

Appendix C
Description of Metadata Elements For the Yale-Electronic Archive

29 November 2001

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Description of Metadata Elements For the Yale-Electronic Archive

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Status Column key:

R = Repeatable

M = Mandatory (in order for object to load into ARCHIVE)

Mif = Mandatory under certain conditions

Agent Group	
Definition:	An entity that has played a specified role in the lifecycle of the object and/or its metadata.
Attributes	AgentRole
Types	Personal, Corporate, Event, Other - each of which has its own attributes
Note	The DC elements of Creator, Contributor and Publisher have been subsumed into Agent.

AgentIdentifier						
Definition:	A standard unique identification number for a person or organisation. See notes.					
Attributes	<i>Identifier Scheme</i> : the name of the scheme to which the identifier belongs					
	<i>Identifier Value</i> : the value of the identifier					
Notes	There must be one repeat of the identifier attribute for each type of Agent ID. As many of these schemes are still under development it is not anticipated that they will be used at the outset.					
Name of ID scheme	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT/DTD	Notes
<i>ISADN</i>	All	Descriptive		N		Authority Record IDs i.e. International Standard Authority Data Number
<i>Publisher ID</i>	All	Descriptive		N		Place holder for International Standard ID
<i>Other</i>	All	Descriptive		N		

AgentRole						
Definition:	The role played by the named agent in the lifecycle of the object.					
Notes	The value for the Role attribute will be taken from a controlled vocabulary of roles. The initial list and characteristics of each role can be found in Appendix 1.1					
Value	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT/DTD	Notes
Specific Role	See Appendix 1.1	-- See Appendix 1.1 --		R - see notes		An object can have many agents with the same or different roles

PersonalAgent Group							
Definition:	A person playing a specified role in relation to the resource.						
Attributes	PersonalAgentNameAffix, PersonalAgentFamilyname, Personal AgentGivenName, PersonalAgentAffiliation, PersonalAgentVitalDate						
Notes	The Personal Agent type is repeatable and should have one repeat per agent role. The Affix attribute is repeatable within the group.						
Attributes	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT/DTD	Notes
<i>PersonalAgentNameAffix</i>	Free text. The words or letters that precede or follow the name of a PersonalAgent. Position determined by the Affix position marker.	Any	Varies by role. See Appendix1.1		R - See notes	au	This attribute can be repeated within one instance of an agent To be used for name Prefixes and Suffixes.
<i>PersonalAgentFamilyName</i>	The Family name of a PersonalAgent. note: = surname	Any	Varies by role. See Appendix1.1		R - As part of group	au / <surname>	To be concatenated with other PersonalAgent elements in search results
<i>Personal AgentGivenName</i>	The Given name of a PersonalAgent. usage note: e.g. first name, Christian name etc.	Any	Varies by role. See Appendix1.1		R - As part of group	au / <firstname>	
<i>PersonalAgentAffiliation,</i>	The organisation under whose auspices the personal agent played a role in the production of the object.	Any	Varies by role. See Appendix1.1		R - as a group		
<i>PersonalAgentVitalDate</i>	The birth and, if appropriate, death dates of a PersonalAgent.	Any	Varies by role. See Appendix1.1				This is a Type of date and listed here for information

CorporateAgent Group							
Definition:	An organization playing a specified role in relation to the resource.						
Attributes	CorporateAgentName, CorporateAgentPlace						
Notes	The CorporateAgent type is repeatable and should have one repeat per Agent role.						
Attributes	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>CorporateAgentName</i>	The name of a CorporateAgent having a specified Role in relation to the object.	Any	Varies by role. See Appendix 1.1		R - As part of group	pu / <publisher>	
<i>CorporateAgentPlace</i>	The political geographic region with jurisdiction over Corporate Agent	Any	Varies by role. See Appendix 1.1		R - As part of group		e.g. country, state

EventAgent Group							
Definition:	An event playing a specified role in relation to the resource.						
Attributes	Name, AlternateName, Number, Location and Date						
Notes	The EventAgent type is repeatable and should have one repeat per Agent role.						
Attributes	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>EventAgentName</i>	The name of an EventAgent	Any	Varies by role. See Appendix 1.1		R - As part of group	cf[name]	
<i>EventAgentAlternateName</i>	A name other than the AgentName by which the event is or has been known	Any	Varies by role. See Appendix 1.1		R - See notes	cf[abbrev]	This attribute can be repeated within one instance of an agent
<i>EventAgentNumber</i>	The number of an EventAgent (e.g. 4th conference of ...)	Any	Varies by role. See Appendix 1.1		R - As part of group	cf[number]	
<i>EventAgentLocation</i>	The location of an EventAgent	Any	Varies by role. See Appendix 1.1		R - As part of group	cf[place]	
<i>EventAgentDate</i>	The date related to an EventAgent	Any	Varies by role. See Appendix 1.1		R - As part of group	cf[date]	This attribute is a type of date (shown in the Date Group) but is recorded here for information

OtherAgent Group							
Definition:	Another agent playing a specified role in relation to the resource						
Attributes	OtherAgentName, OtherAgentDescription						
Note	The OtherAgent type is repeatable and should have one repeat per Agent role. Requested particularly by NSA to record details of , for example, a recording of the an animal or machine noise.						
Attribute	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>OtherAgentName</i>	The name of an OtherAgent having a specified Role in relation to the object.	Any	Varies by role. See Appendix1.1		R - As part of group		
<i>OtherAgentDescription</i>	Further information relating to the OtherAgent.	Any	Varies by role. See Appendix1.1		R - As part of group		

Descriptive Items Group							
Definition	This group subsumes various bibliographic elements						
Attributes	Language, PageRange, IssueData, FrequencyOfSerial, IssueData, SpecialIssueData						
Types	Subject, Description, Title. See notes.						
Notes	The types listed above comprise "a list of items, each consisting of one or more pairs of 1) a scheme2) a piece of text/keywords".						
Attribute	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>Language</i>	The language of the intellectual content of the resource. Value should default to English.	Any	Descriptive		R	li / <title langcode=".."> ; la / <abstract langcode=".."> ; <article langcode="..">	ISO639-2(three letter language code RFC1766 two letter language code + optionally two letter country code.
<i>PageRange</i>	The page range of an article, issue or page number of an object that constitutes part of a larger resource. See notes.	Any	Descriptive	Sequencing?		pg / <pagination> ; pn [modified]	Page range of a journal issue or article. Consider for sequencing for individual pages from one publications.
<i>FrequencyOfSerial</i>	Frequency with which issues of a serial are produced.	Serial	Administrative				Value taken standard description of Frequency AACR2.
<i>IssueData</i>	Volume and Issue number of serial	Serial	Descriptive			v1 / <vid id=".."> ; is / <iid id="..">	
<i>SpecialIssueData</i>	Identification specific to special issues	Serial	Descriptive		R, Mif		

Title Group							
Definition:	A name by which the resource is known.						
Attributes	This is seen partially as a scheme in the archive, each entry having - <i>Type of Title</i> : Primary, Alternative, Article, Uniform. <i>Value</i> : The text of the title						
Note							
Type of Title	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>PrimaryTitle</i>	The principal name by which the resource is known.	All	Descriptive		M	jn / <jtl>	The title can be a supplied title for items that do not have a 'real' one
<i>AlternativeTitle</i>	A title other than the primary title by which the object is or has been known	All	Descriptive		R	ja	e.g. the title on the carrier of the object where it differs from the title on-screen. To be used most often for standard journal abbreviations
<i>SeriesTitle</i>	An umbrella title for a number of objects published individually but forming a logical group as defined by the publisher.	All	Descriptive		R	Y	Has related element - SeriesTitleNumber
<i>SeriesTitleNumber</i> (Attribute of Series Title Number)	The number of the title within a series.	All	Descriptive		R – see notes		Relates only to Series Title. Is only repeatable as a pair with a Series Title. If an object belongs to more than one Series then the SeriesTitleNumber must be associated with the correct SeriesTitle.
<i>ArticleTitle</i>	The title of an article that forms part of a serial publication	Article	Descriptive			ti / <title>; tf	Need an attribute code for original language title and translated title
<i>UniformTitle</i>	A title held in common by a sequence of objects that may have undergone changes in title. e.g. Punch	All	Descriptive				

Subject Group							
Definition	The topic of the content of the object.						
Attributes	This is seen a scheme in the archive, each entry having - Type of Subject: an extendable scheme in the archive. (The initial listing of types of subject scheme and their characteristics is shown in the table below.) Value: the value – expressed in the vocabulary/format of the nominated Type						
Notes							
Type of Subject	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>LCSH</i>	The topic of the object described using terms taken from the Library of Congress Subject Headings list.	Any	Descriptive		R		Concatenation of sub-parts e.g. Mountains - United Kingdom - Scotland
<i>NameAsSubject</i>	The topic of the content of the resource where the topic is a name.	Any	Descriptive		R		For people. Cataloguing rules to decide re. animals, spirits etc.
<i>FreeText</i>	The topic of the content of the object expressed as keywords	Any	Descriptive		R	kw / <keyword>	
<i>Other</i>	As defined in Appendix 1.7	Any	Descriptive		R		

Description Group							
Definition:	Additional information about the described object. See notes.						
Attributes	This is seen a scheme in the archive, each entry having - <i>Type of Description:</i> an initial listing of types of description and their characteristics are shown in the table below. <i>Value:</i> The content of the description.						
Notes							
Type of Description	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>Abstract</i>	A summary of the content of the Object supplied by agent other than author	Any	Descriptive		Mif	ab / <abstract>	To contain the abstract created by publishers. Abstract as supplied by author is its own object. This is not likely to be used for Elsevier data
<i>FreeText</i>	Additional information about the object or significant facts that accompanied the object on deposit e.g. information provided in an email message.	Any	Descriptive				Could hold text sent by publishers or text entered locally.
<i>PubStatus</i>	Currency of a serial (current) (closed or ceased)	Serial	Descriptive				

Coverage Group	
Definition:	The extent or scope of the content of the object.
Types	Temporal, Spatial
Notes	Currently this type of description is to be added appropriately as a subject scheme

Date Group	
Definition:	A date related to the lifecycle of the object and/or its metadata.
Attributes	Type of date : an extendable scheme in the archive. The initial listing of types of date and their characteristics are described below. Value : the value of the date
	Form of date : any of the types of date can, if appropriate, be: 1) Single Date - a single point in time. could be year only, year and month or year, month and day. 2) Date Range - a period of time expressed a start and finish date 3) Term Date - a period of time expressed as a term (Spring, C18th) in free text
	Format of Date : A scheme of ISO formats to allow repeats of a date type to contain non-western formats. Currently ISO 8601, others to be added.
Notes	Consider whether the format should include time

Type of Date	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>DateIssued</i>	The date of publication of the object	All	Descriptive			dt /	
<i>DateReceived</i>	The date of receipt of the resource at the archive	All	Administrative				
<i>DateArchived</i>	The date of ingest of the object	All	Administrative	Created by system	M	<loaddate>?	This date relates to the object history
<i>LicenceCheckDate</i>	The date on which licence details may need updating	All	Administrative	To allow reports to be generated on licences		?	For example - to lift a viewing embargo.
<i>DateModified</i>	A date on which an object part was modified by preservation activity.	All	Administrative	Update History after preservation activity.	R/Mif		
<i>DateCreated</i>	Production date of electronic version	All	Administrative				Important for re-delivery of content. This date relates to the object history
<i>VitalDate</i>	The birth and, if appropriate, death dates of a PersonalAgent.	All	Descriptive			NA	
<i>LicenseStartDate</i>	Signature dates for agreement between archive and supplier of content	All	Administrative		R, M	NA	Repeating only if multiple licenses necessary to maintain an object.
<i>EventDate</i>	The date related to an EventAgent	All	Descriptive		R/Mif as part of group	cf[date]	

Terms Group							
Definition:	Information relating to the terms of availability of an object.						
Attributes	TermsOfAvailabilityStatement, TermsOfAvailabilityReference						
Notes	This group is intended to give information about the object held in the archive.						
Attribute	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>TermsOfAvailabilityStatement</i>	Statement of terms of availability of the object per the license arrangement with the supplier of the content	All	Administrative		R	NA	
<i>TermsOfAvailabilityReference</i>	A reference to a statement of terms of availability elsewhere, e.g. a URL to a scanned license	All	Administrative			NA	

Type and Identifier Group							
Definition:	Core characteristics of an object or object part.						
Attributes	ResourceType, ObjectType, ObjectPreservation Category,						
Notes	ResourceIdentifier is an extendable list with a type of identifier and a value						
Attribute	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>ResourceType</i>	The electronic form of the object. The value will be taken from the Resource Type List. See appendix 1.2	All	Descriptive		R/M		
<i>ObjectType</i>	The nature of the content of the object The value will be taken from the Object Type list. See Appendix 1.3	All	Descriptive	To generate appropriate fields in ingest templates with Resource Type. And other system uses. including filtering searches.	M	ty / <artty> ; <title> ; <abstract> ; <article> ; etc.	
<i>ObjectPreservation Category</i>	The preservation category of the object - taken from a controlled list See Appendix 1.4	All	Administrative		M	NA	

ResourceIdentifier	
Definition:	An unambiguous reference to a resource within a given context.
Attributes	Identifier Scheme: the name of the scheme to which the identifier belongs
	Identifier Value: the value of the identifier from the nominated scheme.
Notes	There must be one repeat of the scheme and the value attributes for each type of ID attached to the object. It is mandatory that there should be at least one identifier for each object and object part..

Name of Scheme	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>System IDs</i>						
<i>Archive Object ID</i>	All	Descriptive	System generated	M		
<i>Descriptive IDs</i>						
<i>SICI</i>	Any	Descriptive				
<i>ISBN</i>	Any	Descriptive		R		
<i>ISSN</i>	Serial, Issue, Mono	Descriptive		R	t1 [secondpt]	Elsevier suggests NOT using DTD data which may contain "old" ISSN data following a title change.
<i>ISRC</i>	Media	Descriptive				
<i>ISWC</i>	Media and Music	Descriptive				
<i>ISAN</i>	Media	Descriptive				
<i>CODEN</i>	Serial, Issue	Descriptive				
<i>PII</i>	Any	Descriptive			ii[pri] / <artid id = "....." type= "pii"/>	Elsevier suggests NOT using DTD data which may contain "old" ISSN data following a title change.
<i>DOI</i>	Any	Descriptive				
<i>URL</i>	Any	Descriptive				
<i>URN</i>	Any	Descriptive				
<i>LC number</i>	Any	Descriptive				
<i>NL cat no.</i>	Serial	Descriptive				
<i>Other</i>	Any					

Format Group	
Definition:	A large group of elements which together describe the files as they exist in the archive. Note: Format applies at the object level
Attributes	The attributes in the table following
Notes	For the attributes: <ul style="list-style-type: none"> - only FileType is mandatory - none are repeatable - all are searchable - only a sub-set will be applicable to each resource type This group of elements is an extensible list taken initially from the NLA paper. The values for these elements are taken (where indicated) from extensible controlled lists.

Name of Format Template Element	Definition	Applicable to Resource Type	Controlled Vocabulary/ format of data	EFFECT / DTD	Example values
FileType	File type and version of the resource	Image, Text	One list per resource/object type listing known file types for each.	<pdf> ; <rawtext>	For images: TIFF v4.0, BMP v1... For text MS Word 97, WordPerfect v2.1.....
CodeType	Code type and version used to compile the executable.	Executable	List of codes		Compiled using PERL script
Resolution	The resolution of the resource expressed in the measure stated in the associated scheme.	Image	list of Image resolutions		Image - 600dpi, 1500d/cm etc
Dimension	The size of a given aspect of the resource (varies with resource type) measured in pixels.	Image	Image: list of image dimensions		Image – 4096x6144...
Colour	Either B/W or Colour	Image	B/W or Colour		Colour
Rate	Rate related to specific resource types	Audio = bit rate = word length used for encoding video = frame rate = standard rate per second	List of bit rates? Free text?		Audio = 16 bit, 24 bit... Video = 25fps
Tonal Resolution	Bit depth of each pixel and whether multiple bits convey grey tones or colour	Image	List of tonal resolutions? or free text		1bit, 8-bit greyscale, 24-bit colour....

Name of Format Template Element	Definition	Applicable to ResourceType	Controlled Vocabulary/ format of data	EFFECT / DTD	Example values
Colour Space	The colour space used for the image	Image	Colour space list?		CMYK, RGB.....
Colour Management	Any system used to improve consistency of colour across capture, display and output of the image	Image	List of colour improvement systems list?		PhotoCD, OptiCal.....
Colour LookupTable	Location and coding for any CLUT used to map from low to high colour depth	Image	CLUT list?		FResident (if CLUT inside image file, Base64 (if CLUT binary encoded)....
Orientation	How the image is stored relative to the correct top of the image.	Image	List of orientations		0000 (top is correctly oriented), 090 (top is 90degrees clockwise from where it should be.)
Compression	The type and level of compression.	Image, Audio, Video, Text, Database	One list of compression types per resource type.		Image: CCIT4..... Video/Audio? MPEG3... Text/Database: .zip file.....
Segmentnumber andType	The number of tracks and how they are related to each other	Multimedia	List of values? Free text?		2 track stereo; Single track; 5 channel surround
Sound	The sound parameters where they are incorporated into a single video file structure. May be all the fields included in Audio.	Video			
Character Set	The character set used in the document	Text	List of character sets		ASCII; Unicode EBCDIC
Associated DTD	Name of the DTD applied to the structured text	Text	Free text?? List of standards and known DTDs	<sciserv dtdver=".">	EAD, DTD 2.0
Structural Divisions	The logical divisions in a structured text file	Text	?		TEI element DIVn used
Datatype and Representation	The type of symbol, character or other designation used to represent a data element in the database. (General to database or specific to each element)	Database	?		1. Alphanumeric characters and graphical images; 2 Element known as xxx1 contains alphanumeric characters, xxx2 contains graphical images.
Representation Form and Layout	Name or description of the form of representation for the data element and the layout of the characters that represent it. (General to database or specific to each element.)	Database	?		Text: Alphabetic, code: numeric, quantitative value: currency \$\$, \$\$\$.(date:YY:MM:DD the element known as xxx1 contains date:yyyy:mm:dd etc

Name of Format Template Element	Definition	Applicable to Resource Type	Controlled Vocabulary/ format of data	EFFECT / DTD	Example values
Maximum size of data element value	The maximum number of data units (e.g. characters) of the corresponding datatype	Database	?		The element known as xxx3 (money) has a maximum character count of 9
Minimum size of data element value	The minimum number of data units (e.g. characters) of the corresponding datatype	Database	?		The element known as xxx2 (date) has a minimum character count of 8
Encryption	The name of the process used	Image	List		RSA BSAFE Crypto-C, PGP 6i
Watermark	The name of the process used	Image	List		Digimark
Sampling frequency	Number of samples per second	Audio	?		22.050 KHz, 44.1 KHz, 48 KHz
Codec	The name of the format used	Video	List		Cinepak, Indeo R3, MPEG-2

Relation Group	
Definition:	A reference to a related object..
Attributes	Type of Relation: IsVersionOf, IsFormatOf, IsPartOf, Transformedfrom, ReplacedBy, Replaces, ExternalObject, RefersTo, OtherArchive
	Value: The value of the type of relation
Notes	RelationExternalObject is also defined in the ExternalObject group where it has attributes of ID and Description.

Type of Relation	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
RelationIsVersionOf	The described resource is an edition of the referenced resource or has the same intellectual content as the referenced resource but is presented in a different digital format	All	Administrative		Mif		
RelationIsPartOf	The described object is part of another resource. Value will be an ID or the Title of the related object, which does not have to be in the ARCHIVE. When used with serials - a reference to the parent of an object when the object is an issue or an article in a journal. ARCHIVE ID. Entered automatically where possible.	All	Descriptive	Linking associated objects. Or to gather bibliographic data from parent item when the record for a child item is displayed.	R/Mif		Use where the object is part of a named collection, a multi-volume work or a work that has been sub-divided into several objects (e.g. pages from a manuscript or the Harley Papers). Also used for journal issues or articles.
RelationTransformedfrom	To point to an earlier instance of an object part within the DLS after transformation/migration for preservation purposes. Value is DLS object part ID	All	Administrative	To supply the latest version of an object part to a user	Mif		System generated during preservation activity

Type of Relation	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>RelationReplacedby</i>	When dealing with materials corrected by publisher	All	Administrative		Mif		
<i>RelationReplaces</i>	When dealing with corrections to archived materials supplied by publisher	All	Administrative		Mif		
<i>RelationExternalObject</i>	A pointer to the location of the physical originals received at the e.g. CD-ROM with accompanying manuals..	All	Administrative				This element is defined in the ExternalObject group but is left here for information.
<i>RelationRefersTo</i>	For use with serials - a reference to another object when that object is commented upon or noted. ARCHIVE ID..	Article	Descriptive		Mif	br	
<i>RelationOtherArchive</i>	A pointer to external information about where else this object is archived	All	Administrative		Mif		When an object is archived by multiple agencies, this information will record where else an item can be located.

History Group		
Definition:	A record of the history of an object. The types represent a record of processes applied to the object or object part at different stages in their lifecycle in relation to the DLS	
Types of History	Custody History	Information about the digital object whilst it was in the custody of a previous owner. This covers regular commercial publications and other bodies of digital information that might be deposited with the archive.
	Ingest History	A record of processes and technologies that were applied to an object or an object part in order to load it into the DLS. The values for the attributes of this type of history should be system generated at the point of Ingest and should include details of the compression, packaging (e.g. TAR) as well as the attributes defined for the other types. It is mandatory.
	Preservation History	A description of the changes made to the digital object or object part after ingest for preservation purposes.
Attributes of History Types	CriticalSoftware, ProcessSpecification, ProcessDescription, ProcessName, ProcessResult, ProcessAgent, ProcessDate.	
Notes	All the attributes of History Types can apply to any of the types of History but a value will not necessarily be entered for every instance of a History type. See Appendix 1.5.	

Attribute	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>ProcessName</i>	The name of the process that was applied taken from a controlled list of names.	All	Administrative		Mif	Y	
<i>ProcessDescription</i>	A free text description of significant steps involved in the process. E.g. relevant files batch scanned with the OCR option turned off.	All	Administrative			Y	
<i>ProcessSpecification</i>	A record of the specifications or guidelines used to implement the process. E.g. the standards were specified in contract number nnn.	All	Administrative			Y	
<i>CriticalSoftware</i>	Itemisation of critical software used in the process. Values taken from a controlled list.	All	Administrative			Y	
<i>ProcessResult</i>	A free text description of the success or otherwise of the process noting any exceptional outcomes. E.g. All files converted but data was lost from title header.	All	Administrative			Y	
<i>ProcessAgent</i>	A type of AgentRole – giving at least the name of the agent responsible for carrying out the process.	All	Administrative			Y	See Roles list - Appendix 1.1

Attribute	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>ProcessDate</i>	The date and, optionally, time that the process was carried out This is a type of Date and will be Created, Archived or Modified	All	Administrative		Mif	Y	See Date group

Object Group	
Definition:	Information which relates to the object
Attributes	DigitalSignature, DigitalSignatureName, OperatingEnvironment, ObjectIdentifier
Notes	An external object is referred to by the object History

Attributes	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>DigitalSignature</i>	The value of the digital signature calculated by applying an algorithm to the object.	All	Administrative	System generated during the Ingest process. Used to monitor the integrity of the object.	M		Used to prove the authenticity of an object. This element attaches to each object.
<i>DigitalSignatureName</i>	The name and specification of the algorithm used to generate the DigitalSignature	All	Administrative	Automatically entered by the system	M		The archive needs to know the name and specification of the algorithm used for use in relation to the object.
<i>OperatingEnvironment</i>	A generic description of the environment needed to support the operation of the object. (For example a web browser and a listing of what file formats it supports.) See notes	All	Administrative				To be generated by the system analysing the object submitted to it and editable as necessary. (It should also be possible to generate all the information manually.) This to be structured as an XML schema which will be developed further over time. Input and display screens to be generated on the fly from the XML schema.
<i>ObjectIdentifier</i>	The ARCHIVE identifier of the object. System generated	All	Administrative		M		This element is another ID on the ID list it is shown here for information as it is critical to the system.

External Object Group

Definition:	A reference to and description of an object outside the ARCHIVE which is related in a specified way to an object within the ARCHIVE.						
Attributes	<i>Types of ExternalObject:</i> an initial listing of types of external object and their characteristics is shown in the table below.						
	<i>IdentifierScheme.</i> Taken from the Resource Identifier list						
	<i>Identifier value.</i> The value of the identifier						
	<i>Description.</i> A free text description of the External Object						
Notes	An external object is referred to by the object History						
Type of External Object	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>RelationExternal Object</i>	Information about the physical originals received at the archive (e.g. the cartridge and accompanying manuals).	Any	Descriptive		Mif		.
<i>RelatedInformation Object</i>	Information about other information objects which were judged at the time of ingest to be significantly related to the described object. e.g. the URL of a web page that updates a CD-ROM. See notes	Any	Descriptive		R	Y	

Rights Information Group	
Definition:	Information about rights and licences related to the object..
Notes	

Rights Group							
Definition:	Information about rights held in and over the object in the public domain. To aid in the identification of the intellectual property rights holders.						
Attributes	RightsStatement, RightsHolder						
Notes							
Attributes	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>RightsStatement</i>	Statement about rights held in and over the resource.	All	Descriptive?		M	<copyright>	Standard rights statement
<i>RightsHolder</i>	The identity of the holder of the copyright in the object. This is an Agent Role	All	Administrative		R		

Licence Group							
Definition:	The information governing what the archive may do with the object						
Attributes	LicenceType						
Notes							
Attributes	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>LicenceType</i>	The licence type that the library has for the object - governing what may be done with the object by users. the value will be taken from a list of Licence Types.	All	Administrative	To control use of the item in conjunction with Permissions	R/M		

SystemParameter Group							
Definition:	To hold information that allow an object to be viewed by a user.						
Attributes	OriginalCarrier						
Notes							
Attributes	Definition	Applicable Object Types	Category	System Use	Status R/M/Mif	EFFECT / DTD	Notes
<i>OriginalCarrier</i>	A note of the medium (or transmission type) by which the original object was delivered. Value to be taken from a list See Appendix 1.6	All	Administrative	See notes	Mif - see notes		If the RelationRequires flag is "write original medium" the system will check this field to determine what medium the object in the ARCHIVE should be written to in order for it to be viewed.

Appendices

1. Controlled vocabularies maintained by the archive

The following lists contain the initial listing of values that will be entered in elements where the value is selected from a drop down list. These lists are extensible and further values will be added as the need is identified.

1.1 Agent Roles List

<i>Agent Role List</i>	<i>metadata category</i>
Author [aut]	Descriptive
Conference [cnf]	
Copyright holder [cph]	Descriptive
Correspondent [crp]	Descriptive
Editor [edt]	Descriptive
Illustrator [ill]	Descriptive
Licensee [lse]	Descriptive
Licensor [lso]	Descriptive
Publisher [pbl]	Descriptive
Reviewer [rev]	Descriptive
Speaker [spk]	Descriptive
Translator [trl]	Descriptive
Other [oth]	Descriptive
Archive Specific Roles	
Digitiser	Administrative
Custodian	Administrative
Preservation User	Administrative
RightsHolder	Administrative
Repository Name	Administrative

1.2 Resource Type List (note: we should use Dublin Core Metadata Initiative Resource List)

Image,
Audio,
Video,
Multimedia,
Text,
Executable,
PDF,
SGML,
XML,
Dataset

1.3 Object type List

Map (+OS),
Sheet Music,
Media (inc. sound and video),
Pictorial,
Software,
Serial (inc. Newspapers),
Issue,

Article (FLA),
Letter (COR, DIS, SCO),
Review (book review BRV; product review PRV),
Advertisement (ADV),
Notices (publisher's note PUB),
Erratum (ERR),
Abstract (when published as separate item; ABS),
Addendum (ADD),
Announcement (ANN),
Calendar (Meetings Calendar CAL),
Editorial (EDI),
Alert (LIT),
News (NWS),
Contents (OCN),
Report (patent report PNT; personal report PRP),
Request (REQ),
Survey (SSU),
Miscellaneous (MIS).

1.4 Preservation Category list

Voluntary
Purchased
Contractual Arrangement

1.5 Process Name list

Scan of transparency
etc.

1.6 Original Carrier List

CD-ROM
DVD
DLT IV cartridge
Other
etc.

1.7 Other Subject Vocabularies

To be defined as needed
|

Note: The information recorded for EFFECT and DTD equivalence is incomplete and provided only as a reference of the type of cross-mapping that can and should occur for proper ingest of publisher metadata.