



# Extending the SCONE collection descriptions database for cc-interop

Report for Work Package B of the cc-interop JISC  
project

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This report addresses section 7.2.2 (Collection and service description) of the CC-interop project plan, as part of Work Package B. The report will be used to inform the extension of the SCONE database to meet requirements for incorporating COPAC into clumps services and participating in the JISC Information Environment.

The report notes a number of issues affecting the interoperability of collection level information, in addition to determining requirements for the development of the SCONE database.

The database and associated SCAMP updating service will be amended accordingly; further changes may be identified and implemented during the remainder of the project.

A data dictionary relating to collection level information produced by a number of clumps and collection description services has been compiled to assist comparisons of structure and content. This will also inform the work on the use of the SCONE structure for RIDING collection and service metadata, and mapping the structure to the JISC Information Environment.

## Methodology

This report is built on *An Analytical model of collections and their catalogues*, a study carried out by Michael Heaney on behalf of the UK Office of Library and Information Networking with support from OCLC (Heaney). The study and model have informed much of the development of collection descriptions and associated services in the UK, including the Research Support Libraries Programme (RSLP), the UKOLN Collection Description Focus, and the JISC Information Environment.

Heaney uses an entity-relationship approach. The information required to find and identify collections and their catalogues is broken down into a set of attributes associated with a number of entities, categorized as objects (for example a Collection) or agents (for example a Collector), and relationships between the entities (for example Collects).

Heaney presents a detailed model for a description of a single collection and catalogue, as a set of entities and relationships. The study suggests additional relationships between such collection level descriptions, but offers no further analysis.

Heaney indicates that further work is required on the more complex attributes of the model, and that attributes need to be further broken down into data elements. Some of this has subsequently been carried out in several projects, including the UKOLN work for RSLP on a national schema for research collections, and the SCONE project's development of a regional collection description service covering all sectors. The SCONE service schema is based on Heaney, the RSLP work, and the CAIRNS clump descriptions of Z39.50 catalogues.

Data elements were identified from a number of clump and collection description services. The services are all at differing stages of development, and use collection description for a variety of purposes and audiences.

The following table identifies these sources and gives a shorthand code for subsequent reference.

**Table: Sources of information for data elements**

Source	Code
InforM25 information for CC_interop work package B (Provided by J. Gilby 3 Oct 2002.)	INFORM25
JISC Collection Description/Service Description database (colserv.mdb from jiscclsv.zip). <a href="http://www.ukoln.ac.uk/cd-focus/temp/cdsdguid.html">http://www.ukoln.ac.uk/cd-focus/temp/cdsdguid.html</a>	JISCCLSV
MIMAS paper (Exposing cross-domain resources for researchers and learners.). <a href="http://epub.mimas.ac.uk/papers/mimasdc2002_full.html">http://epub.mimas.ac.uk/papers/mimasdc2002_full.html</a>	MIMAS
Mapping Wales mw_be database (Version of 23 Aug 2001.)	MW
RASCAL service (Data display from Browse-More info.). <a href="http://www.rascal.ac.uk/">http://www.rascal.ac.uk/</a>	RASCAL
Riding collection description report (Final version of Jul 2001. Uses eLib scheme of Jul 1999.)	RIDING
RSLP Collection Description Schema. <a href="http://www.ukoln.ac.uk/metadata/rslp/schema">http://www.ukoln.ac.uk/metadata/rslp/schema</a>	RSLPCDS
RSLP Collection Description: Tools (Samsara version.). <a href="http://www.ukoln.ac.uk/metadata/rslp/tools/">http://www.ukoln.ac.uk/metadata/rslp/tools/</a>	RSLPCLD
SCONE database (Version of 20 Sep 2002.)	SCONE

There are three categories of sources which affect the way data elements are identified, as described in the tables.

**Table: Data identification categories**

Category	Data identification
Documentation	Data elements are identified from input guidelines, sample records, etc.
Relational database structure	Data elements are identified directly from table and column definitions.
Screen display	Data elements are inferred from the structure and content of collection information displayed on various screens of the online service.

**Table: Source categories**

Source	Category
INFORM25	Documentation
JISCCLSV	Relational database structure
MIMAS	Documentation
MW	Relational database structure
RASCAL	Screen display
RIDING	Screen display
RSLPCDS	Documentation
RSLPCLD	Relational database structure
SCONE	Relational database structure

Information about data elements, including name, description and content standards, has been compiled into a data dictionary to make comparison easier.

The data dictionary also records primary and secondary key fields. These provide indications of how records and fields are related where the source is not a relational database.

JISCCLSV, RIDING and SCONE also contain information about data elements used in service description. JISCCLSV covers a variety of online service technologies, while SCONE describes only Z39.50-based catalogues. There is considerable overlap in the data elements required for service and collection level description, as shown by JISCCLSV; service data elements have been added to the dictionary to ensure completeness, and inform SCONE developments in this area.

Data dictionary entries were then mapped against Heaney's set of attributes. Data definitions and content standards were considered in relation to Heaney's attribute descriptions to determine the best fit.

The mapping is given in Appendix 1.

The data dictionary and attribute mapping were then used to compare data elements for structure, congruence, overlap, gaps, and granularity.

## Findings

### Differences in structure between Heaney and sources

There are several significant differences in the structure of Heaney's attribute sets and the data elements from the sources.

#### Relationship attributes assigned to entities

With the exception of SCONE, all sources treat data elements associated with Heaney's Relationship attributes as if they were Entity attributes. In particular, this approach is taken by RSLPCDS, which has influenced many of the other sources.

SCONE has followed Heaney more closely, having encountered some circumstances where assigning all attributes to Entities requires lengthy descriptive explanations and some duplication of information. Locations of collections administered by small amateur interest groups may have access conditions which depend on the availability of particular individuals; for example, a Family History Society collection might be accessible at different times on different days when the Secretary or Chair have spare time.

Older collections may have complex custodial and accrual histories involving multiple transfers of rights for all or part of the collection at different times.

**Agent roles expressed as generic Agent-Relationship structures**

RSLPCDS, RSLPCLD and SCONE store Agent information in generic structures independent of the specific Agent role; that is, data elements associated with Heaney’s Administrator, Collector, Creator, Creator’s assignee, Owner, Producer, and Producer’s assignee Entities are stored in a single table. Information about different roles is then implied in the Agent-Location and Agent-Collection Relationships of Administers, Collects, Creates, Delegates-To, Owns, Produces, and Delegates-To respectively.

The other sources use separate tables to store details of Agents with specific Relationships.

**Coverage of Agent Relationships**

Only SCONE covers all of the specific Agents suggested by Heaney. Most of the other sources accommodate Administrator, Collector and Owner data elements (RSLPCDS uses the term ‘creator’ for Collector). The table below indicates which sources cover each of Heaney’s Agents.

**Table: Agents covered by sources**

Agent	Source
Administrator	JISCCLSV
	MIMAS
	RASCAL
	RIDING
	RSLPCDS
	RSLPCLD
	SCONE
Collector	MIMAS
	MW
	RASCAL
	RSLPCDS
	RSLPCLD
	SCONE
Creator	SCONE
Creator's assignee	SCONE
Owner	JISCCLSV
	MW
	RASCAL
	RIDING
	RSLPCDS
	RSLPCLD
	SCONE
Producer	SCONE
Producer's assignee	SCONE
Subject	RSLPCDS
	RSLPCLD
	SCONE

## Agent and Location subtypes

MW, RSLPCLD and SCONE follow Heaney's distinction between corporate bodies and persons as sub-types of the Agent entity by storing associated data elements in separate tables.

The other sources use a single table for both sub-types of Agent.

Heaney also distinguishes between physical and electronic repositories as sub-types of the Location entity.

SCONE uses separate tables for these sub-types. JISCCLSV, MIMAS, MW, RSLPCDS and RSLPCLD use a single table for all Location information. INFORM25 and RASCAL do not record electronic repositories within their data structures.

## Collection-Descriptions and Collections

Heaney's analysis gives an entity-relationship model for a Collection-Description, which provides information about a collection and the items of which it is composed; a typical example is a library catalogue. The Collection-Description attributes form a sub-set of those comprising a Collection entity, allowing a single data structure to accommodate both Collection and Collection-Description.

The sources store data elements associated with Collection-Description in four distinct ways, as shown in the tables.

**Table: Modes of storing Collection-Description data**

Storage mode	Description
Embedded	Collection-Description data is embedded in Collection record.
None	No Collection-Description data is stored.
Separate (Collection)	Collection-Description is stored separately using the same data structure as Collection.
Separate (Other)	Collection-Description is stored separately using a different data structure to Collection.

**Table: Source modes**

Source	Storage mode
INFORM25	Embedded
JISCCLSV	Separate (Other)
MIMAS	Embedded
MW	Embedded
RASCAL	Embedded
RIDING	None
RSLPCDS	Separate (Collection)
RSLPCLD	Separate (Collection)
SCONE	Separate (Collection)

## Differences in entities, relationships and attributes between Heaney and sources

### Single collection focus

Heaney's model addresses a single collection and its description. While some analysis of the relationships between collections is given, no attributes are assigned.

JISCCLSV, INFORM25, and MIMAS do not contain data elements for relating two or more Collections.

### Heaney suggestions for additional entities and relationships

Heaney suggests several Relationships between Collection entities, in addition to the Is-Described-By relationship. These comprise Has-Version, Has-Part, Has-Complement, and Has-Association.

Has-Version is not implemented specifically by any of the sources. There may be an implicit use of this Relationship in JISCCLSV when services are linked to collections; for example, a catalogue (Collection-Description) may be available in Z39.50 and OAI versions.

Has-Part is implemented by most of the sources to link sub- and super-collections.

Has-Complement and Has-Association are conflated in all sources which support a relationship between Collections other than Has-Part. Has-Association is specifically supported by RASCAL, RSLPCDS and RSLPCLD.

### Date types

Heaney describes four different types of date associated with the Collection entity. Three types are assigned to a single attribute, as shown in the table.

**Table: Date types in Collection attributes**

Date type	Collection attribute
Date range of individual content	Date
Date range of individual documents	Date
Date range of collection accumulation	Date
Date coverage of individual items	Subject: Date coverage

### Additions to Heaney attributes

Analysis of data fields gathered from the sources reveals a number of common attributes which were not included in Heaney’s report.

In particular, four attributes associated with Agent entities are in use in the majority of sources: telephone and fax number, email address, and role. These have been added to the original attribute set.

Two attributes have similarly been added to the Collection entity: Collection type, and notes. Several sources also use the citations of publications associated with collections; Heaney alludes to a Publication entity, and the citation attribute has been added to it.

Added attributes are detailed in Appendix 2. They are flagged in the mappings in Appendix 1 with a double-asterisk (\*\*).

### Source fields not assigned to attributes

Appendix 3 lists data elements from the sources which could not be readily mapped to Heaney’s attributes. This includes elements for which descriptions are ambiguous.

### Heaney attributes not used by sources

A number of attributes associated with collection level entities and relationships in Heaney’s analysis have no readily identifiable data elements in any of the sources. These are listed by Entity in Appendix 4.

## Issues affecting interoperability and retrieval

### Entity relationships

Heaney gives Identifier attributes to the Entities Collection and Location: Physical repository.

JISCCLSV, RASCAL, RIDING, RSLPCDS, RSLPCLD and SCONE have corresponding data elements for Collection Identifier.

JISCCLSV has a data element for Location: Physical repository Identifier.

JISCCLSV has a data element named Identifier for Owner, which has no corresponding Heaney attribute.

There are very few instances of Identifier elements with content in the sources.

The intended use of Identifier fields is presumably to store some kind of unique number or label to allow links between Entities created in a distributed environment and subsequently harvested or otherwise gathered together. They are clearly not intended for local use; sources use “ID” fields to create links within their services.

An alternative method of creating Entity relationships is to use the attribute for the main natural language “heading” for the Entity, as suggested in the table below.

**Table: Entity attributes suitable for Entity linking**

Entity	Linking Attribute
Agent (all types)	Name
Collection	Title
Location: Electronic repository	Site; URL
Location: Physical repository	Place
Publication	Citation **

None of these attributes is intrinsically unique, with the exception of the URL for Location: Electronic repository.

## Agent name

A significant collecting focus is on the works created by, or about, a specific person or corporate body. An important retrieval strategy is therefore to search by Agent name at both collection level and item level.

If such retrieval is to be seamless, the form of Agent name needs to be the same at both levels. Item level names will tend to be fuller than those at collection level if the form is expanded to distinguish similar names; the likelihood is that there is a greater need for such distinction at item level.

Collection level description tends to involve Agents who are not required for item level description, because there are more types of Agent. For example, the Administrator of an Item is not a very useful concept at item level.

In general, Agents who are Collectors, Owners or Administrators are not likely to be the same as Agents who are Creators or Producers acting primarily at the item level. As a result, collection level description beyond the highest levels of granularity will create data for many Agents who have not already been recorded for item level description.

Names of persons may be required to be used in two different formats.

Browsing functions in a collection description service will require normalized format; that is, surname first, followed by forename and additional distinguishing elements.

Display functions may require a fuller format, including honorifics and postnominals, for display within collection descriptions in a standard format; that is, in the order of honorific, forename, surname, date, and other distinguishing elements.

## Subject

SCONE is involved in the HILT 2 (High Level Thesaurus) project looking at interoperability in subject retrieval.

The SCONE database may be amended over the next few months as a result of this activity.

However, between them sources contain data elements for the Conspectus, Dewey Decimal Classification (DDC), Library of Congress Subject Headings (LCSH), Resource Discovery Network, and Unesco Thesaurus schemes.

## Location

Some collection description services may require functionality to bring together collections physically located in proximity to each other or some other place such as the enquirer's current location.

All sources, with the exception RIDING, have provision for a separate data element for postcode. While this data can be used in conjunction with a standard postcode database to provide physical proximity information, this is only useful in urban areas. In rural areas, postcode areas are so large that adjacency does not indicate proximity for places within the areas.

Use of postcode data to improve interoperability is not applicable in an international context.

MW, RASCAL, RSLPCDS, RSLPCLD and SCONE also use a separate data element for country. Parsing an unstructured postal address data element to extract country information may not be

successful; for example, a collection may be located in Glasgow Road, Edinburgh (or Edinburgh Road, Glasgow, for that matter).

## **Conclusions**

### **General**

The structure of data elements identified in the sources differs in a variety of ways, reflecting the intended functionality of the information service.

This has implications for the longer term flexibility of the data. A collection record created for a service with a specific audience may require significant amendment to incorporate it effectively in a larger service with a more general audience. A record created at a high level of granularity may be useless for a service which needs to identify sub-collections.

It is easier, in general, to re-use and re-purpose information from a lower to higher level of granularity, in respect of collection coverage as well as data structure.

Services should consider, where possible, using the lowest level of granularity that is feasible.

Some issues associated with specific data elements are discussed below, followed by the actions which SCONE will take as part of the Work Package.

### **Identifiers**

Urgent consideration needs to be given to establishing a means of assigning unique, standard identifiers to Collections and Locations. Without such a mechanism, interoperability of locally-created descriptions in a global service will be severely impaired.

### **Name headings**

Interoperability between collection and item level descriptions may be significantly improved if collection description services adopt the same forms and formats used for library catalogues. Name authority services should be extended to cover collection level names.

### **Personal name data elements**

Data elements for personal names should be considered at a lower level of granularity than the whole name, to improve flexibility of display for searching, browsing and description.

### **Date range ambiguity**

Care should be taken to avoid ambiguity in the four types of date range associated with a collection. Conflation of types should be explicitly stated in system and user documentation.

### **Physical location data elements**

Data elements for the address of physical locations should be considered at a lower level of granularity than the whole address. In particular postcode, region and country should be considered as separate elements, to improve searching for geographical proximity.

Consideration should be given to interoperability with geographical information systems; these are likely to provide a much richer functionality for retrieving collections and services on a geographical basis.

### **Service level description**

Service level description below the highest levels of granularity requires further analysis, similar to Heaney's analysis for collection level description. This will be necessary to identify data elements to support task-oriented interfaces for service description services; for example, searching for services which support bibliographic record download.

## **SCONE**

The SCONE database will be amended by adding data elements for the Heaney attributes listed in the table below.



**Table: Attributes to be incorporated in SCONE**

Entity or Relationship	Attribute	Notes
Administrator: Corporate body	Logo	In use by JISCCLSV. SCONE will implement this for all Agent entities.
Collection	Content: Audio-visual: Medium of performance	Not in use.
	Content: Cartographic: Locus	In use by RIDING.
	Content: Graphic: Medium	Not in use.
	Content: Music notation: Notation system	Not in use.
	Content: Realia: Medium	Not in use.
	Content: Sound material: Language	In use by JISCCLSV, RIDING, RSLPCDS.
	Content: Sound material: Medium of performance	Not in use.
	Content: Sound material: Type of sound	Not in use.
	Content: Text: Language	In use by JISCCLSV, MW, RASCAL, RIDING, RSLPCDS, RSLPCLD.
	Subject: Date coverage	In use by JISCCLSV, MIMAS, RIDING, RSLPCDS, RSLPCLD.
	Subject: Object	In use by RSLPCDS
	Subject: Place coverage	In use by JISCCLSV, RSLPCDS, RSLPCLD.
	System of arrangement	Not in use.
Sells-To	Rights	In use by RIDING.

The SCONE database will also be amended by adding data elements suggested by other sources, as shown in the following table.

Data Element	Notes
Audience level	In use by JISCCLSV. Content to be compatible with MEG Educational Levels.

Some further additional data elements for the SCONE database are suggested by the Work Package itself, and the involvement of SCONE in other projects, as shown in the following table.

Data Element	Notes
Sector	The sector (e.g. Higher Education; Public; Special) of the library or other domain which administers, owns or collects the collection. This is required to filter appropriate collections in SCONE for portal display or output to JISC Information Environment, etc. in OAI and other harvestable formats.

The SCONE database will also be amended to incorporate additional data elements for service level description suggested by JISCCLSV and MIMAS.

## Appendix 1: Entity/Relationship-Attribute-Data Element mappings

The mappings are presented in two parts: the Entity-Attribute-Element mappings, followed by the Relationship-Attribute-Element mappings.

Elements are listed in alphabetical order of field name, grouped by associated Attribute. Attributes are listed in alphabetical order of name, grouped by Entity or Relationship. Entities and Relationships are listed in alphabetical order.

The class of the Entity (object or agent) is noted after the Entity name. The level (item or collection) which the Entity refers is also given.

The notes include data element descriptions and content standards.

The double-asterisk (\*\*) beside an Attribute name indicates that it has been added to Heaney's original attribute set.

**Entity** Administrator: Corporate body (Agent)  
(Collection level.)

**Attribute** Date

Field	Notes

**Attribute** Email address \*\*

Field	Notes
Admin Email (MIMAS: MIMAS)	
email (INFORM25: Library)	General library enquiry email number.
Email (JISCCLSV: tblAdministrator)	Electronic mail address of agent. vcard:email. RFC-822 format.
Email (SCONE: AgentCorp)	Email address of corporate body.
Email Address (RASCAL: Administrator)	
vcard:email (RSLPCDS: Agent)	Electronic mail address of agent.

**Attribute** Fax number \*\*

Field	Notes
fax (INFORM25: Library)	General library fax number.
Fax (JISCCLSV: tblAdministrator)	Fax number of agent. vcard:fax. International format.
Fax (SCONE: AgentCorp)	Fax number of corporate body. International format.
Fax No. (RASCAL: Administrator)	
vcard:fax (RSLPCDS: Agent)	Fax number of agent.

**Attribute** Logo

Field	Notes
Logo (JISCCLSV: tblAdministrator)	URL of image of logo which is associated with agent.

**Attribute**                  **Name**

Field	Notes
Administrator (MIMAS: MIMAS)	
iname (INFORM25: Institution)	Full name of institution.
Name (RASCAL: Administrator)	
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Organisation (RSLPCLD: tblOrganisations)	
Organisation Name (JISCCLSV: tblAdministrator)	Organisation name of agent (or name of organisation with which individual agent is affiliated). vcard:org.
Service.Admin (RIDING: Riding)	Administrative contact (organisation or person) responsible for service/collection administration and operation. Generic job titles used where possible.
vcard:org (RSLPCDS: Agent)	Organisational name of, or affiliated with, agent.

**Attribute**                  **Place**

Field	Notes
Address (JISCCLSV: tblAdministrator)	Postal address of agent. vcard:address.
Postcode (JISCCLSV: tblAdministrator)	Post code of agent.

**Attribute**                  **Role \*\***

Field	Notes
Admin Role (MIMAS: MIMAS)	
Role (JISCCLSV: tblAdministrator)	Role (typically organisational role) fulfilled by agent. vcard:role.
Role (RASCAL: Administrator)	
Role (SCONE: AgentCorp)	Role of corporate body.
vcard:role (RSLPCDS: Agent)	Role (typically organisational role) fulfilled by agent.

**Attribute**                  **Telephone number \*\***

Field	Notes
phone (INFORM25: Library)	General library telephone number.
Phone (JISCCLSV: tblAdministrator)	Telephone number of agent. vcard:voice. International format.
Tel No. (RASCAL: Administrator)	International format.
Telephone (SCONE: AgentCorp)	Telephone number of corporate body. International format.
vcard:voice (RSLPCDS: Agent)	Telephone number of agent.

**Entity** Administrator: Person (Agent)  
(Collection level.)

**Attribute** Date

Field	Notes
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.

**Attribute** Email address \*\*

Field	Notes
Admin Email (MIMAS: MIMAS)	
Email (JISCCLSV: tblAdministrator)	Electronic mail address of agent. vcard:email. RFC-822 format.
Email (MW: tblPerson)	
Email (SCONE: AgentPers)	Email address of person.
Email Address (RASCAL: Administrator)	
Email Address (RSLPCLD: tblPeople)	Email address.
vcard:email (RSLPCDS: Agent)	Electronic mail address of agent.

**Attribute** Fax number \*\*

Field	Notes
Fax (JISCCLSV: tblAdministrator)	Fax number of agent. vcard:fax. International format.
Fax (SCONE: AgentPers)	Fax number of person. International format.
Fax No (RSLPCLD: tblPeople)	Fax number. International format.
Fax No. (RASCAL: Administrator)	
FaxNumber (MW: tblPerson)	International format.
vcard:fax (RSLPCDS: Agent)	Fax number of agent.

**Attribute** Name

Field	Notes
Administrator (MIMAS: MIMAS)	
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Forenames (JISCCLSV: tblAdministrator)	Forename(s) of individual. vcard:fn.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (MW: tblPerson)	
Name (RASCAL: Administrator)	
Name (RSLPCLD: tblPeople)	Name of person.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Service.Admin (RIDING: Riding)	Administrative contact (organisation or person) responsible for service/collection administration and operation. Generic job titles used where possible.
Surname (JISCCLSV: tblAdministrator)	Surname of individual. vcard:fn.
Surname (SCONE: AgentPers)	Surname or family name of person.
vcard:fn (RSLPCDS: Agent)	Name of agent.

**Attribute**                  **Role \*\***

Field	Notes
Admin Role (MIMAS: MIMAS)	
Role (JISCCLSV: tblAdministrator)	Role (typically organisational role) fulfilled by agent. vcard:role.
Role (MW: tblPerson)	
Role (RASCAL: Administrator)	
Role (RSLPCLD: tblPeople)	Name of role.
Role (SCONE: AgentPers)	Role of person.
vcard:role (RSLPCDS: Agent)	Role (typically organisational role) fulfilled by agent.

**Attribute**                  **Telephone number \*\***

Field	Notes
Phone (JISCCLSV: tblAdministrator)	Telephone number of agent. vcard:voice. International format.
Tel No. (RASCAL: Administrator)	International format.
Telephone (SCONE: AgentPers)	Telephone number of person. International format.
Telephone No (RSLPCLD: tblPeople)	Telephone number. International format.
TelephoneNumber (MW: tblPerson)	International format.
vcard:voice (RSLPCDS: Agent)	Telephone number of agent.

**Entity** Collection (Object)  
(Collection level.)

**Attribute** Content: Audio-visual: Medium of performance (Inherited from Content entity.)

Field	Notes

**Attribute** Content: Cartographic: Locus (Inherited from Content entity.)

Field	Notes
Coverage.Spatial (RIDING: Riding)	Spatial characteristics of intellectual content of collection.

**Attribute** Content: Graphic: Medium (Inherited from Content entity.)

Field	Notes

**Attribute** Content: Music notation: Notation system (Inherited from Content entity.)

Field	Notes

**Attribute** Content: Realia: Medium (Inherited from Content entity.)

Field	Notes

**Attribute** Content: Sound material: Language (Inherited from Content entity.)

Field	Notes
dc:language (RSLPCDS: Collection)	Language of items in collection.
Language (JISCCLSV: tblLang)	Language of the items in the collection. dc:language. ISO 639-2; <a href="http://www.loc.gov/standards/iso639-2">http://www.loc.gov/standards/iso639-2</a> .
Language (RIDING: Riding)	Language of intellectual content of collection.

**Attribute** Content: Sound material: Medium of performance (Inherited from Content entity.)

Field	Notes

**Attribute** Content: Sound material: Type of sound (Inherited from Content entity.)

Field	Notes

**Attribute** Content: Text: Language (Inherited from Content entity.)

Field	Notes
dc:language (RSLPCDS: Collection)	Language of items in collection.
Language (JISCCLSV: tblLang)	Language of the items in the collection. dc:language. ISO 639-2; <a href="http://www.loc.gov/standards/iso639-2">http://www.loc.gov/standards/iso639-2</a> .
Language (RIDING: Riding)	Language of intellectual content of collection.
Language (RSLPCLD: tblLanguage)	
LanguageName (MW: tblLanguage)	
LanguageNameCym (MW: tblLanguage)	
Languages (RASCAL: Collection)	
LanguageUSMARC (MW: tblLanguage)	

**Attribute** Date (1: Date range of individual content; 2: Date range of individual documents; 3: Date range of collection accumulation.)

Field	Notes
Accumulation (MIMAS: MIMAS)	
Accumulation Date Range (RASCAL: Collection)	
Accumulation Date Range (RSLPCLD: tblCollections)	
cld:accumulationDateRange (RSLPCDS: Collection)	Range of dates over which collection was accumulated.
cld:contentsDateRange (RSLPCDS: Collection)	Range of dates of individual items within collection.
Content Dates (RASCAL: Collection)	
Contents Date (MIMAS: MIMAS)	
Contents Date Range (RSLPCLD: tblCollections)	
Contents Date Range End (JISCCLSV: tblCollection)	Range of creation dates of individual items within collection (end). cld:contentsDateRange. W3C Date and Time Formats; <a href="http://www.w3.org/TR/NOTE-datetime">http://www.w3.org/TR/NOTE-datetime</a> .
Contents Date Range Start (JISCCLSV: tblCollection)	Range of creation dates of individual items within collection (start). cld:contentsDateRange. W3C Date and Time Formats; <a href="http://www.w3.org/TR/NOTE-datetime">http://www.w3.org/TR/NOTE-datetime</a> .
ContentsDateRange (MW: tblCollection)	
Date (RIDING: Riding)	Date associated with creation or availability of collection. ISO 8601.
DateEnd (SCONE: DateRange)	End of date range. Separate Accumulation and Contents range.
DateStart (SCONE: DateRange)	Start of date range. Separate Accumulation and Contents range.

**Attribute**                      Description

Field	Notes
Catalogue/Description (RASCAL: Collection)	
dc:description (RSLPCDS: Collection)	Description of collection.
Described Collection (RSLPCLD: tblCollections)	
Description (JISCCLSV: tblCollection)	Summary of collection. dc:description. Free text.
Description (MIMAS: MIMAS)	
Description (MW: tblCollection)	
Description (RASCAL: Collection)	
Description (RIDING: Riding)	Description of content of collection, including extent or size, and educational level.
Description (RSLPCLD: tblCollections)	Description of collection.
Description (SCONE: Collection)	Description of contents of collection.
Description or Catalogue (RSLPCLD: tblCollections)	
DescriptionLanguage (MW: tblCollection)	
RelatedCollectionDescription (MW: tblRelatedCollection)	
RelationshipNotes (MW: tblCollection)	
Source (RIDING: Riding)	Identifier or name of resource from which collection is derived. No examples.

**Attribute**                      Identifier

Field	Notes
dc:identifier (RSLPCDS: Collection)	Formal identifier for collection.
Identifier (JISCCLSV: tblCollection)	Identifier of collection. dc:identifier.
Identifier (RASCAL: Collection)	
Identifier (RSLPCLD: tblCollections)	Formal identifier for collection.
Identifier (SCONE: Collection)	Standard identifier code of collection.
Service.Identifier (RIDING: Riding)	String or number used to uniquely identify service or collection.

**Attribute**                      Notes \*\*

Field	Notes
cld:note (RSLPCDS: Collection)	General information about collection.
CollectionNotes (MW: tblCollection)	
Identifier.URL (RIDING: Riding)	URL of webpage with information about collection.
Note (JISCCLSV: tblCollection)	General information about collection (not covered elsewhere). cld:note.
Note (JISCCLSV: tblCollectionDescription)	cld:note.
Note (RSLPCLD: tblCollections)	General information about collection.
Notes (RIDING: Riding)	Information about collection not given in other fields.
Notes (SCONE: Collection)	Notes pertaining to collection.



**Attribute** Physical characteristics

Field	Notes
dc:format (RSLPCDS: Collection)	Physical or digital characteristics of collection.
Format (JISCCLSV: tblCollection)	Statement of physical or digital characteristics of collection. dc:format. Free text.
Physical Characteristics (RASCAL: Collection)	
Physical Characteristics (RSLPCLD: tblCollections)	Physical or digital characteristics of collection.
PhysicalCharacteristics (SCONE: Collection)	Number and type of items constituting collection.
SizeAndFormat (MW: tblCollection)	

**Attribute** Strength

Field	Notes
cld:strength (RSLPCDS: Collection)	Free text or formalised indication of strength(s) of collection.
ConspectusLevel (SCONE: RCOLevel)	Conspectus level.
SignificanceName (MW: tblSignificance)	
SignificanceNameCym (MW: tblSignificance)	
Strength (MW: tblCollection)	
Strength (RASCAL: Collection)	
Strength (RSLPCLD: tblCollections)	

**Attribute** Subject: Concept/keywords (Inherited from Content entity.)

Field	Notes
CollectionKeywords (MW: tblCollection)	
Concept (Dewey) (MIMAS: MIMAS)	
Concept (JISCCLSV: tblConcept)	dc:subject.
Concept (LCSH) (MIMAS: MIMAS)	
Concept (RSLPCLD: tblConcept)	
Concept (UNESCO) (MIMAS: MIMAS)	
dc:subject (RSLPCDS: Collection)	Concept (keyword) of items in collection.
DDC21 (SCONE: SubjectDDC)	Dewey Decimal Classification edition 21 number of collection subject. DDC.
DDC21Verbal (SCONE: SubjectDDC)	Verbal heading associated with DDC21 number of subject. DDC.
Keywords (JISCCLSV: tblCollection)	Subject keywords associated with items in collection. dc:subject. RDN Faculty List.
LCSH (SCONE: SubjectLCSH)	Library of Congress Subject Heading of collection subject. LCSH.
RDN Fac Term (JISCCLSV: tblRDN)	
Subject (RIDING: Riding)	
SubjectName (SCONE: RCOSubject)	Heading of RCO subject.

**Attribute** Subject: Date coverage (Inherited from Content entity.)

Field	Notes
Coverage.Temporal (RIDING: Riding)	Temporal characteristics of intellectual content of collection.
dcq:temporal (RSLPCDS: Collection)	Temporal coverage of items in collection.
Temporal Cover (MIMAS: MIMAS)	
Temporal Coverage Date Range End (JISCCLSV: tblCollection)	Temporal coverage of items in collection (end). dcterms:temporal. W3C Date and Time Formats; <a href="http://www.w3.org/TR/NOTE-datetime">http://www.w3.org/TR/NOTE-datetime</a> .
Temporal Coverage Date Range Start (JISCCLSV: tblCollection)	Temporal coverage of items in collection (start). dcterms:temporal. W3C Date and Time Formats; <a href="http://www.w3.org/TR/NOTE-datetime">http://www.w3.org/TR/NOTE-datetime</a> .
Time (RSLPCLD: tblCollectionsTimes)	

**Attribute** Subject: Name (Inherited from Content entity.)

Field	Notes
cld:agentName (RSLPCDS: Collection)	Personal or corporate name associated with items in collection.
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (RSLPCLD: tblCollectionsNames)	
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Surname (SCONE: AgentPers)	Surname or family name of person.

**Attribute** Subject: Object (Inherited from Content entity.)

Field	Notes
cld:objectName (RSLPCDS: Collection)	Object name associated with items in collection.
Object (RSLPCLD: tblCollectionsObjects)	

**Attribute** Subject: Place coverage (Inherited from Content entity.)

Field	Notes
dcq:spatial (RSLPCDS: Collection)	Spatial coverage of items in collection.
Place (JISCCLSV: tblPlace)	Spatial coverage of items in collection. dcterms:spatial. Getty Thesaurus of Geographic Names; <a href="http://www.getty.edu/research/tools/vocabulary/tgn/">http://www.getty.edu/research/tools/vocabulary/tgn/</a> .
Place (RSLPCLD: tblCollectionsPlaces)	

**Attribute** System of arrangement

Field	Notes

**Attribute**                      **Title**

Field	Notes
Collection Name (MIMAS: MIMAS)	
dc:title (RSLPCDS: Collection)	Name of collection.
IsTitleProper (SCONE: Collection)	Logical flag indicating a proper, as opposed to derived, title of collection.
RelatedCollectionName (MW: tblRelatedCollection)	
Title (JISCCLSV: tblCollection)	Name of collection. dc:title.
Title (JISCCLSV: tblCollectionDescription)	dc:title.
Title (MW: tblCollection)	
Title (RASCAL: Collection)	Not explicitly labelled.
Title (RIDING: Riding)	Name given to collection by administrator, owner or publisher, including version number.
Title (RSLPCLD: tblCollections)	Name of collection.
Title (SCONE: Collection)	Title of collection. Omit initial articles.
Title.Alternate (RIDING: Riding)	Alternative titles and nicknames of collection. Example: Poetry Society Library, University of York (title = Poetry Society Library).

**Attribute**                      **Type \*\***

Field	Notes
dc:type (RSLPCDS: Collection)	Type of collection.
IsTypeArchive (SCONE: Collection)	Flag to indicate collection type as archive.
IsTypeCatalogue (SCONE: Collection)	Flag to indicate collection type as catalogue.
IsTypeCollection (SCONE: Collection)	Flag to indicate collection type as collection.
IsTypeDataset (SCONE: Collection)	Flag to indicate collection type as dataset.
IsTypeDispersed (SCONE: Collection)	Flag to indicate collection type as dispersed.
IsTypeDistributed (SCONE: Collection)	Flag to indicate collection type as distributed.
IsTypeEvent (SCONE: Collection)	Flag to indicate collection type as event.
IsTypeFindingAid (SCONE: Collection)	Flag to indicate collection type as finding aid.
IsTypeForm (SCONE: Collection)	Flag to indicate collection type as form.
IsTypeImage (SCONE: Collection)	Flag to indicate collection type as image.
IsTypeIndex (SCONE: Collection)	Flag to indicate collection type as index.
IsTypeInteractiveResource (SCONE: Collection)	Flag to indicate collection type as interactive resource.
IsTypeInternet (SCONE: Collection)	Flag to indicate collection type as internet.
IsTypeLibrary (SCONE: Collection)	Flag to indicate collection type as library.
IsTypeMuseum (SCONE: Collection)	Flag to indicate collection type as museum.
IsTypePhysicalObject (SCONE: Collection)	Flag to indicate collection type as collection.
IsTypeSoftware (SCONE: Collection)	Flag to indicate collection type as software.
IsTypeSound (SCONE: Collection)	Flag to indicate collection type as sound.
IsTypeSpecial (SCONE: Collection)	Flag to indicate collection type as special.
IsTypeSubject (SCONE: Collection)	Flag to indicate collection type as subject.
IsTypeText (SCONE: Collection)	Flag to indicate collection type as text.
IsTypeUser (SCONE: Collection)	Flag to indicate collection type as user.
IsTypeVirtual (SCONE: Collection)	Flag to indicate collection type as virtual.
IsTypeWorking (SCONE: Collection)	Flag to indicate collection type as working.
Type (CLDT) (MIMAS: MIMAS)	
Type (JISCCLSV: tblCollection)	Type of collection. dc:type. RSLP CLDT; <a href="http://www.ukoln.ac.uk/metadata/rslp/types/">http://www.ukoln.ac.uk/metadata/rslp/types/</a> .
Type (JISCCLSV: tblType)	dc:type
Type (RASCAL: Collection)	RSLP CLDT; <a href="http://www.ukoln.ac.uk/metadata/rslp/types/">http://www.ukoln.ac.uk/metadata/rslp/types/</a> .
Type (RIDING: Riding)	Category of collection.
Type (RSLPCLD: tblCollections)	Type of collection.
Type (RSLPCLD: tblCollectionsTypes)	

**Entity** Collector: Corporate body (Agent)  
(Collection level.)

**Attribute** Administrative history

Field	Notes
History (RASCAL: Collector)	
History (SCONE: AgentCorp)	Administrative and other history of corporate body.

**Attribute** Date

Field	Notes

**Attribute** Email address \*\*

Field	Notes
Email (SCONE: AgentCorp)	Email address of corporate body.
Email Address (RASCAL: Collector)	

**Attribute** Fax number \*\*

Field	Notes
Fax (SCONE: AgentCorp)	Fax number of corporate body. International format.
Fax No. (RASCAL: Collector)	

**Attribute** Name

Field	Notes
Collector (MIMAS: MIMAS)	
iname (INFORM25: Institution)	Full name of institution.
Name (RASCAL: Collector)	
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Organisation (RSLPCLD: tblOrganisations)	
vcard:org (RSLPCDS: Agent)	Organisational name of, or affiliated with, agent.

**Attribute** Place

Field	Notes

**Attribute** Role \*\*

Field	Notes
Role (RASCAL: Collector)	
Role (SCONE: AgentCorp)	Role of corporate body.

**Attribute** Telephone number \*\*

Field	Notes
Tel No. (RASCAL: Collector)	International format.
Telephone (SCONE: AgentCorp)	Telephone number of corporate body. International format.

**Entity** Collector: Person (Agent)  
(Collection level.)

**Attribute** Biography

Field	Notes
Biography (SCONE: AgentPers)	Biography of person.
cld:agentHistory (RSLPCDS: Agent)	Administrative history of, or biographical details on, agent.
History (RSLPCLD: tblPeople)	Administrative history of, or biographical details on, agent.
PersonHistory (MW: tblPerson)	

**Attribute** Date

Field	Notes
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.

**Attribute** Email address \*\*

Field	Notes
Email (MW: tblPerson)	
Email (SCONE: AgentPers)	Email address of person.
Email Address (RASCAL: Collector)	

**Attribute** Fax number \*\*

Field	Notes
Fax (SCONE: AgentPers)	Fax number of person. International format.
Fax No. (RASCAL: Collector)	
FaxNumber (MW: tblPerson)	International format.

**Attribute** Name

Field	Notes
Collector (MIMAS: MIMAS)	
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (MW: tblPerson)	
Name (RASCAL: Collector)	
Name (RSLPCLD: tblPeople)	Name of person.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Surname (SCONE: AgentPers)	Surname or family name of person.
vcard:fn (RSLPCDS: Agent)	Name of agent.

**Attribute**                  Role \*\*

Field	Notes
Role (MW: tblPerson)	
Role (RASCAL: Collector)	
Role (SCONE: AgentPers)	Role of person.

**Attribute**                  Telephone number \*\*

Field	Notes
Tel No. (RASCAL: Collector)	International format.
Telephone (SCONE: AgentPers)	Telephone number of person. International format.
TelephoneNumber (MW: tblPerson)	International format.

**Entity**            Creator: Corporate body (Agent)  
                          (Item level.)

**Attribute**        Administrative history

Field	Notes
History (SCONE: AgentCorp)	Administrative and other history of corporate body.

**Attribute**        Date

Field	Notes

**Attribute**        Email address \*\*

Field	Notes
Email (SCONE: AgentCorp)	Email address of corporate body.

**Attribute**        Fax number \*\*

Field	Notes
Fax (SCONE: AgentCorp)	Fax number of corporate body. International format.

**Attribute**        Name

Field	Notes
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Organisation (RSLPCLD: tblOrganisations)	

**Attribute**        Place

Field	Notes

**Attribute**        Role \*\*

Field	Notes
Role (SCONE: AgentCorp)	Role of corporate body.

**Attribute**        Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentCorp)	Telephone number of corporate body. International format.



**Entity**            Creator: Person (Agent)  
                          (Item level.)

**Attribute**        Biography

Field	Notes
Biography (SCONE: AgentPers)	Biography of person.
History (RSLPCLD: tblPeople)	Administrative history of, or biographical details on, agent.
PersonHistory (MW: tblPerson)	

**Attribute**        Date

Field	Notes
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.

**Attribute**        Email address \*\*

Field	Notes
Email (MW: tblPerson)	
Email (SCONE: AgentPers)	Email address of person.

**Attribute**        Fax number \*\*

Field	Notes
Fax (SCONE: AgentPers)	Fax number of person. International format.
FaxNumber (MW: tblPerson)	International format.

**Attribute**        Name

Field	Notes
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (MW: tblPerson)	
Name (RSLPCLD: tblPeople)	Name of person.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Surname (SCONE: AgentPers)	Surname or family name of person.

**Attribute**        Role \*\*

Field	Notes
Role (MW: tblPerson)	
Role (SCONE: AgentPers)	Role of person.

**Attribute**        Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentPers)	Telephone number of person. International format.
TelephoneNumber (MW: tblPerson)	International format.

**Entity** Creator's assignee: Corporate body (Agent)  
(Item level.)

**Attribute** Administrative history

Field	Notes
History (SCONE: AgentCorp)	Administrative and other history of corporate body.

**Attribute** Date

Field	Notes

**Attribute** Email address \*\*

Field	Notes
Email (SCONE: AgentCorp)	Email address of corporate body.

**Attribute** Fax number \*\*

Field	Notes
Fax (SCONE: AgentCorp)	Fax number of corporate body. International format.

**Attribute** Logo

Field	Notes

**Attribute** Name

Field	Notes
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Organisation (RSLPCLD: tblOrganisations)	

**Attribute** Place

Field	Notes

**Attribute** Role \*\*

Field	Notes
Role (SCONE: AgentCorp)	Role of corporate body.

**Attribute** Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentCorp)	Telephone number of corporate body. International format.

**Entity** Creator's assignee: Person (Agent)  
(Item level.)

**Attribute** Biography

Field	Notes
Biography (SCONE: AgentPers)	Biography of person.
History (RSLPCLD: tblPeople)	Administrative history of, or biographical details on, agent.
PersonHistory (MW: tblPerson)	

**Attribute** Date

Field	Notes
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.

**Attribute** Email address \*\*

Field	Notes
Email (MW: tblPerson)	
Email (SCONE: AgentPers)	Email address of person.

**Attribute** Fax number \*\*

Field	Notes
Fax (SCONE: AgentPers)	Fax number of person. International format.
FaxNumber (MW: tblPerson)	International format.

**Attribute** Name

Field	Notes
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (MW: tblPerson)	
Name (RSLPCLD: tblPeople)	Name of person.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Surname (SCONE: AgentPers)	Surname or family name of person.

**Attribute** Role \*\*

Field	Notes
Role (MW: tblPerson)	
Role (SCONE: AgentPers)	Role of person.

**Attribute** Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentPers)	Telephone number of person. International format.
TelephoneNumber (MW: tblPerson)	International format.

**Entity**                    Location: Electronic repository (Object)  
                                  (Collection level.)

**Attribute**                Site

Field	Notes
Location (MIMAS: MIMAS)	
LocationNotes (MW: tblLocation)	
Name (SCONE: Location)	Name of location.
SiteName (MW: tblLocation)	

**Attribute**                URL

Field	Notes
cld:locator (RSLPCDS: Location)	Online location (URL) of online collection.
Collection URL (MIMAS: MIMAS)	
Eaddress (SCONE: LocationVirt)	Electronic address of location.
Location URL (MIMAS: MIMAS)	
Locator (RSLPCLD: tblLocations)	
URL (JISCCLSV: tblCollectionDescription)	
URL (MW: tblLocation)	

**Entity**            Location: Physical repository (Object)  
                         (Collection level.)

**Attribute**        Identifier

Field	Notes
Identifier (JISCCLSV: tblAdministrator)	dc:identifier.

**Attribute**                      **Place**

Field	Notes
address (INFORM25: Library)	Full postal address of library.
Address1 (SCONE: LocationPhys)	First line of address of location.
Address2 (SCONE: LocationPhys)	Second line of address of location.
Address3 (SCONE: LocationPhys)	Third line of address of location.
cld:address (RSLPCDS: Location)	Full postal address for physical location of physical collection.
cld:country (RSLPCDS: Location)	Country in which collection is physically located.
cld:postcode (RSLPCDS: Location)	Post code or zip code for physical location of collection.
Code (SCONE: Country)	Code for country. ISO 3166.
Country (MW: tblLocation)	
Country (RASCAL: Location)	
Country (RSLPCLD: tblLocations)	
CountryName (MW: tblCountries)	
dc:title (RSLPCDS: Location)	Name of location.
Homepage (MW: tblLocation)	
InstitutionName (MW: tblLocation)	
lname (INFORM25: Library)	Full name of library.
loc_inner (INFORM25: Library)	Flag to indicate library is in inner M25 zone.
loc_north (INFORM25: Library)	Flag to indicate library is in north M25 zone.
loc_south (INFORM25: Library)	Flag to indicate library is in south M25 zone.
Location (RIDING: Riding)	Location and access details.
Location.Code (RIDING: Riding)	Short code for location of organisation holding collection.
LocationNotes (MW: tblLocation)	
Name (RASCAL: Location)	
Name (RSLPCLD: tblLocations)	Name of location.
Name (SCONE: Country)	Name of country.
Name (SCONE: Location)	Name of location.
Name (SCONE: Region)	Name of region. OS Gazetteer.
Name (SCONE: Town)	Name of town OS Gazetteer.
Postal Address (RASCAL: Location)	
Postal Address (RSLPCLD: tblLocations)	Full postal address for physical location of physical collection.
PostalAddress1 (MW: tblLocation)	
PostalAddress2 (MW: tblLocation)	
PostalAddress3 (MW: tblLocation)	
PostalAddress4 (MW: tblLocation)	
postcode (INFORM25: Library)	Library postcode.
Postcode (MW: tblLocation)	
Postcode (RASCAL: Location)	
Postcode (RSLPCLD: tblLocations)	Post or zip code for location of physical collection.
Postcode (SCONE: LocationPhys)	Postcode of location.
term_dates_url (INFORM25: Library)	URL of webpage giving dates of terms.
visitor_information_url (INFORM25: Library)	URL of webpage giving information for library visitors.

**Entity** Owner: Corporate body (Agent)  
(Collection level.)

**Attribute** Administrative history

Field	Notes
Biography/History (RASCAL: Owner)	
History (SCONE: AgentCorp)	Administrative and other history of corporate body.

**Attribute** Date

Field	Notes

**Attribute** Email address \*\*

Field	Notes
Email (JISCCLSV: tblOwner)	Electronic mail address of agent. vcard:email. RFC-822 format.
Email (SCONE: AgentCorp)	Email address of corporate body.
vcards:email (RSLPCDS: Agent)	Electronic mail address of agent.

**Attribute** Fax number \*\*

Field	Notes
Fax (JISCCLSV: tblOwner)	Fax number of agent. vcard:fax. International format.
Fax (SCONE: AgentCorp)	Fax number of corporate body. International format.
Fax No. (RASCAL: Owner)	
vcards:fax (RSLPCDS: Agent)	Fax number of agent.

**Attribute** Logo

Field	Notes
Identifier.Logo (RIDING: Riding)	URI of logo associated with collection or its owner.
Logo (JISCCLSV: tblOwner)	URL of image of logo which is associated with agent.

**Attribute** Name

Field	Notes
iname (INFORM25: Institution)	Full name of institution.
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Organisation (RASCAL: Owner)	
Organisation (RSLPCLD: tblOrganisations)	
Organisation Name (JISCCLSV: tblOwner)	Organisation name of agent (or name of organisation with which individual agent is affiliated). vcard:org.
Owner (MIMAS: MIMAS)	
Owner (RIDING: Riding)	Name of organisation or person owning collection.
vcards:org (RSLPCDS: Agent)	Organisational name of, or affiliated with, agent.

**Attribute** Place

Field	Notes
Address (JISCCLSV: tblOwner)	Postal address of agent. vcard:address.
Postcode (JISCCLSV: tblOwner)	Post code of agent.

**Attribute** Role \*\*

Field	Notes
Role (JISCCLSV: tblOwner)	Role (typically organisational role) fulfilled by agent. vcard:role.
Role (RASCAL: Owner)	
Role (SCONE: AgentCorp)	Role of corporate body.
vcard:role (RSLPCDS: Agent)	Role (typically organisational role) fulfilled by agent.

**Attribute** Telephone number \*\*

Field	Notes
Phone (JISCCLSV: tblOwner)	Telephone number of agent. vcard:voice. International format.
Tel No. (RASCAL: Owner)	International format.
Telephone (SCONE: AgentCorp)	Telephone number of corporate body. International format.
vcard:voice (RSLPCDS: Agent)	Telephone number of agent.



**Entity** Owner: Person (Agent)  
(Collection level.)

**Attribute** Biography

Field	Notes
Biography (SCONE: AgentPers)	Biography of person.
Biography/History (RASCAL: Owner)	
cld:agentHistory (RSLPCDS: Agent)	Administrative history of, or biographical details on, agent.
History (RSLPCLD: tblPeople)	Administrative history of, or biographical details on, agent.
PersonHistory (MW: tblPerson)	

**Attribute** Date

Field	Notes
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.

**Attribute** Email address \*\*

Field	Notes
Email (JISCCLSV: tblOwner)	Electronic mail address of agent. vcard:email. RFC-822 format.
Email (MW: tblPerson)	
Email (SCONE: AgentPers)	Email address of person.
Email Address (RSLPCLD: tblPeople)	Email address.
vcard:email (RSLPCDS: Agent)	Electronic mail address of agent.

**Attribute** Fax number \*\*

Field	Notes
Fax (JISCCLSV: tblOwner)	Fax number of agent. vcard:fax. International format.
Fax (SCONE: AgentPers)	Fax number of person. International format.
Fax No (RSLPCLD: tblPeople)	Fax number. International format.
FaxNumber (MW: tblPerson)	International format.
vcard:fax (RSLPCDS: Agent)	Fax number of agent.

**Attribute**                      **Name**

Field	Notes
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Forenames (JISCCLSV: tblOwner)	Forename(s) of individual. vcard:fn.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (MW: tblPerson)	
Name (RSLPCLD: tblPeople)	Name of person.
Owner (MIMAS: MIMAS)	
Owner (RIDING: Riding)	Name of organisation or person owning collection.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Surname (JISCCLSV: tblOwner)	Surname of individual. vcard:fn.
Surname (SCONE: AgentPers)	Surname or family name of person.
vcards:fn (RSLPCDS: Agent)	Name of agent.

**Attribute**                      **Role \*\***

Field	Notes
Role (JISCCLSV: tblOwner)	Role (typically organisational role) fulfilled by agent. vcard:role.
Role (MW: tblPerson)	
Role (RSLPCLD: tblPeople)	Name of role.
Role (SCONE: AgentPers)	Role of person.
vcards:role (RSLPCDS: Agent)	Role (typically organisational role) fulfilled by agent.

**Attribute**                      **Telephone number \*\***

Field	Notes
Phone (JISCCLSV: tblOwner)	Telephone number of agent. vcard:voice. International format.
Telephone (SCONE: AgentPers)	Telephone number of person. International format.
Telephone No (RSLPCLD: tblPeople)	Telephone number. International format.
TelephoneNumber (MW: tblPerson)	International format.
vcards:voice (RSLPCDS: Agent)	Telephone number of agent.

**Entity**            Producer: Corporate body (Agent)  
                          (Item level.)

**Attribute**        Administrative history

Field	Notes
History (SCONE: AgentCorp)	Administrative and other history of corporate body.

**Attribute**        Date

Field	Notes

**Attribute**        Email address \*\*

Field	Notes
Email (SCONE: AgentCorp)	Email address of corporate body.

**Attribute**        Fax number \*\*

Field	Notes
Fax (SCONE: AgentCorp)	Fax number of corporate body. International format.

**Attribute**        Logo

Field	Notes

**Attribute**        Name

Field	Notes
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Organisation (RSLPCLD: tblOrganisations)	

**Attribute**        Place

Field	Notes

**Attribute**        Role \*\*

Field	Notes
Role (SCONE: AgentCorp)	Role of corporate body.

**Attribute**        Standard number

Field	Notes

**Attribute**        Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentCorp)	Telephone number of corporate body. International format.

**Entity**            Producer: Person (Agent)  
                          (Item level.)

**Attribute**        Biography

Field	Notes
Biography (SCONE: AgentPers)	Biography of person.
History (RSLPCLD: tblPeople)	Administrative history of, or biographical details on, agent.
PersonHistory (MW: tblPerson)	

**Attribute**        Date

Field	Notes
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.

**Attribute**        Email address \*\*

Field	Notes
Email (MW: tblPerson)	
Email (SCONE: AgentPers)	Email address of person.

**Attribute**        Fax number \*\*

Field	Notes
Fax (SCONE: AgentPers)	Fax number of person. International format.
FaxNumber (MW: tblPerson)	International format.

**Attribute**        Name

Field	Notes
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (MW: tblPerson)	
Name (RSLPCLD: tblPeople)	Name of person.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Publisher (RIDING: Riding)	
Surname (SCONE: AgentPers)	Surname or family name of person.

**Attribute**        Role \*\*

Field	Notes
Role (MW: tblPerson)	
Role (SCONE: AgentPers)	Role of person.

**Attribute**        Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentPers)	Telephone number of person. International format.
TelephoneNumber (MW: tblPerson)	International format.

**Entity**            Producer's assignee: Corporate body (Agent)  
                          (Item level.)

**Attribute**        Administrative history

Field	Notes
History (SCONE: AgentCorp)	Administrative and other history of corporate body.

**Attribute**        Date

Field	Notes

**Attribute**        Email address \*\*

Field	Notes
Email (SCONE: AgentCorp)	Email address of corporate body.

**Attribute**        Fax number \*\*

Field	Notes
Fax (SCONE: AgentCorp)	Fax number of corporate body. International format.

**Attribute**        Logo

Field	Notes

**Attribute**        Name

Field	Notes
Name (SCONE: AgentCorp)	Name of corporate body. Anglo-American Cataloguing Rules.
Organisation (RSLPCLD: tblOrganisations)	

**Attribute**        Place

Field	Notes

**Attribute**        Role \*\*

Field	Notes
Role (SCONE: AgentCorp)	Role of corporate body.

**Attribute**        Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentCorp)	Telephone number of corporate body. International format.

**Entity**            Producer's assignee: Person (Agent)  
                          (Item level.)

**Attribute**        Biography

Field	Notes
Biography (SCONE: AgentPers)	Biography of person.
History (RSLPCLD: tblPeople)	Administrative history of, or biographical details on, agent.
PersonHistory (MW: tblPerson)	

**Attribute**        Date

Field	Notes
Dates (SCONE: AgentPers)	Dates of birth and/or death of person. Anglo-American Cataloguing Rules.

**Attribute**        Email address \*\*

Field	Notes
Email (MW: tblPerson)	
Email (SCONE: AgentPers)	Email address of person.

**Attribute**        Fax number \*\*

Field	Notes
Fax (SCONE: AgentPers)	Fax number of person. International format.
FaxNumber (MW: tblPerson)	International format.

**Attribute**        Name

Field	Notes
Extension (SCONE: AgentPers)	Extension to name of person, other than dates. Anglo-American Cataloguing Rules.
Forename (SCONE: AgentPers)	Forenames and/or initials of person.
Honorific (SCONE: AgentPers)	Honorific of person. Standard abbreviation.
Name (MW: tblPerson)	
Name (RSLPCLD: tblPeople)	Name of person.
Postnominals (SCONE: AgentPers)	Postnominals of person. Standard abbreviation.
Surname (SCONE: AgentPers)	Surname or family name of person.

**Attribute**        Role \*\*

Field	Notes
Role (MW: tblPerson)	
Role (SCONE: AgentPers)	Role of person.

**Attribute**        Telephone number \*\*

Field	Notes
Telephone (SCONE: AgentPers)	Telephone number of person. International format.
TelephoneNumber (MW: tblPerson)	International format.

**Entity**            Publication (Object)  
                          (Item level.)

**Attribute**        Citation \*\*

Field	Notes
Associated Publication (RASCAL: Associated Publications)	
Associated Publication (RSLPCLD: tblCollectionsAssociatedPublications)	
Citation (SCONE: HasPublication)	Citation of publication.
cld:hasPublication (RSLPCDS: Collection)	Identifier or name of publication that is based on use, study, or analysis of collection.

**Relationship** Administrators  
(Administrator : Location.)

**Attribute** Access conditions

Field	Notes
Access (MIMAS: MIMAS)	
Access (RIDING: Riding)	How collection is accessed. Typically provided from "Service" elements.
Access Conditions (RASCAL: Location)	
Access Conditions (RSLPCLD: tblLocations)	
Access Control (JISCCLSV: tblCollection)	Statement of any access restrictions that are placed on collection. cld:accessControl. Free text.
AccessConditions (MW: tblLocation)	
AccessNote (SCONE: Administrators)	Note of access conditions.
AccessOpenHours (SCONE: Administrators)	Opening hours of location.
cld:accessConditions (RSLPCDS: Location)	Hours of access, classes of permitted user, etc.
find_bus (INFORM25: Library)	Note of nearest bus stops.
find_other (INFORM25: Library)	Note of additional travel information.
find_parking (INFORM25: Library)	Note of local parking arrangements.
find_train (INFORM25: Library)	Note of nearest main line railway stations.
find_tube (INFORM25: Library)	Note of nearest London Tube stations.
m25access (INFORM25: Institution)	Flag to indicate institution is in the M25 access scheme.
opening_hours_url (INFORM25: Library)	URL of webpage giving library opening hours.
scheme_m25access (INFORM25: Library)	Flag to indicate library is in the M25 access scheme.
scheme_uklibplus (INFORM25: Library)	Flag to indicate library is in the UK Libraries Plus access scheme.
scheme_unilondon (INFORM25: Library)	Flag to indicate library is in the London Universities access scheme.
Service.Policy (RIDING: Riding)	Constraints or legal prerequisites for accessing collection or component items. Applicable only to reference collections and/or differences from RIDING Access Policy.
Service.Times (RIDING: Riding)	Time ranges for mandatory or preferred access of service. General statement or URL of appropriate webpage.
Statement (SCONE: AccessPrior)	Advice on contact prior to physical access. Values: By appointment only. Contact before a visit is essential. - Consultation before a visit is advised. - Contact before a visit is not required. - Contact before a visit is not available. - Direct access is not available. - Direct access is not available. Contact for enquiries and help. - Direct access is limited to specific groups.
TransportNote (SCONE: LocationPhys)	Note of transportation links to location.
uklibplus (INFORM25: Institution)	Flag to indicate institution is in the UK Libraries Plus access scheme.
unilondon (INFORM25: Institution)	Flag to indicate institution is in the London Universities access scheme.
Use Constraints (RIDING: Riding)	



**Relationship** Collects  
(Collector : Collection.)

**Attribute** Accrual policy

Field	Notes
Accrual (MIMAS: MIMAS)	
Accrual Status (RASCAL: Collection)	Statement of accrual policy, accrual method and accrual periodicity. Values: closed - passive - active - partial/selective (policy); purchase - deposit (method); closed - irregular - periodic (periodicity).
Accrual Status (RSLPCLD: tblCollections)	Statement of accrual policy, accrual method and accrual periodicity. Values: closed - passive - active - partial/selective (policy); purchase - deposit (method); closed - irregular - periodic (periodicity).
AcquisitionDetails (MW: tblCollection)	
cld:accrualStatus (RSLPCDS: Collection)	Statement of accrual policy, accrual method and accrual periodicity. Values: closed - passive - active - partial/selective (policy); purchase - deposit (method); closed - irregular - periodic (periodicity).
Purpose (RIDING: Riding)	Statement of why collection is offered, and origin and lineage of items, including acquisition policy.
Statement (SCONE: AccrualPolicy)	Short statement of accrual policy. Values: Closed - Passive - Active - Partial/selective

**Attribute** Legal status

Field	Notes
cld:legalStatus (RSLPCDS: Collection)	Statement of legal status of collection.
Legal Status (JISCCLSV: tblCollection)	Statement of legal status of collection. cld:legalStatus. Free text.
Legal Status (MIMAS: MIMAS)	
Legal Status (RASCAL: Collection)	
Legal Status (RSLPCLD: tblCollections)	Statement of legal status of collection.
LegalStatus (SCONE: Collects)	Legal status of collecting activity.

**Relationship** Contracts-With  
(Creator : Producer.)

**Attribute** Date

Field	Notes
ContractDate (SCONE: ContractsWith)	Date of contract.

**Attribute** Terms of contract

Field	Notes
ContractTerms (SCONE: ContractsWith)	Terms of contract.

**Relationship** Delegates-To  
(Owner : Administrator.)

**Attribute** Date

Field	Notes
DelegationDate (SCONE: DelegatesTo)	Date of delegation.

**Attribute** Terms of delegation

Field	Notes
DelegationTerms (SCONE: DelegatesTo)	Terms of delegation.

**Relationship** Has-Part (Item)  
(Item : Item.)

**Attribute** Relation identifier

Field	Notes

**Relationship** Holds-Rights-Of (Creator)  
(Creator : Creator's assignee.)

**Attribute** Date

Field	Notes

**Attribute** Nature of transfer

Field	Notes
cld:custodialHistory (RSLPCDS: Collection)	Statement of any changes in ownership and custody of collection that are significant for its authenticity, integrity and interpretation.
Custodial History (RASCAL: Collection)	
Custodial History (RSLPCLD: tblCollections)	Statement about any changes in ownership and custody of collection.
TransferNature (SCONE: HoldsRightsTo)	Nature of transfer of rights.

**Attribute** Terms of transfer

Field	Notes
TransferTerms (SCONE: HoldsRightsTo)	Terms of transfer of rights.

**Relationship** Holds-Rights-Of (Producer)  
(Producer : Producer's assignee.)

**Attribute** Date

Field	Notes

**Attribute** Nature of transfer

Field	Notes
TransferNature (SCONE: HoldsRightsTo)	Nature of transfer of rights.

**Attribute** Terms of transfer

Field	Notes
cld:custodialHistory (RSLPCDS: Collection)	Statement of any changes in ownership and custody of collection that are significant for its authenticity, integrity and interpretation.
Custodial History (RASCAL: Collection)	
Custodial History (RSLPCLD: tblCollections)	Statement about any changes in ownership and custody of collection.
TransferTerms (SCONE: HoldsRightsTo)	Terms of transfer of rights.

**Relationship** Is-Described-By  
(Collection : Collection-Description.)

**Attribute** Currency

Field	Notes

**Relationship** Is-Located-In  
(Collection: Location.)

**Attribute** Dates of deposit

Field	Notes
Date (SCONE: IsLocatedIn)	Date of placement of collection in location.



**Relationship** Owns  
(Owner : Collection.)

**Attribute** Access control

Field	Notes
Access Control (JISCCLSV: tblCollection)	Statement of any access restrictions that are placed on collection. cld:accessControl. Free text.
Access Control (RASCAL: Collection)	
Access Control (RSLPCLD: tblCollections)	Allowed users, charges, etc.
AccessCharges (SCONE: Owns)	Note of access charges levied by owner.
AccessControl (MW: tblCollection)	
cld:accessControl (RSLPCDS: Collection)	Statement of any access restrictions placed on collection, including allowed users, charges, etc.
Rights (RIDING: Riding)	Rights held in and over collection.
Service.Charging (RIDING: Riding)	Description of charging mechanisms for accessing collection.
Use Constraints (RIDING: Riding)	

**Attribute** Legal status

Field	Notes
cld:legalStatus (RSLPCDS: Collection)	Statement of legal status of collection.
Legal Status (JISCCLSV: tblCollection)	Statement of legal status of collection. cld:legalStatus. Free text.
Legal Status (MIMAS: MIMAS)	
Legal Status (RASCAL: Collection)	
Legal Status (RSLPCLD: tblCollections)	Statement of legal status of collection.
LegalStatus (SCONE: Owns)	Note of legal status of ownership.

**Attribute** Maintenance

Field	Notes
Maintenance (SCONE: Owns)	Note of maintenance of collection.

**Relationship** Sells-To  
(Owner : Owner.)

**Attribute** Date

Field	Notes
SaleDate (SCONE: SellsTo)	Date of sale. Year.

**Attribute** Nature of transaction

Field	Notes
cld:custodialHistory (RSLPCDS: Collection)	Statement of any changes in ownership and custody of collection that are significant for its authenticity, integrity and interpretation.
Custodial History (RASCAL: Collection)	
Custodial History (RSLPCLD: tblCollections)	Statement about any changes in ownership and custody of collection.
Notes (SCONE: SellsTo)	Notes about sale.
SaleNature (SCONE: SaleNatureType)	Nature of sale. Values: Sale. - Donation. - Bequest.
SaleNatureNote (SCONE: SaleNatureType)	Note of nature of sale.

**Attribute** Rights

Field	Notes
Rights (RIDING: Riding)	Rights held in and over collection.

**Attribute** Terms of transaction

Field	Notes
cld:custodialHistory (RSLPCDS: Collection)	Statement of any changes in ownership and custody of collection that are significant for its authenticity, integrity and interpretation.
Custodial History (RASCAL: Collection)	
Custodial History (RSLPCLD: tblCollections)	Statement about any changes in ownership and custody of collection.
SaleRights (SCONE: SellsTo)	Rights associated with sale.
SaleTerms (SCONE: SellsTo)	Terms of sale.

## Appendix 2: Attributes added to Heaney's analysis

The tables lists attributes added to Heaney's original set, as warranted by the sources. Attributes are given in alphabetical order of name, grouped by Entity and Relationship. Entities are given in alphabetical order, followed by Relationships.

Entity	Attribute
Administrator: Corporate body	Email address
	Fax number
	Role
	Telephone number
Administrator: Person	Email address
	Fax number
	Role
	Telephone number
Collection	Notes
	Type
Collector: Corporate body	Email address
	Fax number
	Role
	Telephone number
Collector: Person	Email address
	Fax number
	Role
	Telephone number
Creator: Corporate body	Email address
	Fax number
	Role
	Telephone number
Creator: Person	Email address
	Fax number
	Role
	Telephone number
Creator's assignee: Corporate body	Email address
	Fax number
	Role
	Telephone number
Creator's assignee: Person	Email address
	Fax number
	Role
	Telephone number

Owner: Corporate body	Email address
	Fax number
	Role
	Telephone number
Owner: Person	Email address
	Fax number
	Role
	Telephone number
Producer: Corporate body	Email address
	Fax number
	Role
	Telephone number
Producer: Person	Email address
	Fax number
	Role
	Telephone number
Producer's assignee: Corporate body	Email address
	Fax number
	Role
	Telephone number
Producer's assignee: Person	Email address
	Fax number
	Role
	Telephone number
Publication	Citation

### Appendix 3: Source data elements not assigned to attributes

The table lists, for each source, data elements which were not assigned to the extended set of Heaney attributes.

Data elements are listed in alphabetical order of field name, grouped by table in alphabetical order.

The notes include data element descriptions and content standards.

**Source** INFORM25

**Table** Institution

Field	Notes
inner	Flag to indicate at least one institution library is in inner M25 zone.
north	Flag to indicate at least one institution library is in north M25 zone.
south	Flag to indicate at least one institution library is in south M25 zone.
opac url	URL of online public access catalogue.

**Table** Library

Field	Notes
home_url	URL of library homepage.
opac_url	URL of local online public access catalogue.
updated_by	
updated_time	

**Source** JISCCLSV

**Table** tblAudienceLevel

Field	Notes
Audience Level	Audience level of items in collection. dcterms:audience. MEG Educational Levels; <a href="http://www.ukoln.ac.uk/metadata/education/documents/ed-level.html">http://www.ukoln.ac.uk/metadata/education/documents/ed-level.html</a> .

**Table** tblCollection

Field	Notes
Audience	Audience level of items in collection. dcterms:audience. MEG Educational Levels; <a href="http://www.ukoln.ac.uk/metadata/education/documents/ed-level.html">http://www.ukoln.ac.uk/metadata/education/documents/ed-level.html</a> .
JISC collecting area	JISC Collecting Area within which collection is categorised. List; <a href="http://www.jisc.ac.uk/dner/collections/strategy.htm#3">http://www.jisc.ac.uk/dner/collections/strategy.htm#3</a> .
Logo	URL of image of logo which is associated with collection.

**Table** tblCollectionDescription

Field	Notes
Schema	

**Table** tblOAIPMHversion

Field	Notes
Version Number	

**Table** tblOwner

Field	Notes
Identifier	dc:identifier.

**Table** tblServiceOAI

Field	Notes
Access conditions	Access conditions associated with service. cld:accessConditions.
Authentication Athens	Flag to indicate service requirement for Athens authentication.
Authentication basic HTTP	Flag to indicate service requirement for basic HTTP authentication.
Authentication IP address	Flag to indicate service requirement for IP address authentication.
Base URL	Base URL of repository. cld:locator. Value of baseURL element returned in response to Identify request.
Content provider/aggregator	Indication whether repository is Content Provider or Aggregator. Values: 1 (Content Provider) - 2 (Aggregator).
Description	
DOI	Flag to indicate service provides Digital Object Identifiers in its metadata records.
OAI Repository Identifier	Repository identifier or namespace-identifier. dc:identifier. OAI identifier scheme.
OAI Repository Name	Name of repository. dc:title. Value of repositoryName returned in response to Identify request.
Protocol version	Version of OAI PMH protocol supported by repository. Value of protocolVersion element returned in response to Identify request. Values: 1 (version 1.0) - 2 (version 1.1) - 3 (version 2.0).
See Also	Identifier of resource that provides further information about service (typically URL for informational page about service). cld:seeAlso.

**Table** tblServiceRSS

Field	Notes
Access conditions	Access conditions associated with service. cld:accessConditions.
Authentication Athens	Flag to indicate service requirement for Athens authentication.
Authentication basic HTTP	Flag to indicate service requirement for basic HTTP authentication.
Authentication IP address	Flag to indicate service requirement for IP address authentication.
Content provider/aggregator	Indication whether repository is Content Provider or Aggregator. Values: 1 (Content Provider) - 2 (Aggregator).
Description	
DOI	Flag to indicate service provides Digital Object Identifiers in its metadata records.
RSS Channel Name	Name of channel. dc:title. Encoded as value of title child element of channel element.
RSS Channel URL	URL of channel. cld:locator.
RSS Schema version	Version of RSS schema used in channel. Values: 1 ( <a href="http://my.netscape.com/publish/formats/rss-0.9.dtd">http://my.netscape.com/publish/formats/rss-0.9.dtd</a> ) - 2 ( <a href="http://my.netscape.com/publish/formats/rss-0.91.dtd">http://my.netscape.com/publish/formats/rss-0.91.dtd</a> ) - 3 ( <a href="http://my.netscape.com/rdf/simple/0.9/">http://my.netscape.com/rdf/simple/0.9/</a> ) - 4 ( <a href="http://purl.org/rss/1.0/">http://purl.org/rss/1.0/</a> ).
See Also	Identifier of resource that provides further information about service (typically URL for informational page about service). cld:seeAlso.

**Table** tblServiceUnstruct

Field	Notes
Access conditions	Access conditions associated with service. cld:accessConditions. Free text.
Authentication Athens	Flag to indicate service requirement for Athens authentication.
Authentication basic HTTP	Flag to indicate service requirement for basic HTTP authentication.
Authentication IP address	Flag to indicate service requirement for IP address authentication. Description
DOI	Flag to indicate service provides Digital Object Identifiers in its metadata records.
OpenURL	Flag to indicate service provides OpenURLs in its metadata records.
See Also	Identifier of resource that provides further information about service (typically URL for informational page about service). cld:seeAlso.
Service Name	Name of service. dc:title.
URL	URL for service. cld:locator.

**Table** tblServiceZ

Field	Notes
Access conditions	Access conditions associated with service. cld:accessConditions.
Authentication required	Flag to indicate service requirement for Z39.50 userid/password authentication.
Bath Profile Functional Area A	Indication of level of conformance with Bath Profile in Functional Area A. Values: 0 (Level 0) - 1 (Level 1) - 2 (Level 2) - 3 (none/unknown).
Bath Profile Functional Area B	Indication of level of conformance with Bath Profile in Functional Area B. Values: 0 (Level 0) - 1 (Level 1) - 2 (Level 2) - 3 (none/unknown).
Bath Profile Functional Area C	Indication of level of conformance with Bath Profile in Functional Area C. Values: 0 (Level 0) - 1 (Level 1) - 2 (Level 2) - 3 (none/unknown).
Content provider/broker	
Database name	Database name of target.
Description	
DOI	Flag to indicate service provides Digital Object Identifiers in its metadata records.
Host	Host name of target. cld:locator.
Name	Name of target. dc:title.
Port	Port number of target. cld:locator.
See Also	Identifier of resource that provides further information about service (typically URL for informational page about service). cld:seeAlso.
ServiceZ Id	



**Source** MIMAS

**Table** MIMAS

Field	Notes
Describes	

**Source MW**

**Table** tblCollection

Field	Notes
FindingAids	
FindingAidURL	

**Table** tblJTCollectionRelated

Field	Notes
RelationshipType	

**Table** tblLocation

Field	Notes
Email	
FaxNumber	International format.
TelephoneNumber	International format.

**Source** RASCAL

**Table** Location

Field	Notes
See Also	

**Source** RIDING

**Table** Riding

Field	Notes
Relation	Identifier of a second resource or collection and its relationship to current collection. Contains multiple relation-collection data in standard form.
Location.HostURL	URL of the homepage of library, organisation or department hosting collection.
Publisher	Name of entity responsible for making collection available in present form. Often the same as Owner.
Service.Supplier	Name of organisation supplying service or collection.

**Source** RSLPCDS

**Table** Agent

Field	Notes
dc:identifier	Formal identifier for agent.

**Table** Collection

Field	Notes
cld:hasAssociation	Identifier or name of second collection that is associated by provenance with current collection.
cld:hasDescription	Identifier or name of second collection that describes current collection (for example, a catalogue).
cld:isDescriptionOf	Identifier or name of second collection that is described by current collection.
dcq:hasPart	Identifier or name of second collection contained within current collection.
dcq:isPartOf	Identifier or name of second collection that contains current collection.

**Table** Location

Field	Notes
dc:identifier	Formal identifier for location.

**Source** RSLPCLD

**Table** tblCollections

Field	Notes
cldurn	

**Table** tblLocations

Field	Notes
cldurn	
See Also	Identifier of resource that provides further information about location (typically URL of organisational home page).

**Table** tblPeople

Field	Notes
cldurn	

**Source** SCONE

**Table** AccessPrior

Field	Notes
LastDate	Date of last amendment.

**Table** AccrualPolicy

Field	Notes
LastDate	Date of last amendment.

**Table** Administers

Field	Notes
LastDate	Date of last amendment.

**Table** Agent

Field	Notes
IsPerson	Flag to indicate agent sub-type.
LastDate	Date of last amendment.

**Table** AgentCorp

Field	Notes
HomepageURL	URL of corporate body homepage.
LastDate	Date of last amendment.

**Table** AgentPers

Field	Notes
HomepageURL	URL of personal homepage.
LastDate	Date of last amendment.

**Table** BathProfileAttributes

Field	Notes
CompletenessName	
CompletenessValue	
LastDate	Date of last amendment.
PositionName	
PositionValue	
RelationName	
RelationValue	
SearchCode	Code for search.
SearchTitle	Title of search.
StructureName	
StructureValue	
TruncationName	
TruncationValue	
UsedInCairns	Flag to indicate attribute used in CAIRNS.
UseName	
Uses	
UseValue	

**Table** ClassScheme

Field	Notes
Code	Standard abbreviation for classification scheme. Values: DDC - LC - Local - Moys - UDC
LastDate	Date of last amendment.
Name	

**Table** Collection

Field	Notes
LastDate	Date of last amendment.
LocalIdentifier	Local identifier code or number of collection.
Sources	Note of sources of information.

**Table** CollectionClassScheme

Field	Notes
Active?	Flag to indicate classification scheme is in active use for collection.
Edition	Edition of classification scheme.
LastDate	Date of last amendment.
Notes	Notes about use of classification scheme for collection.



**Table** CollectionMeta

Field	Notes
CCIGExtraSupplied?	
ClassSubjects?	
ISBNLocalIndex?	
ISBNX?	Flag to indicate upper-case X always used in ISBNs.
LastDate	Date of last amendment.
SetsMultiBibKey	
SetsMultiMediaKey	

**Table** CollectionSource

Field	Notes
Acronym	Acronym for source of collection information.
Expansion	Full source of collection information.
LastDate	Date of last amendment.

**Table** CollectionSubjectScheme

Field	Notes
Active?	Flag to indicate use of subject scheme is active.
Indexed?	Flag to indicate presence of subject index.
LastDate	Date of last amendment.
Notes	Notes about use of subject scheme for collection.

**Table** Collects

Field	Notes
LastDate	Date of last amendment.

**Table** ContractsWith

Field	Notes
LastDate	Date of last amendment.

**Table** Country

Field	Notes
LastDate	Date of last amendment.

**Table** CreatesContent

Field	Notes
LastDate	Date of last amendment.

**Table** DateRange

Field	Notes
LastDate	Date of last amendment.

**Table** DateRangeType

Field	Notes
LastDate	Date of last amendment.
Type	Type of date range. Values: Accumulation - Contents

**Table** DelegatesTo

Field	Notes
LastDate	Date of last amendment.

**Table** Glossary

Field	Notes
Definition	Definition of glossary term.
InCairns	Flag to indicate term for CAIRNS.
InRCO	Flag to indicate term for RCO.
InSconePublic	Flag to indicate term for SCONE public.
InSconeStaff	Flag to indicate term for SCONE staff.
LastDate	Date of last amendment.
Term	Glossary term.

**Table** GlossarySource

Field	Notes
Code	Code for glossary source.
Description	Description of glossary source.
LastDate	Date of last amendment.

**Table** HasPartAgent

Field	Notes
LastDate	Date of last amendment.
Rank	SLIR rank of child agent.

**Table** HasPartCollection

Field	Notes
LastDate	Date of last amendment.

**Table** HasPartLocation

Field	Notes
LastDate	Date of last amendment.

**Table** HasPublication

Field	Notes
LastDate	Date of last amendment.

**Table** HasRelatedCollection

Field	Notes
LastDate	Date of last amendment.

**Table** HasSubjectDDC

Field	Notes
LastDate	Date of last amendment.

**Table** HasSubjectLCSH

Field	Notes
LastDate	Date of last amendment.

**Table** HoldsRightsTo

Field	Notes
LastDate	Date of last amendment.

**Table** IsDescribedBy

Field	Notes
LastDate	Date of last amendment.

**Table** IsLocatedIn

Field	Notes
LastDate	Date of last amendment.

**Table** IsSubjectOf

Field	Notes
LastDate	Date of last amendment.

**Table** LMS

Field	Notes
LastDate	Date of last amendment.
Name	Name of library management system
RootName	Root of CAIRNS filename.

**Table** LMSSupplier

Field	Notes
LastDate	Date of last amendment.
Name	Name of supplier.
WebsiteURL	URL of website of supplier.

**Table** Location

Field	Notes
IsVirtual	Flag to indicate location sub-type.
LastDate	Date of last amendment.
SeeAlso	

**Table** LocationPhys

Field	Notes
LastDate	Date of last amendment.

**Table** LocationVirt

Field	Notes
LastDate	Date of last amendment.
Notes	Notes about location.

**Table** MetaSchema

Field	Notes
Code	Code for metadata schema.
Description	Description of metadata schema.
LastDate	Date of last amendment.

**Table** Miniclump

Field	Notes
Description	Description of miniclump.
IndexA	Flag to indicate Author index.
IndexAK	Flag to indicate Author Keyword index.
IndexGK	Flag to indicate General Keyword index.
IndexISBN	Flag to indicate ISBN index.
IndexISSN	Flag to indicate ISSN index.
IndexS	Flag to indicate Subject index.
IndexSK	Flag to indicate Subject Keyword index.
IndexT	Flag to indicate Title index.
IndexTK	Flag to indicate Title Keyword index.
LastDate	Date of last amendment.
Title	Title of miniclump.

**Table** MiniclumpCollection

Field	Notes
LastDate	Date of last amendment.

**Table** Owns

Field	Notes
LastDate	Date of last amendment.

**Table** Produces

Field	Notes
LastDate	Date of last amendment.

**Table** RCOCollection

Field	Notes
LastDate	Date of last amendment.

**Table** RCOLevel

Field	Notes
LastDate	Date of last amendment.

**Table** RCOSubject

Field	Notes
LastDate	Date of last amendment.
SubjectCode	Code for subject.
SubjectNameOriginal	Original name of subject.

**Table** RCOSubjectGroup1

Field	Notes
GroupCode	Code for subject group
GroupName	Name of subject group.
LastDate	Date of last amendment.

**Table** RCOSubjectGroup2

Field	Notes
GroupCode	Code for subject group
GroupName	Name of subject group.
LastDate	Date of last amendment.

**Table** Region

Field	Notes
LastDate	Date of last amendment.
SLICName	Original SLIC version of name.

**Table** SaleNatureType

Field	Notes
LastDate	Date of last amendment.

**Table** SellsTo

Field	Notes
LastDate	Date of last amendment.

**Table** SubjectDDC

Field	Notes
LastDate	Date of last amendment.
Notes	Scope notes of subject.

**Table** SubjectLCSH

Field	Notes
LastDate	Date of last amendment.
Notes	Scope notes of subject.

**Table** SWOPSubject

Field	Notes
LastDate	Date of last amendment.

**Table** SWOPSubjectGroup

Field	Notes
GroupName	Name of subject group.
LastDate	Date of last amendment.

**Table** Town

Field	Notes
LastDate	Date of last amendment.

**Table** ZServerID

Field	Notes
HoldingsNotes	Notes about holdings display.
IsActive	Flag to indicate Z server is active.
IsHoldings	Flag to indicate holdings can be displayed.
LastDate	Date of last amendment.
RootCode	Code for root of Z server filenames.
ZServerIP	IP address of Z server.
ZServerPort	Port number of Z server.

## Appendix 4: Attributes without corresponding source data elements

The table lists Heaney attributes for which corresponding data elements could not be readily identified. Attributes are listed in alphabetical order of name, grouped by Entity or Relationship. Entities are listed in alphabetical order, followed by Relationships.

Entity	Attribute
Administrator: Corporate body	Date
Collection	Content: Audio-visual: Medium of performance
	Content: Graphic: Medium
	Content: Music notation: Notation system
	Content: Realia: Medium
	Content: Sound material: Language
	Content: Sound material: Medium of performance
	Content: Sound material: Type of sound
	System of arrangement
Collector: Corporate body	Date
	Place
Producer: Corporate body	Standard number
Creator: Corporate body	Date
	Place
Creator's assignee: Corporate body	Date
	Logo
	Place
Location: Physical repository	Identifier
Owner: Corporate body	Date
Producer: Corporate body	Date
	Logo
	Place
Producer's assignee: Corporate body	Date
	Logo
	Place
<b>Relationship</b>	<b>Attribute</b>
Has-Part (Item)	Relation identifier
Holds-Rights-Of (Creator)	Date
Holds-Rights-Of (Producer)	Date
Is-Described-By	Currency