date, the 'closest matching' manifestation will always be included in the <PrimaryCluster>, hence the minimum cardinality of 1 here. | 1-n |
| 48 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 49 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value 01 = "Manifestation of". | 0-1 |
| 50 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 51 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 52 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 53 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 54 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |
| 55 | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 56 | | <MatchStatus> | A controlled value carrying a reviewer's decision on whether a proposed match is confirmed or rejected. Permissible values are arrow:Confirmed and arrow:Rejected. | 1 |
| 57 | | <ClusterReviewNote> | Free text to amplify or qualify a reviewer's decision and the match status(es) chosen for each work and/or manifestation(s) contained within the proposed cluster | 0-1 |

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| 58 | | <ClusterReviewAuthority> | A composite that carries details identifying a person or organization that has reviewed a proposed cluster suggested by a reference source. It contains details of the person and/or organization names and contact details. | 1 |
| 59 | | <ReviewerName> | The name of a reviewer. | 0-1 |
| 60 | | <ReviewerOrganization> | The organization to which a reviewer belongs or is affiliated. | 1 |
| 61 | | <ReviewerEmail> | The email address of a reviewer. | 0-1 |
| 62 | </PrimaryCluster> | | | |
| 63 | | | | |
| 64 | <SecondaryCluster> expanded: | | | |
| 65 | <SecondaryCluster> | | | |
| 66 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 67 | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 68 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 69 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 70 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 71 | | <RelatedWork> | A composite that describes the underlying intellectual work shared by the manifestations within a <SecondaryCluster>. | 0-1 |
| 72 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 73 | | <RelatorCode> | A controlled value expressing a relationship between one work and another work. Code list 164. | 0-1 |
| 74 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 75 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 76 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 77 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 78 | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 79 | | <MatchStatus> | A controlled value carrying a reviewer's decision on whether a proposed match is confirmed or rejected. Permissible values are arrow:Confirmed and arrow:Rejected. | 1 |

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| | | | | |
|----|---------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 80 | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. Values are Y if one or more matches reported or N if none found. If N, then the composite <ProposedMatch> does not appear. For the pilot phases, it is agreed (see next line) that only the value 'Y' will be encountered, because of the inclusion of the 'closest matching' manifestation in all cases. | 1 |
| 81 | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of a reference source. In the clustering prototype implemented to date, the 'closest matching' manifestation will always be included in the <PrimaryCluster>, hence the minimum cardinality of 1 here. | 1-n |
| 82 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 83 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value Manifestation of. | 0-1 |
| 84 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 85 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 86 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 87 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 88 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Initially the record format is expected to be MARC21XML; in the future it could alternatively be UNIMARCXML | 1-n |
| 89 | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 90 | | <MatchStatus> | A controlled value carrying a reviewer's decision on whether a proposed match is confirmed or rejected. Permissible values are arrow:Confirmed and arrow:Rejected. | 1 |
| 91 | | <ClusterReviewNote> | Free text to amplify or qualify a reviewer's decision and the match status(es) chosen for each work and/or manifestation(s) contained within the proposed cluster | 0-1 |
| 92 | | <ClusterReviewAuthority> | A composite that carries details identifying a person or organization that has reviewed a proposed cluster suggested by a reference source. It contains details of the person and/or organization names and contact details. | 1 |
| 93 | | <ReviewerName> | The name of a reviewer. | 0-1 |
| 94 | | <ReviewerOrganization> | The organization to which a reviewer belongs or is affiliated. | 1 |
| 95 | | <ReviewerEmail> | The email address of a reviewer. | 0-1 |
| 96 | </SecondaryCluster> | | | |

ARROW Detailed Message Descriptions
Version 0.25

Message M6Q: Request matching of clustered works & manifestations with published in-print manifestations
Latest update 1 July 2010

| | | | | |
|----|-------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWRelatedBooksInPrintRequest version="0.2"> | | A request from the ARROW service to a Books in Print agency. It conveys details of a particular manifestation and asks the BIP to return details of any manifestations from its own records that appear to be related to that manifestation, together with information on the publishing status and availability of each one | 1 |
| 2 | <Header> | | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is ARROW and the <Addressee> is the BIP. | 1 |
| 3 | <ARROWTransaction> | | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | | <PrimaryCluster> | A composite (expanded below) that contains a group of manifestations that share the same underlying intellectual work as the <TargetResource>, the manifestation of which the <TargetResource> is an instance and also the underlying work itself. The BIP is requested to match the work and manifestations included in the <PrimaryCluster> against its own records, returning details of any further related works or related manifestations ("related ISBNs"). | 1 |
| 6 | | <Secondary Cluster> | A composite (expanded below) that contains a group of manifestations sharing the same underlying intellectual work as well as the work itself. A <SecondaryCluster> contains other manifestations which may be relevant for purposes of rights clearance related to the <TargetResource>. The BIP is requested to match the work and manifestations included in the <SecondaryCluster> against its own records, returning details of any further related works or related manifestations ("related ISBNs"). | 0-n |
| 7 | <Summary> | | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 8 | | <NumberOfDescriptions> | A control element within a message summary, carrying the total number of descriptions contained within the message. | 1 |
| 9 | | <NumberOfManifestations> | A control element within a message summary, carrying the total number of manifestations contained within the message. | 1 |
| 10 | | | | |
| 11 | <PrimaryCluster> expanded: | | | |
| 12 | <PrimaryCluster> | | | 1 |
| 13 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 14 | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 15 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELCID and arrow:ARROWCID. | 1 |

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|----|------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 16 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 17 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 18 | | <IdentifiedWork> | A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource> | 0-1 |
| 19 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 20 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 21 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 22 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 23 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 24 | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 25 | | <Manifestation> | A composite that carries details of manifestations identified by a clustering process carried out by a reference source. In this message, <Description> is optional if an ISBN is available for the <Manifestation> and mandatory if no ISBN is available, in case BIP workflows differ for these two cases. | 1-n |
| 26 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 27 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value 01 = "Manifestation of". | 0-1 |
| 28 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 29 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected values here are ISBN or TELManifestationID. | 1 |
| 30 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 31 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 32 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 33 | </PrimaryCluster> | | | |
| 34 | | | | |
| 35 | <SecondaryCluster> expanded: | | | |

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| | | | | |
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| 36 | <SecondaryCluster> | | | 0-n |
| 37 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 38 | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 39 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 40 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 41 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 42 | | <RelatedWork> | A composite that describes the underlying intellectual work shared by the manifestations within a <SecondaryCluster>. | 0-1 |
| 43 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 44 | | <RelatorCode> | A controlled value expressing a relationship between one work and another work. | 0-1 |
| 45 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 46 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 47 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 48 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 49 | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 50 | | <Manifestation> | A composite that carries details of manifestations identified by a clustering process carried out by a reference source. In this message, <Description> is optional if an ISBN is available for the <Manifestation> and mandatory if no ISBN is available, in case BIP workflows differ for these two cases. | 1-n |
| 51 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 52 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164. | 0-1 |
| 53 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 54 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected values here are ISBN or TELManifestationID. | 1 |

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| 55 | | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 56 | | | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 57 | | | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 58 | </SecondaryCluster> | | | | | |

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Message M6R: Respond with details of matching published in-print manifestations, relating each to appropriate work or manifestation in the TEL clusters
Latest update 1 July 2010

| | | | |
|----|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWRelatedBooksInPrintResponse version="0.2"> | A response from a reference source (initially TEL) to the ARROW service. It communicates the results of attempts to match details of a library's <TargetResource> with the reference source's own records | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is a BIP and the <Addressee> is ARROW. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <PrimaryCluster> | A composite (expanded below) that contains a group of manifestations that share the same underlying intellectual work as the <TargetResource>, the manifestation of which the <TargetResource> is an instance and also the underlying work itself. In the <MatchWithReferenceSource> composites (also expanded below) within the <PrimaryCluster>, the BIP returns details of any further related works or related manifestations ("related ISBNs") identified during the matching process. | 1 |
| 6 | <Secondary Cluster> | A composite that contains a group of manifestations sharing the same underlying intellectual work as well as the work itself. A <SecondaryCluster> contains other manifestations which may be relevant for purposes of rights clearance related to the <TargetResource>. In the <MatchWithReferenceSource> composites (also expanded below) within the <PrimaryCluster>, the BIP returns details of any further related works or related manifestations ("related ISBNs") identified during the matching process. | 0-n |
| 7 | <Summary> | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 8 | <NumberOfDescriptions> | A control element within a message summary, carrying the total number of descriptions contained within the message. | 0-1 |
| 9 | <NumberOfManifestations> | A control element within a message summary, carrying the total number of manifestations contained within the message. | 1 |
| 10 | <NumberWithMatchTypeExact> | A control element within a message summary, carrying the total number of matches in the message with match type exact. | 1 |
| 11 | <NumberWithMatchTypePartial> | A control element within a message summary, carrying the total number of matches in the message with match type partial. | 1 |
| 12 | | | |
| 13 | <PrimaryCluster> expanded: | | |
| 14 | <PrimaryCluster> | | 1 |
| 15 | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 16 | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |

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| 17 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 18 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 19 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 20 | | <IdentifiedWork> | A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource> | 0-1 |
| 21 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 22 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 23 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 24 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 25 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 26 | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 27 | | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here the reference source is the BIP and the matching reported is based upon the <IdentifiedWork> sent by ARROW. | 0-n |
| 28 | | <Manifestation> | A composite that carries details of manifestations identified by a clustering process carried out by a reference source. In this message, <Description> is optional if an ISBN is available for the <Manifestation> and mandatory if no ISBN is available, in case BIP workflows differ for these two cases. | 1-n |
| 29 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 30 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value 01 = "Manifestation of". | 0-1 |
| 31 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 32 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected values here are ISBN or TELManifestationID. | 1 |

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|----|-------------------------------------------|--|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 33 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 34 | | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 35 | | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 36 | | | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here the reference source is the BIP and the matching reported is based upon the <Manifestation> sent by ARROW. | 0-n |
| 37 | </PrimaryCluster> | | | | |
| 38 | | | | | |
| 39 | <SecondaryCluster> expanded: | | | | |
| 40 | <SecondaryCluster> | | | | |
| 41 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 42 | | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 43 | | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 44 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 45 | | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 46 | | | <RelatedWork> | A composite that describes the underlying intellectual work shared by the manifestations within a <SecondaryCluster>. | 0-1 |
| 47 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 48 | | | <RelatorCode> | A controlled value expressing a relationship between one work and another work. Code list 164. | 0-1 |
| 49 | | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 50 | | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 51 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 52 | | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 53 | | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |

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| 54 | | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here the reference source is the BIP and the matching reported is based upon the <RelatedWork> sent by ARROW. | 0-n |
| 55 | | <Manifestation> | A composite that carries details of manifestations identified by a clustering process carried out by a reference source. In this message, <Description> is optional if an ISBN is available for the <Manifestation> and mandatory if no ISBN is available, in case BIP workflows differ for these two cases. | 1-n |
| 56 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 57 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value 01 = "Manifestation of". | 0-1 |
| 58 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 59 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected values here are ISBN or TELManifestationID. | 1 |
| 60 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 61 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 62 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 63 | | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source and presents details of proposed matches, for subsequent review or verification. Here the reference source is the BIP and the matching reported is based upon the <Manifestation> sent by ARROW. | 0-n |
| 64 | </SecondaryCluster> | | | |
| 65 | | | | |
| 66 | <MatchWithReferenceSource> expanded: | | | |
| 67 | | <MatchWithReferenceSource> | A composite that carries the results of matching details of an incoming record with those in the database(s) of a reference source. It identifies the reference source (in this case the BIP) and presents details of proposed matches, for subsequent review or verification. | 0-n |
| 68 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the reference source is the BIP. | 1 |
| 69 | | <MatchesFound> | Controlled (Y/N) values, stating whether or not any matches have been found with resources in the database(s) of a reference source. If N, then the composite <ProposedMatch> does not appear. | 1 |
| 70 | | <ProposedMatch> | A composite that gives details of any match(es) found with information in the database(s) of the reference source, in this case the BIP. | 0-n |

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| 71 | | <MatchType> | A controlled value stating whether a reference source believes a proposed match to be exact or partial. Permissible values are arrow:Exact and arrow:Partial. | 1 |
| 72 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 51. | 0-1 |
| 73 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 74 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected values here are ISBN or TELManifestationID. | 1 |
| 75 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 76 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 77 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 0-n |
| 78 | | <MatchProbabilityPercentage> | A reference source's estimate of the probability of a particular match being correct, expressed as an integer percentage from 0 to 100. | 0-1 |
| 79 | </MatchWithReferenceSource> | | | |

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Message M7Q: Formal licence request, supported by cluster and related manifestation details
Latest update 1 July 2010

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| 1 | <ARROWFormalLicenseRequest version="0.2"> | A request from the ARROW service to an RRO (Reproduction Rights Organization). It identifies a <TargetResource> for which a library requests a formal license or other permissions. It specifies the usage permissions sought and presents supporting information gathered through the ARROW process, including details of any identified related works or manifestations and the apparent publishing status or availability of each one. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is ARROW and the <Addressee> is the RRO. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | The resource (i.e. the physical manifestation) explicitly signalled by the requesting Library. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. This composite is mandatory here and carries a description of the <TargetResource>. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1 |
| 11 | <MatchWithReferenceSource> | A composite (expanded below) that carries the results of matching details of an incoming record with those in the database(s) of a reference source. Here it presents details of the manifestation determined by the ARROW process as the closest match to the <TargetResource>. | 1 |
| 12 | <PrimaryCluster> | A composite (expanded below) that contains a group of manifestations that share the same underlying intellectual work as the <TargetResource>, the manifestation of which the <TargetResource> is an instance and also the underlying work itself. It also carries details of any further manifestations ("related ISBNs") identified by matching the clustered manifestations against BIP records. | 1 |
| 13 | <Secondary Cluster> | A composite (expanded below) that contains a group of manifestations sharing the same underlying intellectual work as well as the work itself. A <SecondaryCluster> contains other manifestations which may be relevant for purposes of rights clearance related to the <TargetResource>. It also carries details of any further manifestations ("related ISBNs") identified by matching the clustered manifestations against BIP records. | 0-n |

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| 14 | | <Licensee> | A composite that identifies a library or other cultural institution (such as a museum, archive or equivalent non-profit making institution) which is requesting a license or has been granted a license, and which is authorised to act under such a license agreement. The composite may also be used to identify another party (such as a consortium) on whose behalf the requester is acting. A detailed description is given at the end of this section. | 1 |
| 15 | | <LicenseeIdentifier> | A composite that carries an identifier for a licensee. Either this composite or <LicenseeName> must appear. | 0-1 |
| 16 | | <LicenseeIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Subset of code list 44, values 01, 06, 08, 09, plus arrow:ARROWNetworkParticipants. | 1 |
| 17 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <LicenseeIDType> element indicates a proprietary scheme. | 0-1 |
| 18 | | <IDValue> | An identifier of the type specified in the <LicenseeIDType> element. | 1 |
| 19 | | <LicenseeName> | An element that carries the name of the licensee. Either this element or the <LicenseeIdentifier> composite must appear. | 0-1 |
| 20 | | <PostalAddress> | Free text to carry a postal address. | 0-1 |
| 21 | | <Country> | A code identifying a country. Code list 91: ISO 3166-1 two-character codes. | 0-1 |
| 22 | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the licensee organization. | 0-1 |
| 23 | | <CommunicationDetails> | A composite that carries communication details. | 0-1 |
| 24 | | <Telephone> | A telephone number. | 0-1 |
| 25 | | <Fax> | A fax number. | 0-1 |
| 26 | | <Email> | An email address. | 0-1 |
| 27 | | <RequestedPermissionSet> | A composite that carries details of permission sets requested by a library through the ARROW process. The requested usages may eventually be specified either as one pre-defined Permission Set (as in this composite) or one or more ONIX-PL usages (see <RequestedUsage> composite, below). For the Alpha and Beta pilots, it has been decided that ONLY the Permission Set approach will be used, so that this composite is effectively mandatory. | 1 See note |
| 28 | | <PermissionSet> | An ARROW controlled value denoting a permission set that may be requested, granted or refused. Permission sets represent a simplified group of compound usages, designed to address scenarios frequently encountered and to simplify permission and usage statements during pilot phases of ARROW. Proposed values to date are these: arrow:DigitizeForPreservation arrow:DigitizeForUseInLibrary arrow:DigitizeForOpenUse arrow:DigitizeForAcademicUse arrow:DigitizeForPrintDocumentSupply arrow:EmployDigitizedResourceForUseInLibrary arrow:EmployDigitizedResourceForOpenUse arrow:EmployDigitizedResourceForAcademicUse arrow:EmployDigitizedResourceForPrintDocumentSupply arrow:DigitizeForDigitalDocumentSupply arrow:EmployDigitizedResourceForDigitalDocumentSupply | 1-n |

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| 29 | | <RequestedUsage> | A composite that expresses in formal ONIX-PL terms details of specific usage requests made by a library. The requested usages may eventually be specified either as one pre-defined Permission Set (see <RequestedPermissionSet> composite, above) or one or more ONIX-PL usages (as in THIS composite). For the Alpha and Beta pilots, it has been decided that ONLY the Permission Set approach will be used, so that this composite should not appear. | 0 See note |
| 30 | | <UsageType> | A controlled ONIX value that specifies a type of a usage (and by implication a usage verb). Examples include MakeDigitalCopy or PrintCopy. Other values are defined within the ONIX-PL dictionary. | 1 |
| 31 | | <User> | Either an agent label or a controlled term specifying an agent that performs a usage. An example is AuthorisedUsers, namely those to whom the requesting Library intend to give access to the digitised version. Other values are defined within the ONIX-PL dictionary. | 1-n |
| 32 | | <UsagePurpose> | A controlled value specifying a purpose for which a usage is permitted or prohibited. Examples include AcademicUse and TrainingAuthorisedUsers. Other values are defined within the ONIX-PL dictionary. | 0-n |
| 33 | | <UsageMethod> | A controlled value specifying a method of performing a usage that is permitted or prohibited. Examples include PublicNetwork and SecureAuthentication. Other values are defined within the ONIX-PL dictionary. | 0-n |
| 34 | | <UsageQuantity> | A composite that specifies a quantity attribute of a usage. For further information see the ONIX-PL documentation. | 0-n |
| 35 | | <UsageRelatedAgent> | A composite that specifies a reference between usage and a related agent For further information see the ONIX-PL documentation. | 0-n |
| 36 | | <UsageRelatedResource> | A composite that specifies a reference between usage and a related resource. For further information see the ONIX-PL documentation. | 0-n |
| 37 | | <UsageRelatedTimePoint> | A composite that specifies a reference between usage and a related time point. Defines any time points or periods relevant to a license request, for example the duration of the license sought. Examples include SpecifiedTerm and Perpetual. For further information see the ONIX-PL documentation. | 0-n |
| 38 | | <UsageRelatedPlace> | A composite that specifies a reference between usage and a related place. Defines any places, including countries or regions, relevant to a license request. Examples include TerritoriallyRestricted and TerritoriallyUnrestricted. For further information see the ONIX-PL documentation. | 0-n |
| 39 | <Summary> | | A composite that summarizes the numbers of selected parameters within a message, as a check on the integrity of message creation. | 1 |
| 40 | | <NumberOfManifestations> | A control element within a message summary, carrying the total number of manifestations contained within the message. | 1 |
| 41 | | <NumberOfDescriptions> | A control element within a message summary, carrying the total number of descriptions contained within the message. | 0-1 |
| 42 | | | | |
| 43 | <MatchWithReferenceSource> expanded: | | | |
| 44 | <MatchWithReferenceSource> | | A composite that carries the results of matching details of an incoming record with those in the database(s) of a reference source. Here it identifies and describes the closest-matching manifestation to the <TargetResource>. | 1 |
| 45 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |

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| 46 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. Expected values here are an ISBN or a TELManifestationID if no ISBN is available. | 1-n |
| 47 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 48 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 49 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 50 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 51 | </MatchWithReferenceSource> | | | |
| 52 | | | | |
| 53 | <PrimaryCluster> expanded: | | | |
| 54 | <PrimaryCluster> | | | |
| 55 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 56 | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 57 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 58 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 59 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 60 | | <IdentifiedWork> | A composite that describes a work identified as associated with one or more manifestations by a clustering process undertaken by a reference source. The identified work is part of a <PrimaryCluster> that includes the manifestation deemed most closely to match the <TargetResource> | 0-1 |
| 61 | | <ReferenceSource> | A composite (expanded in the description of message 2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 62 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 63 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 64 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 65 | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 | |
| 66 | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n | |
| 67 | <Manifestation> | A composite that carries details of manifestations identified by a clustering process carried out by a reference source. | 1-n | |

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| 68 | | <ReferenceSource> | A composite (expanded in the description of message 2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 69 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164: expected value 01 = "Manifestation of". | 0-1 |
| 70 | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 71 | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected values here are ISBN or TELManifestationID. | 1 |
| 72 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 73 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 74 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 75 | | <RelatedISBN> | A composite (expanded below) providing details of related manifestations identified by matching clustered manifestations against BIP records. | 0-n |
| 76 | </PrimaryCluster> | | | |
| 77 | | | | |
| 78 | <SecondaryCluster> expanded: | | | |
| 79 | <SecondaryCluster> | | | |
| 80 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 81 | | <ClusterIdentifier> | A composite that defines a coded identifier of a cluster | 1-n |
| 82 | | <ClusterIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in the <ClusterIdentifier> composite is taken. Permitted values arrow:TELClusterID and arrow:ARROWClusterID. | 1 |
| 83 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ClusterIDType> element indicates a proprietary scheme. | 0-1 |
| 84 | | <IDValue> | An identifier of the type specified in the <ClusterIDType> element. | 1 |
| 85 | | <RelatedWork> | A composite that describes the underlying intellectual work shared by the manifestations within a <SecondaryCluster>. | 0-1 |
| 86 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 1 |
| 87 | | <RelatorCode> | A controlled value expressing a relationship between one work and another work. | 0-1 |
| 88 | | <WorkIdentifier> | A composite that carries a coded identifier of a work | 1-n |
| 89 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |

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| 90 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 91 | | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 92 | | | <WorkDescription> | A composite that identifies and describes a work. A detailed description is given at the end of this section. | 1-n |
| 93 | | <Manifestation> | | A composite that carries details of manifestations identified by a clustering process carried out by a reference source. | 1-n |
| 94 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is TEL. | 0-1 |
| 95 | | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164. | 0-1 |
| 96 | | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 97 | | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected values here are ISBN or TELManifestationID. | 1 |
| 98 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |
| 99 | | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 100 | | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 101 | | | <RelatedISBN> | A composite (expanded below) providing details of related manifestations identified by matching clustered manifestations against BIP records. | 0-n |
| 102 | </SecondaryCluster> | | | | |
| 103 | | | | | |
| 104 | <RelatedISBN> expanded: | | | | |
| 105 | <RelatedISBN> | | | | |
| 106 | | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the ReferenceSource is the BIP. | 0-1 |
| 107 | | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 51. | 0-1 |
| 108 | | | <ManifestationIdentifier> | A composite that carries a coded identifier for a manifestation. | 1 |
| 109 | | | <ManifestationIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. Expected value here is ISBN. | 1 |
| 110 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ManifestationIDType> element indicates a proprietary scheme. | 0-1 |

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| 111 | | <IDValue> | An identifier of the type specified in the <ManifestationIDType> element. | 1 |
| 112 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1-n |
| 113 | </RelatedISBN> | | | |

ARROW Detailed Message Descriptions
Version 0.25

Message M7R: License and usage proposal (or refusal) and further advice from the RRO
Latest update 1 July 2010

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|----|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <ARROWLicenseProposalOrRefusal version="0.2"> | A response from an RRO to the ARROW service. It conveys the RRO's decision or other responses concerning the original request from a library. Responses may include the proposal or refusal of a license, advice that a license is unnecessary, and a range of other advice. | 1 |
| 2 | <Header> | A composite (expanded in the description of message M1Q) that constitutes a message header, containing details of sender and addressee and administrative information. Here the <Sender> is the RRO and the <Addressee> is ARROW. | 1 |
| 3 | <ARROWTransaction> | A composite that carries the detailed payload of an ARROW message. Non-repeatable, since the pilot workflow assumes that each <TargetResource> will be dealt with as a single request. | 1 |
| 4 | <ARROWTransactionID> | A unique and persistent identifier assigned by ARROW to a transaction and used to identify and track that transaction throughout the process. Mandatory here and in all subsequent messages. | 1 |
| 5 | <TargetResource> | The resource (i.e. the physical manifestation) explicitly signalled by the requesting Library. | 1 |
| 6 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource, and specifically here for the <TargetResource>. The unique ARROWResourceID is mandatory and any public standard identifiers, such as ISBN, are strongly recommended if available. | 1-n |
| 7 | <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 5 plus arrow:ARROWResourceID and arrow:TELManifestationID. | 1 |
| 8 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 9 | <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 10 | <MatchRelatedWorkWithReferenceSource> | A composite (expanded below) that contains details of the work for which an RRO proposes or denies the grant of a license. | 1 |
| 11 | <Licensee> | A composite that identifies a library or other cultural institution (such as a museum, archive or equivalent non-profit making institution) which is requesting a license or has been granted a license, and which is authorised to act under such a license agreement. The composite may also be used to identify another party (such as a consortium) on whose behalf the requester is acting. A detailed description is given at the end of this section. | 1 |
| 12 | <LicenseeIdentifier> | A composite that carries an identifier for a licensee. Either this composite or <LicenseeName> must appear. | 0-1 |
| 13 | <LicenseeIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Subset of code list 44, values 01, 06, 08, 09, plus arrow:ARROWNetworkParticipants. | 1 |
| 14 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <LicenseeIDType> element indicates a proprietary scheme. | 0-1 |
| 15 | <IDValue> | An identifier of the type specified in the <LicenseeIDType> element. | 1 |
| 16 | <LicenseeName> | An element that carries the name of the licensee. Either this element or the <LicenseeIdentifier> composite must appear. | 0-1 |
| 17 | <PostalAddress> | Free text to carry a postal address. | 0-1 |

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| 18 | | <Country> | A code identifying a country. Code list 91: ISO 3166-1 two-character codes. | 0-1 |
| 19 | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the licensee organization. | 0-1 |
| 20 | | <CommunicationDetails> | A composite that carries communication details for the licensee. | 0-1 |
| 21 | | <Telephone> | A telephone number. | 0-1 |
| 22 | | <Fax> | A fax number. | 0-1 |
| 23 | | <Email> | An email address. | 0-1 |
| 24 | | <RequestedPermissionSet> | A composite that carries details of permission sets requested by a library through the ARROW process. The requested usages may eventually be specified either as one pre-defined Permission Set (as in this composite) or one or more ONIX-PL usages (see <RequestedUsage> composite, below). For the Alpha and Beta pilots, it has been decided that ONLY the Permission Set approach will be used, so that this composite is effectively mandatory. | 1 See note |
| 25 | | <PermissionSet> | An ARROW controlled value denoting a permission set that may be requested, granted or refused. Permission sets represent a simplified group of compound usages, designed to address scenarios frequently encountered and to simplify permission and usage statements during pilot phases of ARROW. Proposed values to date are these: arrow:DigitizeForPreservation arrow:DigitizeForUseInLibrary arrow:DigitizeForOpenUse arrow:DigitizeForAcademicUse arrow:DigitizeForPrintDocumentSupply arrow:EmployDigitizedResourceForUseInLibrary arrow:EmployDigitizedResourceForOpenUse arrow:EmployDigitizedResourceForAcademicUse arrow:EmployDigitizedResourceForPrintDocumentSupply arrow:DigitizeForDigitalDocumentSupply arrow:EmployDigitizedResourceForDigitalDocumentSupply | 1-n |
| 26 | | <PermissionSetStatus> | A controlled value used by an RRO to advise whether a particular permission set has been permitted or denied. | 0-1 |
| 27 | | <RequestedUsage> | A composite that expresses in formal ONIX-PL terms details of specific usage requests made by a library. The requested usages may eventually be specified either as one pre-defined Permission Set (see <RequestedPermissionSet> composite, above) or one or more ONIX-PL usages (as in THIS composite). For the Alpha and Beta pilots, it has been decided that ONLY the Permission Set approach will be used, so that this composite should not appear. | 0 See note |
| 28 | | <UsageType> | A controlled ONIX value that specifies a type of a usage (and by implication a usage verb). Examples previously proposed include MakeDigitalCopy or PrintCopy. Other values are defined within the ONIX-PL dictionary. | 1 |
| 29 | | <User> | Either an agent label or a controlled term specifying an agent that performs a usage. An example is AuthorisedUsers, namely those to whom the requesting Library intend to give access to the digitised version. Other values are defined within the ONIX-PL dictionary. | 1-n |
| 30 | | <UsagePurpose> | A controlled value specifying a purpose for which a usage is permitted or prohibited. Examples include AcademicUse and TrainingAuthorisedUsers. Other values are defined within the ONIX-PL dictionary. | 0-n |

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| 31 | | <UsageMethod> | A controlled value specifying a method of performing a usage that is permitted or prohibited. Examples include PublicNetwork and SecureAuthentication. Other values are defined within the ONIX-PL dictionary. | 0-n |
| 32 | | <UsageQuantity> | A composite that specifies a quantity attribute of a usage. For further information see the ONIX-PL documentation. | 0-n |
| 33 | | <UsageRelatedAgent> | A composite that specifies a reference between usage and a related agent For further information see the ONIX-PL documentation. | 0-n |
| 34 | | <UsageRelatedResource> | A composite that specifies a reference between usage and a related resource. For further information see the ONIX-PL documentation. | 0-n |
| 35 | | <UsageRelatedTimePoint> | A composite that specifies a reference between usage and a related time point. Defines any time points or periods relevant to a license request, for example the duration of the license sought. Examples include SpecifiedTerm and Perpetual. For further information see the ONIX-PL documentation. | 0-n |
| 36 | | <UsageRelatedPlace> | A composite that specifies a reference between usage and a related place. Defines any places, including countries or regions, relevant to a license request. Examples include TerritoriallyRestricted and TerritoriallyUnrestricted. For further information see the ONIX-PL documentation. | 0-n |
| 37 | | <RROResponse> | A composite (expanded below) that carries an RRO's response to a request for a license or other usage permission. | 1 |
| 38 | | <License> | A composite that carries details of a license. | 0-1 |
| 39 | | <Licensor> | A composite (expanded below) that identifies a person or organization, whether natural or legal, authorized to license the uses subject to an agreement, either by reason of being a rightsholder owning or holding the rights necessary to grant the requisite license or by being so authorized by the rightsholder as his representative. | 1 |
| 40 | | <LicenseIdentifier> | A composite that carries a coded identifier for a License. Either <LicenseIdentifier> or <LicenseName> is mandatory here. | 0-1 |
| 41 | | <LicenseIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in this composite is taken. Permissible values are onixPL:AgentContractNumber, onixPL:DOI, onixPL:LicenseeContractNumber and onixPL:LicensorContractNumber. | 1 |
| 42 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the corresponding <LicenseIDType> element indicates a proprietary scheme. | 0-1 |
| 43 | | <IDValue> | An identifier of the type specified in the <LicenseIDType>. | 1 |
| 44 | | <LicenseName> | An element that carries a name for a license. Either <LicenseName> or <LicenseIdentifier> is mandatory here. | 0-1 |
| 45 | | <PublicationsLicenseExpression> | An ONIX-PL expression of a full license. During the Alpha and Beta pilots, licenses will NOT be included in the messages themselves. | 0-1 |
| 46 | | | | |
| 47 | | <MatchRelatedWorkWithReferenceSource> expanded: | | |
| 48 | | <MatchRelatedWorkWithReferenceSource> | | |
| 49 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. Here the reference source is either TEL or the RRO. | 1 |

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| 50 | | <RelatorCode> | A controlled value expressing a relationship between one manifestation and another manifestation or work. Code list 164. | 0-1 |
| 51 | | <WorkIdentifier> | A composite that carries a coded identifier of a work. Expected values here include an ISTC, a TELWorkID or an ARROWWorkID. | 1-n |
| 52 | | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in the corresponding <IDValue> in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 53 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 54 | | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 55 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 0-n |
| 56 | </MatchRelatedWorkWithReferenceSource> | | | |
| 57 | | | | |
| 58 | <RROResponse> expanded: | | | |
| 59 | <RROResponse> | | | |
| 60 | | <RRO> | A composite that carries details of a particular reproduction rights organization (RRO). | 0-1 |
| 61 | | <RROIdentifier> | A composite that carries a coded identifier for an RRO. | 0-n |
| 62 | | <RROIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> in this composite is taken. Code list 44. | 1 |
| 63 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the corresponding <RROIDType> element indicates a proprietary scheme. | 0-1 |
| 64 | | <IDValue> | An identifier of the type specified in the <RROIDType> element. | 1 |
| 65 | | <RROName> | The name of an RRO. | 0-1 |
| 66 | | <Country> | A code identifying a country. Code list 91: ISO 3166-1 two-character codes. | 0-1 |
| 67 | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the RRO organization who is responsible for the content of the message. | 0-1 |
| 68 | | <Email> | An email address. | 0-1 |
| 69 | | <LicenseProposed> | A composite that conveys an RRO's grounds for proposing a license or other permission. | 0-1 |
| 70 | <ReasonProposed> | A controlled value used by an RRO to explain why it is possible for the RRO to propose a license. Code values: BelievedToBeOrphanWork, RightsHolderMandateHeld | 1 | |
| 71 | <LicenseDenied> | A composite that conveys an RRO's reasons for denying a request for a license or other permission. | 0-1 | |

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| 72 | | <ReasonDenied> | A controlled value used by an RRO to explain why a license or permission request has been denied. Code values: BelievedStillCommerciallyAvailable, InsufficientInformationToIdentifyRightsholders, InsufficientInformationToIdentifyWork, NoMandateForThisUse, NoMandateForThisWork, RightsholdersUnknown, SomeMandatesUnavailable, SomeRightsholdersUnknown, UnableToFulfillRequest, WrongRRO | 1 |
| 73 | | <ManifestationAvailable> | A composite that carries details of one or more manifestations of a particular work that is/are still commercially available. | 0-n |
| 74 | | <Description> | A composite (expanded in the description of message M1Q) that carries a description of a resource. Here the record format expected is ONIXforBooks2.1, ONIXforBooks3.0 or arrow:ShortDescription. | 1 |
| 75 | | <RightsHolderRepresentative> | A composite (expanded below) that identifies, names and provides contact details for a rightsholder representative or rightsholder representative organization. Examples might include a person or an organization, such as an RRO, rightsholders association, collective management organization, literary agency, etc., operating on behalf of the rightsholder. | 0-n |
| 76 | | <RightsHolder> | A composite (expanded below) that identifies, names, and provides contact details for a rightsholder or rightsholding organization. | 0-n |
| 77 | | <LicenseUnnecessary> | A composite that conveys an RRO's reasons for advising that a request for a license or other permission is unnecessary | 0-1 |
| 78 | | <ReasonUnnecessary> | A controlled value used by an RRO to explain why it regards a license as unnecessary. Code values: BelievedToBeOpenSource, BelievedToBelnPublicDomain, LegalExceptionApplies, LicenseAlreadyGranted | 1 |
| 79 | | <SuggestedActions> | A controlled value used by an RRO to convey suggested actions or followup steps that ARROW or the requesting library might usefully take. Code values: ContactRROSpecified, ContactRightsholderSpecified, ContactRightsholderRepresentativeSpecified, ReviewARROWSupportingResources. Further information can be conveyed in the <ResponseNote> which follows. | 0-1 |
| 80 | | <ResponseNote> | Free text to amplify or qualify an RRO's response to an ARROW license request. | 0-1 |
| 81 | </RROResponse> | | | |
| 82 | | | | |
| 83 | <RightsHolder> expanded: | | | |
| 84 | <RightsHolder> | | | |
| 85 | | <RightsHolderIdentifier> | A composite that carries a coded identifier for a rightsholder. Either <RightsHolderIdentifier> or <RightsHolderName> is mandatory here. | 0-n |
| 86 | | <RightsHolderIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> in the <RightsHolderIdentifier> composite is taken. Code list 44. | 1 |
| 87 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the corresponding <RightsHolderIDType> element indicates a proprietary scheme. | 0-1 |
| 88 | | <IDValue> | An identifier of the type specified in the <RightsHolderRepresentativeIDType> element. | 1 |
| 89 | | <RightsholderName> | The name of a rightsholder or rightsholding organization. Either <RightsHolderName> or <RightsHolderIdentifier> is mandatory here. | 0-1 |
| 90 | | <Country> | A code identifying a country. Code list 91: ISO 3166-1 two-character codes. | 0-1 |
| 91 | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the rightsholder organization. | 0-1 |
| 92 | | <Email> | An email address. | 0-1 |

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| 93 | </RightsHolder> | | | |
| 94 | | | | |
| 95 | <RightsHolderRepresentative> expanded: | | | |
| 96 | <RightsHolderRepresentative> | | | |
| 97 | | <RightsHolderRepresentativeIdentifier> | A composite that carries a coded identifier for a rightsholder representative. Either <RightsHolderRepresentativeIdentifier> or <RightsHolderRepresentativeName> is mandatory here. | 0-n |
| 98 | | <RightsHolderRepresentativeIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> in the <RightsHolderRepresentativeIdentifier> composite is taken. Code list 44. | 1 |
| 99 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the corresponding <RightsHolderRepresentativeIDType> element indicates a proprietary scheme. | 0-1 |
| 100 | | <IDValue> | An identifier of the type specified in the <RightsHolderRepresentativeIDType> element. | 1 |
| 101 | | <RightsholderRepresentativeName> | The name of a rightsholder representative or rightsholder representative organization. Either <RightsHolderRepresentativeName> or <RightsHolderRepresentativeIdentifier> is mandatory here. | 0-1 |
| 102 | | <Country> | A code identifying a country. Code list 91: ISO 3166-1 two-character codes. | 0-1 |
| 103 | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the rightsholder representative organization. | 0-1 | |
| 104 | <Email> | An email address. | 0-1 | |
| 105 | </RightsHolderRepresentative> | | | |
| 106 | | | | |
| 107 | <Licensor> expanded: | | | |
| 108 | <Licensor> | | | |
| 109 | | <LicensorIdentifier> | A composite that carries an identifier for a licensor. Either this composite or <LicensorName> must appear. | 0-1 |
| 110 | | <LicensorIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Subset of code list 44, values 01, 06, 08, 09, plus arrow:ARROWNetworkParticipants. | 1 |
| 111 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <LicensorIDType> element indicates a proprietary scheme. | 0-1 |
| 112 | | <IDValue> | An identifier of the type specified in the <LicenseeIDType> element. | 1 |
| 113 | <LicensorName> | An element that carries the name of the licensee. Either this element or the <LicensorIdentifier> composite must appear. | 0-1 | |
| 114 | <PostalAddress> | Free text to carry a postal address. | 0-1 | |
| 115 | <Country> | A code identifying a country from Code list 91: ISO 3166-1 two-character codes. | 0-1 | |
| 116 | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the licensor organization. | 0-1 | |
| 117 | <CommunicationDetails> | A composite that carries communication details for the licensor. | 0-1 | |
| 118 | | <Telephone> | A telephone number. | 0-1 |

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| 119 | | | <Fax> | A fax number. | 0-1 |
| 120 | | | <Email> | An email address. | 0-1 |
| 121 | </Licensor> | | | | |

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ShortDescription: An ARROW short description for a book resource, based largely upon a subset of ONIX for Books terms
Latest update 1 July 2010

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|----|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <arrow:ShortDescription> | | |
| 2 | <ResourceIdentifier> | A composite that carries a coded identifier for a resource. | 1-n |
| 3 | <ResourceIdentifier> <ResourceIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> in this composite is taken. Code list 5: Expected values Proprietary (for TELManifestationID), ISBN-10, ISBN-13, LCCN, OCLC number. | 1 |
| 4 | <ResourceIdentifier> <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ResourceIDType> element indicates a proprietary scheme. | 0-1 |
| 5 | <ResourceIdentifier> <IDValue> | An identifier of the type specified in the <ResourceIDType> element. | 1 |
| 6 | <ProductFormCode> | An ONIX code which indicates the primary form of a product. Code list 150. | 1 |
| 7 | <ProductFormDetail> | An ONIX code which provides added detail of the medium and/or format of a product part. Code list 175. | 0-n |
| 8 | <Collection> | A composite that carries attributes of a bibliographic collection of which the product is a part. A collection here is taken to be any group of two or more items that has some attribute(s) in common (eg that it is sometimes retailed as a group or that it has a group identity which is also part of the identity of each member). In other words, a collection as defined here includes what are traditionally thought of as sets and what are traditionally thought of as series, as well as any other meaningful group of items. | 0-n |
| 9 | <Collection> <CollectionType> | An ONIX code indicating the type of a bibliographic collection: publisher collection, ascribed collection, or unspecified. Code list 148. | 1 |
| 10 | <Collection> <SourceName> | The name of an organization in the supply chain, other than a publisher, which has identified and described a collection. It is only used if the <CollectionType> code indicates an "ascribed collection". | 0-1 |
| 11 | <Collection> <CollectionIdentifier> | A composite that defines a coded identifier of a bibliographic collection. | 0-n |
| 12 | <CollectionIdentifier> <CollectionIDType> | An ONIX code identifying a scheme from which an identifier in the <IDValue> element in this composite is taken. Code list 13. | 1 |
| 13 | <CollectionIdentifier> <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <CollectionIDType> element indicates a proprietary scheme. | 0-1 |
| 14 | <CollectionIdentifier> <IDValue> | An identifier of the type specified in the <CollectionIDType>. | 1 |
| 15 | <Collection> <TitleDetail> | A composite (with the same structure as that expanded below, lines 17-26) that gives the text of a title and specifies its type. | 0-n |
| 16 | <Collection> <Contributor> | A composite (with the same structure as that expanded below, lines 27-62) that describes a personal or corporate contributor to a work, manifestation or product. | 0-n |
| 17 | <TitleDetail> | A composite that gives the text of a title and specifies its type. | 1-n |
| 18 | <TitleDetail> <TitleType> | An ONIX code indicating the type of a title. Code list 15: expected values are Undefined and Distinctive title. | 1 |
| 19 | <TitleDetail> <TitleElement> | A composite that represents an element of a title. | 1-n |

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| 20 | | | <TitleElementLevel> | An ONIX code indicating the level of a title element: collection level, subcollection level, or product level. Code list 149: expected values are Product, Collection level and Subcollection. | 1 |
| 21 | | | <PartNumber> | The number and "caption" of a title element that includes a part designation within a larger whole (eg Part I, or Volume 3). | 0-1 |
| 22 | | | <YearOfAnnual> | A year (or, if required, a spread of years such as 2010-2011), when the year of an annual is part of a title. | 0-1 |
| 23 | | | <TitleText> | The text of a title element, excluding any subtitle. | 0-1 |
| 24 | | | <TitlePrefix> | Text at the beginning of a title element which is to be ignored for alphabetical sorting. | 0-1 |
| 25 | | | <TitleWithoutPrefix> | The text of a title element without the title prefix and excluding any subtitle. | 0-1 |
| 26 | | | <Subtitle> | The text of a subtitle, if any. | 0-1 |
| 27 | | <Contributor> | | A composite that describes a personal or corporate contributor to a work, manifestation or product. | 0-n |
| 28 | | | <SequenceNumber> | A number which specifies a single overall sequence of contributor names. | 0-1 |
| 29 | | | <ContributorRole> | An ONIX code indicating the role played by a person or corporate body in the creation of a work, manifestation or product. Code list 17. | 1-n |
| 30 | | | <NameIdentifier> | A composite that specifies a coded name identifier, used eg to carry an identifier for a person or organization name in an occurrence of the <Contributor> composite. | 0-1 |
| 31 | | | <NameIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element is taken in the <NameIdentifier> composite. Code list 44. | 1 |
| 32 | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <NameIDType> element indicates a proprietary scheme. | 0-1 |
| 33 | | | <IDValue> | An identifier of the type specified in the <NameIDType> element. | 1 |
| 34 | | | <PersonName> | The name of a person who contributed to the creation of a product, unstructured, and presented in normal order. | 0-1 |
| 35 | | | <PersonNameInverted> | The name of a person who contributed to the creation of product, presented in inverted order, with the element used for alphabetical sorting placed first. | 0-1 |
| 36 | | | <TitlesBeforeNames> | The first part of an ONIX structured name of a person who contributed to the creation of a product: qualifications and/or titles preceding a person's names, eg Professor or HRH Prince or Saint. | 0-1 |
| 37 | | | <NamesBeforeKey> | The second part of an ONIX structured name of a person who contributed to the creation of a product: name(s) and/or initial(s) preceding a person's key name(s), eg James J. (in James J. Johnson). | 0-1 |
| 38 | | | <PrefixToKey> | The third part of an ONIX structured name of a person who contributed to the creation of the product: a prefix which precedes the key name(s) but which is not to be treated as part of the key name, eg van in Ludwig van Beethoven. | 0-1 |
| 39 | | | <KeyNames> | The fourth part of an ONIX structured name of a person who contributed to the creation of the product: key name(s), ie the name elements normally used to open an entry in an alphabetical list, eg Smith or Garcia Marquez or Madonna or Francis de Sales (in Saint Francis de Sales). | 0-1 |
| 40 | | <NamesAfterKey> | The fifth part of an ONIX structured name of a person who contributed to the creation of a product: name suffix, or name(s) following a person's key name(s), eg Ibrahim (in Anwar Ibrahim). | 0-1 | |

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| 41 | | <SuffixToKey> | The sixth part of an ONIX structured name of a person who contributed to the creation of the product: a suffix following a person's key name(s), eg Jr or III. | 0-1 |
| 42 | | <LettersAfterName> | The seventh part of an ONIX structured name of a person who contributed to the creation of the product: qualifications and honours following a person's names, eg CBE or FRS. | 0-1 |
| 43 | | <TitlesAfterNames> | The eighth part of an ONIX structured name of a person who contributed to the creation of a product: titles following a person's names, eg Duke of Edinburgh. | 0-1 |
| 44 | | <CorporateName> | The name of a corporate body, used here e.g. for a corporate copyright owner. | 0-1 |
| 45 | | <ContributorDate> | A composite that specifies a date associated with the person or organization identified in an occurrence of the <Contributor> composite, eg date of birth or death. | 0-2 |
| 46 | | <ContributorDateRole> | An ONIX code indicating the significance of the date in relation to the contributor name. Code list 177: 50 = Date of birth. 51 = Date of death. | 1 |
| 47 | | <DateFormat> | An ONIX code indicating the format in which the date is presented in the corresponding <Date> element. Code list 55, although only the following are expected in normal practice: '00' YYYYMMDD, '01' YYYYMM, '05' YYYY, '12' text string for approximate dates. | 1 |
| 48 | | <Date> | A date, in a format specified in the corresponding <DateFormat> element. | 1 |
| 49 | | <ContributorDetailFrom ReferenceSource> | A composite (expanded below) that carries contributor information from a reference source or authority file, such as VIAF or ISNI. | 0-n |
| 50 | | <UnnamedPersons> | An ONIX code allowing a positive indication to be given when authorship is unknown or anonymous, or when as a matter of editorial policy only a limited number of contributors are named. If <UnnamedPersons> is used, then the only other elements that may appear in this composite are <SequenceNumber> and <ContributorRole>. | 0-1 |
| 51 | | <EditionType> | An ONIX code indicating the type of a version or edition. Code list 21. | 0-n |
| 52 | | <EditionNumber> | The number of a numbered edition. | 0-1 |
| 53 | | <EditionStatement> | A short free-text description of a version or edition. | 0-1 |
| 54 | | <Language> | A composite that represents a language, specifies its role and, where required, states whether it is a country variant. | 0-n |
| 55 | | <LanguageRole> | An ONIX code indicating the "role" of a language in the context of the ONIX record. Code list 22: expected values Language of text and Original language of a translated text. | 1 |
| 56 | | <LanguageCode> | An ISO code indicating a language. Code list 74: ISO 639-2/B, three-character codes. | 1 |
| 57 | | <ScriptCode> | A code identifying the script in which the language is represented. Code list 121: ISO 15924 four-character codes. | 0-1 |
| 58 | | <Extent> | A composite that describes an extent pertaining to a product, eg to give the number of pages in a printed book or paginated ebook. | 0-n |
| 59 | | <ExtentType> | An ONIX code which identifies the type of extent carried in the <Extent> composite, eg the arabic numbered pages in a printed book. Code list 23. | 1 |
| 60 | | <ExtentValue> | The numeric value of the extent specified in the <ExtentType> element. | 0-1 |
| 61 | | <ExtentValueRoman> | The value of the extent expressed in Roman numerals. | 0-1 |
| 62 | | <ExtentUnit> | An ONIX code indicating the unit used for the <ExtentValue> and the format in which the value is presented. Code list 24. | 1 |
| 63 | | <Imprint> | A composite that identifies an imprint or brand under which a product is marketed. | 0-n |
| 64 | | <imprintName> | The name of an imprint or brand under which a product is issued, as it appears on the product. | 1 |

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| 65 | | <Publisher> | A composite that carries details of an entity associated with the publishing of a product. Specifically here within the <arrow:ShortDescription>, the composite is limited to identifiers, names and contact details, and does not carry publishing roles. | 0-n |
| 66 | | <PublisherIdentifier> | A composite that carries a coded identifier of a publisher. | 0-n |
| 67 | | <PublisherIDType> | An ONIX code which identifies the scheme from which the value in the corresponding <IDValue> element in this composite is taken. Code list 44. | 1 |
| 68 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <PublisherIDType> element indicates a proprietary scheme. | 0-1 |
| 69 | | <IDValue> | An identifier of the type specified in the <PublisherIDType> element. | 1 |
| 70 | | <PublisherName> | The name of an entity associated with the publishing of a product. | 0-1 |
| 71 | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the publisher organization. | 0-1 |
| 72 | | <Email> | An email address. | 0-1 |
| 73 | | <CityOfPublication> | The name of a city or town associated with an imprint or publisher. | 0-n |
| 74 | | <CountryOfPublication> | A code identifying the country where the product is or was published. Code list 91: ISO 3166-1 two-character codes. | 0-1 |
| 75 | <PublishingStatus> | An ONIX code which identifies the status of a published product. Code list 64. Note that this is the standard ONIX element (as opposed to ARROWPublishingStatus, see next), in case the BIP can supply information to populate it. | 0-1 | |
| 76 | <ARROWPublishingStatus> | ARROW's opinion on whether a particular manifestation or work is currently active, not currently active, or uncertain. Note that this is an assertion by ARROW based upon its own agreed rules and internal algorithms and the information known to the ARROW service; thus it is different from the regular ONIX element <PublishingStatus>. At manifestation level the rules to generate the ARROWPublishingStatus value from the value in the ONIX element <PublishingStatus> have been agreed with the BIPs concerned. At work level the rules for the internal algorithm to generate the ARROWPublishingStatus value have been inspired by the HLEG definition for Out of Print Works. Values (and intended meanings): CurrentlyActive (in at least one market covered by the BIP concerned); NotCurrentlyActive (in any of the markets covered by the BIP concerned); Uncertain (active status is claimed, but has not been updated or confirmed within the last X months - where X is still to be defined). | 0-1 | |
| 77 | <PublishingDate> | A composite that specifies a date associated with the publishing of a product. | 0-n | |
| 78 | <PublishingDateRole> | An ONIX code indicating the significance of the corresponding date, eg publication date, announcement date, latest reprint date. Code list 163: expected values are Publication date, Date of first publication, Out-of-print / deletion date and Last reissue date. | 1 | |
| 79 | <DateFormat> | An ONIX code indicating the format in which the date is presented in the corresponding <Date> element. Code list 55, although only the following are expected in normal practice: '00' YYYYMMDD, '01' YYYYMM, '05' YYYY, '12' text string for approximate dates. | 1 | |
| 80 | <Date> | A date, in a format specified in the corresponding <DateFormat> element. | 1 | |
| 81 | <CopyrightStatement> | A composite (expanded below) that represents a copyright statement for a product. | 0-n | |

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| 82 | | <ARROWProductAvailability> | ARROW's opinion on whether a particular product is currently commercially available, not currently commercially available, or has uncertain availability. Note that this is an assertion by ARROW based upon its own agreed rules and internal algorithms and the information known to the ARROW service; thus it is different from the regular ONIX element <ProductAvailability>. Values (and intended meanings): CurrentlyAvailable (in at least one market covered by the BIP concerned); NotCurrentlyAvailable (in any of the markets covered by the BIP concerned); Uncertain (availability is claimed, but has not been updated or confirmed within the last X months - X still to be defined). | 0-1 |
| 83 | | <ProductSupply> | A composite that specifies a market, and the publishing and supply status of a product in that market. | 0-n |
| 84 | | <Market> | A composite (expanded below) that gives details of a geographical territory and any non-geographical sales restrictions that apply within it. | 0-n |
| 85 | | <MarketPublishingDetail> | A composite (expanded below) that gives details of the publishing status of a product within a specified market. | 0-1 |
| 86 | | <SupplyDetail> | A composite (expanded below) that gives details of a supply source, and price and availability from that source. | 1-n |
| 87 | </arrow:ShortDescription> | | | |
| 88 | | | | |
| 89 | <ContributorDetailFromReferenceSource> expanded: | | | |
| 90 | <ContributorDetailFromReferenceSource> | | | |
| 91 | | <ReferenceSource> | A composite (expanded in the description of message M2R) describing the reference source or authority file against which a matching, clustering or searching operation has been performed. | 0-1 |
| 92 | | <NameIdentifier> | A composite that specifies a coded name identifier, used eg to carry an identifier for a person or organization name in an occurrence of the <Contributor> composite. | 0-1 |
| 93 | | <NameIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element is taken. Code list 44: expected values are "16" = ISNI and arrow:VI AF. | 1 |
| 94 | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the corresponding <NameIDType> element indicates a proprietary scheme. | 0-1 |
| 95 | | <IDValue> | An identifier of the type specified in the <NameIDType> element. | 1 |
| 96 | | <ContributorDetailURL> | A URL linking to contributor detail maintained by a reference source or authority file. | 0-1 |
| 97 | | <ContributorDate> | A composite that specifies a date associated with the person or organization identified in an occurrence of the <Contributor> composite, eg date of birth or death. Maximum of two occurrences expected initially, but we have retained flexibility upwards to n, in case needed in future for other roles. | 0-n |
| 98 | | <ContributorDateRole> | An ONIX code indicating the significance of the date in relation to the contributor name. Code list 177: 50 = Date of birth. 51 = Date of death. | 1 |
| 99 | | <DateFormat> | An ONIX code indicating the format in which the date is presented in the corresponding <Date> element. Code list 55, although only the following are expected in normal practice: '00' YYYYMMDD, '01' YYYYMM, '05' YYYY, '12' text string for approximate dates. | 1 |
| 100 | | <Date> | A date, in a format specified in the corresponding <DateFormat> element. | 1 |
| 101 | | <ContributorPreferredForm> | Details of a contributor in a particular standard format preferred by a reference source or authority file. | 0-1 |
| 102 | | <ContributorNationality> | A contributor's nationality, as specified by a reference source or authority file. Code list 91: ISO 3166-1 two-character codes. Note this is the ISO country code list, as there is no specific list for nationality. | 0-1 |
| 103 | </ContributorDetailFromReferenceSource> | | | |

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|-----|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 104 | | | |
| 105 | <CopyrightStatement> expanded: | | |
| 106 | <CopyrightStatement> | | |
| 107 | <CopyrightYear> | The copyright year as it appears in a copyright statement on the product. | 0-n |
| 108 | <CopyrightOwner> | A composite that names a copyright owner. | 0-n |
| 109 | <CopyrightOwner Identifier> | A composite that carries a coded identification of a copyright owner. | 0-n |
| 110 | <CopyrightOwner IDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 44. | 1 |
| 111 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <CopyrightOwnerIDType> element indicates a proprietary scheme. | 0-1 |
| 112 | <IDValue> | An identifier of the type specified in the <CopyrightOwnerIDType> element. | 1 |
| 113 | <PersonName> | The name of a person who contributed to the creation of a product, unstructured, and presented in normal order. <PersonName> and <CorporateName> are mutually exclusive here. | 0-1 |
| 114 | <CorporateName> | The name of a corporate body, used here e.g. for a corporate copyright owner. <CorporateName> and <PersonName> are mutually exclusive here. | 0-1 |
| 115 | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the copyright owner organization. | 0-1 |
| 116 | <Email> | An email address. | 0-1 |
| 117 | </CopyrightStatement> | | |
| 118 | | | |
| 119 | <Market> expanded: | | |
| 120 | <Market> | | |
| 121 | <Territory> | A composite that identifies a territory. | 1-n |
| 122 | <CountriesIncluded> | One or more ISO standard codes identifying countries included in a territory. Code list 91. | 0-1 |
| 123 | <RegionsIncluded> | One or more ONIX codes identifying regions included in a territory. Code list 49. | 0-1 |
| 124 | <CountriesExcluded> | One or more ISO standard codes identifying countries excluded from a territory. Code list 91. | 0-1 |
| 125 | <RegionsExcluded> | One or more ONIX codes identifying regions excluded from a territory. Code list 49. | 0-1 |
| 126 | </Market> | | |
| 127 | | | |
| 128 | <MarketPublishingDetail> expanded: | | |
| 129 | <MarketPublishingDetail> | | |
| 130 | <PublisherRepresentative> | A composite that identifies a publisher representative in a specified market. | 0-n |
| 131 | <AgentRole> | An ONIX code identifying the role of an agent in relation to the product in the specified market, eg exclusive sales agent, local publisher, etc.. Code list 69. | 1 |
| 132 | <AgentIdentifier> | A composite that defines the identifier of an agent or local publisher in accordance with a specified scheme. | 0-n |

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|-----|---------------------------------------|--|--|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 133 | | | | <AgentIDType> | An ONIX code identifying the scheme from which the identifier in the <IDValue> element in this composite is taken. Code list 92. | 1 |
| 134 | | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <AgentIDType> element indicates a proprietary scheme. | 0-1 |
| 135 | | | | <IDValue> | An identifier of the type specified in the <AgentIDType> element. | 1 |
| 136 | | | | <AgentName> | The name of an agent or local publisher. | 0-1 |
| 137 | | | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the agent organization. | 0-n |
| 138 | | | | <Email> | An email address. | 0-n |
| 139 | | | | <Website> | A composite that identifies and provides pointers to a website. | 0-n |
| 140 | | | | <WebsiteRole> | An ONIX code which identifies the role or purpose of the website which is linked through the corresponding <WebsiteLink> element in a <Website> composite. Code list 73. | 1 |
| 141 | | | | <WebsiteDescription> | Free text describing the nature of the website which is linked through the corresponding <WebsiteLink> element in a <Website> composite. | 0-1 |
| 142 | | | | <WebsiteLink> | The URL for a website. | 1 |
| 143 | | | | <MarketPublishingStatus> | An ONIX code which identifies the status of a published product in a specified market. Code list 68. | 1 |
| 144 | | | | <MarketDate> | A composite that specifies a date associated with the publishing status of the product in a specified market., eg local publication date. | 0-n |
| 145 | | | | <MarketDateRole> | An ONIX code indicating the significance of the date within the <MarketDate> composite. Code list 67. | 1 |
| 146 | | | | <DateFormat> | An ONIX code indicating the format in which the date is presented in the corresponding <Date> element. Code list 55, although only the following are expected in normal practice: '00' YYYYMMDD, '01' YYYYMM, '05' YYYY, '12' text string for approximate dates. | 1 |
| 147 | | | | <Date> | A date, in a format specified in the corresponding <DateFormat> element. | 1 |
| 148 | </MarketPublishingDetail> | | | | | |
| 149 | | | | | | |
| 150 | <SupplyDetail> expanded: | | | | | |
| 151 | <SupplyDetail> | | | | | |
| 152 | | | | <Supplier> | A composite that defines a supplier. | 1-n |
| 153 | | | | <SupplierRole> | An ONIX code identifying the role of a supplier in relation to the product, eg publisher, publisher's exclusive distributor, etc. Code list 93. | 1 |
| 154 | | | | <SupplierIdentifier> | A composite that carries a coded identifier of a supplier | 0-n |
| 155 | | | | <SupplierIDType> | An ONIX code identifying the scheme from which the identifier in the <IDValue> in this composite is taken. Code list 92. | 1 |
| 156 | | | | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <SupplierIDType> element indicates a proprietary scheme. | 0-1 |
| 157 | | | | <IDValue> | An identifier of the type specified in the <SupplierIDType> element. | 1 |

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| 158 | | | <SupplierName> | The name of a supply source from which the product may be ordered. | 0-1 |
| 159 | | | <ContactPerson> | Free text giving the name, department, phone number, etc for a contact person in the supplier organization who is responsible for the content of the message. | 0-n |
| 160 | | | <Email> | An email address. | 0-n |
| 161 | | | <Website> | A composite that identifies and provides pointers to a website. | 0-n |
| 162 | | | <WebsiteRole> | An ONIX code which identifies the role or purpose of the website which is linked through the corresponding <WebsiteLink> element in a <Website> composite. Code list 73. | 1 |
| 163 | | | <WebsiteDescription> | Free text describing the nature of the website which is linked through the corresponding <WebsiteLink> element in a <Website> composite. | 0-1 |
| 164 | | | <WebsiteLink> | The URL for a website. | 1 |
| 165 | | <ProductAvailability> | | An ONIX code indicating the availability of a product from a supplier. Code list 65. | 1 |
| 166 | </SupplyDetail> | | | | |

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WorkDescription: An ARROW work description, including both elements borrowed from ISTC and ARROW-specific constructions
Latest update 1 July 2010

| | | | |
|----|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 1 | <arrow:WorkDescription> | | |
| 2 | <WorkIdentifier> | A composite that identifies and describes a work. | 1-n |
| 3 | <WorkIDType> | An ONIX code identifying the scheme from which the identifier in this composite is taken. Code list 16 plus arrow:TELWorkID and arrow:ARROWWorkID. Expected values here include ISTC, TELWorkID or ARROWWorkID. | 1 |
| 4 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <WorkIDType> element indicates a proprietary scheme. | 0-1 |
| 5 | <IDValue> | An identifier of the type specified in the <WorkIDType> element. | 1 |
| 6 | <Title> | A composite that carries the title of a work. | 1-n |
| 7 | <ISTCTitleType> | A controlled value specifying the type of a title as defined by ISTC. Values 00 - 05, as in ONIX for ISTC Registration. | 1 |
| 8 | <TitleScript> | A controlled value specifying the script in which a title is written. ISO 15924 four-letter code. | 0-1 |
| 9 | <TitleText> | The text of a title element, excluding any subtitle. | 1 |
| 10 | <Subtitle> | The text of a subtitle, if any. | 0-1 |
| 11 | <EditionNumber> | The number of a numbered edition. A cardinal Arabic number. | 0-1 |
| 12 | <EditionStatement> | A short free-text description of a version or edition. | 0-1 |
| 13 | <WorkDate> | A composite that specifies a date associated with a work. | 0-n |
| 14 | <WorkDateRole> | A controlled value specifying the role of a date. Values 01 - 03, as in ONIX for ISTC Registration. | 1 |
| 15 | <Calendar> | A controlled value specifying the calendar used for a date. Values 00 - 03, as per ONIX for ISTC Registration | 0-1 |
| 16 | <DateFormat> | An ONIX code for the format in which the date is presented in the corresponding <Date> element. Code list 55, although only the following are expected in normal practice: '00' YYYYMMDD, '01' YYYYMM, '05' YYYY, '12' text string for approximate dates. | 1 |
| 17 | <Date> | A date, in a format specified in the corresponding <DateFormat> element. | 1 |
| 18 | <Contributor> | A composite that describes a personal or corporate contributor to a work, manifestation or product. | 1-n |
| 19 | <ISTCContributorRole> | A controlled value specifying the role that is played by a contributor to a work as defined by ISTC. Values 00 - 07, as in ONIX for ISTC Registration. | 1-n |
| 20 | <ContributorIdentifier> | A composite that carries a coded identifier for a contributor to a manifestation, product or work. | 0-n |
| 21 | <ContributorIDType> | An ONIX code which identifies the scheme from which the value in the <IDValue> element in this composite is taken. Code list 44, values 02, 03, 04, as in ONIX for ISTC Registration, and VIAF ID. | 1 |
| 22 | <IDTypeName> | A name which identifies a proprietary identifier scheme (ie a scheme which is not a standard and for which there is no individual ID type code) when, and only when, the code in the <ContributorIDType> element indicates a proprietary scheme. | 0-1 |
| 23 | <IDValue> | An identifier of the type specified in the <ContributorIDType> element. | 1 |

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|----|--------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 24 | | <PersonName> | The name of a person who contributed to the creation of a product, unstructured, and presented in normal order. | 0-1 |
| 25 | | <PersonNameInverted> | The name of a person who contributed to the creation of product, presented in inverted order, with the element used for alphabetical sorting placed first. | 0-1 |
| 26 | | <CorporateName> | The name of a corporate body, used here e.g. for a corporate copyright owner. | 0-1 |
| 27 | | <ContributorDate> | A composite that specifies a date associated with the person or organization identified in an occurrence of the <Contributor> composite, eg date of birth or death. | 0-2 |
| 28 | | <ContributorDateRole> | An ONIX code indicating the significance of the date in relation to the contributor name. Code list 177: 50 = Date of birth. 51 = Date of death. | 1 |
| 29 | | <DateFormat> | An ONIX code indicating the format in which the date is presented in the corresponding <Date> element. Code list 55, although only the following are expected in normal practice: '00' YYYYMMDD, '01' YYYYMM, '05' YYYY, '12' text string for approximate dates. | 1 |
| 30 | | <Date> | A date, in a format specified in the corresponding <DateFormat> element. | 1 |
| 31 | | <Anonymous/> | An empty element specifying that a contributor to a work is unknown. Note that the empty element is represented by a single tag in ONIX messages, thus: <Anonymous/>. | 0-1 |
| 32 | | <LanguageOfText> | An controlled code indicating a language. ISO 639-2/B three-letter code. | 1-n |
| 33 | | <ARROWAssertions> | A composite that carries ARROW's opinions on publishing status, product availability, copyright status and orphan status. Note that these are assertions based upon ARROW's agreed rules, internal algorithms and the information known to the ARROW service; therefore they may differ from the opinions or judgements of parties outside the ARROW process. | 0-1 |
| 34 | | <ARROWPublishingStatus> | ARROW's opinion on whether a particular manifestation or work is currently active, not currently active, or uncertain. Note that this is an assertion by ARROW based upon its own agreed rules and internal algorithms and the information known to the ARROW service; thus it is different from the regular ONIX element <PublishingStatus>. At manifestation level the rules to generate the ARROWPublishingStatus value from the value in the ONIX element <PublishingStatus> have been agreed with the BIPs concerned. At work level the rules for the internal algorithm to generate the ARROWPublishingStatus value have been inspired by the HLEG definition for Out of Print Works. Values (and their intended meanings): CurrentlyActive (in at least one market covered by the BIP concerned; NotCurrentlyActive (in any of the markets covered by the BIP concerned); Uncertain (active status is claimed, but has not been updated or confirmed within the last X months, where X is still to be defined). | 0-1 |
| 35 | | <CopyrightStatus> | ARROW's opinion on whether a particular work is copyright, in the public domain, or uncertain. Note that this is an assertion by ARROW based upon its own agreed rules and internal algorithms and the information known to the ARROW service; thus it may differ from the opinions of other parties outside the ARROW process. Values: Unspecified, Copyright, InPublicDomain. | 0-1 |
| 36 | | <OrphanStatus> | ARROW's opinion on whether a particular work is probably orphan, not orphan, or uncertain. See also the definition of Orphan Work. Values: Unspecified, NotOrphan, ProbablyOrphan. | 0-1 |
| 37 | </arrow:WorkDescription> | | | |

Key identifiers: Examples of the <ResourceIdentifier>, <WorkIdentifier> and <ManifestationIdentifier> composites
Note that the structure of each composite is the same, though the <xxxxIDType> varies from one to another

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| | | | |
|----|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1 | <ResourceIdentifier> expanded, showing three examples: | Used for the <TargetResource> | |
| 2 | <ResourceIdentifier> | <i>ARROW issues its own identifiers:</i> | |
| 3 | <ResourceIDType>arrow:ARROWResourceID</ResourceIDType> | ARROW creates a unique and persistent ID for each <TargetResource> identified by the requesting Library. The coded value arrow:ARROWResourceID signals that this is the identifier type used here. | |
| 4 | <IDValue>22334455</IDValue> | In this example, the ARROWResourceID is 22334455. | |
| 5 | </ResourceIdentifier> | | |
| 6 | | | |
| 7 | <ResourceIdentifier> | <i>Public standard identifiers such as ISBN are strongly recommended if available:</i> | |
| 8 | <ResourceIDType>15</ResourceIDType> | In Code list 5, the value "15" signifies an ISBN-13. | |
| 9 | <IDValue>9784432897653</IDValue> | Here is the ISBN-13 of the resource, communicated without hyphens. | |
| 10 | </ResourceIdentifier> | | |
| 11 | | | |
| 12 | <ResourceIdentifier> | <i>There is also the facility to capture the library's own identifiers:</i> | |
| 13 | <ResourceIDType>01</ResourceIDType> | In Code list 5, the value "01" signifies a proprietary identifier. Here this can be used to capture the library's internal <ResourceIdentifier>. | |
| 14 | <IDTypeName>British Library reference</IDTypeName> | The <IDTypeName> element, <i>only</i> used with a proprietary identifier, shows us whose identifier is being used here. | |
| 15 | <IDValue>23456</IDValue> | In this example, 23456 is the ID assigned by the requesting party, in this case the British Library. | |
| 16 | </ResourceIdentifier> | | |
| 17 | | | |
| 18 | <WorkIdentifier> expanded, showing two examples: | Used for <Work>, <IdentifierWork> and <RelatedWork> | |
| 19 | <WorkIdentifier> | <i>Both TEL and ARROW can create their own work identifiers:</i> | |
| 20 | <WorkIDType>arrow:TELWorkID</WorkIDType> | Here the coded value arrow:TELWorkID signals that a TEL identifier is being used. | |
| 21 | <IDValue>33445566</IDValue> | In this example, the TELWorkID is 33445566. | |
| 22 | </WorkIdentifier> | | |
| 23 | | | |
| 24 | <WorkIdentifier> | <i>An ISTC or other public standard identifier is strongly recommended if available:</i> | |
| 25 | <WorkIDType>11</WorkIDType> | In Code list 16, the value "11" signifies an ISTC. | |
| 26 | <IDValue>A02201031F4CB2CB</IDValue> | And here is the ISTC, communicated without hyphens. | |
| 27 | </WorkIdentifier> | | |
| 28 | | | |

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| | | | |
|----|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--|
| 29 | <ManifestationIdentifier> expanded, showing two examples: | Used for <Manifestation>, <RelatedManifestation> and effectively also for <RelatedISBN>. | |
| 30 | <ManifestationIdentifier> | <i>TEL can assign manifestation identifiers, for example if no ISBN is available:</i> | |
| 31 | <ManifestationIDType>arrow:TELManifestationID </ManifestationIDType> | Here the coded value arrow:TELManifestationID signals that a TEL identifier is being used. | |
| 32 | <IDValue>22334455</IDValue> | In this example, the TELManifestationID is 22334455. | |
| 33 | </ManifestationIdentifier> | | |
| 34 | | | |
| 35 | <ManifestationIdentifier> | <i>If an ISBN is available, it is strongly recommended to include it here:</i> | |
| 36 | <ManifestationIDType>15</ManifestationIDType> | In Code list 5, the value "15" signifies an ISBN-13. | |
| 37 | <IDValue>9784432897653</IDValue> | And here is the ISBN-13, communicated without hyphens. | |
| 38 | </ManifestationIdentifier> | | |

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Permission Sets: A group of bundled usages designed to address scenarios frequently encountered by ARROW participants
Latest update 1 July 2010

| No. | Permission Set | Usages | Notes |
|-----|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | arrow:DigitizeForPreservation | Make and keep digital copy of target manifestation | Unqualified, no use of the digital copy is permitted until out of copyright. |
| 2 | arrow:DigitizeForUseInLibrary | Make and keep digital copy of target manifestation Access by any person on licensee premises only Print extract for personal, academic or professional use Make digital copy of extract for personal, academic or professional use | This Permission Set applies to a library whose users are from the general public. It limits usage to the premises of the library but does not differentiate between registered users and other persons. A restriction to registered users might be imposed by a licensor in response to the ARROW request, but why would a library want to ask for it? |
| 3 | arrow:DigitizeForOpenUse | Make and keep digital copy of target manifestation Access by any person from any location Print extract for personal, academic or professional use Make digital copy of extract for personal, academic or professional use | This Permission Set applies to a library whose users are from the general public. It allows usage to be offered by network access from any location. As above, and for the same reason, it does not differentiate between registered users and other persons. |
| 4 | arrow:DigitizeForAcademicUse | Make and keep digital copy of target manifestation Access by any person on licensee premises only Access by staff and students by secure authentication from any location Print extract for personal or academic use Make digital copy of extract for personal or academic use | This Permission Set applies to an academic library, whose users are primarily the staff and students of the parent institution. It allows usage to be offered to staff and students from any location, and to others on library premises only ("walk-in users"). |

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| | | Include extract in printed or digital instructional materials | |
|---|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | arrow:DigitizeForPrintDocumentSupply | <p>Make and keep digital copy of target manifestation</p> <p>Supply single printed copy of extract to any person for personal, academic or professional use</p> | Note modified name |
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ARROW Detailed Message Descriptions
Version 0.25

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