

Topic: Usage Board meeting agenda, 9-10 September 2005
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Archived as: <http://dublincore.org/meetings/2005/09/madrid/meeting-packet.pdf>
Modified: 2005-09-04 15:11, Sunday

Attendance	Guests
Tom Baker	Joe Tennis
Andy Powell	Alistair Miles
Andrew Wilson	Pete Johnston
Akira Miyazawa	Dan Brickley
Diane Hillmann	
Stuart Sutton	

Friday morning

Pg Application profile review

- 2 01. Review of Collection Description application profile [Andrew]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/profile-collection/>
02. Review of Application Profiles [Tom]
See separate meeting packet:
gabriel.sub.uni-goettingen.de/~tbaker/madrid/profile-review/

Friday afternoon

Pg Changes and guidelines for existing DCMI terms

- 3 03. Editorial changes to the DCMI Type Vocabulary [Stuart]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/type-vocabulary/>
- 4 04. Changes to DCMI properties [Andy]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/property-definitions/>
- 5 05. DC property domains and ranges [Andy]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/property-domains/>
- 6 06. Issues related to dc:date [Tom]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/date-issues/>

Saturday

Pg Policy and process

- 7 07. Revision of DCSV documents [Andy and Andrew]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/dcsv/>
- 8 08. MARC Relators - follow-up [Tom]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/marc-relators/>
- 10 09. Ongoing review of process document [Diane and Stuart]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/process/>
- 11 10. Guidelines for some new elements [Diane]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/new-term-guidelines/>
- 13 11. Accessibility decision - follow-up [Tom]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/accessibility/>
- 14 12. The back burner [Tom]
<http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/backburner/>

Topic: Collection Description Application Profile
 Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/profile-collection/>
 Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
 Modified: 2005-09-04 15:11, Sunday

Shepherd: Andrew Wilson

In Washington (May 2005), we decided to review the DC-COLLECTIONS profile in Madrid (September 2005). We had decided to put it up for a one-month comment period on DC-GENERAL in order to be able to give it formal status, but the profile was not done in time to do that.

We agreed in Washington that the review of new terms and APs should be to determine conformance to the AM or not. The review of the AP will also result in a "review report" -- we need to determine the level of comment in that report.

Required reading:

- Dublin Core Collection Description Application Profile Summary
- 15 <http://www.ukoln.ac.uk/metadata/dcml/collection-ap-summary/2005-08-25/>
- Dublin Core Collection Description Application Profile
- 20 <http://www.ukoln.ac.uk/metadata/dcml/collection-application-profile/2005-08-25/>
- 2005-08-25: Comments from Pete Johnston:
- 45 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-08-25.pete-comments.txt>
- 2005-08-16: Mailing-list discussion
- 47 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-08-16.collection-description-discussion.txt>

Background:

- 2005-06-13: Decision on a proposal for new terms for describing collections
- 49 <http://dublincore.org/usage/decisions/2005/2005-03.CollectionDescription.html>
- 2004-09-03: Decision on a proposal for a Collection Description profile
- 52 <http://dublincore.org/usage/decisions/2004/2004-02.Collection-terms.shtml>
 (Note the reference in this decision text to "the ambiguity inherent in the existing usage of dc:identifier".)

What to do:

- The original idea was that UB members would read and digest the profile ahead of time and prepare small position papers by September 1, but we ran out of time to do it this way.
 - o Overall shepherd Andrew
 - o Evaluate terms against Abstract Model Andrew, Andy
 - o Check comments Akira
 - o Check documentation Tom
 - o Check community buy-in Andrew
 - o Check functional requirements Tom

Related ongoing actions

- ACTION (ongoing, May 2005) Diane, Stuart: Process-related: Define other statuses (e.g. "Recommended") and what they mean, with decision trees. Need documentation for minimal proposal of new term.
- ACTION (ongoing, May 2005): Longer-term roadmap needed of where APs can go, e.g. WG, conformance evaluation, back to WG, evaluation for status of Recommended.

Topic: Review of editorial changes to the DCMI Type Vocabulary
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/type-vocabulary/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Shepherd: Stuart Sutton

Stuart has made numerous small editorial changes to the DCMI Type Vocabulary.

In Washington (May 2005), the plan had been to incorporate various stylistic suggestions (e.g., change "Examples -" to "Examples include: " and "web" to "Web" and "virtual reality" to "virtual reality environment", plus comments from Andy), then issue a document containing proposed changes on dc-general for fourteen days before the Madrid meeting so that the changes could be approved at the Madrid meeting.

The current plan is to discuss these changes in Madrid, fold them together with changes to other terms that will also be discussed in Madrid, and post all of the proposed changes (after Madrid) for a comment period on DC-GENERAL before final approval.

Review:

[1] Revised version of the DCMI Type Vocabulary

55 http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-08-28.DCMI_Type_Vocabulary.html

[2] Current version of the DCMI Type Vocabulary

58 <http://dublincore.org/documents/dcmi-type-vocabulary/>

[3] Some discussion on the list about specific wordings

63 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-05-04.typevocabulary.txt>

Topic: Editorial changes to definitions and labels
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/property-definitions/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Shepherd: Andy Powell

Changes to DCMI property definitions and comments have been proposed [1]. In addition, a change to the comment for dc:date has been discussed by the DCMI Date Working Group [3] -- see related Madrid topic, "Issues related to dc:date".

In Madrid, we should carefully review these changes and "approve" them in a provisional sense. After folding this set of changes together with the proposed changes to the DCMI Type Vocabulary, all of the changes would be posted to DC-GENERAL for a comment period before a final vote for approval is held.

Please review:

[1] Proposed changes to DCMI property definitions

65 <http://www.ukoln.ac.uk/twiki/bin/view/Metadata/ProposedPropertyDefinitions>

[2] Digest of discussion in August 2005:

70 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-08-25.definition-changes-digest.txt>

[3] Proposed change to the comment for dc:date, explicitly recognizing ranges

84 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-07-29.date-comment.txt>

[4] List of possible changes as of May 2005 (for comparison)

85 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-05-13.definition-changes.txt>

Title: DC property domains and ranges
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/property-domains/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

In the context of a recently constituted DC RDF Task Force [2], Andy has posted a draft tentatively assigning domains and ranges to DC properties [1]. The document also provides a tentative listing of classes that would be needed (or desirable) in order to do this right.

This exercise raises the question of what "defines" a DCMI metadata term and, more specifically, the relative status of Web documents as opposed to the RDF schemas as "definitive" and "authoritative" representations of DCMI terms.

Currently, the Web page at dublincore.org/documents/dcmi-terms/ asserts itself to be "an up-to-date, authoritative specification of all metadata terms maintained by DCMI".

DCMI currently makes no such claims for the RDF schema representation of its terms. Indeed, the only policy statement on the subject, at dublincore.org/schemas/rdfs/, says that "users of RDF guidelines and schemas posted on the DCMI Web site need to be aware that these resources may be subject to change based on the results of further discussions within DCMI and W3C" -- a situation that can hopefully be remedied by the work of the DC RDF Task force.

If in addition to the "natural-language" definitions currently provided in the Web documents, DCMI were also to provide "definitive" RDF schemas, then DCMI would be saying, in effect, that its terms are defined not just by natural-language definitions, but also by the sum of formal assertions and relations, within which the terms are embedded, as expressed in the RDF schema.

We would need to consider whether it would be realistic for DCMI to claim that both the Web document and the RDF schema are "authoritative" -- raising the bar for keeping the documents not only in synch, but for expressing formal assertions adequately in the Web documents -- or whether one should be definitive while the other is considered to be derived.

The finalization of authoritative assertions along the lines of [1] has implications for DCMI process, as they would presumably be subject to review and maintenance by the Usage Board (or a functional equivalent).

In Madrid, Andy will present this work for discussion, though the work is still at too preliminary a stage for action by the Usage Board.

Read:

- [1] DC property domains and ranges - draft
- 86 <http://www.ukoln.ac.uk/twiki/bin/view/Metadata/DCPropertyDomainsRanges>

Background:

- [2] DC RDF Task force
- 104 <http://www.ukoln.ac.uk/twiki/bin/view/Metadata/DCRDFTaskforce>
- [3] Guidelines for encoding DC metadata using the RDF model
- 106 <http://www.ukoln.ac.uk/twiki/bin/view/Metadata/DCRDFGuidelines>
- [4] Clarification of the recommendations for encoding 'value strings' in DC RDF/XML
- 110 <http://www.ukoln.ac.uk/twiki/bin/view/Metadata/RDFValueStringsClarification>

Title: Issues related to dc:date
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/date-issues/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Since at least 2003, there has been a demand for an encoding scheme for date strings formatted according to the standard ISO 8601. In particular, the DCMI Libraries Working Group requested (for use in an application profile) an encoding scheme for dates encoded without hyphens -- one of the syntactic styles specified in ISO 8601. For background, see dublincore.org/usage/meetings/2004/10/ISSUES/iso8601/.

At the Usage Board meeting in Shanghai in October 2004, we agreed in principle to create a new syntax encoding scheme, <http://purl.org/dc/terms/ISO8601Basic>, with a comment to the effect that some value strings which conform to ISO8601Basic would not be valid value strings for dc:date (e.g. '15.30').

In subsequent discussions at the Shanghai conference with members of the Date Working Group and Advisory Board, however, and after a new "all-ISO8601" proposal was discussed on the UB list, we decided to send this issue back to the Date Working Group for further discussion.

At the meeting in Shanghai, the Usage Board also prepared a proposed modification of the definition for Date, to read: 'A date (or date and time), including a range, of an event in the lifecycle of the resource'. In subsequent discussion, however, we realized that a change in the Comment would achieve the same purpose. This issue was also sent back to the Date WG for discussion.

In response to a Usage Board request of November 2004, the Date Working Group has developed positions on two points:

- [1] The scope of dc:date with regard to date ranges.
84 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-07-29.date-comment.txt>
We should review this in order to provisionally approve it, after which it would be submitted, along with proposed changes to other properties (see Madrid topic "Editorial changes to other DCMI properties") for formal approval at a later date.
- [2] An encoding scheme for ISO 8601 (as a whole).
113 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-08-19.iso8601-response.txt>

Title: Review of DCMI Recommendations related to Dublin Core Structured Values
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/dcsv/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Shepherds: Andy Powell and Andrew Wilson

DCMI has had a specification for Dublin Core Structured Values (DCSV), "syntax for writing a list of labelled values in a text string" and three recommendations for specific DCSVs -- DCMI Box, DCMI Period, and DCMI Point. The documents were announced for public comment on 2005-07-25 with a deadline of 22 August.

The main changes are:

- some examples have been removed
- XML encodings given in the text have been removed
- wordings have been modified to ensure that the documents conform to the DCMI Abstract Model (notably, the terms 'label' and 'value', used to describe the parts of the components of structured values, were replaced with new terms 'componentLabel' and 'componentValue' respectively)
- other minor changes of wording and layout have been applied.

Please review the following, comparing the old and new versions with respect to the changes summarized above:

-- DCMI Box

114 <http://dublincore.org/documents/2005/07/25/dcmi-box/>

118 <http://dublincore.org/documents/2000/07/28/dcmi-box/>

-- DCMI Period

123 <http://dublincore.org/documents/2005/07/25/dcmi-period/>

126 <http://dublincore.org/documents/2000/07/28/dcmi-period/>

-- DCMI Point

131 <http://dublincore.org/documents/2005/07/25/dcmi-point/>

134 <http://dublincore.org/documents/2000/07/28/dcmi-point/>

-- DCSV Syntax

138 <http://dublincore.org/documents/2005/07/25/dcmi-dcsv/>

143 <http://dublincore.org/documents/2000/07/28/dcmi-dcsv/>

-- Comments received

148 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-07-31.dcsv-comments.txt>

(As will be discussed, the revised documents should have been posted for the comment period at a different address.)

Topic: MARC Relator terms - follow-up
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/marc-relators/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Status as of August 2005

- 1 As of July 2005, the following should be considered to be citable as persistent URIs (email from Rebecca):

- 1.1 Web page with entire relator list with DC statements:
<http://www.loc.gov/loc.terms/relators/dc-relators.html>
Note the statement: "These terms conform with the DCMI Abstract Model and may be used in DCMI application profiles."
- 1.2 Web page with just the subset that refines DC elements:
<http://www.loc.gov/loc.terms/relators/dc-contributor.html>
Note the statement: "These terms conform with the DCMI Abstract Model and may be used in DCMI application profiles. DCMI endorses their use with Dublin Core elements as indicated."
- 1.3 RDF version:
<http://www.loc.gov/loc.terms/relators/dc-relators.xml>
- 1.4 For example, an entry for one of the terms:
<http://www.loc.gov/loc.terms/relators/ILL>

2 Actions remaining

- 2.1 DCMI Web page on maintenance relation between DCMI and Library of Congress

Library of Congress generates the RDF version [1.3] from the official documentation (in HTML) [1.1]. They make changes regularly. The procedure will be that when something is added, they will determine whether it might be a refinement of contributor. By default, the new term will not be a refinement (since most of these seem to have already been defined). If Rebecca thinks it is or might be, she will send it as a proposal to the UB list. If the UB determines it is, then the statement `<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor"/>` will be added and will thus appear in [1.3].

There is a question as to whether each addition to this list would need to be announced to DC-GENERAL.

A Web document is needed for the DCMI Web site for the following:

- for DCMI to endorse the subproperty assertions made in 1.1 and 1.2.
- to describe the maintenance process as outlined above;
- to summarize any relevant policies (e.g., identifier persistence) on the part of both organizations
- to point out that the Web page endorsing the assertions [2.1] will be supplemented and superseded by a formal statement in RDF [2.5] of the formal assertions made by RDF [1.4], with a few words of explanatory text about the notion of machine-processable, formal assertions.

ACTION: Tom and Rebecca.

- 2.2 Adding pointers from LC documents 1.1 and 1.2 to DCMI Web page 2.1

There should be a human-readable statement on the top of the human-readable pages 1.1 and 1.2 clarifying relationship between these terms and DCMI and linking both to 2.1 and to 2.3. Action: Rebecca and Tom.

2.3 Guidelines for using Agenda Roles in Dublin Core

Diane and Rebecca have written "Guidelines for using Agenda Roles in Dublin Core" to be added as a new section to "Using Dublin Core". See

152 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-05-14.Agent-Roles-Guidelines7.txt>

2.4 Announce the decision

Section 1 of 2.3 can be used for some announcement text for dc-general. ACTION: Diane, Tom, Rebecca.

On 2005-02-25, the UB agreed that we could finalize an announcement of the LoC sub-property assertions without having an RDF mechanism in place -- i.e., DCMI could simply endorse the assertions verbally until an RDF mechanism for doing the same is worked out.

2.5 Formal DCMI endorsement of formal LoC subProperty assertions

The formal statements maintained by LC [1.3] should be endorsed using formal statements from DCMI to the following effect: that, for each assertion by LC that a particular MARC Relator term "conforms to the DCMI Abstract Model" is a sub-property of dc:contributor, DCMI endorses that assertion.

2.6 RDF expression of DCMI endorsement of LC assertions

There is an action on DCMI to liaise with the Semantic Web community about RDF model for expressing such an endorsement.

Once such RDF statements were designed, then put into place, it would be desirable for the LC RDF statements [1.3] to point back to the DCMI RDF statements, completing the circle.

Topic: Ongoing Revision of the DCMI Process document
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/process/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Shepherds: Diane Hillmann and Stuart Sutton

In May, Diane and Stuart agreed to make an interim update of the Process document, recognizing that new issues such as DCMI Extension Namespaces and the review of application profiles will require further revisions.

In Madrid, we will not spend much time talking about the process document per se. Everyone should nonetheless take the time to carefully read the current draft [1], paying particular attention to sections marked in red, so that we have it all freshly in mind as we review the Collection Description profile and as other process-related issues arise.

One obvious problem with the process document is that the numbering has become quite deep, making the document as a whole less readable than it could be. Please keep in mind as you read the document the possibility that parts of the document be split out into smaller, separate documents.

The current draft [1] reflects the following changes:

- Entire document has been reorganized and made flatter overall.
- New sections have been added to reflect new areas of work. Where possible, initial text has been added, primarily to initiate and focus discussion. See in particular:
 - Part II: sections 1.2-1.5
 - Part I: section 3.5: first stab at text defining "Endorsement"

Still to be done:

- Part II: sections 1.1.3.-1.1.4:
Possibly split out Criteria for the evaluation new terms, plus the decision tree, into a separate document; or incorporate these guidelines with the decision tree for application profiles.
- Make some process sections in Part II: section 1 more general to all UB activities, rather than just applying to new terms.
- Fix numbering for Section II, since WORD seems to have messed it up (doesn't match the TOC at the top).

Review

[1] DCMI Usage Board Administrative Process -- latest working draft
155 http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-08-28.Process-8-21-05_dih.pdf

Title: Guidelines for some new elements
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/new-term-guidelines/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Shepherd: Diane Hillmann

2005-08-22

As promised I'm attempting to catch up with the most recently announced element terms prior to Madrid. Below is what I've come up with, and I'd appreciate the attention of your experienced eyeballs.

Note that for Instructional Method I've used term values from some of the GEM vocabularies, using the three facets that they use. For the Accrual trilogy I've used terms from the vocabularies in the original proposals, figuring that these reflected the sense of the group. I have to say that the comment we approved, which is essentially a best practice statement, makes the writing of a guideline very difficult! I'm not crazy about the results of my efforts and would really welcome suggestions for improvement, and particularly language that might better differentiate between the three and avoid some pitfalls for the uninitiated.

Also please note below the message that I am no longer at my old job and phone number, but am present working at home until I get a new office assignment at the library.

Instructional Method

Element Description: A process, used to engender knowledge, attitudes and skills, that the resource is designed to support. Instructional Method will typically include ways of presenting instructional materials or conducting instructional activities, patterns of learner-to-learner and learner-to-instructor interactions, and mechanisms by which group and individual levels of learning are measured. Instructional methods include all aspects of the instruction and learning processes from planning and implementation through evaluation and feedback.</p>

Guidelines for content creation: Best practice is to use terms from controlled vocabularies, whether developed for the use of a particular project or in general use in an educational context.

Examples:

```
InstructionalMethod="Experiential learning"  
InstructionalMethod="Observation"  
InstructionalMethod="Large group instruction"
```

Accrual Method

Element Description: The method by which items are added to a collection. Recommended best practice is to use a value from a controlled vocabulary.

Guidelines for content creation:

Terms from controlled vocabularies may be developed for the use of a particular project or in general use in an cultural materials context.

Examples:

AccrualMethod="Deposit"
AccrualMethod="Purchase"

Accrual Periodicity

Element Description: The frequency with which items are added to a collection. Recommended best practice is to use a value from a controlled vocabulary.

Guidelines for content creation: Terms from controlled vocabularies may be developed for the use of a particular project or in general use in an cultural materials context.

Examples:

AccrualPeriodicity="Annual"
AccrualPeriodicity="Irregular"

Accrual Policy

Element Description: The policy governing the addition of items to a collection. Recommended best practice is to use a value from a controlled vocabulary.

Guidelines for content creation: Terms from controlled vocabularies may be developed for the use of a particular project or in general use in an cultural materials context.

Examples:

AccrualPolicy="Active"
AccrualPolicy="Closed"

Title: Accessibility decision follow-up
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/accessibility/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

In Shanghai, the Usage Board considered a proposal from the DCMI Accessibility Working Group (the full proposal is documented in the meeting packet at dublincore.org/usage/meetings/2004/10/Meeting-packet.pdf). A decision was made to approve an element pending clarification of several points.

After lengthy discussion, the Board concluded that the decision to approve an element could not be finalized. These reasons were explained in the decision text of 2005-06-13 at [1].

The working group has now written a response to the decision [2]. The group has now also formulated an abstract model for accessibility [3] as the basis for further discussion, and with the intent of submitting a proposal for a new element [4].

Liddy Nevile, chair of the Accessibility Working Group, has requested that the Usage Board provide some guidance to the working group about future proposals, and particularly about how the Usage Board sees their work fitting in with the DCMI Abstract Model.

It would be useful if we could review the decision and briefly discuss the current work at our meeting in Madrid. To prepare for this, please read:

[1] The Usage Board decision of 2005-06-13
169 <http://dublincore.org/usage/decisions/2005/2005-04.Accessibility.html>

[2] Response of the Working Group to the Usage Board decision
171 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-09-04.ResponseToUsageBoard.txt>

[3] The model currently being used in the working group as the basis for further work
173 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-09-04.AccessForAllFramework.txt>
177 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-09-04.AccessForAll-AbstractModel.png>

[4] The new element proposal under development
178 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-09-04.NewElementProposal.txt>

Note: The files under [2], [3], and [4] were originally posted on a Wiki:

- dublincore.org/accessibilitywiki/ResponseToUsageBoard
- dublincore.org/accessibilitywiki/AccessForAllFramework
- accsig.atrc.utoronto.ca/AccessForAll/AccessForAll-AbstractModel.png
- dublincore.org/accessibilitywiki/NewElementProposal

These files, which looked fine when viewed in normal Web browsers, were converted into plain text when the Wiki text proved to be unreadable when incorporated into the meeting packet via an Adobe Acrobat Web capture.

Title: The back burner
Identifier: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/backburner/>
Main agenda: <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/>
Modified: 2005-09-04 15:11, Sunday

Encoding scheme types

Andy and Pete want to write a position paper distinguishing vocabulary encoding schemes and syntax encoding schemes. See:

180 <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-05-16.encoding-scheme-types.html>

Endorsement mechanism for non-DCMI encoding schemes

After testing a Web interface for the "registration" of encoding schemes, we backed off from going down the road of having DCMI declare and maintain purl.org URIs for others' vocabularies in favor of encouraging other people to coin URIs to identify their own vocabularies. As a mechanism for getting those URIs into the DCMI registry (and more generally as a way for people to publicize their vocabularies through DCMI listings), we figured we could devise a way to "endorse" the non-DCMI URIs thus created (in effect to say, "DCMI agrees that this URI can be used as an encoding scheme in Dublin Core metadata").

There is an ongoing action on Tom, Stuart, and Diane to draft the policy and process documents necessary to support the assignment of such endorsements by the Usage Board (or at any rate by DCMI). Diane and Stuart have put a placeholder for this in the Usage Board Administrative Process document.

The assignment of such endorsements seems related to the endorsement of assertions by Library of Congress that MARC Relator terms are sub-properties of dc:contributor.

Pete agreed to help define a mechanism for expressing such endorsements in RDF. Once the policy framework for endorsement is clear, its expression in RDF could perhaps be discussed by the DCMI Architecture Working Group (or by its DC RDF task force).



[Home](#) > [Documents](#) >

Title:	Dublin Core Collection Description Application Profile Summary
Creator:	Dublin Core Collection Description Working Group
Date Issued:	2005-08-25
Identifier:	http://www.ukoln.ac.uk/metadata/dcmi/collection-ap-summary/2005-08-25/
Replaces:	http://www.ukoln.ac.uk/metadata/dcmi/collection-ap-summary/2005-08-13/
Is Replaced By:	Not applicable
Latest Version:	http://www.ukoln.ac.uk/metadata/dcmi/collection-ap-summary/
Status of Document:	This is a Draft DC Application Profile.
Description of Document:	This document presents a summary of the draft application profile for collection-level description developed by the Dublin Core Collection Description Working Group.

Introduction

Note: This document presents a summary view of the application profile. For full details, see the full description of the Dublin Core Collection Description Application Profile [[DCCDAP](#)].

This document describes:

1. The **set of terms** used in a class of DC metadata *description sets*.
Specifically, it describes the set of terms used in a description of a collection (i.e. a "collection-level description", or "unitary finding aid" in the terminology of the *Analytical Model of Collections and their Catalogues* [[AMCC](#)]). A collection description conforming to this DC CD AP may be the only description in a *description set* or it may be part of a description set which includes descriptions of other resources related to the collection (as values in statements about the collection). Such other resources include the location of the collection, the services that provide access to the collection, concepts that are the subject of the collection, and other collections. While this DCAP permits the inclusion of descriptions of those related resources, it does not specify the properties and classes that may be referenced in descriptions of resources other than collections.
2. **How** the terms in this set are deployed in this class of DC metadata descriptions.
This includes requirements for the the occurrence of *statements* using a specified *property*, constraints on the types of *value* which are referenced in a statement using a specified property (*vocabulary encoding schemes*), and constraints on the *datatypes* of the *value strings* occurring in a statement using a specified property (*syntax encoding schemes*).

The terms description set, description, property, value, vocabulary encoding scheme, value representation, rich representation, value string, syntax encoding scheme, and related description are used in the sense they are used in the DCMI Abstract Model [[DCAM](#)].

This document is **not** a description of an XML format. There may be multiple bindings of the DC CD AP to XML and to other syntaxes.

Outstanding Issues

This DCAP is currently work-in-progress. Two major issues are still under discussion:

- Clarification (at the level of the data model) of the nature of the Location and Service entity types, and the relationships between Collection and Location and Collection and Service. The properties `gen:isLocatedAt` and `gen:isAccessedVia` currently listed below should be treated as provisional placeholders for a solution.
- How to represent the information that a collection contains some items of specified formats. The outcome of this decision may also result in changes to the representation of the information that a collection contains items of a specified type.

Vocabularies/Namespaces used in this DCAP

All references to properties and classes in DC metadata descriptions are made using URIs. In this document, Qualified Names of the form `prefix ":" local-part` are used as abbreviations for URIs which identify metadata terms. Prefixes are assumed to be associated with Namespace Names (URIs) as follows, and the corresponding URI for the term is constructed by concatenating the Namespace Name and the `local-part`:

Vocabulary Title	Namespace Name	Prefix
The Dublin Core Metadata Element Set, v1.1	http://purl.org/dc/elements/1.1/	dc
Dublin Core Terms	http://purl.org/dc/terms/	dcterms
Dublin Core Type Vocabulary	http://purl.org/dc/dcmitype/	dcmitype
MARC Relator Code Properties	http://www.loc.gov/loc/terms/relators/	marcrel
Collection Description Terms (collection-specific terms)	http://example.org/cld/terms# [temporary URI, final URI to be confirmed]	cld
General Description Terms (non-collection-specific terms)	http://example.org/gen/terms# [temporary URI, final URI to be confirmed]	gen
Collection Type Vocabulary Terms	http://example.org/cld/type# [temporary URI, final URI to be confirmed]	cldtype

Please note that where the Qualified Name of a term (property/class) appears against a shaded background in the table below (i.e. all terms with the prefixes **gen**, **cld** and **cldtype**), this indicates that those terms have not yet been assigned persistent URIs. Until such persistent URIs are assigned, by DCMI or by some other naming authority, these terms should be considered to be unstable and should not be referenced in metadata descriptions, except as part of the evaluation/testing of this profile.

Property Usage

Each main row in the table below describes how a specified property should be used in a statement within a DC metadata description.

- **Label:** A short human-readable label that provides an indication of how the property is to be used in a DC CD AP collection description. The label does not appear in the description. It *may* be used to provide a descriptor for fields in displays of DC CD AP collection descriptions, but there is no requirement for display applications to use this label.
- **Property:** A unique name/identifier for the property. It is presented as a Qualified Name, but is an abbreviation for a URI. This URI *must* be used to refer to the property in DC CD AP collection descriptions.
- **Usage in this DCAP:** A description of how the definition of the property is to be applied in DC CD AP collection descriptions. This information supplements the definition of the property provided by its owner/maintenance agency.
- **Obligation:** An indication of whether a statement using this property is required in a DC CD AP collection description. M = a statement using this property is required, OR = a statement using this property is optional but recommended, O = a statement using this property is optional
- **Vocabulary Encoding Scheme(s):** The unique names/identifiers of classes from which values for the property should be drawn. Names are presented as Qualified Names, but are abbreviations for URIs. The URI *must* be used to refer to the class in DC CD AP collection descriptions. If no class is listed, then the DC CD AP does not specify a class from which values should be drawn. However the definition and usage of the property may determine that values of only certain types are appropriate. For example, the value of the `dc:creator` property must be an entity capable of action.
- **Value URI:** An indication of whether a value URI is to be used in a statement using the property (and vocabulary encoding scheme, where specified). M = a value URI is required, O = a value URI is optional (see [note](#)), N = a value URI is not permitted
- **Value String:** An indication of whether a value string is to be used in a statement using the property (and vocabulary encoding scheme, where specified). M = a value string is required, O = a value string is optional (see [note](#)), N = a value string is not permitted
- **Syntax Encoding Scheme(s):** The unique names/identifiers of datatypes from which value strings for the property should be drawn. Names are presented as Qualified Names, but are abbreviations for URIs. The URI *must* be used to refer to the datatype in DC CD AP collection descriptions. If no datatype is listed, then the DC CD AP does not specify a datatype from which value strings should be drawn.
- **Rich Representation:** An indication of whether a rich representation is to be used in a statement using the property (and vocabulary encoding scheme, where specified). M = a rich representation is required, O = a rich representation is optional (see [note](#)), N = a rich representation is not permitted

Note: For each value, **at least one** of the following components must be present: a value URI, a rich representation, a value string or a (related) description.

Collection Properties

Label	Property	Usage in this DCAP	Obligation	Vocabulary Encoding Scheme(s)	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent
Collection Identifier	dc:identifier	A globally unique formal identifier for the collection.	OR	dcterms:URI	N	M		N
Title	dc:title	The name of the collection.	M		N	M		N

Alternative Title	dcterms:alternative (sub-property of dc:title)	Any form of name used as a substitute or alternative to the formal name of the collection	O		N	M		N
Description	dcterms:abstract (sub-property of dc:description)	A summary description of the content of the collection.	M		N	M		N
Size	dcterms:extent (sub-property of dc:format)	The size of the collection.	O		N	M		N
Language	dc:language	A language of the content of the items in the collection.	O	dcterms:ISO639-2	O	M		N
Collection Type	dc:type	A type of the collection.	O	cld:CLDType	O	M		N
Rights	dc:rights	A statement of any rights held in/over the collection.	O		O	O		N
Access Rights	dcterms:accessRights (sub-property of dc:rights)	A statement of any access restrictions placed on the collection, including allowed users, charges, etc.	O		O	O		N
Accrual Method	dcterms:accrualMethod	The method by which items are added to the collection.	O	cld:DCCDAccrualMethod	O	M		N
Accrual Periodicity	dcterms:accrualPeriodicity	The frequency with which items are added to the collection.	O	cld:DCCDAccrualPeriodicity	O	M		N
Accrual Policy	dcterms:accrualPolicy	The policy governing the addition of items to the collection.	O	cld:DCCDAccrualPolicy	O	M		N
Custodial History	dcterms:provenance	A statement of any changes in ownership and custody of the collection that are significant for its authenticity, integrity and interpretation.	O		O	M		N
Audience	dcterms:audience	A class of entity for whom the collection is intended or useful.	O		O	M		N
Subject	dc:subject	A subject or topic associated with the items in the collection.	O	dcterms:DDC	O	M		N
				dcterms:LCC	O	M		N
				dcterms:LCSH	O	M		N
				dcterms:MESH	O	M		N
				dcterms:UDC	O	M		N
Spatial Coverage	dcterms:spatial (sub-property of dc:coverage)	The spatial coverage of the content of the items in the collection.	O		O	M		N

Temporal Coverage	dcterms:temporal (sub-property of dc:coverage)	The temporal coverage of the content of the items in the collection.	O		O	M		N
Accumulation Date Range	dcterms:created (sub-property of dc:date)	The range of dates over which the collection was accumulated.	O	gen:RKMS-ISO8601	O	M		N
Contents Date Range	cld:dateContentsCreated (sub-property of dc:date)	The range of dates over which the individual items within the collection were created	O	gen:RKMS-ISO8601	O	M		N
Relationships between the Collection and Agents								
Collector	dc:creator	An entity who gathers (or gathered) the items in a collection together.	O		O	M		N
Owner	marcrel:OWN	An entity who has legal possession of the collection.	O		O	M		N
Relationships between the Collection and Location, Collection and Service								
Is Located At	gen:isLocatedAt (sub-property of dc:relation)	The location of the collection.	O		O	O		N
Is Accessed Via	gen:isAccessedVia (sub-property of dc:relation)	A service that provides access to the collection.	O		O	O		N
Relationships between Collections								
Sub-collection	dcterms:hasPart (sub-property of dc:relation)	A second collection contained within the current collection.	O	dcmitype:Collection	O	O		N
Super-collection	dcterms:isPartOf (sub-property of dc:relation)	A second collection that contains the current collection.	O	dcmitype:Collection	O	O		N
Catalogue or collection description	dc:description	A second collection that describes the current collection (for example, the catalogue for the current collection).	O	dcmitype:Collection	O	O		N
Associated collection	dc:relation	A second collection that is associated with the current collection.	O	dcmitype:Collection	O	O		N
Relationships between the Collection and other resources								
Associated publication	dcterms:isReferencedBy (sub-property of dc:relation)	A publication that is based on the use, study, or analysis of the collection.	O		O	O		N

References

[DCCDAP] *Dublin Core Collection Description Application Profile*

<http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/>

[AMCC] Heaney, Michael. *An Analytical Model of Collections and their Catalogues*

<http://www.ukoln.ac.uk/metadata/rslp/model/>

[DCAM] Powell, Andy, Mikael Nilsson, Ambjörn Naeve, Pete Johnston. *DCMI Abstract Model*

<http://dublincore.org/documents/abstract-model/>

Changes made in this version

- Removed usage of gen:logo property.



Metadata associated with this resource: <http://dublincore.org/documents/collection-ap-summary/index.shtml.rdf>

[Copyright](#) © 1995-2002 [DCMI](#) All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.



[Home](#) > [Documents](#) >

Title:	Dublin Core Collection Description Application Profile
Creator:	Dublin Core Collection Description Working Group
Date Issued:	2005-08-25
Identifier:	http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/2005-08-25/
Replaces:	http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/2005-08-13/
Is Replaced By:	Not applicable
Latest Version:	http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/
Status of Document:	This is a Draft DC Application Profile.
Description of Document:	This document describes the draft application profile for collection-level description developed by the Dublin Core Collection Description Working Group.

Contents

- [Introduction](#)
- [Outstanding Issues](#)
- [Vocabularies/Namespaces Used in this DCAP](#)
- [Collection Properties](#)
- [Encoding Schemes Used](#)
- [Administrative Metadata](#)

Introduction

Note: This document presents full details of the application profile. For a summary view, see the Dublin Core Collection Description Application Profile Summary [[DCCDAPS](#)].

Collections and collection-level description

The term "collection" can be applied to any aggregation of physical or digital items. Those items may be of any type, so examples might include aggregations of natural objects, created objects, "born-digital" items, digital surrogates of physical items, and the catalogues of such collections (as aggregations of metadata records). The criteria for aggregation may vary: e.g. by location, by type or form of the items, by provenance of the items, by source or ownership, and so on. Collections may contain any number of items and may have varying levels of permanence.

A "collection-level description" provides a description of the collection as a unit: the resource described by a collection-level description is the collection, rather than the individual items within that collection. Collection-level descriptions are referred to in Michael Heaney's *An Analytical Model of Collections and their Catalogues* as "unitary finding-aids" [[AMCC](#)].

Collection-level description enables a collection provider to

- **disclose** information about the content and availability of collections to users where item-level metadata does not exist or is not available, or where the provision of item-level detail is not required or appropriate

It enables a user to

- **discover** and **locate** collections of interest
- **select** collections to explore on the basis of a summary description
- **compare** collections as broadly similar objects, even where items (and/or item-level metadata) are heterogeneous

- understand conditions of **access** and **use**
- **interpret** collections (and items within collections)

Increasingly, many of these functions - notably the discovery, location, selection and comparison of collections - are being carried out by software acting on behalf of a human user, perhaps in accordance with user preferences or with parameters describing the scope of a particular service.

The Dublin Core Collection Description Application Profile (DC CD AP)

A DC application profile (DCAP) specifies set of terms used in a class of DC metadata *description sets*, typically the class of description sets which are deployed within a metadata application or within a set of applications and services operating within some domain or community. It describes the *properties* that are used in *statements* and how the use of those properties is constrained or adapted for the purposes of that application or domain.

So, the DC CD AP specifies;

1. The **set of terms** used in a class of DC metadata *description sets*.
Specifically, it describes the set of terms used in a description of a collection. A collection description conforming to this DC CD AP may be the only description in a *description set* or it may be part of a description set which includes descriptions of other resources related to the collection (as values in statements about the collection). Such other resources include the location of the collection, the services that provide access to the collection, concepts that are the subject of the collection, and other collections. While this DCAP permits the inclusion of descriptions of those related resources, it does not specify the properties and classes that may be referenced in descriptions of resources other than collections.
2. **How** the terms in this set are deployed in this class of DC metadata descriptions.
This includes requirements for the occurrence of *statements* using a specified *property*, constraints on the types of *value* which are referenced in a statement using a specified property (*vocabulary encoding schemes*), and constraints on the *datatypes* of the *value strings* occurring in a statement using a specified property (*syntax encoding schemes*).

The terms description set, description, property, value, vocabulary encoding scheme, value representation, rich representation, value string, syntax encoding scheme, and related description are used in the sense they are used in the DCMI Abstract Model [DCAM].

The metadata terms referenced in the DC CD AP are drawn from the Dublin Core metadata vocabularies and also from other metadata vocabularies.

The DC CD AP is independent of any particular syntax for representing description sets. Separate guidelines will describe how descriptions conforming to the DC CD AP may be represented using the conventions recommended by DCMI for expressing DC metadata using the Resource Description Framework (RDF) and using the Extensible Markup Language (XML).

Functional Requirements of the DC CD AP

The DC CD AP is intended to provide a means of creating **simple** collection-level descriptions suitable for a **broad range** of collections. It is designed primarily to support the discovery and selection of collections, though it may be used to support other functions such as collection management too. It is not intended to describe every possible characteristic of every type of collection.

The aim is that the DC CD AP should support:

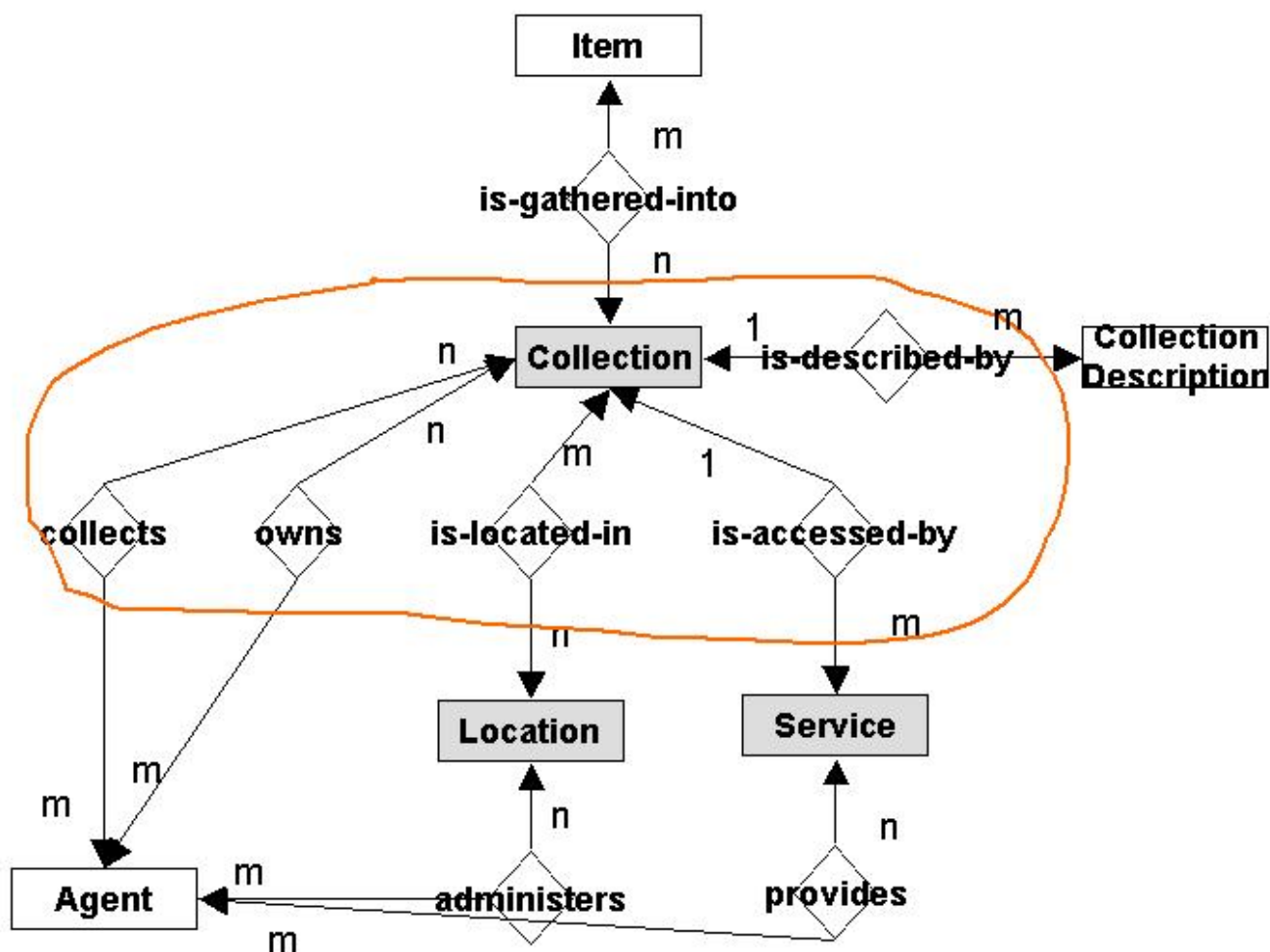
- the **discovery** of collections of potential interest using some common access points
- the **identification** of a known collection
- the **selection** of one or more collections from amongst a number of discovered collections
- the **identification** of the location of the collection
- the **identification** of the services that provide access to the collection

Data Model

The DC CD AP is based on a data model which is derived from that described in *An Analytical Model of Collections and their Catalogues* [AMCC]. It differs from that model in adding a new entity type, Service.

The following definitions are used (adapted from the *Analytic Model*):

- **Collection** An aggregation of Items.
- **Item** The concrete realisation of Content.
- **Location** The place where a Collection is held.
- **Service** A system that provides access to the Items within the Collection



In the *Analytic Model* relationships may carry attributes; in the DC CD AP, relationships are represented as simple properties and do not themselves carry attributes, so some of the expressivity of the model is lost in the metadata schema.

This version of the DC CD AP describes the use of properties to represent attributes of the collection and relationships between the collection and other entities. It does not describe how to represent properties of other entities in the model.

Outstanding Issues

This DCAP is currently work-in-progress. Two major issues are still under discussion:

- Clarification (at the level of the data model) of the nature of the Location and Service entity types, and the relationships between Collection and Location and Collection and Service. The properties `gen:isLocatedAt` and `gen:isAccessedVia` currently listed below should be treated as provisional placeholders for a solution.
- How to represent the information that a collection contains some items of specified formats. The outcome of this decision may also result in changes to the representation of the information that a collection contains items of a specified type.

Vocabularies/Namespaces used in this DCAP

All references to properties and classes in DC metadata descriptions are made using URIs. In this document, Qualified Names of the form `prefix ":" local-part` are sometimes used as abbreviations for URIs which identify metadata terms. Prefixes are assumed to be associated with Namespace Names (URIs) as follows, and the corresponding URI for the term is constructed by concatenating the Namespace Name and the `local-part`:

Vocabulary Title	Namespace Name	Prefix
The Dublin Core Metadata Element Set, v1.1	http://purl.org/dc/elements/1.1/	dc
Dublin Core Terms	http://purl.org/dc/terms/	dcterms
Dublin Core Type Vocabulary	http://purl.org/dc/dcmitype/	dcmitype
MARC Relator Code Properties	http://www.loc.gov/loc/terms/relators/	marcrel

Collection Description Terms (collection-specific terms)	http://example.org/cld/terms# [temporary URI, final URI to be confirmed]	cld
General Description Terms (non-collection-specific terms)	http://example.org/gen/terms# [temporary URI, final URI to be confirmed]	gen
Collection Type Vocabulary Terms	http://example.org/cld/type# [temporary URI, final URI to be confirmed]	cldtype

Please note that where terms have Qualified Names with the prefixes **gen**, **cld** and **cldtype**, this indicates that those terms have not yet been assigned persistent URIs. Until such persistent URIs are assigned, by DCMI or by some other naming authority, these terms should be considered to be unstable and should not be referenced in metadata descriptions, except as part of the evaluation/testing of this profile.

Property Usage

Each table in the following section describes how a specified property should be used in a statement within a DC metadata description.

- **Identifier:** The URI by which the property is referenced in a DC metadata description.
- **Qualified Name:** The Qualified Name which is typically used as an abbreviation for the URI.
- **Defined By:** The name and identifier of the metadata vocabulary from which the property is drawn.
- **Type of Term:** An indication of the type of the term, according to the typology of the DCMI Abstract Model
- **Source Label:** The short label provided for the property by its owner/maintenance agency.
- **Label in this DCAP:** A short label that provides an indication of how the property is to be used in a DC CD AP collection description. The label does not appear in the description. It *may* be used to provide a descriptor for fields in displays of DC CD AP collection descriptions, but there is no requirement for display applications to use this label.
- **Source Definition:** The definition provided for the property by its owner/maintenance agency.
- **Usage in this DCAP:** A description of how the definition of the property is to be applied in DC CD AP collection descriptions. This information supplements the definition of the property provided by its owner/maintenance agency.
- **Comments:** Additional information about the use of the property in the DC CD AP, typically on the values and their representation.
- **Refines:** Properties of which the current property is a subproperty.
- **Refined By:** Properties which are subproperties of the current property.
- **Uses Vocabulary Encoding Scheme:** The unique names/identifiers of classes from which values for the property should be drawn. Names are presented as Qualified Names, but are abbreviations for URIs. The URI *must* be used to refer to the class in DC CD AP collection descriptions. If no class is listed, then the DC CD AP does not specify the a class from which values should be drawn. However the definition and usage of the property may determine that values of only certain types are appropriate. For example, the value of the `dc:creator` property must be an entity capable of action.
- **Value URI:** An indication of whether a value URI is to be used in a statement using the property (and vocabulary encoding scheme, where specified). M = a value URI is required, O = a value URI is optional (see [note](#)), N = a value URI is not permitted
- **Value String:** An indication of whether a value string is to be used in a statement using the property (and vocabulary encoding scheme, where specified). M = a value string is required, O = a value string is optional (see [note](#)), N = a value string is not permitted
- **Syntax Encoding Scheme(s):** The unique names/identifiers of datatypes from which value strings for the property should be drawn. Names are presented as Qualified Names, but are abbreviations for URIs. The URI *must* be used to refer to the datatype in DC CD AP collection descriptions. If no datatype is listed, then the DC CD AP does not specify the a class from which values should be drawn.
- **Rich Representation:** An indication of whether a rich representation is to be used in a statement using the property (and vocabulary encoding scheme, where specified). M = a rich representation is required, O = a rich representation is optional (see [note](#)), N = a rich representation is not permitted
- **Obligation:** An indication of whether a statement using this property is required in a DC CD AP collection description. M = a statement using this property is required, OR = a statement using this property is optional but recommended, O = a statement using this property is optional
- **Condition:** Information on any additional conditions on the obligation to use the property
- **Occurrences:** The minimum and maximum number of statements referencing this property that can occur in a metadata description

Note: For each value, **at least one** of the following components must be present: a value URI, a rich representation, a value string or a (related) description.

Collection Properties

- [Collection Identifier \[dc:identifier\]](#)
- [Title \[dc:title\]](#)
- [Alternative Title \[dcterms:alternative\]](#)
- [Description \[dcterms:abstract\]](#)
- [Size \[dcterms:extent\]](#)
- [Language \[dc:language\]](#)
- [Type \[dc:type\]](#)
- [Rights \[dc:rights\]](#)
- [Access Rights \[dcterms:accessRights\]](#)
- [Accrual Method \[dcterms:accrualMethod\]](#)
- [Accrual Periodicity \[dcterms:accrualPeriodicity\]](#)
- [Accrual Policy \[dcterms:accrualPolicy\]](#)
- [Custodial History \[dcterms:provenance\]](#)
- [Audience \[dcterms:audience\]](#)
- [Subject \[dc:subject\]](#)
- [Spatial Coverage \[dcterms:spatial\]](#)
- [Temporal Coverage \[dcterms:temporal\]](#)

- [Accumulation Date Range \[dcterms:created\]](#)
- [Contents Date Range \[dcterms:dateContentsCreated\]](#)
- [Collector \[dc:creator\]](#)
- [Owner \[marcrel:OWN\]](#)
- [Is Located At \[gen:isLocatedAt\]](#)
- [Is Accessed Via \[gen:isAccessedVia\]](#)
- [Associated Publication \[dcterms:isReferencedBy\]](#)
- [Super-Collection \[dcterms:isPartOf\]](#)
- [Sub-Collection \[dcterms:hasPart\]](#)
- [Catalogue or Description \[dc:description\]](#)
- [Associated Collection \[dc:relation\]](#)

Collection Identifier [dc:identifier]

Term Identifier	http://purl.org/dc/elements/1.1/identifier										
Qualified Name	dc:identifier										
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/										
Type of Term	Property (Element)										
Source Label	Resource Identifier										
Label in this DCAP	Collection Identifier										
Source Definition	An unambiguous reference to the resource within a given context.										
Usage in this DCAP	A globally unique formal identifier for the collection.										
Comments for this DCAP	A collection identifier must be a URI, and the use of a URI scheme that has been registered with IANA is preferred.										
Refines	[n/a]										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	dcterms:URI , Dublin Core Terms http://purl.org/dc/terms/URI <table border="1"> <thead> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> </thead> <tbody> <tr> <td>N</td><td>M</td><td></td><td>N</td></tr> </tbody> </table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	N	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
N	M		N								
Obligation	Optional, but recommended.										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Title [dc:title]

Term Identifier	http://purl.org/dc/elements/1.1/title
Qualified Name	dc:title
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/
Type of Term	Property (Element)
Source Label	Title
Label in this DCAP	Title
Source Definition	A name given to the resource.
Usage in this DCAP	The name of the collection.

Comments for this DCAP	Where an existing name is used, the value string should preserve the original wording, order and spelling of an existing name. Punctuation need not reflect the usage of the original. Subtitles should be separated from the title by a colon, for example: Voices from the Dust Bowl: The Charles L. Todd and Robert Sonkin Migrant Worker Collection											
Refines	[n/a]											
Refined by	dcterms:alternative, Dublin Core Terms http://purl.org/dc/terms/alternative											
Uses Vocabulary Encoding Scheme	[Value type not specified] <table><tr><td>Value URI</td><td>Value String</td><td>Syntax Encoding Scheme(s)</td><td>Rich Represent</td></tr><tr><td>N</td><td>M</td><td></td><td>N</td></tr></table>				Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	N	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent									
N	M		N									
Obligation	Mandatory											
Condition	[n/a]											
Occurrence	Minimum: 1, Maximum: unbounded											

Alternative Title [dcterms:alternative]

Term Identifier	http://purl.org/dc/terms/alternative										
Qualified Name	dcterms:alternative										
Defined By	Dublin Core Terms http://purl.org/dc/terms/										
Type of Term	Property (Element Refinement)										
Source Label	Alternative										
Label in this DCAP	Alternative Title										
Source Definition	Any form of the title used as a substitute or alternative to the formal title of the resource.										
Usage in this DCAP	Any form of the name used as a substitute or alternative to the formal name of the collection.										
Comments for this DCAP	Values may include acronyms that are used in addition to the name of the collection.										
Refines	dc:title, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/title										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	[Value type not specified]										
	<table><tr><td>Value URI</td><td>Value String</td><td>Syntax Encoding Scheme(s)</td><td>Rich Represent</td></tr><tr><td>N</td><td>M</td><td></td><td>N</td></tr></table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	N	M		N		
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
N	M		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Description [dcterms:abstract]

Term Identifier	http://purl.org/dc/terms/abstract
Qualified Name	dcterms:abstract
Defined By	Dublin Core Terms http://purl.org/dc/terms/

Type of Term	Property (Element refinement)											
Source Label	Abstract											
Label in this DCAP	Description											
Source Definition	A summary of the content of the resource.											
Usage in this DCAP	A summary of the content of the collection.											
Comments for this DCAP	A free text summary of the collection. Although a description might contain detailed subject-specific information, at least part of the description should be understandable by an end-user with no specialist knowledge of the subject area.											
Refines	dc:description, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/description											
Uses Vocabulary Encoding Scheme	[Value type not specified] <table><tr><td>Value URI</td><td>Value String</td><td>Syntax Encoding Scheme(s)</td><td>Rich Represent</td></tr><tr><td>N</td><td>M</td><td></td><td>N</td></tr></table>				Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	N	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent									
N	M		N									
Obligation	Mandatory											
Condition	[n/a]											
Occurrence	Minimum: 1, Maximum: unbounded											

Size [dcterms:extent]

Term Identifier	http://purl.org/dc/terms/extent										
Qualified Name	dcterms:extent										
Defined By	Dublin Core Terms http://purl.org/dc/terms/										
Type of Term	Property (Element Refinement)										
Source Label	Extent										
Label in this DCAP	Size										
Source Definition	The size or duration of the resource.										
Usage in this DCAP	The size of the collection.										
Comments for this DCAP	[n/a]										
Refines	dc:format, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/format										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	[Value type not specified] <table><tr><td>Value URI</td><td>Value String</td><td>Syntax Encoding Scheme(s)</td><td>Rich Represent</td></tr><tr><td>N</td><td>M</td><td></td><td>N</td></tr></table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	N	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
N	M		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Language [dc:language]

Term Identifier	http://purl.org/dc/elements/1.1/language
------------------------	--

Qualified Name	dc:language										
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/										
Type of Term	Property (Element)										
Source Label	Language										
Label in this DCAP	Language										
Source Definition	A language of the intellectual content of the resource.										
Usage in this DCAP	A language of the content of the items in the collection.										
Comments for this DCAP	The value string should be a language name in the form of the three character code defined by ISO 639-2. Where the collection covers multiple languages, a separate statement should be used for each language.										
Refines	[n/a]										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	dcterms:ISO639-2 , Dublin Core Terms http://purl.org/dc/terms/ISO639-2 <table><tr><th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr><tr><td>O</td><td>M</td><td></td><td>N</td></tr></table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Type [dc:type]

Term Identifier	http://purl.org/dc/elements/1.1/type			
Qualified Name	dc:type			
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/			
Type of Term	Property (Element)			
Source Label	Resource Type			
Label in this DCAP	Collection Type			
Source Definition	The nature or genre of the content of the resource.			
Usage in this DCAP	A type of the collection.			
Comments for this DCAP	Where the collection is categorised to be of an instance of multiple types in the cld:CLDType vocabulary, a separate statement should be used for each type.			
Refines	[n/a]			
Refined by	[n/a]			
Uses Vocabulary Encoding Scheme	cld:CLDType, Collection Description Terms http://example.org/cld/terms#CLDType			
	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent
	O	M		N
Obligation	Optional			
Condition	[n/a]			

Occurrence	Minimum: 0, Maximum: unbounded
------------	--------------------------------

Rights [dc:rights]

Term Identifier	http://purl.org/dc/elements/1.1/rights		
Qualified Name	dc:rights		
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/		
Type of Term	Property (Element)		
Source Label	Rights		
Label in this DCAP	Rights		
Source Definition	Information about rights held in and over the resource.		
Usage in this DCAP	A statement of any rights held in/over the collection.		
Comments for this DCAP	[n/a]		
Refines	[n/a]		
Refined by	dcterms:accessRights, Dublin Core Terms http://purl.org/dc/terms/accessRights		
Uses Vocabulary Encoding Scheme	[Value type not specified]		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	O	N
Obligation	Optional		
Condition	[n/a]		
Occurrence	Minimum: 0, Maximum: unbounded		

Access Rights [dcterms:accessRights]

Term Identifier	http://purl.org/dc/terms/accessRights		
Qualified Name	dcterms:accessRights		
Defined By	Dublin Core Terms http://purl.org/dc/terms/		
Type of Term	Property (Element Refinement)		
Source Label	Access Rights		
Label in this DCAP	Access Rights		
Source Definition	Information about who can access the resource or an indication of its security status.		
Usage in this DCAP	A statement of any access restrictions placed on the collection, including allowed users, charges, etc.		
Comments for this DCAP	[n/a]		
Refines	dc:rights, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/rights		
Refined by	[n/a]		
Uses Vocabulary Encoding Scheme	[Value type not specified]		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	O	N
Obligation	Optional		
Condition	[n/a]		

Occurrence	Minimum: 0, Maximum: unbounded
------------	--------------------------------

Accrual Method [dcterms:accrualMethod]

Term Identifier	http://purl.org/dc/terms/accrualMethod										
Qualified Name	dcterms:accrualMethod										
Defined By	Dublin Core Terms http://purl.org/dc/terms/										
Type of Term	Property (Element)										
Source Label	Accrual Method										
Label in this DCAP	Accrual Method										
Source Definition	The method by which items are added to a collection.										
Comments for this DCAP	<p>Recommended best practice is to use a value from the DCCD Accrual Method encoding scheme.</p> <p>Where multiple methods apply, a separate statement should be used for each method.</p>										
Refines	[n/a]										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	cld:DCCDAccrualMethod , Collection Description Terms http://example.org/cld/terms#DCCDAccrualMethod										
	<table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N		
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Accrual Periodicity [dcterms:accrualPeriodicity]

Term Identifier	http://purl.org/dc/terms/accrualPeriodicity										
Qualified Name	dcterms:accrualPeriodicity										
Defined By	Dublin Core Terms http://purl.org/dc/terms/										
Type of Term	Property (Element)										
Source Label	Accrual Periodicity										
Label in this DCAP	Accrual Periodicity										
Source Definition	The frequency with which items are added to a collection.										
Comments for this DCAP	Recommended best practice is to use a value from the DCCD Accrual Periodicity encoding scheme.										
Refines	[n/a]										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	cld:DCCDAccrualPeriodicity , Collection Description Terms http://example.org/cld/terms#DCCDAccrualPeriodicity										
	<table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N		
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Obligation	Optional										
Condition	[n/a]										

Occurrence	Minimum: 0, Maximum: unbounded
------------	--------------------------------

Accrual Policy [dcterms:accrualPolicy]

Term Identifier	http://purl.org/dc/terms/accrualPolicy										
Qualified Name	dcterms:accrualPolicy										
Defined By	Dublin Core Terms http://purl.org/dc/terms/										
Type of Term	Property (Element)										
Source Label	Accrual Policy										
Label in this DCAP	Accrual Policy										
Source Definition	The policy governing the addition of items to a collection.										
Comments for this DCAP	<p>Recommended best practice is to use a value from the DCCD Accrual Policy encoding scheme.</p> <p>Where multiple policies apply, a separate statement should be used for each policy.</p>										
Refines	[n/a]										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	cld:DCCDAccrualPolicy , Collection Description Terms http://example.org/cld/terms#DCCDAccrualPolicy										
	<table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N		
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Custodial History [dcterms:provenance]

Term Identifier	http://purl.org/dc/terms/provenance										
Qualified Name	dcterms:provenance										
Defined By	Dublin Core Terms http://purl.org/dc/terms/										
Type of Term	Property (Element)										
Source Label	Provenance										
Label in this DCAP	Custodial History										
Source Definition	A statement of any changes in ownership and custody of the resource since its creation that are significant for its authenticity, integrity and interpretation.										
Usage in this DCAP	A statement of any changes in ownership and custody of the collection that are significant for its authenticity, integrity and interpretation.										
Comments for this DCAP	[n/a]										
Refines	[n/a]										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	[Value type not specified]										
	<table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N		
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								

Obligation	Optional
Condition	[n/a]
Occurrence	Minimum: 0, Maximum: unbounded

Audience [dcterms:audience]

Term Identifier	http://purl.org/dc/terms/audience		
Qualified Name	dcterms:audience		
Defined By	Dublin Core Terms http://purl.org/dc/terms/		
Type of Term	Property (Element)		
Source Label	Audience		
Label in this DCAP	Audience		
Source Definition	A class of entity for whom the resource is intended or useful.		
Usage in this DCAP	A class of entity for whom the collection is intended or useful.		
Comments for this DCAP	Where a collection is intended or useful for multiple audiences, a separate statement should be used for each audience.		
Refines	[n/a]		
Refined by	[n/a]		
Uses Vocabulary Encoding Scheme	[Value type not specified]		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	M	N
Obligation	Optional		
Condition	[n/a]		
Occurrence	Minimum: 0, Maximum: unbounded		

Subject [dc:subject]

Term Identifier	http://purl.org/dc/elements/1.1/subject
Qualified Name	dc:subject
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/
Type of Term	Property (Element)
Source Label	Subject and Keywords
Label in this DCAP	Subject
Source Definition	The topic of the content of the resource.
Usage in this DCAP	A subject or topic associated with the items in the collection.

Comments for this DCAP	<p>Keywords or subject descriptors associated with items in the collection.</p> <p>The terms used indicate the subject matter of the collection.</p> <p>Where multiple keywords or subject descriptors are provided, a separate statement should be used for each keyword or term.</p> <p>The vocabulary encoding schemes below are those recommended by DCMI. Other appropriate vocabulary encoding schemes may be used, and the use of a scheme must be indicated.</p>										
Refines	[n/a]										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	<p>dcterms:LCSH, Dublin Core Terms http://purl.org/dc/terms/LCSH</p> <table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Uses Vocabulary Encoding Scheme	<p>dcterms:LCC, Dublin Core Terms http://purl.org/dc/terms/LCC</p> <table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Uses Vocabulary Encoding Scheme	<p>dcterms:MESH, Dublin Core Terms http://purl.org/dc/terms/MESH</p> <table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Uses Vocabulary Encoding Scheme	<p>dcterms:DDC, Dublin Core Terms http://purl.org/dc/terms/DDC</p> <table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Uses Vocabulary Encoding Scheme	<p>dcterms:UDC, Dublin Core Terms http://purl.org/dc/terms/UDC</p> <table> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> <tr> <td>O</td><td>M</td><td></td><td>N</td></tr> </table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Spatial Coverage [[dcterms:spatial](#)]

Term Identifier	http://purl.org/dc/terms/spatial
Qualified Name	dcterms:spatial
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Property (Element Refinement)

Source Label	Spatial								
Label in this DCAP	Spatial Coverage								
Source Definition	Spatial characteristics of the intellectual content of the resource.								
Usage in this DCAP	The spatial coverage of the content of the items in the collection.								
Comments for this DCAP	[n/a]								
Refines	dc:coverage, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/coverage								
Refined by	[n/a]								
Uses Vocabulary Encoding Scheme	[Value type not specified] <table><tr><td>Value URI</td><td>Value String</td><td>Syntax Encoding Scheme(s)</td><td>Rich Represent</td></tr><tr><td>O</td><td>M</td><td></td><td>N</td></tr></table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent						
O	M		N						
Obligation	Optional								
Condition	[n/a]								
Occurrence	Minimum: 0, Maximum: unbounded								

Temporal Coverage [dcterms:temporal]

Term Identifier	http://purl.org/dc/terms/temporal										
Qualified Name	dcterms:temporal										
Defined By	Dublin Core Terms http://purl.org/dc/terms/										
Type of Term	Property (Element Refinement)										
Source Label	Temporal										
Label in this DCAP	Temporal Coverage										
Source Definition	Temporal characteristics of the intellectual content of the resource.										
Usage in this DCAP	The temporal coverage of the content of the items in the collection.										
Comments for this DCAP	[n/a]										
Refines	dc:coverage, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/coverage										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	[Value type not specified]										
	<table><tr><td>Value URI</td><td>Value String</td><td>Syntax Encoding Scheme(s)</td><td>Rich Represent</td></tr><tr><td>O</td><td>M</td><td></td><td>N</td></tr></table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N		
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	M		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Accumulation Date Range [dcterms:created]

Term Identifier	http://purl.org/dc/terms/created
Qualified Name	dcterms:created
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Property (Element Refinement)

Source Label	Created								
Label in this DCAP	Accumulation Date Range								
Source Definition	Date of creation of the resource.								
Usage in this DCAP	The range of dates over which the collection was accumulated.								
Comments for this DCAP	<p>A date range should be supplied in the form described by RKMS-ISO8601. Start dates and end dates should be in the form of a date or date-time combination as specified by W3CDTF. Start dates and end dates should be separated by a solidus (forward slash) (/). Either the start date or the end date may be omitted to indicate an open-ended date range.</p> <p>All the following are examples of RKMS-ISO8601 date ranges:</p> <p style="text-align: center;">1888/1894 1960/ /1960 2000-02/2000-06-18</p> <p>indicating, '1888 to 1894', '1960 onwards', 'up until 1960' and 'February 2000 to 18 June 2000' respectively.</p> <p>Where multiple ranges are required, a separate statement should be used for each range.</p>								
Refines	dc:date, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/date								
Refined by	[n/a]								
Uses Vocabulary Encoding Scheme	<p>gen:RKMS-ISO8601, General Description Terms http://example.org/gen/terms#RKMS-ISO8601</p> <table><tr><th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr><tr><td>O</td><td>M</td><td></td><td>N</td></tr></table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent						
O	M		N						
Obligation	Optional								
Condition	[n/a]								
Occurrence	Minimum: 0, Maximum: unbounded								

Contents Date Range [cld:dateContentsCreated]

Term Identifier	http://example.org/cld/terms#dateContentsCreated
Qualified Name	cld:dateContentsCreated
Defined By	Collection Description Terms http://example.org/cld/terms#
Type of Term	Property (Element Refinement)
Source Label	Date Contents Created
Label in this DCAP	Contents Date Range
Source Definition	The range of dates over which the individual items within the collection were created.
Usage in this DCAP	[n/a]

Comments for this DCAP	<p>A date range should be supplied in the form described by RKMS-ISO8601. Start dates and end dates should be in the form of a date or date-time combination as specified by W3CDTF. Start dates and end dates should be separated by a solidus (forward slash) (/). Either the start date or the end date may be omitted to indicate an open-ended date range.</p> <p>All the following are examples of RKMS-ISO8601 date ranges:</p> <p>1888/1894 1960/ /1960 2000-02/2000-06-18</p> <p>indicating, '1888 to 1894', '1960 onwards', 'up until 1960' and 'February 2000 to 18 June 2000' respectively.</p> <p>Where multiple ranges are required, a separate statement should be used for each range.</p>								
Refines	dc:date, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/date								
Refined by	[n/a]								
Uses Vocabulary Encoding Scheme	<p>gen:RKMS-ISO8601, General Description Terms http://example.org/gen/terms#RKMS-ISO8601</p> <table><tr><th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr><tr><td>O</td><td>M</td><td></td><td>N</td></tr></table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent						
O	M		N						
Obligation	Optional								
Condition	[n/a]								
Occurrence	Minimum: 0, Maximum: unbounded								

Collector [dc:creator]

Term Identifier	http://purl.org/dc/elements/1.1/creator											
Qualified Name	dc:creator											
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/											
Type of Term	Property (Element)											
Source Label	Creator											
Label in this DCAP	Collector											
Source Definition	An entity primarily responsible for making the content of the resource.											
Usage in this DCAP	An entity who gathers (or gathered) the items in a collection together.											
Comments for this DCAP	[n/a]											
Refines	[n/a]											
Refined by	[n/a]											
Uses Vocabulary Encoding Scheme	[Value type not specified] <table><tr><td>Value URI</td><td>Value String</td><td>Syntax Encoding Scheme(s)</td><td>Rich Represent</td></tr><tr><td>O</td><td>M</td><td></td><td>N</td></tr></table>				Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	M		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent									
O	M		N									
Obligation	Optional											
Condition	[n/a]											
Occurrence	Minimum: 0, Maximum: unbounded											

Owner [marcrel:OWN]

Term Identifier	http://www.loc.gov/loc.terms/relators/OWN		
Qualified Name	marcrel:OWN		
Defined By	MARC Relator Codes http://www.loc.gov/loc.terms/relators/		
Type of Term	Property (Element)		
Source Label	Owner		
Label in this DCAP	Owner		
Source Definition	The person or organization that currently owns an item or collection.		
Usage in this DCAP	An entity who has legal possession of the collection.		
Comments for this DCAP	[n/a]		
Refines	[n/a]		
Refined by	[n/a]		
Uses Vocabulary Encoding Scheme	[Value type not specified]		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	M	
			Rich Represent
			N
Obligation	Optional		
Condition	[n/a]		
Occurrence	Minimum: 0, Maximum: unbounded		

Is Located At [gen:isLocatedAt]

Term Identifier	http://example.org/gen/terms#isLocatedAt		
Qualified Name	gen:isLocatedAt		
Defined By	General Description Terms http://example.org/gen/terms#		
Type of Term	Property (Element Refinement)		
Source Label	Is Located At		
Label in this DCAP	Is Located At		
Source Definition	A location of the resource.		
Usage in this DCAP	A location of the collection.		
Comments for this DCAP			
Refines	dc:relation, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/relation		
Refined by	[n/a]		
Uses Vocabulary Encoding Scheme	[Value type not specified]		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	M	
			Rich Represent
			N
Obligation	Optional		
Condition	[n/a]		
Occurrence	Minimum: 0, Maximum: unbounded		

Is Accessed Via [gen:isAccessedVia]

Term Identifier	http://example.org/gen/terms#isAccessedVia		
Qualified Name	gen:isAccessedVia		
Defined By	General Description Terms http://example.org/gen/terms#		
Type of Term	Property (Element Refinement)		
Source Label	Resource Identifier		
Label in this DCAP	Is Accessed Via		
Source Definition	A service that provides access to the resource.		
Usage in this DCAP	A service that provides access to the collection.		
Comments for this DCAP			
Refines	dc:relation, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/relation		
Refined by	[n/a]		
Uses Vocabulary Encoding Scheme	[Value type not specified]		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	M	
			Rich Represent
			N
Obligation	Optional		
Condition	[n/a]		
Occurrence	Minimum: 0, Maximum: unbounded		

Sub-collection [dcterms:hasPart]

Term Identifier	http://purl.org/dc/terms/hasPart		
Qualified Name	dcterms:hasPart		
Defined By	Dublin Core Terms http://purl.org/dc/terms/		
Type of Term	Property (Element Refinement)		
Source Label	Has Part		
Label in this DCAP	Sub-collection		
Source Definition	The described resource includes the referenced resource either physically or logically.		
Usage in this DCAP	A second collection contained within the current collection.		
Comments for this DCAP	[n/a]		
Refines	dc:relation, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/relation		
Refined by	[n/a]		
Uses Vocabulary Encoding Scheme	dcmitype:Collection, DCMI Type Vocabulary http://purl.org/dc/dcmitype/Collection		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	O	
			Rich Represent
			N
Obligation	Optional		
Condition	[n/a]		
Occurrence	Minimum: 0, Maximum: unbounded		

Super-collection [dcterms:isPartOf]

Term Identifier	http://purl.org/dc/terms/isPartOf		
Qualified Name	dcterms:isPartOf		
Defined By	Dublin Core Terms http://purl.org/dc/terms/		
Type of Term	Property (Element Refinement)		
Source Label	Is Part Of		
Label in this DCAP	Super-collection		
Source Definition	The described resource is a physical or logical part of the referenced resource.		
Usage in this DCAP	A second collection that contains the current collection.		
Comments for this DCAP	[n/a]		
Refines	dc:relation, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/relation		
Refined by	[n/a]		
Uses Vocabulary Encoding Scheme	dcmitype:Collection , DCMI Type Vocabulary http://purl.org/dc/dcmitype/Collection		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	O	N
Obligation	Optional		
Condition	[n/a]		
Occurrence	Minimum: 0, Maximum: unbounded		

Catalogue or description [dc:description]

Term Identifier	http://purl.org/dc/elements/1.1/description		
Qualified Name	dc:description		
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/		
Type of Term	Property (Element)		
Source Label	Description		
Label in this DCAP	Catalogue or Description		
Source Definition	An account of the content of the resource.		
Usage in this DCAP	A second collection that describes the current collection (for example, the catalogue for the current collection).		
Comments for this DCAP	[n/a]		
Refines	[n/a]		
Refined by	dcterms:abstract, Dublin Core Terms http://purl.org/dc/terms/abstract		
Uses Vocabulary Encoding Scheme	dcmitype:Collection , DCMI Type Vocabulary http://purl.org/dc/dcmitype/Collection		
	Value URI	Value String	Syntax Encoding Scheme(s)
	O	O	N
Obligation	Optional		

Condition	[n/a]
Occurrence	Minimum: 0, Maximum: unbounded

Associated collection [dc:relation]

Term Identifier	http://purl.org/dc/elements/1.1/relation										
Qualified Name	dc:relation										
Defined By	The Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/										
Type of Term	Property (Element)										
Source Label	Relation										
Label in this DCAP	Associated collection										
Source Definition	A reference to a related resource.										
Usage in this DCAP	A second collection that is associated with the current collection.										
Comments for this DCAP	[n/a]										
Refines	[n/a]										
Refined by	dcterms:isPartOf, Dublin Core Terms http://purl.org/dc/terms/isPartOf										
Refined by	dcterms:hasPart, Dublin Core Terms http://purl.org/dc/terms/hasPart										
Refined by	dcterms:isReferencedBy, Dublin Core Terms http://purl.org/dc/terms/isReferencedBy										
Refined by	gen:isAccessedVia, General Description Terms http://example.org/gen/terms#isAccessedVia										
Refined by	gen:isLocatedAt, General Description Terms http://example.org/gen/terms#isLocatedAt										
Uses Vocabulary Encoding Scheme	dcmitype:Collection , DCMI Type Vocabulary http://purl.org/dc/dcmitype/Collection <table border="1"> <thead> <tr> <th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr> </thead> <tbody> <tr> <td>O</td><td>O</td><td></td><td>N</td></tr> </tbody> </table>			Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	O		N
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	O		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Associated publication [dcterms:isReferencedBy]

Term Identifier	http://purl.org/dc/terms/isReferencedBy		
Qualified Name	dcterms:isReferencedBy		
Defined By	Dublin Core Terms http://purl.org/dc/terms/		
Type of Term	Property (Element Refinement)		
Source Label	Is Referenced By		
Label in this DCAP	Associated publication		
Source Definition	The described resource is referenced, cited, or otherwise pointed to by the referenced resource.		
Usage in this DCAP	A publication that is based on the use, study, or analysis of the collection.		
Comments for this DCAP	[n/a]		

Refines	dc:relation, Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/relation										
Refined by	[n/a]										
Uses Vocabulary Encoding Scheme	[Value type not specified]										
	<table><tr><th>Value URI</th><th>Value String</th><th>Syntax Encoding Scheme(s)</th><th>Rich Represent</th></tr><tr><td>O</td><td>O</td><td></td><td>N</td></tr></table>	Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent	O	O		N		
Value URI	Value String	Syntax Encoding Scheme(s)	Rich Represent								
O	O		N								
Obligation	Optional										
Condition	[n/a]										
Occurrence	Minimum: 0, Maximum: unbounded										

Encoding Schemes Used

- [Uniform Resource Identifier \[dcterms:URI\]](#)
- [ISO 639-2 \[dcterms:ISO639-2\]](#)
- [Collection Type Vocabulary \[cld:CLDType\]](#)
- [DCCD Accrual Method \[cld:DCCDAccrualMethod\]](#)
- [DCCD Accrual Periodicity \[cld:DCCDAccrualPeriodicity\]](#)
- [DCCD Accrual Policy \[cld:DCCDAccrualPolicy\]](#)
- [Image \[dcmitype:Image\]](#)
- [Library of Congress Subject Headings \[dcterms:LCSH\]](#)
- [Library of Congress Classification \[dcterms:LCC\]](#)
- [Medical Subject Headings \[dcterms:MESH\]](#)
- [Dewey Decimal Classification \[dcterms:DDC\]](#)
- [Universal Decimal Classification \[dcterms:UDC\]](#)
- [Recordkeeping Metadata Schema Extension to ISO8601 \[gen:RKMS-ISO8601\]](#)
- [Collection \[dcmitype:Collection\]](#)

Uniform Resource Identifier [dcterms:URI]

Term Identifier	http://purl.org/dc/terms/URI
Qualified Name	dcterms:URI
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Vocabulary (?) Encoding Scheme
Label	Uniform Resource Identifier
Definition	Uniform Resource Identifier.
See Also	http://www.ietf.org/rfc/rfc2396.txt
Encoding Scheme for	dc:identifier , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/identifier

ISO639-2 [dcterms:ISO639-2]

Term Identifier	http://purl.org/dc/terms/ISO639-2
Qualified Name	dcterms:ISO639-2
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Vocabulary Encoding Scheme
Label	ISO 639-2
Definition	ISO 639-2: Codes for the representation of names of languages.
Comments for this DCAP	[n/a]
See Also	http://www.loc.gov/standards/iso639-2/

Encoding Scheme for	dc:language , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/language
---------------------	---

Collection Type Vocabulary [cld:CLDType]

Term Identifier	http://example.org/cld/terms#CLDType
Qualified Name	cld:CLDType
Defined By	Collection Description Terms http://example.org/cld/terms#
Type of Term	Vocabulary Encoding Scheme
Label	Collection Type Vocabulary
Definition	A list of types that categorize the collection according to the nature of the items in the collection.
Comments for this DCAP	[n/a]
See Also	http://www.ukoln.ac.uk/metadata/dcmi/collection-type/
Encoding Scheme for	dc:type , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/type

DCCD Accrual Method [cld:DCCDAccrualMethod]

Term Identifier	http://example.org/cld/terms#DCCDAccrualMethod
Qualified Name	cld:DCCDAccrualMethod
Defined By	Collection Description Terms http://example.org/cld/terms#
Type of Term	Vocabulary Encoding Scheme
Label	DCCD Accrual Method
Definition	Methods by which items are added to a collection.
Comments for this DCAP	[n/a]
See Also	http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualMethod/
Encoding Scheme for	dcterms:accrualMethod , Dublin Core Terms http://purl.org/dc/terms/accrualMethod

DCCD Accrual Periodicity [cld:DCCDAccrualPeriodicity]

Term Identifier	http://example.org/cld/terms#DCCDAccrualPeriodicity
Qualified Name	cld:DCCDAccrualPeriodicity
Defined By	Collection Description Terms http://example.org/cld/terms#
Type of Term	Vocabulary Encoding Scheme
Label	DCCD Accrual Periodicity
Definition	Frequencies which items are added to a collection.
Comments for this DCAP	[n/a]
See Also	http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/
Encoding Scheme for	dcterms:accrualPeriodicity , Dublin Core Terms http://purl.org/dc/terms/accrualPeriodicity

DCCD Accrual Policy [cld:DCCDAccrualPolicy]

Term Identifier	http://example.org/cld/terms#DCCDAccrualPolicy
Qualified Name	dcterms:DCCDAccrualPolicy

Defined By	Collection Description Terms http://example.org/cld/terms#
Type of Term	Vocabulary Encoding Scheme
Label	DCCD Accrual Policy
Definition	Policies governing the addition of items to a collection.
Comments for this DCAP	[n/a]
See Also	http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPolicy/
Encoding Scheme for	dcterms:accrualPolicy , Dublin Core Terms http://purl.org/dc/terms/accrualPolicy

Library of Congress Subject Headings (LCSH) [dcterms:LCSH]

Term Identifier	http://purl.org/dc/terms/LCSH
Qualified Name	dcterms:LCSH
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Vocabulary Encoding Scheme
Label	LCSH
Definition	Library of Congress Subject Headings.
Comments for this DCAP	[n/a]
See Also	http://lcweb.loc.gov/cds/lcsh.html
Encoding Scheme for	dc:subject , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/subject

Library of Congress Classification (LCC) [dcterms:LCC]

Term Identifier	http://purl.org/dc/terms/LCC
Qualified Name	dcterms:LCC
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Vocabulary Encoding Scheme
Label	LCC
Definition	Library of Congress Classification.
Comments for this DCAP	[n/a]
See Also	http://lcweb.loc.gov/catdir/cpsolcco/lcco.html
Encoding Scheme for	dc:subject , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/subject

Medical Subject Headings (MESH) [dcterms:MESH]

Term Identifier	http://purl.org/dc/terms/MESH
Qualified Name	dcterms:MESH
Type of Term	Vocabulary Encoding Scheme
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Label	MeSH
Definition	Medical Subject Headings.
Comments for this DCAP	[n/a]

See Also	http://www.nlm.nih.gov/mesh/meshhome.html
Encoding Scheme for	dc:subject , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/subject

Dewey Decimal Classification (DDC) [dcterms:DDC]

Term Identifier	http://purl.org/dc/terms/DDC
Qualified Name	dcterms:DDC
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Vocabulary Encoding Scheme
Label	DDC
Definition	Dewey Decimal Classification.
Comments for this DCAP	[n/a]
See Also	http://www.oclc.org/dewey/
Encoding Scheme for	dc:subject , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/subject

Universal Decimal Classification (UDC) [dcterms:UDC]

Term Identifier	http://purl.org/dc/terms/UDC
Qualified Name	dcterms:UDC
Defined By	Dublin Core Terms http://purl.org/dc/terms/
Type of Term	Vocabulary Encoding Scheme
Label	UDC
Definition	Universal Decimal Classification.
Comments for this DCAP	[n/a]
See Also	http://www.udcc.org/
Encoding Scheme for	dc:subject , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/subject

Recordkeeping Metadata Schema Extension to ISO8601 [gen:RKMS-ISO8601]

Term Identifier	http://example.org/gen/terms#RKMS-ISO8601
Qualified Name	gen:RKMS-ISO8601
Defined By	General Description Terms http://example.org/gen/terms#
Type of Term	Vocabulary (?) Encoding Scheme
Label	Recordkeeping Metadata Schema Extension to ISO8601
Definition	Instances of this class are dates or periods of time represented as literals according to the rules specified in Recordkeeping Metadata Schema Extension to ISO8601 .
Comments for this DCAP	[n/a]
See Also	[n/a]
Encoding Scheme for	cld:dateContentsCreated , Collection Description Terms http://example.org/cld/terms#dateContentsCreated
Encoding Scheme for	dcterms:created , Dublin Core Terms http://purl.org/dc/terms/created

Collection [dcmltype:Collection]

Term Identifier	http://purl.org/dc/dcmltype/Collection
Qualified Name	dcmltype:Collection
Defined By	DCMI Type Vocabulary http://purl.org/dc/dcmltype/
Type of Term	Vocabulary Encoding Scheme
Label	Collection
Definition	A collection is an aggregation of items. The term collection means that the resource is described as a group; its parts may be separately described and navigated.
Comments for this DCAP	[n/a]
See Also	[n/a]
Encoding Scheme for	dcterms:hasPart , Dublin Core Terms http://purl.org/dc/terms/hasPart
Encoding Scheme for	dcterms:isPartOf , Dublin Core Terms http://purl.org/dc/terms/isPartOf
Encoding Scheme for	dc:description , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/description
Encoding Scheme for	dc:relation , Dublin Core Metadata Element Set, v1.1 http://purl.org/dc/elements/1.1/relation

Administrative Metadata

A collection-level description conforming to this profile **should** itself be described by an appropriate administrative metadata description. This document does not specify the properties to be used in that administrative metadata description.

Changes made in this version

- Removed usage of gen:logo property (and dcmltype:Image as encoding scheme).

References

[DCCDAPS] *Dublin Core Collection Description Application Profile Summary*
<http://www.ukoln.ac.uk/metadata/dcmi/collection-ap-summary/>

[AMCC] Heaney, Michael. *An Analytical Model of Collections and their Catalogues*
<http://www.ukoln.ac.uk/metadata/rsdp/model/>

[DCAM] Powell, Andy, Mikael Nilsson, Ambjörn Naeve, Pete Johnston. *DCMI Abstract Model*
<http://dublincore.org/documents/abstract-model/>



Metadata associated with this resource: <http://dublincore.org/documents/collection-application-profile/index.shtml.rdf>

Copyright © 1995-2002 DCMI All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

Date: Thu, 25 Aug 2005 13:48:25 +0100
From: Pete Johnston <p.johnston@ukoln.ac.uk>

I've noted the two outstanding issues with the "content" of the DC CD AP:

- clarifying whether Location and Service are distinct and if they are what the relationships are between Collection and Location and Collection and Service
- how to represent the fact that a collection contains some items of format F

I'm proposing to discuss both of these at the meeting of the DC CD WG in Madrid.

I've left the `isLocatedIn` and `isAccessedVia` properties in the DC CD AP, but essentially they are placeholders for a final solution, so I suggest the UB skips over examining them (though of course any thoughts from UB on the problem would be welcome!)

For the date stuff, in the absence of a proposal for a solution from DC Date WG, I've gone ahead and referenced the format used in RKMS. If DC Date WG does propose a suitable format/scheme then I'll happily switch over to that.

More on the general modelling side of things - the "what are we doing in a DCAP?" sort of questions which I think UB is more interested in - I still have some niggling doubts about the relationship between the way a DCAP "contextualises the use of" a property (I've stopped saying "redefines" or "narrows the definition of") and subproperty relations.

For example, in the DC CD AP

- the property `dc:relation` is used with vocabulary encoding scheme `dc:type:Collection` to indicate an "association" of unspecified type between the described collection and a second collection;
- the property `dcterms:isReferencedBy` is used with no vocabulary encoding scheme specified to indicate that the reference publication is based on the study of the described collection.

I think both of these are consistent with the definitions of the properties (OK, in the second case it might be a bit loose - but if it is based on the study of the collection, it must reference it, I think)

But the fact that `dcterms:isReferencedBy` is a subproperty of `dc:relation` implies that every statement made referring to `dcterms:isReferencedBy` implies a statement referring to `dc:relation`.

So

collection:C dcterms:isReferencedBy book:B .

implies

collection:C dc:relation book:B .

Which is perfectly fine given the DCMI definition of `dc:relation`

- there is a relation of some type between the collection and the book.

However, the inferred statement does not correspond to the "use" we are making of dc:relation in the DC CD AP - book:B is not an "associated collection".

I think this is a general issue when a DCAP "uses" both a property and a subproperty of that property. I'm not sure whether this really is a problem and /or what to do about it, but it provides a good topic for discussion, I think!

One solution would be to say "don't ever do that" in a DCAP, and you should coin a new subproperty for the case where you use the property - so in this case, coin cld:associatedCollection (subprop of dc:relation) and use that instead of dc:relation. Both would imply a straight dc:relation statement, and as the DCAP isn't "contextualising" dc:relation, there is no clash of interpretation.

And/or you say the interpretation of the property is always only that of the source definition - and the stuff in the DCAP is just a guideline for the metadata creator, not for the consumer.... Again, if you want to make explicit that your association is something different from dc:relation, then you need a new subproperty.

I'm tempted to say that defining new subproperties is a better strategy than "narrowing/contextualising" the definitions of existing properties in the name of "reuse". We should not feel it is "bad" to define new properties where it is appropriate to do so. Yes, you get more terms in use, but that isn't necessarily "wrong" - "proliferation" doesn't mean no interoperability. the subproperty relation tells my application that the statement made using this thing it has never seen before implies a statement made using dc:relation. That is the point of having the concept of subproperty in the DCAM.

Date: Tue, 16 Aug 2005 20:56:07 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: New draft (2005-08-13) of DC CD AP available
To: DC-COLLECTIONS@JISCMAIL.AC.UK

I've created a new draft of the DC CD AP:

<http://www.ukoln.ac.uk/metadata/dcmi/collection-ap-summary/>

<http://www.ukoln.ac.uk/metadata/dcmi/collection-application-profile/>

Bearing in mind that the Usage Board will be looking at this perhaps less from the perspective of whether the DC CD AP meets our "functional requirements", and rather more from the perspective of whether it is "well-formed" with respect to the DCMI Abstract Model (and whether it makes reasonable use of individual terms from the DC vocabularies), the main changes I've made are - as suggested at [1] - to try to bring it into alignment with the terminology and concepts of the DCAM, by

1. providing a bit more introductory commentary on what the DC CD AP is;
2. tweaking the text, mostly of "Comments", here and there to refer to values, value strings, statements etc as appropriate;
3. reorganising the tables a bit and for each property, for each vocabulary encoding scheme recommended for that property, adding a table which indicates whether a value URI, value string or rich representation is required/optional.

I've assumed that for every value, a related description may be provided - so you might have a description of a subject term or a location or a collector or a service or whatever, but this DCAP doesn't tell you anything about what terms might be used in those descriptions.

I hope (3) goes some way to addressing the questions I was getting along the lines of "Do I use a URI or a name/title here?" a bit better than my stock response of "Well, you can use either but you need to be sure which you want...". I've probably made some fairly arbitrary decisions along the way here, but I've tried to base them on what I've seen of existing practice, particularly in e.g. the JISC IESR project.

So e.g. for properties like dc:title, dcterms:abstract, a "value string" is required but a "value URI" is optional; and for properties like cld:logo where the value is an image, a "value URI" is required, but a "value string" is optional. I was strongly inclined to mandate the use of a "value URI" for the relations between collections, but given that we stopped short of saying that collections must have URIs assigned to them (I think that was what we settled on? The use of dc:identifier with a URI is "optional but recommended" in the current version?), I've left it as optional. I made the decision that "rich representations" of values are not supported.

We can discuss some of this and if necessary revise the detail of these options later - I suggest it might be a good topic for the f2f meeting of the WG in Madrid - , but I wanted to get a first cut at this in place in the version that the Usage Board review, as I think it illustrates some issues raised by the DCAM which have not been addressed by previous efforts at modelling/representing DC application profiles.

In terms of the "content" of the DC CD AP, the main changes I made were:

- Format of Items/Collection: I've removed the dc:format property, pending resolution of the question of how to represent the fact that a collection has items of a specified format
- Date ranges: The DC Date WG hasn't yet made a recommendation on the issue of how to represent "open date ranges" (which neither W3CDTF or ISO8601 support). So I've opted to reference an encoding scheme based on

the date format used by the Australian Recordkeeping Metadata Schema (RKMS) [2]. I've created a (currently temporary) URI for this (see [3] - though at present I'm not suggesting we propose that scheme to UB - date schemes is a job for the DC Date WG) - as I couldn't see one defined by RKMS (but if anyone can point me at an existing URI, I'll use that).

(The other option would be to define a new date format, which I also made a start on. See [4])

I'm happy to make minor changes to this version of the DC CD AP before passing it to the Usage Board (e.g. I haven't changed the logo definition but if we can agree wording for that - which I get a sense we are close to doing - then I'll include it in a new version), but I'd like to post a version to the Usage Board first thing on Monday, so any comments need to be made by the end of this Friday (19 August).

I have very little time (well, none, really) left to work on this this week, so I'm afraid any substantial changes will have to wait (unless there are any glaring errors) ;-)

There is one issue I'm slightly uncomfortable about but I don't know what to do about - I'll post a separate message on that, probably tomorrow.

[1] <http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0504&L=dc-collections&P=1125>

[2] RKMS Schemes <http://www.sims.monash.edu.au/research/rcrg/research/spirt/deliver/schemes.html>

[3] <http://www.ukoln.ac.uk/metadata/dcml/collection-RKMS-ISO8601/>

[4] <http://www.ukoln.ac.uk/metadata/dcml/date-dccd-odrf/>

Title: Decision on a proposal for new terms for describing collections of resources
Shepherd: Andrew Wilson
Identifier: <http://dublincore.org/usage/decisions/2005/2005-03.CollectionDescription.html>
Date: 2005-06-13
Description: The decisions documented here refer to proposals considered at the Usage Board meeting of October 2004 in Shanghai, China.

Text of proposals:

```
-- Accrual Method (element)
  http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualMethod/
-- Accrual Periodicity (element)
  http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPeriodicity/
-- Accrual Policy (element)
  http://www.ukoln.ac.uk/metadata/dcmi/collection-accrualPolicy/
-- Dublin Core Collection Description Accrual Method (encoding scheme)
  http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualMethod/
-- Dublin Core Collection Description Accrual Periodicity (encoding scheme)
  http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPeriodicity/
-- Dublin Core Collection Description Accrual Policy (encoding scheme)
  http://www.ukoln.ac.uk/metadata/dcmi/collection-DCCDAccrualPolicy/
```

(Note: The text of the above proposals is archived in the meeting packet for the Shanghai meeting, at <http://dublincore.org/usage/meetings/2004/10/Meeting-packet.pdf>.)

Decision

The Usage Board approves the addition of three new terms -- "accrualMethod", "accrualPeriodicity" and "accrualPolicy" -- as conforming terms in the dcterms namespace. The Usage Board deferred a decision on the three proposed encoding schemes pending clarification of the maintenance responsibility for the controlled vocabularies associated with the encoding schemes.

Discussion

The Collection Description Working Group proposed the addition of three new elements: "accrualMethod", "accrualPeriodicity", and "accrualPolicy"; and three new encoding schemes: "DCCDAccrualMethod", "DCCDAccrualPeriodicity", and "DCCDAccrualPolicy", as part of its development of an application profile for describing collections of resources. The DCMI Usage Board reviewed the proposal at a meeting in Shanghai China on Sunday, 10 October 2004. Members present were Tom Baker (chair), Diane Hillmann, Akira Miyazawa, Andy Powell, Stuart Sutton, Rebecca Guenther, and Andrew Wilson (designated shepherd of the Collection Description terms proposal).

Discussion of the three elements was concerned largely with the nature of "resource discovery" and whether the proposals actually achieved the aims of DCMI for cross-domain resource discovery. As a result of this discussion the Usage Board will clarify what it actually means when it refers to "resource discovery" and "cross-domain".

The three proposed elements and the three proposed encoding schemes were considered together because the encoding schemes identify controlled vocabularies recommended as the source of values for the elements.

After additions to the DCMI Type Vocabulary were approved in 2003, the Usage Board decided not to accept further proposals for expansion of the Type Vocabulary or for other controlled vocabularies of values to be used with DC elements and element refinements. The Usage Board has two main concerns

about expanding the number of controlled vocabularies managed by DCMI:

- * The resources required to manage vocabularies at this level is considerable. The Usage Board is composed of up to nine members all volunteers with busy careers on the side -- who feel a sufficient enough challenge fulfilling the Board's primary mission;
- * Most of the suggestions or proposals for additional vocabularies are those that should be created and managed by specialist communities with sufficient expertise and motivation to do the job.

To a great extent, the process of developing vocabularies is a social task, and not a technical task. As such it is critical that the development be managed in the appropriate domain. Usage Board members do not believe that the Usage Board is the appropriate domain for such an activity.

The Usage Board decided to reserve its decision on the proposed encoding schemes (and the associated controlled vocabularies) and to seek clarification of the role of the Usage Board in this area from the Trustees. Consequently, references to specific encoding schemes in the element proposals were removed.

Approved text - beginning

```
-----
VMS-ID:      accrualMethod-001
Name:        accrualMethod
URI:         http://purl.org/dc/terms/accrualMethod
Namespace:   http://purl.org/dc/terms/
Label:       Accrual Method
Definition:   The method by which items are added to a collection.
Comment:      Recommended best practice is to use a value from a controlled
              vocabulary.
Type of term: http://dublincore.org/usage/documents/principles/#element
Status:       http://dublincore.org/usage/documents/process/#conforming
Date issued:  2005-06-13
Decision:     http://dublincore.org/usage/decisions/#Decision-2005-03
-----
```

Approved text - end

Approved text - beginning

```
-----
VMS-ID:      accrualPeriodicity-001
Name:        accrualPeriodicity
URI:         http://purl.org/dc/terms/accrualPeriodicity
Namespace:   http://purl.org/dc/terms/
Label:       Accrual Periodicity
Definition:   The frequency with which items are added to a collection.
Comment:      Recommended best practice is to use a value from a
              controlled vocabulary.
Type of term: http://dublincore.org/usage/documents/principles/#element
Status:       http://dublincore.org/usage/documents/process/#conforming
Date issued:  2005-06-13
Decision:     http://dublincore.org/usage/decisions/#Decision-2005-03
-----
```

Approved text - end

Approved text - beginning

```
-----
VMS-ID:      accrualPolicy-001
Name:        accrualPolicy
URI:         http://purl.org/dc/terms/accrualPolicy
Namespace:   http://purl.org/dc/terms/
-----
```

Label: Accrual Policy
Definition: The policy governing the addition of items to a collection.
Comment: Recommended best practice is to use a value from a controlled vocabulary.
Type of term: <http://dublincore.org/usage/documents/principles/#element>
Status: <http://dublincore.org/usage/documents/process/#conforming>
Date issued: 2005-06-13
Decision: <http://dublincore.org/usage/decisions/#Decision-2005-03>

Approved text - end

Title: Decision on proposal for a Collection Description profile
Shepherd: Andrew Wilson
Identifier: <http://dublincore.org/usage/decisions/2004/2004-02.Collection-terms.shtml>
Date: 2004-09-03
Description: The decisions documented here refer to proposals considered at the Usage Board meeting of March 2004 in Bath UK.

Text of proposals:

-- <http://www.ukoln.ac.uk/metadata/dcmi/collection-provenance/2004-02-10/>
-- <http://www.ukoln.ac.uk/metadata/dcmi/collection-isAvailableAt/2004-01-24/>

Decision: The Usage Board approves the addition of a new element -- "Provenance" -- as a Conforming term in the dcterms namespace. The Usage Board does not approve the proposed new element refinement "isAvailableAt".

Discussion

The Collection Description Working Group proposed the addition of two new terms: "provenance" as a refinement of dc:description; and "isAvailableAt" as a refinement of dc:relation. The DCMI Usage Board reviewed the proposal at a meeting in Bath UK on Sunday, 14 March 2004. Members present were Tom Baker (chair), Diane Hillmann, Akira Miyazawa, Andy Powell, Roland Schwaenzl, Stuart Sutton, Rebecca Guenther, and Andrew Wilson (designated shepherd of the Collection Description terms proposal).

Discussion of "provenance" centred around the definition, and whether the proposal of "provenance" as a refinement of dc:description was appropriate. The UB agreed on a revised definition of "provenance" with additional information in the comment field of the proposal text. UB decided that "provenance" had wider resource discovery application than just within the collection description domain and agreed to approve "provenance" as a new conforming element (property) in its own right in the dcterms namespace.

In the UB discussion of the proposed refinement "isAvailableAt" -- both at the Bath meeting and subsequently on the mailing list -- the following points were made:

- The Collection Description working group would like to distinguish between an "identifier" for a resource (i.e., a string designating the resource described) and a "locator" usable for accessing that resource.
- The Collection Description working group also would like to be able to describe a service which "provides access to" that resource as an entity in its own right -- with, in principle, its own set of attributes (i.e., as a "related resource" related to the resource described). This was the rationale for proposing "isAvailableAt" as a refinement of dc:relation.
- Metadata aggregators such as NSDL and AGLS find that, in practice, the value of dc:identifier is very commonly not an "identifier" in the purest sense of the word (i.e., a unique string not necessarily resolvable to a Web address), but rather a URL by which the resource can be accessed (i.e., a "locator"). In doing so, metadata authors are merely reflecting the endemic ambiguity between "identification" and "location" in the context of the Web.
- Although the intention of the proposers of "Is

Available At" was to point to "a service" making the resource available, it was feared that dct:isAvailableAt might be used for the "locator" of the resource itself. Such usage would merely compound the ambiguity already surrounding dc:identifier with a new ambiguity with respect to dct:isAvailableAt.

-- Specifically, it was feared that if metadata authors were to put the locators of resources into a refinement of dc:relation, then the fact that those URIs were locators of the resource would be lost in the process of dumbing down. After dumb-down, an aggregator might be left with multiple values for dc:relation and have no way of knowing or inferring which ones were usable as locators for the resource.

-- It was pointed out that the proposed definition of "Is Available At" ("The referenced resource provides access to the described resource") is difficult to distinguish in its intent from the definition of the existing element dc:publisher ("An entity responsible for making the resource available").

In sum, future proposals addressing these issues should consider the following:

-- As argued by the Collection Description Working Group, it may be desirable to distinguish more cleanly between identifiers and locators for the resource described. Any proposal to do so, however, should address the ambiguity inherent in the existing usage of dc:identifier.

-- It may be desirable to have a property specifically for information services so that those services can be pointed to or described as "related resources" -- i.e., as entities in their own right.

For the practical purposes of aggregators, however, it is not desirable that locators for those services be associated with properties that are subject to dumb-down to very broad and generic properties such as dc:relation.

Rather, information about the service should be provided in some other manner. This information could be provided by a new top-level DCMI element, by using an existing property from another namespace, or possibly by dc:publisher.

Future proposals should also be aware that elements beyond the fifteen elements of DCMES 1.1 are likely not to be quickly adopted due to the widespread use of "Simple Dublin Core" as the shared schema of many content federations, and therefore as the target of dumb-down. Proposals should, therefore, consider the possibility that suggestions for putting significant location information somewhere other than in one of the original DC-15 elements may suffer from the risk that users who (for whatever reason) limit their view to the DC-15 will not see that location information.

There was some discussion about the MODS element for location, which arguably has the same function as "isAvailableAt". The issue here is the general one of the re-use of properties that already exist in other namespaces. This discussion led on to a broader consideration of the difference between an XML element and an RDF property, and whether the inherent differences (in modeling terms) between XML elements and RDF properties means that XML elements should be recommended for reuse as RDF properties

only under certain conditions. The Usage Board agreed there was a need to develop and write up a policy on XML elements and RDF properties to be discussed in DCMI at a later date.

Approved text - beginning

```
-----  
VMS-ID:      provenance-001  
Name:        provenance  
URI:         http://purl.org/dc/terms/provenance  
Namespace:   http://purl.org/dc/terms/  
Label:       Provenance  
Definition:  A statement of any changes in ownership and custody  
              of the resource since its creation that are  
              significant for its authenticity, integrity and  
              interpretation.  
Comment:     The statement may include a description of any  
              changes successive custodians made to the resource.  
Type of term: http://dublincore.org/usage/documents/principles/#element  
Status:      http://dublincore.org/usage/documents/process/#conforming  
Date issued: 2004-09-20  
Decision:    http://dublincore.org/usage/decisions/#Decision-2004-02  
-----
```

Approved text - end

Title: DCMI Type Vocabulary

Creator: [DCMI Usage Board](#)

Identifier: <http://dublincore.org/documents/2003/11/19/dcmi-type-vocabulary/>

Date Issued: 2003-11-19

Latest Version: @ @ @

Replaces: @ @ @

Replaced By: @ @ @

Translations: <http://dublincore.org/resources/translations/>

Document Status: This is a DCMI Recommendation.

Description: The DCMI Type Vocabulary provides a general, cross-domain list of approved terms that may be used as values for the Resource Type element to identify the genre of a resource. The terms documented here are also included in the more comprehensive document "DCMI Metadata Terms" at <http://dublincore.org/documents/dcmi-terms/>.

Date Valid: @ @ @

Term Name: Collection

URI: <http://purl.org/dc/dcmitype/Collection>

Label: Collection

Definition: An aggregation of items.

Comment: The term collection means that the resource is described as a group; its parts may also be separately described and navigated.

Type of Term: [vocabulary-term](#)

Status: [recommended](#)

Date Issued: 2000-07-11

Version: [Collection-001](#)

Term Name: Dataset

URI: <http://purl.org/dc/dcmitype/Dataset>

Label: Dataset

Definition: Information encoded in a defined structure (for example, lists, tables, and databases).

Comment: A dataset is intended to be useful for direct machine processing.

Type of Term: [vocabulary-term](#)

Status: [recommended](#)

Date Issued: 2000-07-11

Version: [Dataset-001](#)

Term Name: Event

URI: <http://purl.org/dc/dcmitype/Event>

Label: Event

Definition: A non-persistent, time-based occurrence.

Comment: Metadata for an event provides descriptive information that is the basis for discovery of the purpose, location, duration, and responsible agents. For example - exhibition, web-cast, conference, workshop, open-day, performance, battle, trial, wedding, tea-party, conflagration.

Type of Term: [vocabulary-term](#)

Status: [recommended](#)
Date Issued: 2000-07-11
Version: [Event-001](#)

Term Name: Image

URI: <http://purl.org/dc/dcmitype/Image>
Label: Image
Definition: A primarily symbolic visual representation other than text.
Comment: For example - images and photographs of physical objects, paintings, prints, drawings, other images and graphics, animations and moving pictures, film, diagrams, maps, musical notation. Note that image may include both electronic and physical representations.
Type of Term: [vocabulary-term](#)
Broader Than: <http://purl.org/dc/dcmitype/StillImage>
Broader Than: <http://purl.org/dc/dcmitype/MovingImage>
Status: [recommended](#)
Date Issued: 2000-07-11
Version: [Image-002](#)

Term Name: InteractiveResource

URI: <http://purl.org/dc/dcmitype/InteractiveResource>
Label: Interactive Resource
Definition: A resource which requires interaction from the user to be understood, executed, or experienced.
Comment: For example - forms on web pages, applets, multimedia learning objects, chat services, virtual reality.
Type of Term: [vocabulary-term](#)
Status: [recommended](#)
Date Issued: 2000-07-11
Version: [InteractiveResource-001](#)

Term Name: Service

URI: <http://purl.org/dc/dcmitype/Service>
Label: Service
Definition: A system that provides one or more functions of value to the end-user.
Comment: For example - a photocopying service, a banking service, an authentication service, interlibrary loans, a Z39.50 or Web server.
Type of Term: [vocabulary-term](#)
Status: [recommended](#)
Date Issued: 2000-07-11
Version: [Service-001](#)

Term Name: Software

URI: <http://purl.org/dc/dcmitype/Software>
Label: Software

Definition: A computer program in source or compiled form which may be available for installation non-transiently on another machine.

Comment: Note that a description of a resource created by running the software should use the type of the resource created - for example, an interactive resource.

Type of Term: [vocabulary-term](#)

Status: [recommended](#)

Date Issued: 2000-07-11

Version: [Software-001](#)

Term Name: Sound

URI: <http://purl.org/dc/dcmitype/Sound>

Label: Sound

Definition: A resource whose content is primarily intended to be rendered as audio.

Comment: For example - sounds fixed in a tangible medium such as a music playback file format, an audio compact disc, and recorded speech or sounds; and, unfixed sounds such as the song of a bird in the wild.

Type of Term: [vocabulary-term](#)

Status: [recommended](#)

Date Issued: 2000-07-11

Version: [Sound-001](#)

Term Name: Text

URI: <http://purl.org/dc/dcmitype/Text>

Label: Text

Definition: A resource whose content is primarily words for reading.

Comment: For example - books, letters, dissertations, poems, newspapers, articles, archives of mailing lists. Note that facsimiles or images of texts are still of the genre text.

Type of Term: [vocabulary-term](#)

Status: [recommended](#)

Date Issued: 2000-07-11

Version: [Text-001](#)

Term Name: PhysicalObject

URI: <http://purl.org/dc/dcmitype/PhysicalObject>

Label: Physical Object

Definition: An inanimate, three-dimensional object or substance.

Comment: Note that digital representations of, or surrogates for, these objects should use Image, Text or one of the other types.

Type of Term: [vocabulary-term](#)

Status: [recommended](#)

Date Issued: 2002-07-13

Version: [PhysicalObject-001](#)

Term Name: StillImage

URI: <http://purl.org/dc/dcmitype/StillImage>
Label: Still Image
Definition: A static visual representation.
Comment: For example - paintings, drawings, graphic designs, plans and maps. Recommended best practice is to assign the type "text" to images of textual materials. Instances of the type "Still Image" must also be describable as instances of the broader type "Image".
Type of Term: [vocabulary-term](#)
Narrower Than: <http://purl.org/dc/dcmitype/Image>
Status: [recommended](#)
Date Issued: 2003-11-18
Version: [StillImage-001](#)

Term Name: MovingImage

URI: <http://purl.org/dc/dcmitype/MovingImage>
Label: Moving Image
Definition: A series of visual representations that, when shown in succession, impart an impression of motion.
Comment: For example - animations, movies, television programs, videos, zoetropes, or visual output from a simulation. Instances of the type "Moving Image" must also be describable as instances of the broader type "Image".
Type of Term: [vocabulary-term](#)
Narrower Than: <http://purl.org/dc/dcmitype/Image>
Status: [recommended](#)
Date Issued: 2003-11-18
Version: [MovingImage-001](#)



[Home](#) > [Documents](#) > [Dcml-type-vocabulary](#) >

DCMI Type Vocabulary

Title:	DCMI Type Vocabulary
Creator:	DCMI Usage Board
Identifier:	http://dublincore.org/documents/2004/06/14/dcml-type-vocabulary/
Date Issued:	2004-06-14
Latest Version:	http://dublincore.org/documents/dcml-type-vocabulary/
Replaces:	http://dublincore.org/documents/2003/11/19/dcml-type-vocabulary/
Replaced By:	Not applicable
Translations:	http://dublincore.org/resources/translations/
Document Status:	This is a DCMI Recommendation.
Description:	The DCMI Type Vocabulary provides a general, cross-domain list of approved terms that may be used as values for the Resource Type element to identify the genre of a resource. The terms documented here are also included in the more comprehensive document "DCMI Metadata Terms" at http://dublincore.org/documents/dcml-terms/ .
Date Valid:	2004-06-14

Term Name: Collection	
URI:	http://purl.org/dc/dcmitype/Collection
Label:	Collection
Definition:	A collection is an aggregation of items. The term collection means that the resource is described as a group; its parts may be separately described and navigated.
Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	Collection-001
Term Name: Dataset	
URI:	http://purl.org/dc/dcmitype/Dataset
Label:	Dataset
Definition:	A dataset is information encoded in a defined structure (for example, lists, tables, and databases), intended to be useful for direct machine processing.
Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	Dataset-001
Term Name: Event	
URI:	http://purl.org/dc/dcmitype/Event
Label:	Event
Definition:	An event is a non-persistent, time-based occurrence. Metadata for an event provides descriptive information that is the basis for discovery of the purpose, location, duration, responsible agents, and links to related events and resources. The resource of type event may not be retrievable if the described instantiation has expired or is yet to occur. Examples - exhibition, web-cast, conference, workshop, open-day, performance, battle, trial, wedding, tea-party, conflagration.

Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	Event-001
Term Name: Image	
URI:	http://purl.org/dc/dcmitype/Image
Label:	Image
Definition:	An image is a primarily symbolic visual representation other than text. For example - images and photographs of physical objects, paintings, prints, drawings, other images and graphics, animations and moving pictures, film, diagrams, maps, musical notation. Note that image may include both electronic and physical representations.
Type of Term:	vocabulary-term
Broader Than:	http://purl.org/dc/dcmitype/StillImage
Broader Than:	http://purl.org/dc/dcmitype/MovingImage
Status:	recommended
Date Issued:	2000-07-11
Version:	Image-002
Term Name: InteractiveResource	
URI:	http://purl.org/dc/dcmitype/InteractiveResource
Label:	Interactive Resource
Definition:	An interactive resource is a resource which requires interaction from the user to be understood, executed, or experienced. For example - forms on web pages, applets, multimedia learning objects, chat services, virtual reality.
Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	InteractiveResource-001
Term Name: MovingImage	
URI:	http://purl.org/dc/dcmitype/MovingImage
Label:	Moving Image
Definition:	A series of visual representations that, when shown in succession, impart an impression of motion. Examples of moving images are: animations, movies, television programs, videos, zoetropes, or visual output from a simulation.
Comment:	Instances of the type "Moving Image" must also be describable as instances of the broader type "Image".
Type of Term:	vocabulary-term
Narrower Than:	http://purl.org/dc/dcmitype/Image
Status:	recommended
Date Issued:	2003-11-18
Version:	MovingImage-001
Term Name: PhysicalObject	
URI:	http://purl.org/dc/dcmitype/PhysicalObject
Label:	Physical Object
Definition:	An inanimate, three-dimensional object or substance. For example -- a computer, the great pyramid, a sculpture. Note that digital representations of, or surrogates for, these things should use Image, Text or one of the other types.
Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2002-07-13
Version:	PhysicalObject-001
Term Name: Service	
URI:	http://purl.org/dc/dcmitype/Service
Label:	Service
Definition:	A service is a system that provides one or more functions of value to the end-user. Examples include: a photocopying service, a banking service, an authentication service, interlibrary loans, a Z39.50 or Web server.

Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	Service-001
Term Name: Software	
URI:	http://purl.org/dc/dcmitype/Software
Label:	Software
Definition:	Software is a computer program in source or compiled form which may be available for installation non-transiently on another machine. For software which exists only to create an interactive environment, use interactive instead.
Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	Software-001
Term Name: Sound	
URI:	http://purl.org/dc/dcmitype/Sound
Label:	Sound
Definition:	A sound is a resource whose content is primarily intended to be rendered as audio. For example - a music playback file format, an audio compact disc, and recorded speech or sounds.
Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	Sound-001
Term Name: StillImage	
URI:	http://purl.org/dc/dcmitype/StillImage
Label:	Still Image
Definition:	A static visual representation. Examples of still images are: paintings, drawings, graphic designs, plans and maps.
Comment:	Recommended best practice is to assign the type "text" to images of textual materials. Instances of the type "Still Image" must also be describable as instances of the broader type "Image".
Type of Term:	vocabulary-term
Narrower Than:	http://purl.org/dc/dcmitype/Image
Status:	recommended
Date Issued:	2003-11-18
Version:	StillImage-001
Term Name: Text	
URI:	http://purl.org/dc/dcmitype/Text
Label:	Text
Definition:	A text is a resource whose content is primarily words for reading. For example - books, letters, dissertations, poems, newspapers, articles, archives of mailing lists. Note that facsimiles or images of texts are still of the genre text.
Type of Term:	vocabulary-term
Status:	recommended
Date Issued:	2000-07-11
Version:	Text-001



Metadata associated with this resource: <http://dublincore.org/documents/dcmi-type-vocabulary/index.shtml.rdf>

DCMI and the DCMI Web site are hosted by [OCLC Research](#).

Date: Mon, 2 May 2005 23:06:40 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Edits to the type vocabulary

On Mon, 2 May 2005, Stuart Sutton wrote:

> All, some time back, Diane and I were charged with doing minor edits of the
> type vocabulary. My recollection was that we were to move best practice
> information etc. from the description to the comments. We did a first stab
> at those edits and the UB reviewed them. It was the sense of the UB that
> there were additional edits needing doing. Unfortunately, so much time has
> past that I cannot for the life of me figure out (or find information)
> regarding these additional edits. I have attached an HTML page here with
> the edits as they now stand. Can anyone jog my memory regarding what
> remains to be done?

I don't remember either I'm afraid.

Looking at your edited version now, I have the following comments.

I think that the comment for software is completely broken

Label: Software
Definition: A computer program in source or compiled form
which may be available for installation
non-transiently on another machine.
Comment: For software which exists only to create an
interactive environment, use interactive instead.

The last sentence should at least say 'Interactive Resource'.
But the more fundamental problem is that the comment mixes
up descriptions of the 'software' from descriptions of the
'thing created by running the software', i.e. the 'interactive
resource'. In some situations it'll be appropriate to describe
one, in other situations it'll be appropriate to describe
the other - but you can't simply recommend to use one of these
in favour of the other - since they are different resources!

In the comment for Collection

Label: Collection
Definition: An aggregation of items.
Comment: The term collection means that the resource is
described as a group; its parts may be separately
described and navigated.

it might be helpful to say "its parts may *also* be separately
described and navigated"?

The comment for Event is very odd. An Event is *never*
retrievable! And why does this comment talk about the other
metadata about the event - none of the other comments do this.

The definition for Sound seems to mix up work and manifestation
(or reality and representation, or something) - i.e. a 'sound'
and a 'sound file'. The definition sounds like the latter,
but I suspect the former is also intended??

Label: Sound
Definition: A resource whose content is primarily intended to
be rendered as audio.
Comment: For example - a music playback file format, an
audio compact disc, and recorded speech or sounds.

Can I use DC to describe birdsong? Or can I only use it to describe a
recording of birdsong? If the Sound type only applies to the latter

(which is what the definition sounds like it means) then what is the type of the former?

Date: Wed, 4 May 2005 06:29:21 -0700
From: Stuart Sutton <sasutton@U.WASHINGTON.EDU>
Subject: Re: Edits to the type vocabulary

Thanks, Andy. I'm not quite sure how to approach your comments in the course of these edits. Several go to the heart of terms semantics. It was my understanding that what Diane and I were changed to do was rather ministerial in terms of moving text more appropriate to the comments from the current descriptions and to make the texts more consistent. In doing the first round, we tried to be as loyal to the current semantics as we could. Your points are well made; but I guess I am not sure whether Diane and I should go off re-crafting semantics. Perhaps there might be a moment on tomorrow's call to clarify the charge in light of your comments...or to postpone discussion until D.C. in a few weeks.

From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Edits to the type vocabulary

On Wed, 4 May 2005, Stuart Sutton wrote:

> Thanks, Andy. I'm not quite sure how to approach your comments in the
> course of these edits. Several go to the heart of terms semantics. It was
> my understanding that what Diane and I were changed to do was rather
> ministerial in terms of moving text more appropriate to the comments from
> the current descriptions and to make the texts more consistent. In doing
> the first round, we tried to be as loyal to the current semantics as we
> could. Your points are well made; but I guess I am not sure whether Diane
> and I should go off re-crafting semantics.

Agreed. Fair point.

But I think that my comments about Software, Collection and Event fall into the non-semantic category? The only really contentious comment (of mine) is the one about sound??

[Skip to topic](#) | [Skip to bottom](#)



Jump:

Metadata

- **Metadata Web**
 - [Metadata Web Home](#)
 - [Changes](#)
 - [Index](#)
 - [Search](#)
-

- **Webs**
 - [CIEStandards](#)
 - [DELOSWP1Standards](#)
 - [Main](#)
 - [Metadata](#)
 - [Sandbox](#)
 - [Standards](#)
 - [TWiki](#)
 - [WWW2006Accessibility](#)

- **My links**
- [UKEL](#)
- [PNDS AP](#)

[edit](#)

- [Edit](#)
- [Attach](#)
- [Printable](#)

Metadata.ProposedPropertyDefinitions1.5 - 02 Sep 2005 - 13:39 - [AndyPowelltopic end](#)

Start of topic | [Skip to actions](#)

Proposed changes to DCMI property definitions

Introduction

This document indicates some potential problems with the wording of some of the definitions in the DCMES and proposes some alternatives.

Proposed changes

Coverage

Label

Coverage

Definition

The extent or scope of the content of the resource.

Comment

Coverage will typically include spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity). Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and that, where appropriate, named places or time periods be used in preference to numeric identifiers such as sets of coordinates or date ranges.

Problem

The use of "extent" in the definition is potentially confusing w.r.t. the Format element and Extent element refinement. Furthermore, it's not totally clear what 'scope' means?

Proposed definition

The spatial or temporal scope/topic(?) of the resource or the jurisdiction under which the resource is relevant.

Proposed comment

Coverage includes spatial location (a named place or a location specified by its geographic coordinates), temporal period (a named period, date, or date range) or jurisdiction (a named administrative entity). Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and that, where appropriate, named places or time periods be used in preference to numeric identifiers such as sets of coordinates or date ranges.

Description

Label

Description

Definition

An account of the content of the resource.

Comment

Description may include but is not limited to: an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.

Problem

The definition should not refer to the "content of the resource", simply to the "resource". The comment should not refer to "a reference to a graphical representation", simply to "a graphical representation".

Proposed definition

An account of the resource.

Proposed comment

Description may include but is not limited to: an abstract, a table of contents, a graphical representation, or a free-text account of the resource.

Format

Label

Format

Definition

The physical or digital manifestation of the resource.

Comment

Typically, Format may include the media-type or dimensions of the resource. Format may be used to identify the software, hardware, or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats).

Problem

The current definition implies that the value is a "manifestation of the resource", which is not the intention. This issue has previously been raised on one of the the DCMI lists (I forget when and where) which suggests that at least one real end-user has mis-interpreted this wording in this way.

Proposed definition

The media-type or dimensions of the resource.

Proposed comment

Format may be used to identify the software, hardware, or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled

vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats).

Language

Label

Language

Definition

A language of the intellectual content of the resource.

Comment

Recommended best practice is to use RFC 3066 [RFC3066], which, in conjunction with ISO 639 [ISO639], defines two- and three-letter primary language tags with optional subtags. Examples include "en" or "eng" for English, "akk" for Akkadian, and "en-GB" for English used in the United Kingdom.

Problem

RFC3066 says that if both 2- and 3-letter codes exist, then the 2-letter code must be used. The en/eng example is therefore wrong. Change to 'fr' to broaden number of examples ('en-GB' already appearing later in the sentence). Also, the use of "intellectual content of the" is unnecessary.

Proposed definition

A language of the resource.

Proposed comment

Recommended best practice is to use RFC 3066 [RFC3066], which, in conjunction with ISO 639 [ISO639], defines two- and three-letter primary language tags with optional subtags. Examples include "fr" for French, "akk" for Akkadian and "en-GB" for English used in the United Kingdom.

Relation

Label

Relation

Definition

A reference to a related resource.

Comment

Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.

Problem

As per the DCAM, the value is the related resource, not a reference to the resource.

Proposed definition

A related resource.

Proposed comment

[Unchanged] **Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.**

Rights

Label

Rights Management

Definition

Information about rights held in and over the resource.

Comment

Typically, Rights will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the Rights element is absent, no assumptions may be made about any rights held in or over the resource.

Problem

the comment refers both to a 'statement' and a reference to a service that provides a statement' This is an implementation issue and shouldn't be in the comment. Also, the explicit mention about what applications should do or not do if the Rights element is missing is inappropriate because it implies that the element can only be used (or not) as part of a particular set of properties.

Proposed definition

[Unchanged] **Information about rights held in and over the resource.**

Proposed comment

Typically, Rights information includes a rights management statement for the resource. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights.

Source

Label

Source

Definition

A Reference to a resource from which the present resource is derived.

Comment

The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.

Problem

Same as with Relation. Also, the use of "Source resource" is horrible. Use of "described resource" is better than "present resource".

Proposed definition

A resource from which the described resource is derived.

Proposed comment

The described resource may be derived from the referenced resource in whole or in part. Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.

Subject**Label**

Subject and Keywords

Definition

The topic of the content of the resource.

Comment

Typically, a Subject will be expressed as keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.

Problem

Current label is misleading. Use of "content of the" in definition is inappropriate. "Better to use "represented using" rather than "expressed as" in the comment. Need to acknowledge use of Coverage for spatial or temporal topics. Depending on the agreed definition of Coverage, it may be appropriate to add "To describe the spatial or temporal topic of the resource, use the Coverage element" to the comment.

Proposed label

Subject

Proposed definition

The topic of the resource.

Proposed comment

Typically, a Subject will be represented using keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.

Type**Label**

Resource Type

Definition

The nature or genre of the content of the resource.

Comment

Type includes terms describing general categories, functions, genres, or aggregation levels for content. Recommended best practice is to select a value from a controlled vocabulary (for example, the DCMI Type Vocabulary [DCMITYPE]). To describe the physical or digital manifestation of the resource, use the Format element.

Problem

The comment echos the current definition of Format. If the definition of Format is changed then this should be changed as well. Also, the comment refers to "content", rather than specifically to the resource.

Proposed definition

The nature or genre of the resource.

Proposed comment

Type can be used to indicate the general category, function, genre, or aggregation level of the resource. Recommended best practice is to select a value from a controlled vocabulary (for example, the DCMI Type Vocabulary [DCMITYPE]). To describe the media-type or dimensions of the resource, use the Format element.

Use of "content of the resource" in definitions

A number of the current terms in the DCMES use "content of the resource" rather than just "resource" in their definitions (contributor, coverage, creator, description, subject and type). Furthermore, language uses "intellectual content of the resource". This appears to arise from an attempt to differentiate those terms that are used to describe the "work" from those that are used to describe the "manifestation". It is

primarily a feature of the fact that DCMI was never very clear about what kinds of resources its terms are used to describe, either in the general case or in the specific case of particular descriptions.

I would recommend changing all usage of "[intellectual] content of the resource" to "resource" in the definitions (consider the case where DC is being used to describe abstract concepts, as we do ourselves, or natural objects for example). (Note that this document does not make explicit proposals for doing this, except where the definitions of terms are being changed for other reasons.) Coverage is problematical, because in this case the phrase "content of the resource" is used to indicate that the definition is referring to what the resource is about rather than where it is or when it was created. It might be helpful to consider using the same language in coverage as is used in subject (e.g. "the spatial or temporal topic of the resource") as suggested above?

[to top](#)

End of topic

[Skip to action links](#) | [Back to top](#)

[Edit](#) | [Attach image or document](#) | [Printable version](#) | [Raw text](#) | [More topic actions](#)

Revisions: | [r1.5](#) | [≥](#) | [r1.4](#) | [≥](#) | [r1.3](#) | [Total page history](#) | [Backlinks](#)

You are here: [Metadata](#) > [DCRDFTaskforce](#) > ProposedPropertyDefinitions

[to top](#)

Copyright © 1999-2005 by the contributing authors. All material on this collaboration platform is the property of the contributing authors. Ideas, requests, problems regarding UKOLN Wiki? [Send feedback](#)

Date: Tue, 23 Aug 2005 16:36:17 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMail.AC.UK

I had an action (possibly with Diane?) to put the proposed changes to DCMES definitions (the changes required in order to align the definitions with the DCAM) into the form of a document (at least, I think that's what the action was!).

I've done this and put the document in the DC RDF Taskforce's Wiki (since these changes are also very relevant to the work of that group). See:

Proposed changes to DCMI property definitions
<http://www.ukoln.ac.uk/twiki/bin/view/Metadata/ProposedPropertyDefinitions>

Shout if you disagree with anything and/or have any other comments.

Note that some of the proposed changes go a bit beyond a simple interpretation of what the DCAM says!

Date: Tue, 23 Aug 2005 17:42:07 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMail.AC.UK

> Proposed changes to DCMI property definitions
>
> <http://www.ukoln.ac.uk/twiki/bin/view/Metadata/ProposedPropertyDefinitions>
>
> Shout if you disagree with anything and/or have any other comments.

The comment for dc:coverage includes

===
Coverage includes spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity).
===

I'm not sure "a place name" or (a set of) "geographic coordinates" is a spatial location. I think they are means of identifying/describing/representing/labelling a spatial location. Same for "a period label".

I think the form "named administrative entity" gets it right - the value is the entity, not its name.

So maybe

"a place name" -> "a named place"
"geographic coordinates" -> "a location specified by (a set of?) geographic coordinates"
"a period label" -> "a named period"

Or rephrase the text in brackets to say "represented by [the names/labels etc]".

Either way works as long as they are consistent, I think.

The comment for dc:source includes

===

The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system.

===

This uses both "the Source resource" (yuk!) and "the referenced resource" to refer to the same thing, the value - maybe clearer to settle on "the referenced resource" (which is the form used in the descriptions of subprops of dc:relation, I think?)

Also this and some of the other DCMES definitions talk about "the present resource" whereas the subprops of dc:relation talk about "the described resource" - the latter seems a bit more in keeping with the DCAM?

The comment for dc:rights includes

===

If the Rights element is absent...

===

This phrasing does seem a bit at odds with the DCAM. I think it reflects a view in which "elements" are components in instances (as in XML (or LOM?)). But the DCAM has no view of "elements" being "present in" or "absent from" descriptions. A description contains statements referring to the property or it doesn't.

So I think this should really say something like (though neither of these seem quite right either!):

> In the absence of a statement using the Rights property....

or maybe

> In the absence of a Rights statement....

(though I recognise "Rights statement" might have other connotations)

> I would recommend changing all usage of "[intellectual] content of the resource" to "resource" in the definitions

I notice that you haven't proposed a change to the definition of dc:subject ("The topic of the content of the resource.") Not sure if that was deliberate?

Date: Wed, 24 Aug 2005 14:23:41 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

On Tue, 23 Aug 2005, Pete Johnston wrote:

> So maybe

>

> "a place name" -> "a named place"

> "geographic coordinates" -> "a location specified by (a set of?)

> geographic coordinates"

> "a period label" -> "a named period"

Thanks. Fixed.

> This uses both "the Source resource" (yuk!) and "the referenced
> resource" to refer to the same thing, the value - maybe clearer to
> settle on "the referenced resource" (which is the form used in the
> descriptions of subprops of dc:relation, I think?)

>
> Also this and some of the other DCMES definitions talk about "the
> present resource" whereas the subprops of dc:relation talk about "the
> described resource" - the latter seems a bit more in keeping with the
> DCAM?

Thanks. Fixed.

> So I think this should really say something like (though neither of
> these seem quite right either!):
>
>> In the absence of a statement using the Rights property....
>
> or maybe
>
>> In the absence of a Rights statement....
>
> (though I recognise "Rights statement" might have other connotations)

I've removed this sentence completely.

>> I would recommend changing all usage of "[intellectual] content of the
> resource" to "resource" in the definitions
>
> I notice that you haven't proposed a change to the definition of
> dc:subject ("The topic of the content of the resource.") Not sure if
> that was deliberate?

I've only explicitly proposed removing "[intellectual] content of the" in
those cases where I was making changes to the term for other reasons. I
missed subject off the list of possible problems by accident. I've
now added it. Thanks.

Date: Wed, 24 Aug 2005 14:33:36 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

I have also added a proposed change for Language (i.e. removal of the
'eng' example from the comment) as noted in previous minutes.

<http://www.ukoln.ac.uk/twiki/bin/view/Metadata/ProposedPropertyDefinitions>

Date: Wed, 24 Aug 2005 15:29:30 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

On Wed, 24 Aug 2005, Andy Powell wrote:

> I have also added a proposed change for Language (i.e. removal of the 'eng'
> example from the comment) as noted in previous minutes.
>
> <http://www.ukoln.ac.uk/twiki/bin/view/Metadata/ProposedPropertyDefinitions>

I also note from the Washington minutes that the label for Subject was
supposed to change - so I have also added a proposed change for Subject.

Date: Wed, 24 Aug 2005 10:33:57 -0400
From: "Diane I. Hillmann" <dihl@CORNELL.EDU>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Andy,

It was probably me, but whoosh, the summer has flown by. In any case, thanks for following through on these--and in general I agree with your suggestions (with Pete's additions). I have a comment about Coverage, however.

I'm a bit wary of using "topic" here, since it creates potential confusion with Subject. I would prefer "scope" (and I'm not sure why you think that creates a conflict with format and extent?) since there's not necessarily an "aboutness" implied for coverage that the word "topic" suggests. Particularly with the comment about jurisdictional coverage, "topic" is problematic. I'd be willing to compromise with "scope or topic" if necessary ... ;-)

Particularly because many of our users come to DC from MARC, this is an issue that comes up over and over. MARC handles the differences between "topic" and "scope" by placement of geographic information within a subject string. Resources "about" a place or time have the geographic or temporal piece first in the subject string; where the scope of the topic is limited by geographic or temporal aspects, it comes after the topic. For historical reasons, we've treated Coverage differently, but, even so, it behooves us NOT to blur the difference by emphasizing only the topical uses of Coverage.

Diane

```
-----
Date:      Wed, 24 Aug 2005 15:48:31 +0100
From:      Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To:        DC-USAGE@JISCMail.AC.UK
-----
```

On Wed, 24 Aug 2005, Diane I. Hillmann wrote:

> It was probably me, but whoosh, the summer has flown by. In any case, thanks
> for following through on these--and in general I agree with your suggestions
> (with Pete's additions). I have a comment about Coverage, however.

>
> I'm a bit wary of using "topic" here, since it creates potential confusion
> with Subject. I would prefer "scope" (and I'm not sure why you think that
> creates a conflict with format and extent?) since there's not necessarily an
> "aboutness" implied for coverage that the word "topic" suggests. Particularly
> with the comment about jurisdictional coverage, "topic" is problematic. I'd
> be willing to compromise with "scope or topic" if necessary ... ;-)

>
> Particularly because many of our users come to DC from MARC, this is an issue
> that comes up over and over. MARC handles the differences between "topic" and
> "scope" by placement of geographic information within a subject string.
> Resources "about" a place or time have the geographic or temporal piece first
> in the subject string; where the scope of the topic is limited by geographic
> or temporal aspects, it comes after the topic. For historical reasons, we've
> treated Coverage differently, but, even so, it behooves us NOT to blur the
> difference by emphasizing only the topical uses of Coverage.

Hmmm... interesting. I'm not sure I understand what you mean by 'scope' here.

I thought that Coverage was to do with the 'aboutness' of the resource.

In fact, I've always worked on the basis that Coverage is, essentially, a sub-property of Subject. (Though of course, as good DCers we could never say such a thing out loud! :-)).

This is clearly not your view...

So, some examples.

I've always assumed that when we say

dc:coverage: bath, uk

we mean that the topic of the resource is 'bath, uk' - the resource is about 'bath, uk'. And further, that we could just as well say

dc:subject: bath, uk

but we are being a little more specific by using Coverage.

Similarly, when we say

dc:coverage: 19th century

we mean that the resource is about the 19th century - i.e. the topic of the resource is "19th century".

What do you mean by those two statements (assuming that it isn't the same as my interpretation)? I presume that you mean something different by 'scope' (as opposed to 'topic') - something like "is only relevant in this context" perhaps? So that, for example, if for some bizarre reason we wanted to say that a resource is "about the US, but only appropriate for use by people in the UK" we'd say

dc:subject: US

dc:coverage: UK

??

That certainly isn't my understanding of what Coverage is about.

Date: Wed, 24 Aug 2005 11:02:28 -0400
From: "Diane I. Hillmann" <dihl@CORNELL.EDU>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Andy:

One example of what I'm talking about is where, for instance, a government site might have resources that apply to only a particular jurisdiction or sub-jurisdiction. The resources are not really "about" that jurisdiction or place, but the jurisdiction within which the resource is applicable would be indicated in Coverage. There might also be a Subject, which might categorize the general topic of the resource. The purposes of these two elements are quite different, and not both relating to "aboutness" as I understand it.

On the other hand, if you have resources for tourists about that jurisdiction or place, they are certainly about that place.

Diane

Date: Wed, 24 Aug 2005 16:18:58 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

On Wed, 24 Aug 2005, Diane I. Hillmann wrote:

> Andy:

>

> One example of what I'm talking about is where, for instance, a government

> site might have resources that apply to only a particular jurisdiction or
> sub-jurisdiction. The resources are not really "about" that jurisdiction or
> place, but the jurisdiction within which the resource is applicable would be
> indicated in Coverage. There might also be a Subject, which might categorize
> the general topic of the resource. The purposes of these two elements are
> quite different, and not both relating to "aboutness" as I understand it.

OK, thanks. Blimey, I think my understanding of Coverage has been wrong
up until now! :-(Just to confirm... if I say

dc:coverage: UK

I am *not* saying that the resource is about the UK. Rather, I am saying
that the resource is only applicable in the UK (i.e. only appropriate for
use in the UK)? Or am I saying something else.

> On the other hand, if you have resources for tourists about that jurisdiction
> or place, they are certainly about that place.

In which case, I presumably use Subject:

dc:subject: UK

Is this what you are saying? Is this how everyone uses Coverage?

Date: Wed, 24 Aug 2005 08:30:36 -0700
From: Stuart Sutton <sasutton@U.WASHINGTON.EDU>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

My understanding of coverage is exactly as Andy states it.

Date: Wed, 24 Aug 2005 08:36:50 -0700
From: Stuart Sutton <sasutton@U.WASHINGTON.EDU>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Hmmm. Diane, this runs absolutely counter to my assumptions about the
semantics of coverage (per my response to Andy's earlier response). In
fact, I am working on a project that has defined a local property for
jurisdiction (area/zone of mandated applicability) for academic
standards in teaching and learning in the US because the focus on
dc:coverage on "aboutness" made it an inappropriate place to express
such notions of jurisdiction.

Date: Wed, 24 Aug 2005 11:56:57 -0400
From: "Diane I. Hillmann" <dihl@CORNELL.EDU>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Well, I think this discussion points up the possible downside of
making explicit the topicality of Coverage, which I really don't
think was intended. But maybe I'm the minority in this. I certainly
think that it has been used by may to express "aboutness" but whether
that means we should limit it to that and force implementors to
create local properties to express applicability is something we
might want to discuss further.

It seems to me that, if we want to allow both uses, we might consider
a broader definition, and suggest to somebody that they propose a
refinement for coverage? (I'm ducking here to avoid the rotten
tomatoes)

Date: Tue, 30 Aug 2005 09:41:31 +0100
From: Andrew Wilson <andrew.c.wilson@AHDS.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Sorry for the lateness of this reply - I had to make an unexpected trip to Australia for a family medical emergency.

I do want to make a comment about Coverage. My understanding of its use corresponds to Andy's (and Stuart's). Would it make sense to change the word 'under' in the proposed definition to 'to', so it reads "...or the jurisdiction to whcih the resource is relevant"?

Date: Wed, 31 Aug 2005 13:33:31 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Andrew said:

> I do want to make a comment about Coverage. My understanding
> of its use corresponds to Andy's (and Stuart's). Would it
> make sense to change the word 'under' in the proposed
> definition to 'to', so it reads "...or the jurisdiction to
> whcih the resource is relevant"?

I'm a bit confused now. ;-)

I think Stuart and Andy(?) are suggesting that the value space of dc:coverage excludes "jurisdiction to which the resource is relevant" and includes only (spatial/temporal) "aboutness".

So if that is the case - and I don't know whether it is the intention behind dc:coverage or not: I've always been a bit confused about the way people seem to use dc:coverage! - then it seems to me the definition should exclude that reference. And I'd argue that we should also say that dc:coverage is a subproperty of dc:subject, but I'm aware I won't get very far making that argument... ;-)

However, I do note that AGLS seems to take the view that the value space of dc:coverage includes spatial/temporal relevance/applicability (or however we describe it!)

See AGLS
http://www.naa.gov.au/recordkeeping/gov_online/agls/metadata_element_set.html

where agls:jurisdiction is a refinement of dc:coverage with:

Definition: The name of the political/administrative entity covered by the content of the resource.

Comment: Jurisdiction is a description of the territory over which a particular government exercises its authority or a particular business transacts its operations, to which the resource content is applicable.

If the value space of dc:coverage includes both spatial/temporal "aboutness" and spatial/temporal relevance/applicability - which I think is Diane's position (?) and seems to be reflected in AGLS usage (and other e-gov usage? I'm not sure) at least - then the definition should make that clear. And in that case dc:coverage is not a subproperty of dc:subject - though I could have a spatialTopic property which was a subproperty of both dc:subject and dc:coverage! ;-)

Date: Wed, 31 Aug 2005 15:26:34 +0100
From: Andy Powell <a.powell@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

On Wed, 31 Aug 2005, Pete Johnston wrote:

> Andrew said:
>
>> I do want to make a comment about Coverage. My understanding
>> of its use corresponds to Andy's (and Stuart's). Would it
>> make sense to change the word 'under' in the proposed
>> definition to 'to', so it reads "...or the jurisdiction to
>> whcih the resource is relevant"?
>
> I'm a bit confused now. ;-)
>
> I think Stuart and Andy(?) are suggesting that the value space of
> dc:coverage excludes "jurisdiction to which the resource is relevant"
> and includes only (spatial/temporal) "aboutness".

That would be nice... but that wasn't really what I was suggesting. My proposed (new) definition is

The spatial or temporal scope/topic(?) of the resource or the jurisdiction under which the resource is relevant.

i.e. I don't exclude "jurisdiction to which the resource is relevant".

I don't see how we can remove the bit about jurisdiction without breaking a lot of existing usage.

Basically, it seems to me, that coverage is pretty much as broken as format is (since they both try to define two things :-(). But we are stuck with that situation.

I'm arguing that (however much I dislike it!) coverage covers both 'aboutness' (the spatial or temporal scope/topic(?) of the resource) and 'applicability' (the jurisdiction under which the resource is relevant).

Furthermore, I thought that Diane was arguing that coverage only covers the 'applicability' aspect, i.e. the applicability in spatial, temporal or jurisdictional terms, and *not* the 'aboutness'... but maybe I'm mis-interpreting what she is saying.

> So if that is the case - and I don't know whether it is the intention
> behind dc:coverage or not: I've always been a bit confused about the way
> people seem to use dc:coverage! - then it seems to me the definition
> should exclude that reference. And I'd argue that we should also say
> that dc:coverage is a subproperty of dc:subject, but I'm aware I won't
> get very far making that argument... ;-)
>
> However, I do note that AGLS seems to take the view that the value space
> of dc:coverage includes spatial/temporal relevance/applicability (or
> however we describe it!)
>
> See AGLS
> http://www.naa.gov.au/recordkeeping/gov_online/agls/metadata_element_set.html
>
> where agls:jurisdiction is a refinement of dc:coverage with:
>
> Definition: The name of the political/administrative entity covered by
> the content of the resource.
> Comment: Jurisdiction is a description of the territory over which a
> particular government exercises its authority or a particular business

> transacts its operations, to which the resource content is applicable.
>
> If the value space of dc:coverage includes both spatial/temporal
> "aboutness" _and_ spatial/temporal relevance/applicability - which I
> think is Diane's position (?) and seems to be reflected in AGLS usage
> (and other e-gov usage? I'm not sure) at least - then the definition
> should make that clear.

Well, as I say above, that *is* also my position (though I didn't think it was Diane's) and the proposed definition makes both aspects of the semantics clear (to me).

> And in that case dc:coverage is not a
> subproperty of dc:subject

OK, well I'm happy to go with that interpretation. However, FWIW, my view is that "the jurisdiction under which the resource is relevant" is close enough to 'aboutness' to fall within dc:subject. For example, I'm struggling to think of an example where the jurisdiction (as given in coverage) wouldn't also be appropriate for adding to a 'Keywords' meta tag.

> - though I could have a spatialTopic property
> which was a subproperty of both dc:subject and dc:coverage! ;-)

Yes. What a mess :-(

Date: Wed, 31 Aug 2005 16:04:21 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Ansy said:

> That would be nice... but that wasn't really what I was
> suggesting. My
> proposed (new) definition is
>
> The spatial or temporal scope/topic(?) of the resource or the
> jurisdiction under which the resource is relevant.
>
> i.e. I don't exclude "jurisdiction to which the resource is relevant".

Ah, OK.

> I don't see how we can remove the bit about jurisdiction
> without breaking a lot of existing usage.

Yes, I agree. That was my concern too.

> Basically, it seems to me, that coverage is pretty much as broken as
> format is (since they both try to define two things :-().
> But we are stuck with that situation.

Yes. Sigh. :-(

* wishes we could just start again *

[snip]

> OK, well I'm happy to go with that interpretation. However,
> FWIW, my view
> is that "the jurisdiction under which the resource is
> relevant" is close enough to 'aboutness' to fall within dc:subject.

That may apply in some cases but I'm not sure it works in all cases. If

I have

- (a) "Planning your tour of the UK (for visitors from the US)"
- (b) "Planning your tour of the UK (for vistors from Brazil)"

the spatial relevance/applicability of (a) is USA (or maybe USA and UK) and the spatial relevance/applicability of (b) is Brazil (or maybe Brazil and UK)

But the spatial "aboutness" of both (a) and (b) is UK, not USA or Brazil.

> For example, I'm
> struggling to think of an example where the jurisdiction (as given in
> coverage) wouldn't also be appropriate for adding to a
> 'Keywords' meta tag.

Ah, but I think meta/keywords is broader than dc:subject?

For my (a) above, I might well include both USA and UK as my meta/keywords but that doesn't necessarily mean I should include them both as values for dc:subject.

Actually now that I look for it I'm not sure where the scope of meta/keywords is specified! The best I can find is

<http://www.w3.org/TR/html401/struct/global.html#edef-META>

and

<http://www.w3.org/TR/html401/appendix/notes.html#recs>

It seems to me the keywords in meta/keywords aren't limited to aboutness: they are any keywords useful for retrieval.

Whereas for dc:subject, keywords are supposed to describe the topic of the resource i.e, they are limited to "aboutness", not any old keyword.

But yeah, I am hair-splitting here, and in practice I suspect the use of dc:subject is rather looser too.

Date: Wed, 31 Aug 2005 10:25:42 -0700
From: Stuart Sutton <sasutton@U.WASHINGTON.EDU>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMail.AC.UK

Well, if coverage is capable of being both aboutness and jurisdiction, it is quite broken indeed. People looking for resources about "California" using coverage are unlikely to be satisfied retrieving descriptions of the various chapters of the California statutes, administrative code, and case law. And clearly, people looking for jurisdictional documents would be absolutely unlikely to be satisfied in the least with resources on the history of the California state flower (poppy) or the Gold Rush. Jurisdiction and aboutness are conceptually different notions. To be capable of expressing both jurisdiction and aboutness is to end up expressing neither with any certainty...or so it seems to me.

Date: Wed, 31 Aug 2005 13:39:02 -0400
From: "Diane I. Hillmann" <dihl@CORNELL.EDU>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMail.AC.UK

Stuart, et al.:

I do believe that this ambiguity (or brokenness, if you insist) has been with us since the beginning, though perhaps it took the messiness of implementation to bring it to the fore. I do believe that, having been around at the inception (such as it was), this was not unintentional, though indeed our current sensibility is very much against the kind of ambiguity represented here. The inclusion of the Coverage element was pushed by the folks for whom geographic representation was important--I don't think they cared so much about the definition of the element, just that there was someplace to put geographic information, for whatever purpose.

I agree with Stuart that the use cases we have discussed, and the implementations we know about, suggest that we might want to take some action here. I agree with Pete (I think it was) that there is enough "aboutness" in our notion of jurisdiction that we should be able to do something reasonable, without breaking existing implementations. It may be that we should look to Format as our guide, where the Extent and Medium refinements make the distinctions we discovered "after the fact" of defining the Format element. In the case of Coverage, we might be able to do with one.

And yes, this was what I was trying to get at in my first post, though certainly, in retrospect, I didn't get there via a straight line. But then, neither did much in Dublin Core ...

Date: Wed, 31 Aug 2005 19:47:17 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMail.AC.UK

> I do believe that this ambiguity (or brokenness, if you insist) has
> been with us since the beginning, though perhaps it took the messiness
> of implementation to bring it to the fore. I do believe that, having
> been around at the inception (such as it was), this was not
> unintentional, though indeed our current sensibility is very much
> against the kind of ambiguity represented here. The inclusion of the
> Coverage element was pushed by the folks for whom geographic
> representation was important--I don't think they cared so much about
> the definition of the element, just that there was someplace to put
> geographic information, for whatever purpose.

>

> I agree with Stuart that the use cases we have discussed, and the
> implementations we know about, suggest that we might want to take
> some action here. I agree with Pete (I think it was) that there is
> enough "aboutness" in our notion of jurisdiction that we should be
> able to do something reasonable, without breaking existing
> implementations.

I think that was Andy. I was agreeing with Stuart and saying that "aboutness" and "relevance/applicability" were different notions (and by implication agreeing that having them rolled into a single property didn't seem very useful). What I wasn't sure about was whether the dc:coverage property did actually encompass both these notions, but it seems that it does. :-(

> It may be that we should look to Format as our
> guide, where the Extent and Medium refinements make the distinctions
> we discovered "after the fact" of defining the Format element. In the
> case of Coverage, we might be able to do with one.

I guess it would be possible to coin something like

dc:terms:relevance ("A time or place for which the resource is relevant or applicable")

with

```
dcterms:relevance rdfs:subpropertyOf dc:coverage
```

(I think you could get away without dcterms:spatialRelevance and dcterms:temporalRelevance as well, and examine the type of the value instead, but I'm not sure.)

But that doesn't change the fact that you can't tell whether references to the existing dc:coverage, dcterms:spatial and dcterms:temporal properties are being used for aboutness or for relevance.

i.e. if I find

```
thing:x dcterms:spatial country:Spain .
thing:x dcterms:relevance country:Spain .
```

I still don't know whether thing:x is "about" Spain or not.

```
-----
Date:      Wed, 31 Aug 2005 16:47:57 -0400
From:      "Diane I. Hillmann" <dihl@CORNELL.EDU>
Subject:   Re: Proposed changes to DCMI property definitions
To:        DC-USAGE@JISCMAIL.AC.UK
-----
```

```
>I think that was Andy. I was agreeing with Stuart and saying that
>"aboutness" and "relevance/applicability" were different notions (and by
>implication agreeing that having them rolled into a single property
>didn't seem very useful). What I wasn't sure about was whether the
>dc:coverage property did actually encompass both these notions, but it
>seems that it does. :-)
```

Oops, sorry! Sometimes when you guys get the bit between your teeth, it's hard to keep up ... :-)

```
> > It may be that we should look to Format as our
>> guide, where the Extent and Medium refinements make the distinctions
>> we discovered "after the fact" of defining the Format element. In the
>> case of Coverage, we might be able to do with one.
```

```
>
>I guess it would be possible to coin something like
>
>dcterms:relevance ("A time or place for which the resource is relevant
>or applicable")
>
>with
>
>dcterms:relevance rdfs:subpropertyOf dc:coverage
```

Given that we've not seen much call for relevance for temporal information, and "jurisdiction" seems to be our challenge, couldn't we consider some of the definitional work that Stuart has done for that as an element and use is for a refinement? Really, doesn't Spatial and Temporal deal primarily with the "aboutness" portion?

```
>(I think you could get away without dcterms:spatialRelevance and
>dcterms:temporalRelevance as well, and examine the type of the value
>instead, but I'm not sure.)
```

```
>
>But that doesn't change the fact that you can't tell whether references
>to the existing dc:coverage, dcterms:spatial and dcterms:temporal
>properties are being used for aboutness or for relevance.
```

```
>
>i.e. if I find
>
>thing:x dcterms:spatial country:Spain .
>thing:x dcterms:relevance country:Spain .
```

>
>I still don't know whether thing:x is "about" Spain or not.
>

That's true, but isn't that a function of the fact that "relevance" as a concept isn't particularly well understood in our community? In contrast, I think the people who work with jurisdictions (like lawyers and governments) understand that concept instinctively and don't tend to ask questions like the one you just asked ... ;-) As for the worry about already encoded information, consider when we added StillImage and MovingImage to DCMIType. We didn't know whether things that were already encoded as images were one or the other.

Diane
(keeping her head down, sort of)

Date: Thu, 1 Sep 2005 08:45:56 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMAIL.AC.UK

Quoting "Diane I. Hillmann" <dihl@cornell.edu>:

> Given that we've not seen much call for relevance for temporal
> information, and "jurisdiction" seems to be our challenge, couldn't
> we consider some of the definitional work that Stuart has done for
> that as an element and use is for a refinement? Really, doesn't
> Spatial and Temporal deal primarily with the "aboutness" portion?

I was assuming that both dcterms:spatial and dcterms:temporal suffered from the same problem as dc:coverage (i.e. they encompass both "aboutness" and "relevance/applicability").

I'm afraid "primarily" isn't any use to an application, though ;-). Either they do or they don't.

> That's true, but isn't that a function of the fact that "relevance"
> as a concept isn't particularly well understood in our community? In
> contrast, I think the people who work with jurisdictions (like
> lawyers and governments) understand that concept instinctively and
> don't tend to ask questions like the one you just asked ... ;-)

I hadn't really developed the concept of "relevance" in any real way - what I was trying to get at was that since dc:coverage has both a temporal and spatial aspect, the problem of distinguishing aboutness and relevance is present in both of those dimensions. (Of course then there is an overlap with things like dcterms:valid, too)

(To be honest, it's a bit of a mess: I suspect the problem isn't really fix-able without scrapping the current dc:coverage term and redefining it more coherently, but I recognise that would be a "major semantic impact"/new URI needed sort of case, so I'm not really proposing that as a course of action.)

> As
> for the worry about already encoded information, consider when we
> added StillImage and MovingImage to DCMIType. We didn't know whether
> things that were already encoded as images were one or the other.

Agreed, but in that case the more general case ("it's an Image") is still (fairly) useful; in the dc:coverage case (as Stuart pointed out yesterday), the statement that "It's either about this time/place or it's relevant/applicable to this time/place - but you can not know which" is, arguably, not very useful at all. You might almost just as well use dc:relation (some association with this time/place). This has always been my problem with dc:coverage - the potential scope means that any actual use serves little real purpose.

Date: Wed, 31 Aug 2005 19:03:39 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Re: Proposed changes to DCMI property definitions
To: DC-USAGE@JISCMail.AC.UK

Stuart said:

> Jurisdiction and aboutness are conceptually
> different notions. To be capable of expressing both
> jurisdiction and aboutness is to end up expressing neither
> with any certainty...or so it seems to me.

I'm inclined to agree with Stuart, and in an ideal world the Right Thing To Do would be to coin different properties to represent the different notions.

But given that the existing hybrid use of all three of dc:coverage, dcterms:spatial and dcterms:temporal is out there, the options for fixing it seem pretty messy.

From: "Childress, Eric" <childree@oclc.org>
Date: Fri, 29 Jul 2005 10:46:56 -0400

To: Thomas Baker, Chair, DC Usage Board
From: Eric Childress, Chair, DC Date Working Group

I'm pleased to report that the DC Date Working Group has completed work on a matter referred to it by the DC Usage Board.

Per recent deliberations and an 11-0 vote, the DC Date WG recommends that the following text supplant the extant text in the comment associated with the official Dublin Core definition of the DC Date element:

Typically, Date will be associated with the creation or availability of the resource. A date value may be a single date or a date range. Date values may express temporal information at any level of granularity (including time). Recommended best practice for encoding the date value is to supply an unambiguous representation of the single date or date range using a widely-recognized syntax (e.g., YYYY-MM-DD for a single date; YYYY-MM-DD/YYYY-MM-DD for a date range; YYYY-MM-DDTHH:MM to specify a single date and time down to the minute).

The suggested change in content of the text of the DC Date comment addresses an issue identified by the UB, namely that the existing definition and comment failed to explicitly communicate that the DC Date element value could be a date range -- this has always been understood to be permitted by most parties active in Dublin Core standards work, but the UB and members of the DC Date WG have had indications that some readers of the extant text have on occasion been led to conclude date range values were not permitted. Changing the text of the comment rather than altering the definition of DC Date was recommended in Shanghai by DC Date WG member, Douglas Campbell, and the tactic agreed to by the UB and DC Date WG.

The revised text above clarifies that date range is permitted. Additional stylistic and substantial changes have been made to enhance readability and clarify that various levels of granularity (e.g., time) are permitted. Also, explicit references to particular encoding schemes have been removed in favor of some simple ISO 8601-compliant patterns as examples of possible syntax for representing commonly used categories of date and time.

2005-05-13: List of possible changes as of May 2005

-- Labels of Element Refinements

Pete has noted in the past that some of the labels on our original element refinements are not as clear as they might be. The current labels follow the current names (which were assigned in the 'dotted concatenation' era - sometime pre-neolithic I think!) - but there is no requirement that they do.

Here's a set of possible revisions to the current labels:

Alternative -> Alternative Title
Available -> Date Available
Created -> Date Created
Issued -> Date Issued
Modified -> Date Modified
Spatial -> Spatial Coverage
Temporal -> Temporal Coverage
Valid -> Date Valid

-- Labels for Encoding Schemes

The labels for some of our encoding schemes are also not very helpful - particularly to people outside the library domain. Here's some possible revisions:

DDC -> Dewey Decimal Classification (DDC)
IMT -> Internet Media Type
LCC -> Library of Congress Classification (LCC)
LCSH -> Library of Congress Subject Headings (LCSH)
MeSH -> Medical Subject Headings (MeSH)
TGN -> Getty Thesaurus of Geographic Names (TGN)
UDC -> Universal Decimal Classification (UDC)
URI -> Uniform Resource Identifier (URI)
W3C-DTF -> W3C Date Time Formats

-- Definitions for Encoding Schemes

Definitions for things like DDC could be improved. Currently, they simply repeat the name or the label.

-- Other labels

- a. "Subject and Keywords" to "Subject or Keywords" (or even "Subject Classification or Keywords") -- on the basis that the value is one or the other.
- b. "Resource Type" to "Type" (on the basis that this label is the only one to refer to the Resource explicitly - i.e. we don't use things like 'Resource Title').
- c. "Rights Management" to "Rights" (on the basis that Rights Management sounds too much like DRM, which dc:rights really isn't about - dc:rights is about asserting rights, but not about the M !).
- d. "Resource Identifier" to "Identifier".

[Skip to topic](#) | [Skip to bottom](#)



Jump:

Metadata

- **Metadata Web**
 - [Metadata Web Home](#)
 - [Changes](#)
 - [Index](#)
 - [Search](#)
-

- **Webs**
 - [CIEStandards](#)
 - [DELOSWP1Standards](#)
 - [Main](#)
 - [Metadata](#)
 - [Sandbox](#)
 - [Standards](#)
 - [TWiki](#)
 - [WWW2006Accessibility](#)

- **My links**
- [UKEL](#)
- [PNDS AP](#)

[edit](#)

- [Edit](#)
- [Attach](#)
- [Printable](#)

Metadata.DCPropertyDomainsRangesr1.6 - 02 Sep 2005 - 12:10 - [AndyPowelltopic end](#)

Start of topic | [Skip to actions](#)

DC property domains and ranges

This document is currently under development. It is being worked on by the [DC RDF Taskforce](#). Comments should be sent to the dc-rdf-taskforce@jiscmail.ac.uk mailing list.

Introduction

This document indicates the domains and ranges that apply to all DCMI properties.

The domain of a property indicates the class (or classes) of resources that the property can be used to describe. The range of a property indicates the class (or classes) of resources that can be used as values of the property.

Possible classes

This section lists some classes that we are likely to need in order to assign domains and ranges to DCMI properties.

Resource	The class of everything.
Agent	The class of all things that are a Person, Organisation or Service.
Person	The class of all people (living or dead).
Organisation	The class of all organisations (and other corporate bodies).
Service	The class of all services (as defined in DCMIType).
AgentGroup [?]	The class of all things that are groups of Agents (e.g. students, women, charities, lecturers).
NonAgentResource [?]	The class of everything that is not an Agent.
ConceptualResource [?]	The class of all concepts.
DigitalResource [?]	The class of all digital resources.
PhysicalResource [?]	The class of all physical resources.
Work	The class of all distinct intellectual or artistic creations. A Work is an abstract entity (i.e. a ConceptualResource [?]).
Manifestation	The class of all things that are the physical or digital embodiment of a Work. A Manifestation is either a PhysicalResource [?] or a DigitalResource [?] .
Item	The class of all things that are an example or exemplar of a Manifestation.
Collection	The class of all things that are an aggregation of one or more Items.
Literal	The class of all literal strings.
Location	The class of all places and geographical regions.
Period	The class of all dates and date ranges.
Jurisdiction	The class of all administrative entities.
LocationPeriodOrJurisdiction [?]	The class of things that are a Location, Period or Jurisdiction.
IMT	The class of all Internet Media Types.
Medium	The class of all things that are a material or physical carrier of a Resource (e.g. paper, canvas, etc.).
MediaType [?]	The class of all things that are an IMT or Medium.
Extent	The class of all things that are a physical size of a Manifestation (e.g. length/width/breadth, number of pages, etc.).
Duration	The class of all things that are a time taken to 'play' a Manifestation (e.g. in hours/minutes/seconds).
Dimensions	The class of things that are an Extent or Duration.
MediaTypeOrDimensions [?]	The class of things that are a MediaType [?] or Dimensions.
Reference	The class of all things that are an identifier for a Resource that is unambiguous in a given context (e.g. a URI).

Language

The class of all human languages.

RightsStatement²

The class of all things that are a rights statement about a NonAgentResource².

Topic

The class of all subjects.

Class

The class of all classes.

Domains and ranges of DC properties

The Dublin Core Metadata Element Set

contributor

URI: <http://purl.org/dc/elements/1.1/contributor>

Definition: An entity responsible for making contributions to the content of the resource.

Comment: Examples of a Contributor include a person, an organisation, or a service. Typically, the name of a Contributor should be used to indicate the entity.

Domain: NonAgentResource²

Range: Agent

coverage

URI: <http://purl.org/dc/elements/1.1/coverage>

Definition: The extent or scope of the content of the resource.

Comment: Coverage will typically include spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity). Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and that, where appropriate, named places or time periods be used in preference to numeric identifiers such as sets of coordinates or date ranges.

References: [TGN] <http://www.getty.edu/research/tools/vocabulary/tgn/index.html>

Domain: NonAgentResource²

Range: LocationPeriodOrJurisdiction²

creator

URI: <http://purl.org/dc/elements/1.1/creator>

Definition: An entity primarily responsible for making the content of the resource.

Comment: Examples of a Creator include a person, an organisation, or a service. Typically, the name of a Creator should be used to indicate the entity.

Domain: NonAgentResource[?]

Range: Agent

date

URI: <http://purl.org/dc/elements/1.1/date>

Definition: A date associated with an event in the life cycle of the resource.

Comment: Typically, Date will be associated with the creation or availability of the resource. Recommended best practice for encoding the date value is defined in a profile of ISO 8601 [W3CDTF] and follows the YYYY-MM-DD format.

References: [W3CDTF] <http://www.w3.org/TR/NOTE-datetime>

Domain: NonAgentResource[?]

Range: Period

description

URI: <http://purl.org/dc/elements/1.1/description>

Definition: An account of the content of the resource.

Comment: Description may include but is not limited to: an abstract, table of contents, reference to a graphical representation of content or a free-text account of the content.

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

format

URI: <http://purl.org/dc/elements/1.1/format>

Definition: The physical or digital manifestation of the resource.

Comment: Typically, Format may include the media-type or dimensions of the resource. Format may be used to determine the software, hardware or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats).

References: [MIME] <http://www.iana.org/assignments/media-types/>

Domain: Manifestation

Range: MediaTypeOrDimensions[?]

identifier

URI: <http://purl.org/dc/elements/1.1/identifier>

Definition: An unambiguous reference to the resource within a given context.

Comment: Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. Example formal identification systems include the Uniform Resource Identifier (URI) (including the Uniform Resource Locator (URL)), the Digital Object Identifier (DOI) and the International Standard Book Number (ISBN).

Domain: Resource

Range: Reference

language

URI: <http://purl.org/dc/elements/1.1/language>

Definition: A language of the intellectual content of the resource.

Comment: Recommended best practice is to use RFC 3066 [RFC3066], which, in conjunction with ISO 639 [ISO639], defines two- and three-letter primary language tags with optional subtags. Examples include "en" or "eng" for English, "akk" for Akkadian, and "en-GB" for English used in the United Kingdom.

References: [RFC3066] <http://www.ietf.org/rfc/rfc3066.txt>

References: [ISO639] <http://www.loc.gov/standards/iso639-2/>

Domain: NonAgentResource[?]

Range: Language

publisher

URI: <http://purl.org/dc/elements/1.1/publisher>

Definition: An entity responsible for making the resource available

Comment: Examples of a Publisher include a person, an organisation, or a service. Typically, the name of a Publisher should be used to indicate the entity.

Domain: NonAgentResource[?]

Range: Agent

relation

URI: <http://purl.org/dc/elements/1.1/relation>

Definition: A reference to a related resource.

Comment: Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.

Domain: Resource

Range: Resource

rights

URI: <http://purl.org/dc/elements/1.1/rights>

Definition: Information about rights held in and over the resource.

Comment: Typically, a Rights element will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the Rights element is absent, no assumptions can be made about the status of these and other rights with respect to the resource.

Domain: NonAgentResource[?]

Range: RightsStatement[?]

source

URI: <http://purl.org/dc/elements/1.1/source>

Definition: A reference to a resource from which the present resource is derived.

Comment: The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

subject

URI: <http://purl.org/dc/elements/1.1/subject>

Definition: The topic of the content of the resource.

Comment: Typically, a Subject will be expressed as keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.

Domain: NonAgentResource[?]

Range: Topic

title

URI: <http://purl.org/dc/elements/1.1/title>

Definition: A name given to the resource.

Comment: Typically, a Title will be a name by which the resource is formally known.

Domain: NonAgentResource[?]

Range: Literal

type

URI: <http://purl.org/dc/elements/1.1/type>

Definition: The nature or genre of the content of the resource.

Comment: Type includes terms describing general categories, functions, genres, or aggregation levels for content. Recommended best practice is to select a value from a controlled vocabulary (for example, the DCMI Type Vocabulary [DCMITYPE]). To describe the physical or digital manifestation of the resource, use the Format element.

References: [DCMITYPE] <http://dublincore.org/documents/dcmi-type-vocabulary/>

Domain: NonAgentResource[?]

Range: Class

Other Elements and Element Refinements

abstract

URI: <http://purl.org/dc/terms/abstract>

Definition: A summary of the content of the resource.

Refines: <http://purl.org/dc/elements/1.1/description>

Domain: NonAgentResource[?]

Range: Literal

accessRights

URI: <http://purl.org/dc/terms/accessRights>

Definition: Information about who can access the resource or an indication of its security status.

Comment: Access Rights may include information regarding access or restrictions based on privacy, security or other regulations.

Refines: <http://purl.org/dc/elements/1.1/rights>

Domain: NonAgentResource[?]

Range: RightsStatement[?]

accrualMethod

URI: <http://purl.org/dc/terms/accrualMethod>

Definition: The method by which items are added to a collection.

Comment: Recommended best practice is to use a value from a controlled vocabulary.

Domain: Collection

Range:

accrualPeriodicity

URI: <http://purl.org/dc/terms/accrualPeriodicity>

Definition: The frequency with which items are added to a collection.

Comment: Recommended best practice is to use a value from a controlled vocabulary.

Domain: Collection

Range:

accrualPolicy

URI: <http://purl.org/dc/terms/accrualPolicy>

Definition: The policy governing the addition of items to a collection.

Comment: Recommended best practice is to use a value from a controlled vocabulary.

Domain: Collection

Range:

alternative

URI: <http://purl.org/dc/terms/alternative>

Definition: Any form of the title used as a substitute or alternative to the formal title of the resource.

Comment: This qualifier can include Title abbreviations as well as translations.

Refines: <http://purl.org/dc/elements/1.1/title>

Domain: NonAgentResource[?]

Range: Literal

audience

URI: <http://purl.org/dc/terms/audience>

Definition: A class of entity for whom the resource is intended or useful.

Comment: A class of entity may be determined by the creator or the publisher or by a third party.

Domain: NonAgentResource[?]

Range: AgentGroup[?]

available

URI: <http://purl.org/dc/terms/available>

Definition: Date (often a range) that the resource will become or did become available.

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource[?]

Range: Period

bibliographicCitation

URI: <http://purl.org/dc/terms/bibliographicCitation>

Definition: A bibliographic reference for the resource.

Comment: Recommended practice is to include sufficient bibliographic detail to identify the resource as unambiguously as possible, whether or not the citation is in a standard form.

Refines: <http://purl.org/dc/elements/1.1/identifier>

Domain: NonAgentResource[?]

Range: Reference

conformsTo

URI: <http://purl.org/dc/terms/conformsTo>

Definition: A reference to an established standard to which the resource conforms.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

created

URI: <http://purl.org/dc/terms/created>

Definition: Date of creation of the resource.

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource[?]

Range: Period

dateAccepted

URI: <http://purl.org/dc/terms/dateAccepted>

Definition: Date of acceptance of the resource (e.g. of thesis by university department, of article by journal, etc.).

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource[?]

Range: Period

dateCopyrighted

URI: <http://purl.org/dc/terms/dateCopyrighted>

Definition: Date of a statement of copyright.

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource[?]

Range: Period

dateSubmitted

URI: <http://purl.org/dc/terms/dateSubmitted>

Definition: Date of submission of the resource (e.g. thesis, articles, etc.).

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource[?]

Range: Period

educationLevel

URI: <http://purl.org/dc/terms/educationLevel>

Definition: A general statement describing the education or training context. Alternatively, a more specific statement of the location of the audience in terms of its progression through an education or training context.

Refines: <http://purl.org/dc/terms/audience>

Domain: NonAgentResource[?]

Range:

extent

URI: <http://purl.org/dc/terms/extent>

Definition: The size or duration of the resource.

Refines: <http://purl.org/dc/elements/1.1/format>

Domain: NonAgentResource[?]

Range: Extent

hasFormat

URI: <http://purl.org/dc/terms/hasFormat>

Definition: The described resource pre-existed the referenced resource, which is essentially the same intellectual content presented in another format.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

hasPart

URI: <http://purl.org/dc/terms/hasPart>

Definition: The described resource includes the referenced resource either physically or logically.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource?

Range: NonAgentResource?

hasVersion

URI: <http://purl.org/dc/terms/hasVersion>

Definition: The described resource has a version, edition, or adaptation, namely, the referenced resource.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource?

Range: NonAgentResource?

instructionalMethod

URI: <http://purl.org/dc/terms/instructionalMethod>

Definition: A process, used to engender knowledge, attitudes and skills, that the resource is designed to support.

Comment: Instructional Method will typically include ways of presenting instructional materials or conducting instructional activities, patterns of learner-to-learner and learner-to-instructor interactions, and mechanisms by which group and individual levels of learning are measured. Instructional methods include all aspects of the instruction and learning processes from planning and implementation through evaluation and feedback.

Domain: NonAgentResource?

Range:

isFormatOf

URI: <http://purl.org/dc/terms/isFormatOf>

Definition: The described resource is the same intellectual content of the referenced resource, but presented in another format.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource?

Range: NonAgentResource?

isPartOf

URI: <http://purl.org/dc/terms/isPartOf>

Definition: The described resource is a physical or logical part of the referenced resource.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

isReferencedBy

URI: <http://purl.org/dc/terms/isReferencedBy>

Definition: The described resource is referenced, cited, or otherwise pointed to by the referenced resource.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

isReplacedBy

URI: <http://purl.org/dc/terms/isReplacedBy>

Definition: The described resource is supplanted, displaced, or superseded by the referenced resource.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

isRequiredBy

URI: <http://purl.org/dc/terms/isRequiredBy>

Definition: The described resource is required by the referenced resource, either physically or logically.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource[?]

Range: NonAgentResource[?]

issued

URI: <http://purl.org/dc/terms/issued>

Definition: Date of formal issuance (e.g., publication) of the resource.

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource²

Range: Period

isVersionOf

URI: <http://purl.org/dc/terms/isVersionOf>

Definition: The described resource is a version, edition, or adaptation of the referenced resource. Changes in version imply substantive changes in content rather than differences in format.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource²

Range: NonAgentResource²

license

URI: <http://purl.org/dc/terms/license>

Definition: A legal document giving official permission to do something with the resource.

Comment: Recommended best practice is to identify the license using a URI. Examples of such licenses can be found at <http://creativecommons.org/licenses/>.

Refines: <http://purl.org/dc/elements/1.1/rights>

Domain: NonAgentResource²

Range: RightsStatement²

mediator

URI: <http://purl.org/dc/terms/mediator>

Definition: A class of entity that mediates access to the resource and for whom the resource is intended or useful.

Comment: The audiences for a resource are of two basic classes: (1) an ultimate beneficiary of the resource, and (2) frequently, an entity that mediates access to the resource. The mediator element refinement represents the second of these two classes.

Refines: <http://purl.org/dc/terms/audience>

Domain: NonAgentResource?

Range:

medium

URI: <http://purl.org/dc/terms/medium>

Definition: The material or physical carrier of the resource.

Refines: <http://purl.org/dc/elements/1.1/format>

Domain: NonAgentResource?

Range: Medium

modified

URI: <http://purl.org/dc/terms/modified>

Definition: Date on which the resource was changed.

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource?

Range: Period

provenance

URI: <http://purl.org/dc/terms/provenance>

Definition: A statement of any changes in ownership and custody of the resource since its creation that are significant for its authenticity, integrity and interpretation.

Comment: The statement may include a description of any changes successive custodians made to the resource.

Domain: NonAgentResource?

Range:

references

URI: <http://purl.org/dc/terms/references>

Definition: The described resource references, cites, or otherwise points to the referenced resource.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource?

Range: NonAgentResource?

replaces

URI: <http://purl.org/dc/terms/replaces>

Definition: The described resource supplants, displaces, or supersedes the referenced resource.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource?

Range: NonAgentResource?

requires

URI: <http://purl.org/dc/terms/requires>

Definition: The described resource requires the referenced resource to support its function, delivery, or coherence of content.

Refines: <http://purl.org/dc/elements/1.1/relation>

Domain: NonAgentResource?

Range: NonAgentResource?

rightsHolder

URI: <http://purl.org/dc/terms/rightsHolder>

Definition: A person or organization owning or managing rights over the resource.

Comment: Recommended best practice is to use the URI or name of the Rights Holder to indicate the entity.

Domain: NonAgentResource?

Range: Agent

spatial

URI: <http://purl.org/dc/terms/spatial>

Definition: Spatial characteristics of the intellectual content of the resource.

Refines: <http://purl.org/dc/elements/1.1/coverage>

Domain: NonAgentResource[?]

Range: Location

tableOfContents

URI: <http://purl.org/dc/terms/tableOfContents>

Definition: A list of subunits of the content of the resource.

Refines: <http://purl.org/dc/elements/1.1/description>

Domain: NonAgentResource[?]

Range: Literal

temporal

URI: <http://purl.org/dc/terms/temporal>

Definition: Temporal characteristics of the intellectual content of the resource.

Refines: <http://purl.org/dc/elements/1.1/coverage>

Domain: NonAgentResource[?]

Range: Period

valid

URI: <http://purl.org/dc/terms/valid>

Definition: Date (often a range) of validity of a resource.

Refines: <http://purl.org/dc/elements/1.1/date>

Domain: NonAgentResource[?]

Range: Period

[to top](#)

End of topic

[Skip to action links](#) | [Back to top](#)

[Edit](#) | [Attach image or document](#) | [Printable version](#) | [Raw text](#) | [More topic actions](#)

Revisions: | [r1.6](#) | [≥](#) | [r1.5](#) | [≥](#) | [r1.4](#) | [Total page history](#) | [Backlinks](#)

You are here: [Metadata](#) > [DCRDFTaskforce](#) > [DCPropertyDomainsRanges](#)

[to top](#)

Copyright © 1999-2005 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.
Ideas, requests, problems regarding UKOLN Wiki? [Send feedback](#)

[Skip to topic](#) | [Skip to bottom](#)



Jump:

Metadata

- **Metadata Web**
 - [Metadata Web Home](#)
 - [Changes](#)
 - [Index](#)
 - [Search](#)
-

- **Webs**
 - [CIEStandards](#)
 - [DELOSWP1Standards](#)
 - [Main](#)
 - [Metadata](#)
 - [Sandbox](#)
 - [Standards](#)
 - [TWiki](#)
 - [WWW2006Accessibility](#)

- **My links**
- [UKEL](#)
- [PNDS AP](#)

[edit](#)

- [Edit](#)
- [Attach](#)
- [Printable](#)

Metadata.DCRDFTaskforcer1.4 - 23 Aug 2005 - 14:02 - [AndyPowelltopic end](#)

Start of topic | [Skip to actions](#)

DC RDF Taskforce

Introduction

Welcome to the **DC RDF Taskforce** Wiki. This is a Web-based collaborative area for the group, providing a shared space where documents can be created collaboratively.

At the moment the group is working on the following documents:

- [Clarification of the recommendations for encoding 'value strings' in DC RDF/XML](#)
- [Guidelines for encoding DC metadata using the RDF Model](#)
- [DC Property Domains and Ranges](#)
- [Proposed changes to DCMI property definitions](#)

IMPORTANT: Do **not** cite materials in this Wiki other than for the purposes of collaborating on document creation. This Wiki is intended to be used to work on draft copies of documents. Finished documents will be published, in a persistent and citable form, on the dublicore.org Web site (or the UKOLN Web site or elsewhere in some cases).

Please announce changes to these documents via the DC-RDF-TASKFORCE@jiscmail.ac.uk list.

Meetings and minutes

- Monday, 22 Aug 2005 (conference call) [Minutes](#)
- Monday, 5 Sept 2005 (conference call)
- Monday, 12 Sept 2005 (face to face) 17.30 - 19.00, Seminar Room 4.1.E01, Madrid (DCMI Conference)

External links

- [DCMI Abstract Model](#)
- [Modelling DC values as resources in RDF - a discussion paper](#)
- DC-RDF-TASKFORCE@jiscmail.ac.uk
- [DC Architecture WG](#)

Notes:

- You are currently in the Metadata web. The color code for this web is this background, so you know where you are.
- If you are not familiar with the UKOLN Wiki collaboration platform, please visit [WelcomeGuest](#) first.
- Set ALLOWTOPICCHANGE = [MetadataGroup](#)

-- [AndyPowell](#)

[to top](#)

End of topic

[Skip to action links](#) | [Back to top](#)

[Edit](#) | [Attach image or document](#) | [Printable version](#) | [Raw text](#) | [More topic actions](#)

Revisions: | r1.4 | [≥](#) | [r1.3](#) | [≥](#) | [r1.2](#) | [Total page history](#) | [Backlinks](#)

Metadata.DCRDFTaskforce moved from Metadata.DCMIRDFTaskforce on 22 Aug 2005 - 10:58 by [AndyPowell](#) - [put it back](#)

You are here: [Metadata](#) > DCRDFTaskforce

[to top](#)

Copyright © 1999-2005 by the contributing authors. All material on this collaboration platform is the property of the contributing authors. Ideas, requests, problems regarding UKOLN Wiki? [Send feedback](#)



Jump:

Metadata

- **Metadata Web**
- [Metadata Web Home](#)
- [Changes](#)
- [Index](#)
- [Search](#)

- **Webs**
 - [CIEStandards](#)
 - [DELOS WP1Standards](#)
 - [Main](#)
 - [Metadata](#)
 - [Sandbox](#)
 - [Standards](#)
 - [TWiki](#)
 - [WWW2006Accessibility](#)

- **My links**
- [UKEL](#)
- [PNDS AP](#)

[edit](#)

- [Edit](#)
- [Attach](#)
- [Printable](#)

Metadata.DCRDFGuidelinesr1.7 - 02 Sep 2005 - 07:58 - [AndyPowelltopic end](#)

Start of topic | [Skip to actions](#)

Guidelines for encoding DC metadata using the RDF model

This document is currently under development. It is being worked on by the [DC RDF Taskforce](#). Comments should be sent to the dc-rdf-taskforce@jiscmail.ac.uk mailing list.

Introduction

This document provides some recommendations for encoding DC metadata in RDF. It does this by describing how the features of the [DCMI Abstract Model](#) are mapped to the RDF model rather than by referring to any specific RDF syntax encoding such as RDF/XML. This will allow DC metadata to be encoded using any of the recognised encoding syntaxes for RDF.

DCMI Abstract Model summary

The abstract model of DCMI metadata descriptions is as follows:

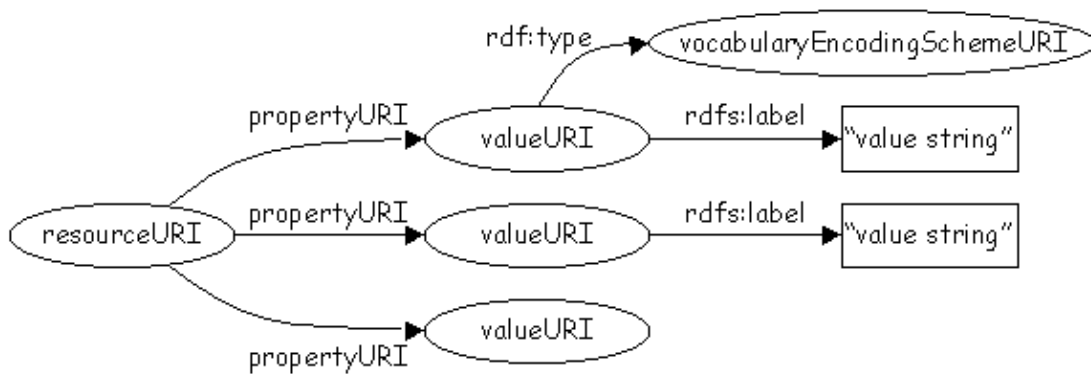
- A *description* is made up of one or more *statements* (about one, and only one, *resource*) and zero or one *resource URI* (a URI that identifies the *resource* being described).
- Each *statement* instantiates a *property/value pair* and is made up of a *property URI* (a URI that identifies a *property*), zero or one *value URI* (a URI that identifies a *value* of the *property*), zero or one *vocabulary encoding scheme URI* (a URI that identifies the *class* of the *value*) and zero or more *value representations* of the *value*.
- The *value representation* may take the form of a *value string* or a *rich representation*.
- Each *value string* is a simple, human-readable string that is a representation of the resource that is the value of the property.
- Each *value string* may have an associated *syntax encoding scheme URI* that identifies a *syntax encoding scheme*.
- Each *value string* may have an associated *value string language* that is an ISO language tag (e.g. en-GB).
- Each *rich representation* is some marked-up text, an image, a video, some audio, etc. or some combination thereof that is a representation of the *resource* that is the *value* of the *property*.
- Each *value* may be the subject of a separate *related description*.
- A *description set* is a set of one or more *descriptions* about one or more *resources*.
- A DCMI metadata *record* is a *description set* that is instantiated according to one of the DCMI encoding guidelines (XHTML meta tags, XML, RDF/XML, etc.)

Mapping the DCMI Abstract Model to the RDF model

The remainder of this document describes how to represent the DCMI Abstract Model using the RDF model.

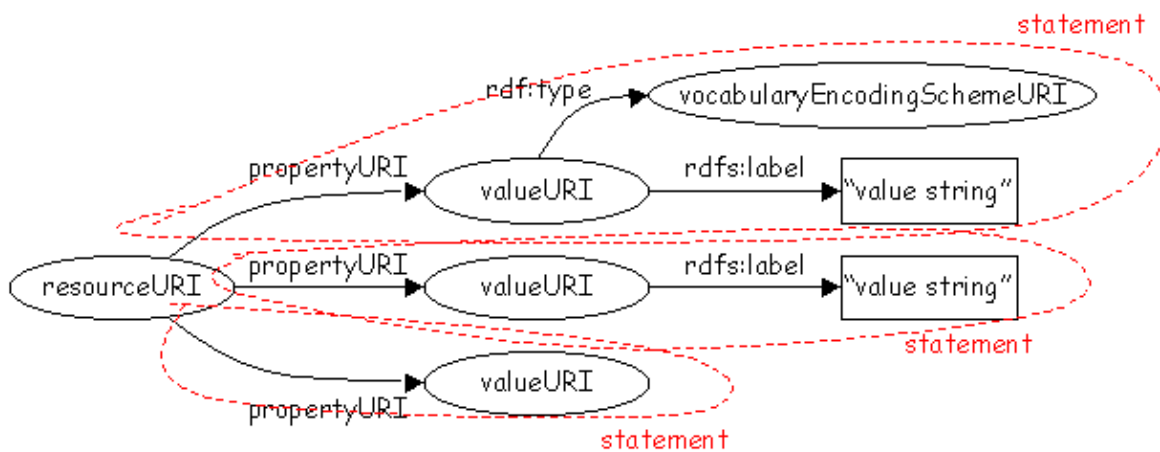
Descriptions

A DCAM *description* is represented using an [RDF graph](#) originating from a single [RDF subject](#) (a single [RDF node](#)), where the [RDF graph](#) represents one or more DCAM *statements* as described below.



Statements

A DCAM *statement* is represented using the [RDF predicate](#) (also known as the [RDF property](#)) and [RDF object](#) that make up an [RDF triple](#) originating from the [RDF subject](#) of a DCAM *description*. A DCAM *statement* may also include an [RDF triple](#) that indicates the `rdf:type` of the [RDF object](#) (see the "Vocabulary encoding scheme URIs" section below). A DCAM *statement* may also include one or more [RDF triples](#) that indicate a DCAM *value representation* (see the "Value strings" and "Rich representations" sections below).



Resource URIs

A DCAM *resource URI* is represented using the [RDF URI Reference](#) corresponding to the [RDF subject](#) of a DCAM *description*.

Property URIs

A DCAM *property URI* is represented using the [RDF URI Reference](#) corresponding to the [RDF predicate](#) of an [RDF triple](#) originating from the [RDF subject](#) of a DCAM *description*.

Value URIs

A DCAM *value URI* is represented using the [RDF URI Reference](#) corresponding to the [RDF object](#) of an [RDF triple](#) originating from the [RDF subject](#) of a DCAM *description*.

Vocabulary encoding scheme URIs

A DCAM *vocabulary encoding scheme* is represented using an [RDF triple](#) comprising:

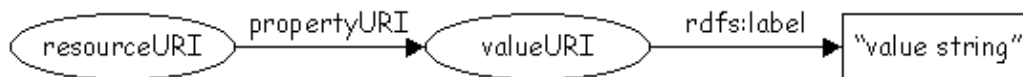
- an [RDF subject](#) that is the [RDF object](#) of an [RDF triple](#) originating from the [RDF subject](#) of a DCAM *description*
- an [RDF predicate](#) that is `rdf:type`
- an [RDF URI Reference](#) corresponding to the [RDF object](#) that is the DCAM *vocabulary encoding scheme*



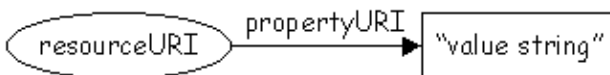
Value strings

A DCAM *value string* is represented using an [RDF triple](#) comprising:

- an [RDF subject](#) that is the [RDF object](#) of an [RDF triple](#) originating from the [RDF subject](#) of a DCAM *description*
- an [RDF predicate](#) that is `rdfs:label`
- an [RDF literal](#) [RDF object](#) (an [RDF plain literal](#) or [RDF typed literal](#)).

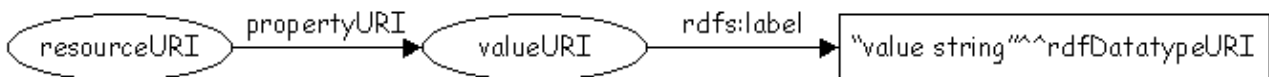


Note that in those cases where the range of the DCAM *property* is `rdfs:Literal` a shorter representation is possible by using an [RDF literal](#) that is the [RDF object](#) of an [RDF triple](#) whose [RDF subject](#) is the [RDF subject](#) of the DCAM *description*.



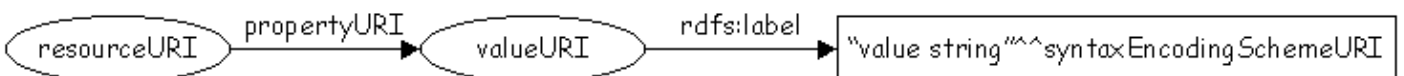
Rich representations

A DCAM *rich representation* is represented using a DCAM *value string* that is an [RDF typed literal](#).



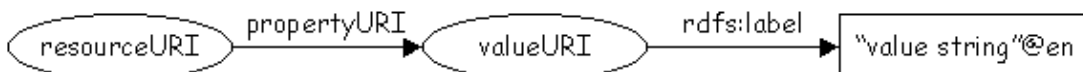
Syntax encoding scheme URIs

A DCAM *syntax encoding scheme* is represented using the [RDF URI Reference](#) that is the [RDF datatype URI](#) associated with an [RDF typed literal](#) DCAM *value string*.



Value string languages

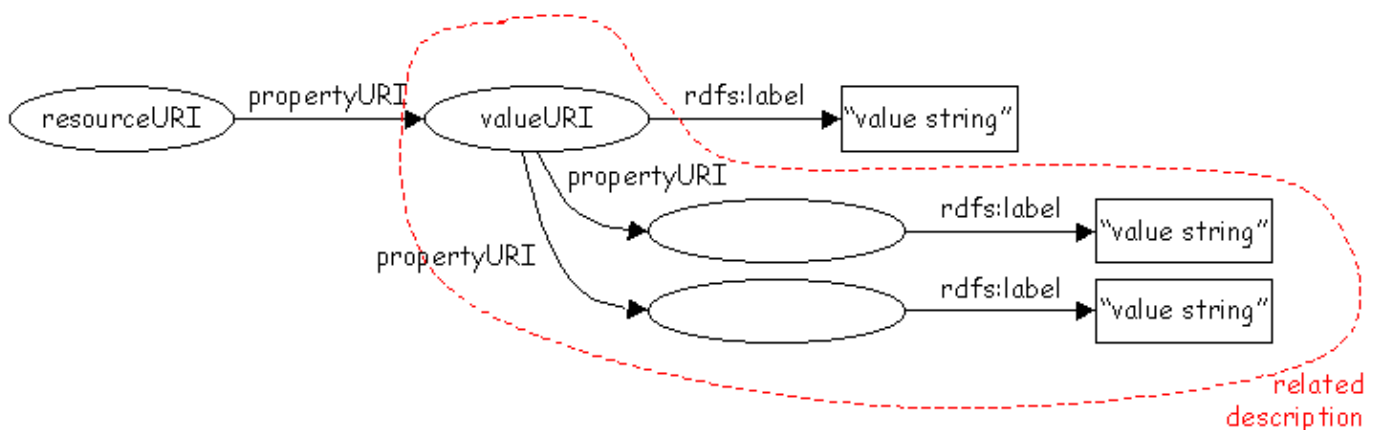
A DCAM *value string language* is represented using a language tag as defined by RFC-3066, normalized to lowercase, associated with the [RDF plain literal](#) that is the DCAM *value string*.



Note that in the *RDF model*, a language tag can only be associated with an *RDF plain literal*, not with an *RDF typed literal*. This is a limitation on the DCAM as it is currently worded. We may want to consider tightening up the wording of the DCAM at some point?

Related descriptions

A DCAM *related description* is represented using any [RDF Graph](#) that originates from an [RDF node](#) that is not the [RDF subject](#) of the DCAM *description*.



Description sets

A DCAM *description set* is represented as an [RDF Graph](#) that includes one or more DCAM *descriptions* as described above.

Records

A DCAM *record* is an [RDF Graph](#) that is encoded using any of the recognised RDF encoding syntaxes.

Appendix A: A note about dumb-down











The dumb-down algorithm is applied to a DC *description set* (in terms of the DCAM), not directly to an RDF graph. Therefore, applying the dumb-down algorithm to a DC/RDF graph should be done by first mapping the graph to a DC *description set*, then applying the dumb-down algorithm, then mapping the resulting DC *description* back to a DC/RDF graph.

Appendix B: A few examples using the RDF/XML syntax

[to top](#)

End of topic

[Skip to action links](#) | [Back to top](#)

I	Attachment	Action	Size	Date	Who	Comment
	figure1.gif	manage	3.9 K	02 Sep 2005 - 07:46	AndyPowell	
	figure2.gif	manage	5.3 K	02 Sep 2005 - 07:46	AndyPowell	
	figure3.gif	manage	2.6 K	02 Sep 2005 - 07:47	AndyPowell	
	figure4.gif	manage	2.0 K	02 Sep 2005 - 07:47	AndyPowell	
	figure5.gif	manage	1.6 K	02 Sep 2005 - 07:47	AndyPowell	
	figure6.gif	manage	2.2 K	02 Sep 2005 - 07:48	AndyPowell	
	figure7.gif	manage	2.3 K	02 Sep 2005 - 07:48	AndyPowell	
	figure8.gif	manage	2.0 K	02 Sep 2005 - 07:48	AndyPowell	
	figure9.gif	manage	4.7 K	02 Sep 2005 - 07:49	AndyPowell	
	dc-rdf-diagrams.ppt	manage	41.5 K	02 Sep 2005 - 07:49	AndyPowell	

[Edit](#) | [Attach image or document](#) | [Printable version](#) | [Raw text](#) | [More topic actions](#)

Revisions: | [r1.7](#) | [≥](#) | [r1.6](#) | [≥](#) | [r1.5](#) | [Total page history](#) | [Backlinks](#)

You are here: [Metadata](#) > [DCRDFTaskforce](#) > DCRDFGuidelines

[to top](#)

Copyright © 1999-2005 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.
Ideas, requests, problems regarding UKOLN Wiki? [Send feedback](#)

[Skip to topic](#) | [Skip to bottom](#)

Jump:

Metadata

- **Metadata Web**
- [Metadata Web Home](#)
- [Changes](#)
- [Index](#)
- [Search](#)

- **Webs**
 - [CIEStandards](#)
 - [DELOSWP1Standards](#)
 - [Main](#)
 - [Metadata](#)
 - [Sandbox](#)
 - [Standards](#)
 - [TWiki](#)
 - [WWW2006Accessibility](#)

- **My links**
- [UKEL](#)
- [PNDS AP](#)

[edit](#)

- [Edit](#)
- [Attach](#)
- [Printable](#)

Metadata.RDFValueStringsClarificationr1.1 - 22 Aug 2005 - 11:15 - [AndyPowelltopic end](#)Start of topic | [Skip to actions](#)

Clarification of the recommendations for encoding 'value strings' in DC RDF/XML

This document is currently under development. It is being worked on by the [DC RDF Taskforce](#). Comments should be sent to the dc-rdf-taskforce@jiscmail.ac.uk mailing list.

Introduction

DCMI has two documents concerning the use of Dublin Core metadata in RDF/XML. The first, Expressing Simple Dublin Core in RDF/XML [SIMPLEDC-RDF] is a 'recommendation' and describes how to encode simple DC in RDF/XML. The second, Expressing Qualified Dublin Core in RDF/XML [QUALIFIEDDC-RDF] is a 'proposed recommendation' and describes how to encode qualified DC in RDF/XML.

More recently, the DC Architecture WG has developed the DCMI Abstract Model [DCMI-AM] which provides a reference model against which particular DC encoding guidelines [DCMI-ENCODINGS] can be compared.

The Abstract Model defines a terminology that includes the following terms (the definitions are repeated here for clarity):

resource

A resource is anything that has identity. Familiar examples include an electronic document, an image, a service (e.g., "today's weather report for Los Angeles"), and a collection of other resources. Not all resources are network "retrievable"; e.g., human beings, corporations, concepts and bound books in a library can also be considered resources.

resource URI

A resource URI is a URI that identifies a single resource.

property

A property is a specific aspect, characteristic, attribute, or relation used to describe resources.

property URI

A property URI is a URI that identifies a single property.

value

A value is the physical or conceptual entity that is associated with a property when it is used to describe a resource.

value URI

A value URI is a URI that identifies the value of a property.

value string

A value string is a simple string that represents the value of a property.

One issue with the two DCMI documents for encoding DC in RDF/XML is that they each recommend a different mechanism for encoding the value string that represents the value of a property. In the simple DC recommendation, a construct represented by the RDF graph in figure 1 is used. This construct uses a literal string as the value of the property. In the qualified DC proposed recommendation, a construct represented by the RDF graph in figure 2 is used. This construct represents the value of the property as an intermediate (often blank) node, allowing further properties to be used to describe the value resource, including a simple value string (using `rdfs:label`).

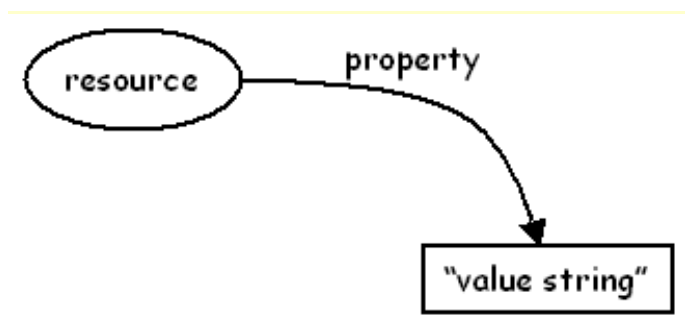


Figure 1

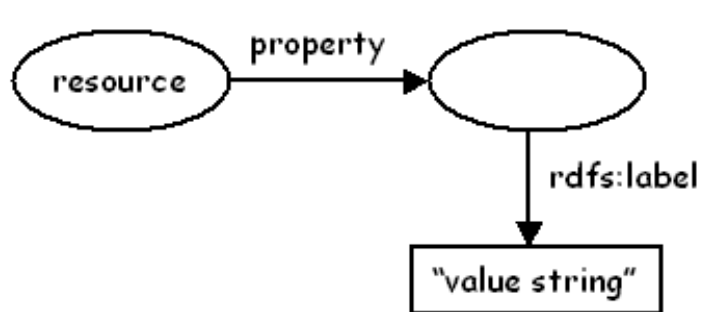


Figure 2

Clarification

The graphs in figures 1 and 2 say different things, both in terms of the RDF Model and in terms of the DCMI Abstract Model (DCAM).

In terms of the RDF Model, figure 1 says:

```
_:resource a:property "value string" .
```

i.e. some resource has a relationship of type indicated by the property `a:property` with the literal `"value string"`.

In RDF, a literal is a resource: it's an instance of the class called `rdfs:Literal`. Furthermore, `rdfs:Literal` is a subclass of `rdfs:Resource`. (Note: this is also true of the DCAM - in the DCAM, literals are resources.) `rdfs:Literal` is a class; therefore `rdfs:Literal` is a vocabulary encoding scheme (or can be used as a vocabulary encoding scheme).

So in terms of the DCAM, figure 1 might be represented as

```

Description:
  Statement:
    Property URI: a:property
    Value String: "value string"
    Vocabulary Encoding Scheme URI: rdfs:Literal
  
```

In terms of the RDF Model, figure 2 says:

```
_:resource a:property _:x .
_:x rdfs:label "value string" .
```

i.e. some resource has a relationship of type indicated by the property `a:property` with a second resource and that second resource has an `rdfs:label` relationship with the literal `"value string"`.

Assuming that the `rdfs:label` relationship maps to "is represented by value string" in the DCAM, then this maps to

```

Description:
  Statement:
    Property URI: a:property
    Value String: "value string"
  
```

in terms of the DCAM.

Note the difference from figure 1: the figure 1 example had a vocabulary encoding scheme URI of `rdfs:Literal` - the figure 2 example doesn't.

Of course, if the `_:x` object node is typed in the figure 2 example then the corresponding DCAM representation gets a vocabulary encoding scheme. For example:

```
_:resource a:property _:x .
_:x rdfs:label "value string" .
_:x a foaf:Person .
```

maps to:

Description:

Statement:

Property URI: `a:property`

Value String: "value string"

Vocabulary Encoding Scheme URI: `foaf:Person`

in terms of the DCAM.

Note that DCMI properties are not being treated in a special way here: this works for any RDF property `a:property`, and the DCAM representation is completely consistent with the RDF representation: figure 1 says the value is a resource of type `rdfs:Literal`; figure 2 says the value is an untyped resource.

Conclusion

This document shows that the two different constructs used in the current DCMI recommendation and draft recommendation for encoding simple and qualified DC in RDF/XML are consistent with the DCMI Abstract Model but that they make different assertions.

What are DC-aware applications allowed to do in terms of transforming graphs between these two forms? Can they transform in both directions, in one direction or in neither direction?

-- [AndyPowell](#) - 22 Aug 2005

[to top](#)

End of topic

[Skip to action links](#) | [Back to top](#)

[Edit](#) | [Attach image or document](#) | [Printable version](#) | [Raw text](#) | [More topic actions](#)

Revisions: | r1.1 | [Total page history](#) | [Backlinks](#)

You are here: [Metadata](#) > [DCRDFTaskforce](#) > RDFValueStringsClarification

[to top](#)

Copyright © 1999-2005 by the contributing authors. All material on this collaboration platform is the property of the contributing authors. Ideas, requests, problems regarding UKOLN Wiki? [Send feedback](#)

Date: Fri, 19 Aug 2005 14:53:38 -0400
From: "Childress, Eric" <childree@oclc.org>

I'm pleased to report that the DCMI Date Working Group has completed work on a matter referred to it by the DCMI Usage Board.

After deliberation it is the sense of the Date WG that ISO 8601 Data elements and interchange formats -- Information interchange -- Representation of dates and times should not be registered for:

- * dc:date
- * dcterms:temporal

The WG bases its decision chiefly on the following findings:

- * Scope: Though ISO 8601 provides for useful and in-scope cases of date information, the standard also provides for cases (e.g., duration) which are out of scope for dc:date and dcterms:temporal.
- * Practical application: The large universe of values permitted -- and the authorization of multiple expressions of these values -- by ISO 8601 potentially poses impractical application and validation-by-software burdens on agencies wishing to make use of dc:date and dcterms:temporal.

The Date WG believes that future registration of profiles of ISO 8601 and/or other, less complex encoding schemes will better serve the Dublin Core community rather than registration of an "all-ISO 8601" encoding scheme.



[Home](#) > [Documents](#) > [2005](#) > [07](#) > [25](#) > [Dcml-box](#) >

DCMI Box Encoding Scheme: specification of the spatial limits of a place, and methods for encoding this in a text string

Creator: [Simon Cox](#)

Contributor: Andy Powell

Contributor: Andrew Wilson

Date Issued: 2005-07-25

Identifier: <http://dublincore.org/documents/2005/07/25/dcml-box/>

Replaces: <http://dublincore.org/documents/2000/07/28/dcml-box/>

Is Replaced By: Not Applicable

Latest version: <http://dublincore.org/documents/dcml-box/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: The DCMI Box encoding scheme is a method for identifying a region of space using its geographic limits. Components of the value correspond to the bounding coordinates in north, south, east and west directions, plus optionally up and down, and also allow the coordinate system and units to be specified, and a name if desired. A method for encoding DCMI Box in a text-string, as a profile of DCSV is described. This notation is intended for recording the value of the DCMES element **Coverage**, particularly when using HTML meta elements.

Table of Contents

- [1. Introduction](#)
- [2. Identifying a place - the DCMI Box scheme](#)
- [3. Encoding DCMI Box](#)
 - [3.1 DCSV encoding](#)
- [4. Examples](#)
- [5. References](#)

1. Introduction

Several methods are available to indicate a place. These include, but are not limited to:

- a **name**, normally defined in an identifiable enumeration such as a gazetteer or list of jurisdictional localities;
- a unique **geocode**, such as a postal code;
- the coordinates of a **point**, using geographic values or some well-defined projection and units;
- a set of arcs or faces describing the **polygon** or **polyhedron** comprising the perimeter of the place;
- the **limits** of a regular shaped container which encompasses the place, typically a rectangular **box** in two or three dimensions, using geographic values or some well-defined projection and units.

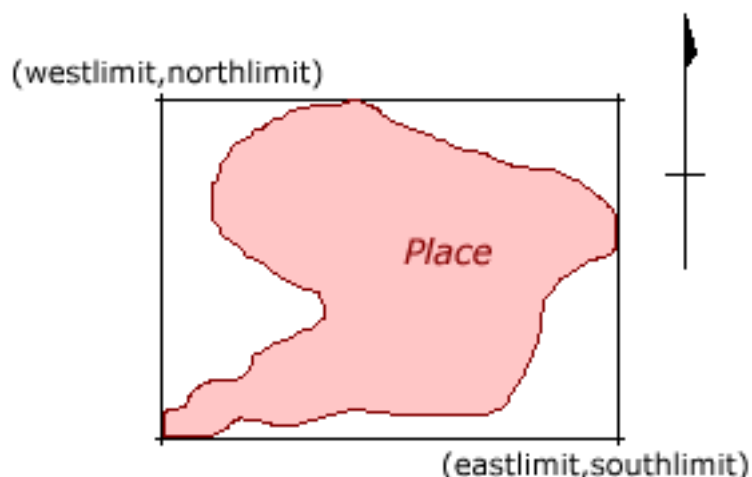
The Dublin Core Metadata Element Set [DCMES] includes an element, **Coverage**, the value of which may be a reference to a place. If a name or geocode is used as the value for the property, then the scheme from which that is selected determines valid values. However, there are no simple, commonly used, notations for indicating a place using coordinates. Here we define DCMI Box, an encoding scheme which specifies the geographic limits of a place,

and describe a method for encoding DCMI Box as a profile of DCSV [\[DCSV\]](#).

In the simplest usage, DCMI Box approximates the extent of a place using a container with a regular shape. For a more precise representation of an irregular shape it is possible to use the approach of "tiling" the place with a set of simple regions defined using DCMI Box. Alternatively, another notation describing a polygon or polyhedron may be used. If a value corresponding to a *point* is required, then DCMI Point [\[POINT\]](#) is available.

2. Identifying a place - the DCMI Box scheme

We identify a place by considering the minimal rectangular box which fully encloses the place, whose faces are aligned parallel with the axes of an identified cartesian coordinate system [\[Figure\]](#).



We define the following components to describe the box:

Component	Definition	Default ¹
northlimit	The value of the constant coordinate for the northernmost face or edge ²	INF ³
eastlimit	The value of the constant coordinate for the easternmost face or edge ²	INF ³
southlimit	The value of the constant coordinate for the southernmost face or edge ²	-INF ³
westlimit	The value of the constant coordinate for the westernmost face or edge ²	-INF ³
uplimit	The value of the constant coordinate for the uppermost face or edge ²	INF ³
downlimit	The value of the constant coordinate for the lowermost face or edge ²	-INF ³
units	The units applying to unlabelled numeric values of northlimit, eastlimit, southlimit, westlimit	signed decimal degrees
zunits	The units applying to unlabelled numeric values of uplimit, downlimit	metres
projection	The name of the projection used with any parameters required, such as ellipsoid parameters, datum, standard parallels and meridians, zone, etc	geographic coordinates on Earth for northlimit, eastlimit, southlimit, westlimit; height above mean-sea-level for uplimit, downlimit.
name	A name for the place ⁴	-

¹All components are optional. If any **limit* component is absent, then this implies an interval unbounded on that side. Thus, a DCMI Box with a single component northlimit="0" would identify the entire southern hemisphere.

²Values are expressed as a text-string representing a number. Units should be included using conventional (SI) notation, unless the relevant units or zunits component is present. However, if units are given as part of any value, then for this component these override those given by units or zunits.

³If this component is absent then the value is undefined. Processors performing numeric comparisons are recommended to set values corresponding to maximally inclusive matching.

⁴In this context the name is non-normative. In the case of a conflict, the place identified by the coordinate values takes precedence. The name is provided for user convenience only.

3. Encoding DCMI Box

The components of a DCMI Box value have no meaning when disaggregated, since in any particular instance it is the complete set which acts to indicate the specific location. Thus, use of DCMI Box to indicate a place requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string according to the DCSV [[DCSV](#)] recommendation.

3.1 DCSV encoding

Writing DCMI Box using DCSV notation is straightforward, using the component names defined above. A DCMI Box value appears as follows:

```
northlimit=v1; eastlimit=v2; southlimit=v3; westlimit=v4; uplimit=v5;  
downlimit=v6; units=v7; zunits=v8; projection=v9; name=v10
```

where v1 - v10 are values as defined in the table above.

All components are optional but must not be repeated, and the ordering is not significant.

4. Examples

Western Australia:

```
name=Western Australia; northlimit=-13.5; southlimit=-35.5;  
westlimit=112.5; eastlimit=129
```

Lake Jindabyne:

```
northlimit=5980000; westlimit=644000; eastlimit=647000; southlimit=5966000;  
units=m; projection=UTM zone 55 south
```

The Western Hemisphere:

```
westlimit=180; eastlimit=0
```

The Tropics:

```
northlimit=23.5; southlimit=-23.5
```

A mine, illustrating the use of 3-D coordinates:

```
northlimit=-21.3; southlimit=-21.4; westlimit=139.8; eastlimit=139.9;  
uplimit=400; downlimit=-100; name=Duchess copper mine
```

5. References

[DCMES]

1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description

<http://dublincore.org/documents/dces/>

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.

<http://dublincore.org>

[POINT]

S. Cox, 2000. DCMI Point - a point location in space and methods for encoding this in a text string

<http://dublincore.org/documents/dcmi-point/>

[DCSV]

S. Cox, R. Iannella, 2000. A syntax for writing a list of labelled values in a text string

<http://dublincore.org/documents/dcmi-dcsv/>

[XML]

Extensible Markup Language

<http://www.w3.org/XML/>



Metadata associated with this resource: <http://dublincore.org/documents/2005/07/25/dcmi-box/index.shtml.rdf>

[Copyright](#) © 1995-2005 [DCMI](#) All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).



[Home](#) > [Documents](#) > [2000](#) > [07](#) > [28](#) > [Dcml-box](#) >

DCMI Box Encoding Scheme: specification of the spatial limits of a place, and methods for encoding this in a text string

Creator: [Simon Cox](#)

Date Issued: 2000-07-28

Identifier: <http://dublincore.org/documents/2000/07/28/dcml-box/>

Replaces: <http://dublincore.org/documents/2000/07/11/dcml-box/>

Is Replaced By: <http://dublincore.org/documents/2005/07/25/dcml-box/>

Latest version: <http://dublincore.org/documents/dcml-box/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: The DCMI Box encoding scheme is a method for identifying a region of space using its geographic limits. Components of the value correspond to the bounding coordinates in north, south, east and west directions, plus optionally up and down, and also allow the coordinate system and units to be specified, and a name if desired. A method for encoding DCMI Box in a text-string, as a profile of DCSV is described. This notation is intended for recording the value of the DCMES element **Coverage**, particularly when using HTML meta elements. An alternative encoding for DCMI Box using XML is also shown.

NOTICE TO IMPLEMENTORS: The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending coordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator in the DCMI-DCSV encoding is a change from earlier versions of this specification which used ":" in the same position.**

Table of Contents

- [1. Introduction](#)
- [2. Identifying a place - the DCMI Box scheme](#)
- [3. Encoding DCMI Box](#)
 - [3.1 DCSV encoding](#)
 - [3.2 XML encoding](#)
- [4. Examples](#)
- [5. References](#)

1. Introduction

Several methods are available to indicate a place. These include, but are not limited to:

- a **name**, normally defined in an identifiable enumeration such as a gazetteer or list of jurisdictional localities
- a unique **geocode**, such as a postal code
- the coordinates of a **point**, using geographic values or some well-defined projection and units
- a set of arcs or faces describing the **polygon** or **polyhedron** comprising the perimeter of the place
- the **limits** of a regular shaped container which encompasses the place, typically a rectangular **box** in two

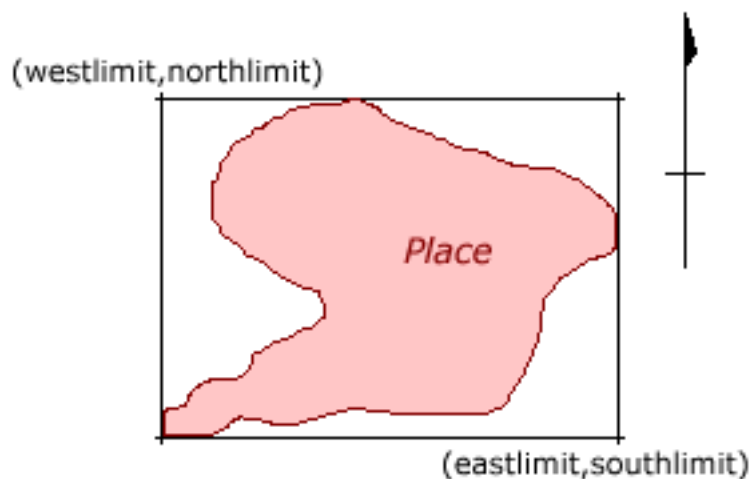
or three dimensions, using geographic values or some well-defined projection and units

The Dublin Core Metadata Element Set [DCMES] includes an element, **Coverage**, the value of which may contain an identifier for a place. If a name or geocode is used then the scheme from which that is selected determines valid values. However, there are no simple, commonly used, notations for the identifiers which use coordinates. Here we define DCMI Box, an identifier which specifies the geographic limits of a place, and describe methods for encoding DCMI Box, as a profile of DCSV [DCSV], and using a fragment of XML [XML].

In the simplest usage DCMI Box approximates the extent of a place using a container with a regular shape. For a more precise representation of an irregular shape it is possible to use the approach of "tiling" the place with a set of simple regions defined using DCMI Box. Alternatively, another notation describing a polygon or polyhedron may be used. If an identifier corresponding to a *point* is required, then DCMI Point [POINT] is available.

2. Identifying a place - the DCMI Box scheme

We identify a place by considering the minimal rectangular box which fully encloses the place, whose faces are aligned parallel with the axes of an identified cartesian coordinate system [Figure].



We define the following components to describe the box:

Component	Definition	Default ¹
northlimit	The value of the constant coordinate for the northernmost face or edge ²	INF ³
eastlimit	The value of the constant coordinate for the easternmost face or edge ²	INF ³
southlimit	The value of the constant coordinate for the southernmost face or edge ²	-INF ³
westlimit	The value of the constant coordinate for the westernmost face or edge ²	-INF ³
uplimit	The value of the constant coordinate for the uppermost face or edge ²	INF ³
downlimit	The value of the constant coordinate for the lowermost face or edge ²	-INF ³
units	The units applying to unlabelled numeric values of northlimit, eastlimit, southlimit, westlimit	signed decimal degrees
zunits	The units applying to unlabelled numeric values of uplimit, downlimit	metres
projection	The name of the projection used with any parameters required, such as ellipsoid parameters, datum, standard parallels and meridians, zone, etc	geographic coordinates on Earth for northlimit, eastlimit, southlimit, westlimit; height above mean-sea-level for uplimit, downlimit.
name	A name for the place ⁴	-

¹All components are optional. If any *limit component is absent, then this implies an interval unbounded on that side. Thus, a DCMI Box with a single component northlimit="0" would identify the entire southern hemisphere.

²Values are expressed as a text-string representing a number. Units should be included using conventional (SI) notation, unless the relevant units or zunits component is present. However, if units are given as part of any value, then for this component these override those given by units or zunits.

³If this component is absent then the value is undefined. Processors performing numeric comparisons are recommended to set values corresponding to maximally inclusive matching.

⁴In this context the name is non-normative. In the case of a conflict, the place identified by the coordinate values takes precedence. The name is provided for user convenience only.

3. Encoding DCMI Box

The components of a DCMI Box identifier have no meaning when disaggregated, since in any particular instance it is the complete set which acts as the *identifier*. Thus, use of DCMI Box to identify a place requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string. Various serialisation syntaxes are available, including DCSV [[DCSV](#)] and XML [[XML](#)].

In normal usage, the unadorned token "DCMI Box" should be taken to refer to the encoding using DCSV.

3.1 DCSV encoding

Writing DCMI Box using DCSV notation is straightforward, using the component names defined above. A DCMI Box value appears as follows:

```
northlimit=v1; eastlimit=v2; southlimit=v3; westlimit=v4; uplimit=v5;
downlimit=v6; units=v7; zunits=v8; projection=v9; name=v10
```

where v1 - v10 are values as defined in the table above.

All components are optional but may not be repeated, and the ordering is not significant.

3.2 XML encoding

DCMI Box may be written in XML. Given the flexibility of XML many alternative notations are possible. One form looks like this:

```
<Box projection="v9" name="v10">
<northlimit units="v7a">v1</northlimit>
<eastlimit units="v7b">v2</eastlimit>
<southlimit units="v7c">v3</southlimit>
<westlimit units="v7d">v4</westlimit>
<uplimit zunits="v8a">v3</uplimit>
<downlimit zunits="v8b">v4</downlimit>
</Box>
```

defined by the DTD fragment:

```
<!ELEMENT Box (northlimit?,eastlimit?,southlimit?,westlimit?,uplimit?,downlimit?)>
<!-- Box
      projection CDATA "geographic, height relative to mean-sea-level"
      name CDATA #IMPLIED --
--!ELEMENT northlimit (#PCDATA)>
<!-- northlimit units CDATA "signed decimal degrees">
<!-- eastlimit (#PCDATA)>
<!-- eastlimit units CDATA "signed decimal degrees">
```



```

<!ELEMENT    southlimit    (#PCDATA)>
<!--ATTLIST southlimit    units    CDATA "signed decimal degrees">\
<!ELEMENT    westlimit    (#PCDATA)>
<!--ATTLIST westlimit    units    CDATA "signed decimal degrees">
<!ELEMENT    uplimit      (#PCDATA)>
<!--ATTLIST uplimit      zunits    CDATA "m">
<!ELEMENT    downlimit    (#PCDATA)>
<!--ATTLIST downlimit    zunits    CDATA "m">

```

The values here are equivalent to the values in the DCSV profile. Note that:

1. We have defined an XML *element* Box. Instances of this would occur within a complete XML *document*.
2. The content model for Box is a (clockwise) sequence of (optional) *limit elements. This is a cleaner representation of the information required to specify the "box" structure than is possible in DCSV. All other components of Box occur as *attributes*
3. units and zunits are recorded in an XML *attribute*. Since these are associated directly with the local *limit element, it is possible to express different components in different units if desired.

4. Examples

Western Australia:

```

name=Western Australia; northlimit=-13.5; southlimit=-35.5;
westlimit=112.5; eastlimit=129

```

```

<Box name="Western Australia">
<northlimit>-13.5</northlimit>
<eastlimit>129</eastlimit>
<southlimit>-35.5</southlimit>
<westlimit>112.5</westlimit>
</Box>

```

Lake Jindabyne:

```

northlimit=5980000; westlimit=644000; eastlimit=647000; southlimit=5966000;
units=m; projection=UTM zone 55 south

```

```

<Box projection="UTM zone 55 south" name="Lake Jindabyne">
<northlimit units="m">5980000</northlimit>
<eastlimit units="m">647000</eastlimit>
<southlimit units="m">5966000</southlimit>
<westlimit units="m">644000</westlimit>
</Box>

```

The Western Hemisphere:

```

westlimit=180; eastlimit=0

```

```

<Box>
<eastlimit>0</eastlimit>
<westlimit>180</westlimit>
</Box>

```

The Tropics:

```

northlimit=23.5; southlimit=-23.5

```

```

<Box>
<northlimit>23.5</northlimit>
<southlimit>-23.5</southlimit>
</Box>

```

A mine, illustrating the use of 3-D coordinates:

```
northlimit=-21.3; southlimit=-21.4; westlimit=139.8; eastlimit=139.9;  
uplimit=400; downlimit=-100; name=Duchess copper mine
```

```
<Box name="Duchess copper mine">  
<northlimit>-21.3</northlimit>  
<eastlimit>139.9</eastlimit>  
<southlimit>-21.4</southlimit>  
<westlimit>139.8</westlimit>  
<uplimit>400</uplimit>  
<downlimit>-100</downlimit>  
</Box>
```

5. References

[DCMES]

1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description
<http://dublincore.org/documents/dces/>

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.
<http://dublincore.org>

[POINT]

S. Cox, 2000. DCMI Point - a point location in space and methods for encoding this in a text string
<http://dublincore.org/documents/dcmi-point/>

[DCSV]

S. Cox, R. Iannella, 2000. A syntax for writing a list of labelled values in a text string
<http://dublincore.org/documents/dcmi-dcsv/>

[XML]

Extensible Markup Language
<http://www.w3.org/XML/>



Metadata associated with this resource: <http://dublincore.org/documents/2000/07/28/dcmi-box/index.shtml.rdf>

Copyright © 1995-2005 DCMI All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).



[Home](#) > [Documents](#) > [2005](#) > [07](#) > [25](#) > [Dcml-period](#) >

DCMI Period Encoding Scheme: specification of the limits of a time interval, and methods for encoding this in a text string

Creator: [Simon Cox](#)

Contributor: Andy Powell

Contributor: Andrew Wilson

Date Issued: 2005-07-25

Identifier: <http://dublincore.org/documents/2005/07/25/dcml-period/>

Replaces: <http://dublincore.org/documents/2000/07/28/dcml-period/>

Is Replaced By: Not Applicable

Latest version: <http://dublincore.org/documents/dcml-period/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: This document defines 'DCMI Period', a mechanism for indicating a single time interval using its limits. Components of the value correspond to the start and end of the interval, either of which may be omitted in the case of a single-ended interval. We describe a method for encoding DCMI Period in a text-string, as a profile of DCSV. This notation is intended for recording the value of the DCMES elements **Coverage** and **Date**.

Table of Contents

- [1. Introduction](#)
- [2. Identifying a time interval - the DCMI Period scheme](#)
- [3. Encoding DCMI Period](#)
 - [3.1 DCSV encoding](#)
- [4. Examples](#)
- [5. References](#)

1. Introduction

Several methods are available to indicate a time interval. These include, but are not limited to:

- a **name**, normally defined in an enumeration such as a list of artistic, cultural, historical, archaeological, geological or cosmological eras or periods, a list of ruler's names, families or dynasties, etc.
- the **limits** of the interval, using either numeric or named values, the latter optionally including qualifiers such as **start of**, **end of**, **middle of**, etc.

The Dublin Core Metadata Element Set [\[DCMES\]](#) includes two elements, **Coverage** and **Date**, the values of which may indicate a time interval.

If a name is used then the scheme from which it is selected determines its meaning.

1. The W3C profile of the ISO8601 standard for dates and times [\[W3C-DTF\]](#) is generally useful for

identifying time instants but does not provide an explicit mechanism for indicating a time interval.

This document defines DCMI Period, an encoding scheme which uses a simple model to specify the limits of a time interval, and describes a method for encoding DCMI Period as a profile of DCSV [[DCSV](#)]. DCMI Period has been designed to be similar to DCMI Box [[BOX](#)] used for identifying a place, and thus allows consistent encoding of spatio-temporal information in the DCMES element **Coverage**, as well as consistency between **Coverage** and **Date**. The components of DCMI Period re-use the W3C-DTF syntax where possible.

DCMI Period indicates a single time *interval*. If an indication of a time instant is required, then W3C-DTF [[W3C-DTF](#)] is available. For multiple disjoint intervals, repeated instances of DCMI Period may be used. DCMI Period is unsuited for identification of recurring and periodic time intervals.

2. Identifying a time interval - the DCMI Period encoding scheme

The time interval is indicated by specifying the start and end of the interval.

We define the following components to describe the interval:

Component	Definition	Default ¹
start	The instant corresponding to the commencement of the time interval	-INF ²
end	The instant corresponding to the termination of the time interval	INF ²
scheme	The encoding used for the representation of the time-instants in the start and end components ³	W3C-DTF
name	A name for the time interval ⁴	-

¹All components are optional.

²If either start or end is absent, then this implies an interval unbounded on that side. Thus, a DCMI Period with a single component start="2000-01-26" would identify the interval starting at the beginning of Australia Day in the year 2000 C.E. and continuing from that time.

³If a non-numeric encoding is used then matching is maximally inclusive: i.e. if a start component is expressed as a named era then the interval being identified starts at the beginning of the era, and conversely for an end component the interval ends at the end of the named era.

⁴In this context the name is non-normative. In the case of a conflict, the interval identified by the start and end values takes precedence. The name is provided for user convenience only.

3. Encoding DCMI Period

The components of a DCMI Period identifier have no meaning when disaggregated, since in any particular instance it is the complete set which indicates the specific time interval. Thus, use of DCMI Period to identify a time interval requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string according to the DCSV [[DCSV](#)] recommendation.

3.1 DCSV encoding

Writing DCMI Period using DCSV notation is straightforward, using the component names defined above. A DCMI Period value appears as follows:

```
start=v1; end=v2; scheme=v3; name=v4;
```

where v1 - v4 are values as defined in the table above.

All components are optional but must not be repeated. The ordering is not significant.

4. Examples

The Great Depression:

name=The Great Depression; start=1929; end=1939;

Perth International Arts Festival, 2000:

name=Perth International Arts Festival, 2000; start=2000-01-26; end=2000-02-20;

1999 AFL Grand Final [AFL is an obscure Australian ball game]:

start=1999-09-25T14:20+10:00; end=1999-09-25T16:40+10:00; scheme=W3C-DTF;

The Phanerozoic Eon:

start=Cambrian period; scheme=Geological timescale; name=Phanerozoic Eon;

5. References

[BOX]

S. Cox, 2000, DCMI Box - specification of the spatial limits of a place, and methods for encoding this in a text string
<http://dublincore.org/documents/dcmi-box/>

[DCMES]

1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description
<http://dublincore.org/documents/dces/>

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.
<http://dublincore.org/>

[DCSV]

S. Cox, R. Iannella, 2000. A syntax for writing a list of labelled values in a text string
<http://dublincore.org/documents/dcmi-dcsv/>

[MathML]

Mathematical Markup Language (MathML) 1.01 Specification
<http://www.w3.org/TR/REC-MathML/>

[W3C-DTF]

M. Wolf, C. Wicksteed, 1997, Date and Time Formats
<http://www.w3.org/TR/NOTE-datetime>

[XML]

Extensible Markup Language
<http://www.w3.org/XML/>



Metadata associated with this resource: <http://dublincore.org/documents/2005/07/25/dcmi-period/index.shtml.rdf>

Copyright © 1995-2005 DCMI All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).



[Home](#) > [Documents](#) > [2000](#) > [07](#) > [28](#) > [Dcml-period](#) >

DCMI Period Encoding Scheme: specification of the limits of a time interval, and methods for encoding this in a text string

Creator: [Simon Cox](#)

Date Issued: 2000-07-28

Identifier: <http://dublincore.org/documents/2000/07/28/dcml-period/>

Replaces: <http://dublincore.org/documents/2000/07/11/dcml-period/>

Is Replaced By: <http://dublincore.org/documents/2005/07/25/dcml-period/>

Latest version: <http://dublincore.org/documents/dcml-period/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: We introduce DCMI Period for identifying a single time interval using its limits. Components of the value correspond to the start and end of the interval, either of which may be omitted in the case of a single-ended interval. We describe a method for encoding DCMI Period in a text-string, as a profile of DCSV. This notation is intended for recording the value of the DCMES elements **Coverage** and **Date**, particularly when using HTML meta elements. We also show an alternative encoding for DCMI Period using XML.

NOTICE TO IMPLEMENTORS: The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending co-ordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator in the DCMI-DCSV encoding is a change from earlier versions of this specification which used ":" in the same position.**

Table of Contents

- [1. Introduction](#)
- [2. Identifying a time interval - the DCMI Period scheme](#)
- [3. Encoding DCMI Period](#)
 - [3.1 DCSV encoding](#)
 - [3.2 XML encoding](#)
- [4. Examples](#)
- [5. References](#)

1. Introduction

Several methods are available to indicate a time interval. These include, but are not limited to:

- a **name**, normally defined in an enumeration such as a list of artistic, cultural, historical, archaeological, geological or cosmological eras or periods, a list of ruler's names, families or dynasties, etc.
- the **limits** of the interval, using either numeric or named values, the latter optionally including qualifiers such as **start of**, **end of**, **middle of**, etc.

The Dublin Core Metadata Element Set [[DCMES](#)] includes two elements, **Coverage** and **Date**, the values of which

may contain an identifier for a time interval.

If a name is used then the scheme from which it is selected determines the meaning.

The W3C profile of the ISO8601 standard for dates and times [[W3C-DTF](#)] is generally useful for identifying time instants, and also includes a method for specifying complete intervals by joining two instants with a "/" character. However, there is a need for a richer model for use in some cases, for three reasons:

1. open intervals, i.e. those with only a start or an end, are not included in the specification
2. the syntax cannot be adapted for use with other spatio-temporal dimensions, which would be desirable for consistency of use with the DCMES Coverage element
3. the identification of the start and end of the interval is implicit - relying in the position within a string - and therefore error-prone, rather than explicitly labelled.

The W3C recommendation *Mathematical Markup Language* [[MathML](#)] includes an [XML binding for intervals](#) which permits quite general intervals to be described, using both numeric and non-numeric bounds. This is a syntax-specific notation which, in order to be consistent with other parts of the bigger specification of which it is a part, includes features which are relatively obscure for the simple goal here. It is also unclear how to specify this extract from a much larger standard, and since it is presented as an XML notation, other serialisations would need to be specified separately in any case.

Here we define DCMI Period, an identifier which uses a simple model to specify the limits of a time interval, and describe methods for encoding DCMI Period, as a profile of DCSV [[DCSV](#)], and using a fragment of XML [[XML](#)]. DCMI Period has been designed to be similar to DCMI Box [[BOX](#)] used for identifying a place, and thus allows consistent encoding of spatio-temporal information in the DCMES element **Coverage**, as well as consistency between **Coverage** and **Date**. The components of DCMI Period re-use the W3C-DTF syntax where possible.

DCMI Period identifies a single time *interval*. If an identifier corresponding to a time instant is required, then W3C-DTF [[W3C-DTF](#)] is available. For multiple disjoint intervals, repeated instances of DCMI Period may be used. DCMI Period is unsuited for identification of recurring and periodic time intervals.

2. Identifying a time interval - the DCMI Period scheme

We identify a time interval by specifying the start and end of the interval.

We define the following components to describe the interval:

Component	Definition	Default ¹
start	The instant corresponding to the commencement of the time interval	-INF ²
end	The instant corresponding to the termination of the time interval	INF ²
scheme	The encoding used for the representation of the time-instants in the start and end components ³	W3C-DTF
name	A name for the time interval ⁴	-

¹All components are optional.

²If either start or end is absent, then this implies an interval unbounded on that side. Thus, a DCMI Period with a single component start="2000-01-26" would identify the interval starting at the beginning of Australia Day in the year 2000 C.E. and continuing from that time.

³If a non-numeric encoding is used then matching is maximally inclusive: i.e. if a start component is expressed as a named era then the interval being identified starts at the beginning of the era, and conversely for an end component the interval ends at the end of the named era.

⁴In this context the name is non-normative. In the case of a conflict, the interval identified by the start and end values takes precedence. The name is provided for user convenience only.

3. Encoding DCMI Period

The components of a DCMI Period identifier have no meaning when disaggregated, since in any particular instance it is the complete set which acts as the *identifier*. Thus, use of DCMI Period to identify a time interval requires that

the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string. Various serialisation syntaxes are available, including DCSV [[DCSV](#)] and XML [[XML](#)].

In normal usage, the unadorned token "DCMI Period" should be taken to refer to the encoding using DCSV.

3.1 DCSV encoding

Writing DCMI Period using DCSV notation is straightforward, using the component names defined above. A DCMI Period value appears as follows:

```
start=v1; end=v2; scheme=v3; name=v4;
```

where v1 - v4 are values as defined in the table above.

All components are optional but may not be repeated. The ordering is not significant.

3.2 XML encoding

DCMI Period may be written in XML. Given the flexibility of XML many alternative notations are possible. One form looks like this:

```
<Period name="v4">
  <start scheme="v3a">v1</start>
  <end scheme="v3b">v2</end>
</Period>
```

defined by the DTD fragment:

```
<!ELEMENT   Period      (start?,end?)>
<!ATTLIST   Period
    name      CDATA #IMPLIED >
<!ELEMENT   start      (#PCDATA)>
<!ATTLIST   start      scheme      CDATA "W3C-DTF">
<!ELEMENT   end        (#PCDATA)>
<!ATTLIST   end        scheme      CDATA "W3C-DTF">
```

The values here are equivalent to the values in the DCSV profile. Note that:

1. We have defined an XML *element* Period. Instances of this would occur within a complete XML *document*.
2. The content model for Period is an ordered pair of elements (start,end), either of which may be omitted. All other components of Period occur as *attributes*
3. The scheme used to represent the component time-instants is recorded in an XML *attribute*. Since these are associated directly with either the start or end element, it is possible to express different components using different notations if desired.

4. Examples

The Great Depression:

```
name=The Great Depression; start=1929; end=1939;
```

```
<Period name="The Great Depression">
  <start>1929</start>
  <end>1939</end>
</Period>
```

Perth International Arts Festival, 2000:


```
name=Perth International Arts Festival, 2000; start=2000-01-26; end=2000-02-20;

<Period name="Perth International Arts Festival 2000">
  <start>2000-01-26</start>
  <end>2000-02-20</end>
</Period>
```

1999 AFL Grand Final:

```
start=1999-09-25T14:20+10:00; end=1999-09-25T16:40+10:00; scheme=W3C-DTF;

<Period name="1999 AFL Grand Final">
  <start scheme="W3C-DTF">1999-09-25T14:20+10:00</start>
  <end scheme="W3C-DTF">1999-09-25T16:40+10:00</end>
</Period>
```

The Phanerozoic Eon:

```
start=Cambrian period; scheme=Geological timescale; name=Phanerozoic Eon;

<Period name="Phanerozoic Eon">
  <start scheme="Geological timescale">Cambrian period</start>
</Period>
```

5. References

[BOX]

S. Cox, 2000, DCMI Box - specification of the spatial limits of a place, and methods for encoding this in a text string
<http://dublincore.org/documents/dcmi-box/>

[DCMES]

1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description
<http://dublincore.org/documents/dces/>

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.
<http://dublincore.org/>

[DCSV]

S. Cox, R. Iannella, 2000. A syntax for writing a list of labelled values in a text string
<http://dublincore.org/documents/dcmi-dcsv/>

[MathML]

Mathematical Markup Language (MathML) 1.01 Specification
<http://www.w3.org/TR/REC-MathML/>

[W3C-DTF]

M. Wolf, C. Wicksteed, 1997, Date and Time Formats
<http://www.w3.org/TR/NOTE-datetime>

[XML]

Extensible Markup Language
<http://www.w3.org/XML/>



[Copyright](#) © 1995-2005 [DCMI](#) All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).



[Home](#) > [Documents](#) > [2005](#) > [07](#) > [25](#) > [Dcml-point](#) >

DCMI Point Encoding Scheme: a point location in space, and methods for encoding this in a text string

Creator: [Simon Cox](#)

Contributor: Andy Powell

Contributor: Andrew Wilson

Date Issued: 2005-07-25

Identifier: <http://dublincore.org/documents/2005/07/25/dcml-point/>

Replaces: <http://dublincore.org/documents/2000/07/28/dcml-point/>

Is Replaced By: Not Applicable

Latest version: <http://dublincore.org/documents/dcml-point/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: This document defines DCMI Point, a mechanism for indicating a point in space using its geographic coordinates. Components of the value correspond to the location coordinates in north and east directions, plus optionally elevation, and also allow the coordinate system and units to be specified, and a name if desired. We describe a method for encoding DCMI Point in a text-string, as a profile of DCSV. This notation is intended for recording the value of the DCSV element **Coverage**, particularly when using HTML meta elements.

Table of Contents

- [1. Introduction](#)
- [2. Identifying a place - the DCMI Point scheme](#)
- [3. Encoding DCMI Point](#)
 - [3.1 DCSV encoding](#)
- [4. Examples](#)
- [5. References](#)

1. Introduction

Several methods are available generally to indicate a *place*. These include, but are not limited to:

- a **name**, normally defined in an identifiable enumeration such as a gazetteer or list of jurisdictional localities;
- a unique **geocode**, such as a postal code;
- the coordinates of a **point**, using geographic values or some well-defined projection and units;
- a set of arcs or faces describing the **polygon** or **polyhedron** comprising the perimeter of the place;
- the **limits** of a regular shaped container which encompasses the place, typically a rectangular **box** in two or three dimensions, using geographic values or some well-defined projection and units.

The Dublin Core Metadata Element Set [DCMES] includes an element, **Coverage**, the value of which may be a reference to a place. If a name or geocode is used as the value for the property, then the scheme from which that value is selected determines valid values. However, there are no simple, commonly used, notations for indicating a point using coordinates. Here we define DCMI Point, an encoding scheme which specifies the coordinates of the

point location of a place, and describe a method for encoding DCMI Point as a profile of DCSV [[DCSV](#)]. If an identifier corresponding to an extensive *region* is required, then DCMI Box [[BOX](#)] is available for rectangular regions.

2. Identifying a place - the DCMI Point scheme

The place is indicated using a point location, described using coordinates in an identified cartesian system. The point may correspond to some place within an extensive region, such as the areal or volumetric centroid, but we do not specify the nature of the relationship in this document, nor is such specification necessary in a DCMI resource description.

We define the following components to describe the point:

Component	Definition	Default ¹
east	The value of the coordinate of the location measured in the east direction ²	+/- INF ³
north	The value of the coordinate of the location measured in the north direction ²	+/- INF ³
elevation	The value of the coordinate of the location measured in the vertical direction ²	+/- INF ³
units	The units applying to unlabelled numeric values of north, east	signed decimal degrees
zunits	The units applying to unlabelled numeric values of elevation	metres
projection	The name of the projection used with any parameters required, such as ellipsoid parameters, datum, standard parallels and meridians, zone, etc	geographic coordinates on Earth for north, east; height above mean-sea-level for elevation.
name	A name for the place ⁴	-

¹ All components are optional.

² Values are expressed as a text-string representing a number. Units should be included using conventional (SI) notation, unless the relevant units or zunits component is present. However, if units are given as part of any value, then for this component these override those given by units or zunits.

³ If this component is absent then the value is undefined. Processors performing numeric comparisons are recommended to set values corresponding to maximally inclusive matching, i.e. the location is a line if one coordinate is missing, and a plane if two are missing.

⁴ In this context the name is non-normative. In the case of a conflict, the place identified by the coordinate values takes precedence. The name is provided for user convenience only.

3. Encoding DCMI Point

The components of a DCMI Point identification have no meaning when disaggregated, since in any particular instance it is the complete set which acts to indicate a specific place. Thus, use of DCMI Point to indicate a place requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string according to the DCSV [[DCSV](#)] recommendation.

3.1 DCSV encoding

Writing DCMI Point using DCSV notation is straightforward, using the component names defined above. A DCMI Point value appears as follows:

```
east=v1; north=v2; elevation=v3; units=v4; zunits=v5; projection=v6; name=v7
```

where v1 - v7 are values as defined in the table above.

All components are optional but must not be repeated, and the ordering is not significant.

4. Examples

Perth, Western Australia:

name=Perth, W.A.; east=115.85717; north=-31.95301

Bridgnorth, Shropshire, U.K.:

east=372000; north=293000; units=m; projection=U.K. National Grid

The Greenwich Meridian:

east=0;

The highest point in Australia, illustrating the use of 3-D coordinates (and how flat Australia is):

east=148.26218; north=-36.45746; elevation=2228; name=Mt. Kosciusko

5. References

[BOX]

S. Cox, 2000. DCMI Box Encoding Scheme- specification of the spatial limits of a place, and methods for encoding this in a text string

<http://dublincore.org/documents/dcmi-box/>

[DCMES]

1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description

<http://dublincore.org/documents/dces/>

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.

<http://dublincore.org/>

[DCSV]

S. Cox, R. Iannella, 2000. A syntax for writing a list of labelled values in a text string

<http://dublincore.org/documents/dcmi-dcsv/>

[XML]

Extensible Markup Language

<http://www.w3.org/XML/>



Metadata associated with this resource: <http://dublincore.org/documents/2005/07/25/dcmi-point/index.shtml.rdf>

Copyright © 1995-2005 DCMI All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).



[Home](#) > [Documents](#) > [2000](#) > [07](#) > [28](#) > [Dcml-point](#) >

DCMI Point Encoding Scheme: a point location in space, and methods for encoding this in a text string

Creator: [Simon Cox](#)

Date Issued: 2000-07-28

Identifier: <http://dublincore.org/documents/2000/07/28/dcml-point/>

Replaces: <http://dublincore.org/documents/2000/07/11/dcml-point/>

Is Replaced By: <http://dublincore.org/documents/2005/07/25/dcml-point/>

Latest version: <http://dublincore.org/documents/dcml-point/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: We introduce DCMI Point for identifying a point in space using its geographic coordinates. Components of the value correspond to the location coordinates in north and east directions, plus optionally elevation, and also allow the coordinate system and units to be specified, and a name if desired. We describe a method for encoding DCMI Point in a text-string, as a profile of DCSV. This notation is intended for recording the value of the DCES element **Coverage**, particularly when using HTML meta elements. We also show an alternative encoding for DCMI Point using XML.

NOTICE TO IMPLEMENTORS: The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending coordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator in the DCMI-DCSV encoding is a change from earlier versions of this specification which used ":" in the same position.**

Table of Contents

- [1. Introduction](#)
- [2. Identifying a place - the DCMI Point scheme](#)
- [3. Encoding DCMI Point](#)
 - [3.1 DCSV encoding](#)
 - [3.2 XML encoding](#)
- [4. Examples](#)
- [5. References](#)

1. Introduction

Several methods are available to indicate a *place*. These include, but are not limited to:

- a **name**, normally defined in an identifiable enumeration such as a gazetteer or list of jurisdictional localities
- a unique **geocode**, such as a postal code
- the coordinates of a **point**, using geographic values or some well-defined projection and units
- a set of arcs or faces describing the **polygon** or **polyhedron** comprising the perimeter of the place
- the **limits** of a regular shaped container which encompasses the place, typically a rectangular **box** in two

or three dimensions, using geographic values or some well-defined projection and units

The Dublin Core Metadata Element Set [DCMES] includes an element, **Coverage**, the value of which may contain an identifier for a place. If a name or geocode is used then the scheme from which that is selected determines valid values. However, there are no simple, commonly used, notations for the identifiers which use coordinates. Here we define DCMI Point, an identifier which specifies the coordinates of the point location of a place, and describe methods for encoding DCMI Point, as a profile of DCSV [DCSV], and using a fragment of XML [XML]. If an identifier corresponding to an extensive *region* is required, then DCMI Box [BOX] is available for rectangular regions.

2. Identifying a place - the DCMI Point scheme

We identify a place using a point location, described using coordinates in an identified cartesian system. The point may correspond to some place within an extensive region, such as the areal or volumetric centroid, but we do not specify the nature of the relationship in this document.

We define the following components to describe the point:

Component	Definition	Default ¹
east	The value of the coordinate of the location measured in the east direction ²	+/- INF ³
north	The value of the coordinate of the location measured in the north direction ²	+/- INF ³
elevation	The value of the coordinate of the location measured in the vertical direction ²	+/- INF ³
units	The units applying to unlabelled numeric values of north, east	signed decimal degrees
zunits	The units applying to unlabelled numeric values of elevation	metres
projection	The name of the projection used with any parameters required, such as ellipsoid parameters, datum, standard parallels and meridians, zone, etc	geographic coordinates on Earth for north, east; height above mean-sea-level for elevation.
name	A name for the place ⁴	-

¹ All components are optional.

² Values are expressed as a text-string representing a number. Units should be included using conventional (SI) notation, unless the relevant units or zunits component is present. However, if units are given as part of any value, then for this component these override those given by units or zunits.

³ If this component is absent then the value is undefined. Processors performing numeric comparisons are recommended to set values corresponding to maximally inclusive matching, i.e. the location is a line if one coordinate is missing, and a plane if two are missing.

⁴ In this context the name is non-normative. In the case of a conflict, the place identified by the coordinate values takes precedence. The name is provided for user convenience only.

3. Encoding DCMI Point

The components of a DCMI Point identifier have no meaning when disaggregated, since in any particular instance it is the complete set which acts as the *identifier*. Thus, use of DCMI Point to identify a place requires that the components are linked together. For systems in which data is encoded using a limited character set, this is conveniently accomplished by packaging the components into a single text-string. Various serialisation syntaxes are available, including DCSV [DCSV] and XML [XML].

In normal usage, the unadorned token "DCMI Point" should be taken to refer to the encoding using DCSV.

3.1 DCSV encoding

Writing DCMI Point using DCSV notation is straightforward, using the component names defined above. A DCMI Point value appears as follows:

```
east=v1; north=v2; elevation=v3; units=v4; zunits=v5; projection=v6; name=v7
```

where v1 - v7 are values as defined in the table above.

All components are optional but may not be repeated, and the ordering is not significant.

3.2 XML encoding

DCMI Point may be written in XML. Given the flexibility of XML many alternative notations are possible. One form looks like this:

```
<Point projection="v6" name="v7">
  <east units="v4a">v1</east>
  <north units="v4b">v2</north>
  <elevation zunits="v5">v3</elevation>
</Point>
```

defined by the DTD fragment:

```
<!ELEMENT   Point      (east?,north?,elevation?)>
<!--ATTLIST Point
      projection CDATA    "geographic, height relative to mean-sea-level"
      name       CDATA    #IMPLIED --
<!--ELEMENT   east      (#PCDATA)>
<!--ATTLIST   east      units    CDATA "signed decimal degrees">
<!--ELEMENT   north     (#PCDATA)>
<!--ATTLIST   north     units    CDATA "signed decimal degrees">
<!--ELEMENT   elevation  (#PCDATA)>
<!--ATTLIST   elevation  zunits   CDATA "m">
```

The values here are equivalent to the values in the DCSV profile. Note that:

1. We have defined an XML *element* Point. Instances of this would occur within a complete XML *document*.
2. The content model for Point is a conventionally ordered (x,y,z) sequence of (optional) coordinate elements. This is a cleaner representation of the information required to specify the "point" structure than is possible in DCSV. All other components of DCMI Box occur as *attributes*
3. units and zunits are recorded in an XML *attribute*. Since these are associated directly with the local coordinate element, it is possible to express different components in different units if desired.

4. Examples

Perth, Western Australia:

```
name=Perth, W.A.; east=115.85717; north=-31.95301
```

```
<Point name="Perth, W.A.">
  <east>115.85717</east>
  <north>-31.95301</north>
</Point>
```

Bridgnorth, Shropshire, U.K.:

```
east=372000; north=293000; units=m; projection=U.K. National Grid
```

```
<Point projection="U.K. National Grid" name="Bridgnorth">
  <east units="m">372000</east>
  <north units="m">293000</north>
</Point>
```

The Greenwich Meridian:

```
east=0;
```



```
<Point>
  <east>0</east>
</Point>
```

The highest point in Australia, illustrating the use of 3-D coordinates (and how flat Australia is):

```
east=148.26218; north=-36.45746; elevation=2228; name=Mt. Kosciusko
```

```
<Point name="Mt. Kosciusko">
  <east>148.26218</east>
  <north>-36.45746</north>
  <elevation>2228</elevation>
</Point>
```

5. References

[BOX]

S. Cox, 2000. DCMI Box Encoding Scheme- specification of the spatial limits of a place, and methods for encoding this in a text string

<http://dublincore.org/documents/dcmi-box/>

[DCMES]

1999. Dublin Core Metadata Element Set, Version 1.1: Reference Description

<http://dublincore.org/documents/dces/>

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.

<http://dublincore.org/>

[DCSV]

S. Cox, R. Iannella, 2000. A syntax for writing a list of labelled values in a text string

<http://dublincore.org/documents/dcmi-dcsv/>

[XML]

Extensible Markup Language

<http://www.w3.org/XML/>



Metadata associated with this resource: <http://dublincore.org/documents/2000/07/28/dcmi-point/index.shtml.rdf>

Copyright © 1995-2005 DCMI All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).



[Home](#) > [Documents](#) > [2005](#) > [07](#) > [25](#) > [Dcml-dcsv](#) >

DCMI DCSV: A syntax for writing a list of labelled values in a text string

Creator: [Simon Cox](#)

Creator: [Renato Iannella](#)

Contributor: Andy Powell

Contributor: Andrew Wilson

Date Issued: 2005-07-25

Identifier: <http://dublincore.org/documents/2005/07/25/dcml-dcsv/>

Replaces: <http://dublincore.org/documents/2000/07/28/dcml-dcsv/>

Is Replaced By: Not Applicable

Latest version: <http://dublincore.org/documents/dcml-dcsv/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: This document describes a method for recording lists of labelled values in a text string, called Dublin Core Structured Values, with the label DCSV. The notation is intended for structured information within attribute values in Dublin Core metadata descriptions.

Table of Contents

1. [Introduction](#)
2. [Structured Values - the DCSV encoding scheme](#)
3. [Parsing DCSV](#)
4. [Sample Code for parsing DCSV coded values](#)
5. [Glossary](#)
6. [Acknowledgments](#)
7. [References](#)

1. Introduction

It is often highly desirable to be able to encode or *serialise* values within a plain-text string. Some generic methods are in common use. Inheriting conventions from natural languages, commas (,) and semi-colons (;) are frequently used as list separators. Similarly, comma-separated-values (CSV) and tab-separated-values (TSV) are common export formats from spreadsheet and database software, with *line-feeds* separating rows or tuples. Dots (.) and dashes (-) are sometimes used to imply hierarchies, particularly in thesaurus applications. The eXtensible Markup Language ([XML](#)) provides one general solution, using tags contained within angle brackets (<, >) to indicate the structure.

2. Structured Values - the DCSV encoding scheme

To allow the recording of generic **Structured Values**, we introduce the Dublin Core Structured Values (**DCSV**) encoding scheme.

This document describes a particular method for structuring simple string values within a DCMI description. Here, we distinguish between two types of substring within a *value string* - *componentLabels* and *componentValues*,

where a `componentLabel` is the name of the type of a `componentValue`, and a `componentValue` is the data itself. Furthermore, we allow a complete value string to be disaggregated into set of *components*, each of which has its own `componentLabel` and `componentValue`. A value that is comprised of components in this way is called a *structured value*.

Punctuation characters are used in recording a structured value as follows:

- equals-signs (=) separate plain-text `componentLabels` of structured value-components from the `componentValues` themselves;
- semi-colons (;) separate (optionally labelled) value-components within a list;
- dots (.) indicate hierarchical structure in `componentLabels`, if required.

The `componentLabels` and the `componentValues` themselves each consist of a text-string. The intention is that the `componentLabel` will be a word or code corresponding to the name of the value-component. `componentLabels` may be absent, in which case the entire sub-string delimited by semi-colons (;) or the end of the string comprise a `componentValue`.

The following patterns show how structured values may be recorded in strings using DCSV:

```
"u1; u2; u3"
"cA=v1"
"cA=v1; cB.part1=v2; cB.part2=v3"
"cA=v1; u2; u3"
```

where `u1`, `u2` and `u3` are unlabelled components, `cA` and `cB` are the `componentLabels` of Structured Value components, `part1` and `part2` are sub-components of `cB`, and `v1`, `v2` and `v3` are `componentValues` of specific components.

The use of specific punctuation characters in DCSV coded values means that care must be exercised if these characters are to be used directly within strings which comprise the content (either `componentLabels` or `componentValues`) of the components. For DCSV, therefore, when an equals-sign (=), or a semi-colon (;) is required within the `componentValue`, the characters are escaped using a backslash, appearing as `\=` `\;`. There should be no ambiguity regarding the dot, full-stop or period (.) within strings: when it is part of a `componentLabel`, a dot indicates some hierarchy; when part of a `componentValue`, it has the conventional meaning for the context. This method of escaping special characters largely preserves readability and the ability to enter DCSV coded metadata value strings easily using a text-editor if required. Software written to process DCSV coded values must make the necessary substitutions.

As there is no explicit grouping mechanism, DCSV can only be used to record a list. DCSV is only intended to be used for relatively simple structured values.

3. Parsing DCSV

A simple method can be used to parse metadata values recorded according to the DCSV scheme. For a single value recorded using the DCSV scheme:

1. split the value string into a list of
 - if no semi-colon is present, there is a single substring;
2. split each substring into its (`componentLabel`,`componentValue`) on any unescaped equals-signs (=);
 - if no equals (=) is present, the `componentLabel` is empty;
3. within each `componentValue` replace the escaped characters with the actual character required.

4. Sample Code for parsing DCSV coded values

The following Perl program reads a DCSV coded string entered on `stdin`, and prints a formatted version of the structured result. This code is provided for demonstration purposes only and contains no error-checking.

```
#!/usr/local/bin/perl
use strict
print "Enter string to be parsed:\n";
my $string = join('', <STDIN>);
print "\nString to be parsed is [$string]\n";
# First escape % characters
```

```
$string =~ s/%/"%.unpack('C',"")."%"/eg;
# Next change \ escaped characters to %d% where d is the character's ascii code
$string =~ s/\\(\\|\/|")/"%".unpack('C',$1)."%"/eg;
print "\nEscaped string is [$string]\n";
# Now split the string into components
my @components = split(/\/, $string);
print "\nComponents:\n";
foreach $component (@components) {
    my ($label, $value) = split(/=/, $component, 2);
    # if there is no = copy contents of $label into $value and empty $label
    if (! $value) {
        $value = $label;
        $name = '';
    }
    # strip whitespace from name string
    $label =~ s/^\s*(\S+)\s*$/$1/;
    # convert % escaped characters back in label string
    $label =~ s/%(\d+)/pack('C',$1)/eg;
    #convert % escaped characters back in value string
    $value =~ s/%(\d+)/pack('C',$1)/eg;
    print "Component Label [$label] has Component Value [$value]\n";
}
```

5. Glossary

This document uses the following terms:

component

A *component* is one of a set of one or more text strings structured according to the DCSV scheme that together make up a *statement*.

componentLabel

The name of the type of a *componentValue*

componentValue

The *value string* representing the *value* specified by the *label*.

description

A *description* is made up of one or more *statements* about one, and only one, *resource*.

element

Within DCMI, *element* is typically used as a synonym for *property*. However, it should be noted that the word *element* is also commonly used to refer to a structural markup component within an XML document.

element refinement

An *element refinement* is a *property* of a *resource* that shares the meaning of a particular DCMI *property* but with narrower semantics. Since *element refinements* are *properties*, they can be used in metadata *descriptions* independently of the *properties* they refine. In DCMI practice, an *element refinement* refines just one parent DCMI *property*.

encoding scheme

Encoding scheme is the generic name for *vocabulary encoding scheme* and *syntax encoding scheme*.

encoding scheme URI

The generic name for a *vocabulary encoding scheme URI* or a *syntax encoding scheme URI*.

marked-up text

A string that contains HTML, XML or other markup (for example TeX) and that is associated with the *value* of a *property*.

property

A *property* is a specific aspect, characteristic, attribute, or relation used to describe *resources*.

property URI

A *property URI* is a URI reference that identifies a single *property*.

qualifier

Qualifier was the generic name used for the *terms* that are now usually referred to specifically as *element refinements* or *encoding schemes*.

related description

A *related description* is a *description* of a *resource* that is related to the *resource* being described.

resource

A *resource* is anything that has identity. Familiar examples include an electronic document, an image, a service (e.g., "today's weather report for Los Angeles"), and a collection of other *resources*. Not all *resources* are network "retrievable"; e.g., human beings, corporations, concepts and bound books in a library can also be considered *resources*.

resource URI

A *resource URI* is a URI reference that identifies a single *resource*.

statement

A *statement* is made up of a *property URI* (a URI reference that identifies a *property*), zero or one *value URI* (a URI reference that identifies a *value* of the *property*), zero or one *vocabulary encoding scheme URI* (a URI reference that identifies the *class* of the *value*) and zero or more *value representations* of the *value*.

structured value

Structured value is the generic name for the following:

- A *value string* that contains machine-parsable component parts (and which has an associated *syntax encoding scheme* that indicates how the component parts are encoded within the string).
- Some *marked-up text*.
- A *related description*

syntax encoding scheme

A *syntax encoding scheme* indicates that the *value string* is formatted in accordance with a formal notation, such as "2000-01-01" as the standard expression of a date.

syntax encoding scheme URI

A *syntax encoding scheme URI* is a URI reference that identifies a *syntax encoding scheme*. For all DCMI recommended *encoding schemes*, the URI reference is constructed by concatenating the name of the *encoding scheme* with the <http://purl.org/dc/terms/namespace> URI.

term

The generic name for a *property* (i.e. *element* or *element refinement*), *vocabulary encoding scheme*, *syntax encoding scheme* or concept taken from a controlled vocabulary (concept space).

term URI

The generic name for a URI reference that identifies a *term*.

value

A *value* is the physical or conceptual entity that is associated with a *property* when it is used to describe a *resource*.

value URI

A *value URI* is a URI reference that identifies the *value* of a *property*.

value representation

A *value representation* is a surrogate for (i.e. a representation of) the *value*.

value string

A *value string* is a simple string that represents the *value* of a *property*. In general, a *value string* should not contain any *marked-up text*.

vocabulary encoding scheme

A *vocabulary encoding scheme* is a *class* that indicates that the *value* of a *property* is taken from a controlled vocabulary (or concept-space), such as the Library of Congress Subject Headings.

vocabulary encoding scheme URI

A *vocabulary encoding scheme URI* is a URI reference that identifies a *vocabulary encoding scheme*. For all DCMI recommended *encoding schemes*, the URI reference is constructed by concatenating the name of the *encoding scheme* with the <http://purl.org/dc/terms/namespace> URI.

6. Acknowledgments

John Kunze encouraged the original authors to write up this proposal formally. Kim Covil wrote the perl code. Eric Miller nagged regarding the overlap with XML. Steve Tolkin convinced the original authors to switch to =.

7. References

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.

<http://dublincore.org/>

[DCMIAM]

A. Powell, M. Nilsson, A. Naeve, Pete Johnson, 2004, *DCMI Abstract Model*

<http://dublincore.org/documents/abstract-model/>

[HTML4]

Dave Raggett, Arnaud Le Hors, Ian Jacobs, 1999, *HTML 4.01 Specification*

<http://www.w3.org/TR/html4/>

[Profiles]

DCMI Box - *specification of the spatial limits of a place, and methods for encoding this in a text string*

<http://dublincore.org/documents/dcmi-box/>

DCMI Point - *a point location in space, and methods for encoding this in a text string*

<http://dublincore.org/documents/dcmi-point/>

DCMI Period - *specification of the limits of a time interval, and methods for encoding this in a text string*

<http://dublincore.org/documents/dcmi-period/>

[Q-DC-HTML]

S. Cox, 2000, *Recording qualified Dublin Core metadata in HTML*

<http://dublincore.org/documents/dcq-html/>

[RDF-in-HTML]

This uses the most compact form of XML-RDF [RDF-syntax], in which all the data occurs as attribute values. In this form several important capabilities are not available, such as multiple (repeated) values. For an example, see Figure 5 in S.J.D. Cox and K.D. Covil, "A web-based geological information system using metadata", Proc. 3rd IEEE META-DATA Conference

http://computer.org/conferen/proceed/meta/1999/papers/7/cox_covil.html

[RDF/XML]

D. Beckett, 2004, *RDF/XML Syntax Specification (Revised)*

<http://www.w3.org/TR/rdf-syntax-grammar/>

[URI]

T. Berners-Lee, R. Fielding, L. Masinter, 1998 Uniform Resource Identifiers (URI): Generic Syntax RFC2396

<http://www.ietf.org/rfc/rfc2396.txt>

T. Berners-Lee, L. Masinter, and M. McCahill, 1994 Uniform Resource Locators, RFC1738

<http://www.ietf.org/rfc/rfc1738.txt>

T. Berners-Lee, 1994 Universal Resource Identifiers in WWW: A Unifying Syntax for the Expression of Names and Addresses of Objects on the Network as used in the World-Wide Web, RFC1630

<http://www.ietf.org/rfc/rfc1630.txt>

[vCard]

F. Dawson, T. Howes, vCard MIME Directory Profile RFC2426

<http://www.ietf.org/rfc/rfc2426.txt>

[W3C-DTF]

M. Wolf, C. Wicksteed, 1997, Date and Time Formats

<http://www.w3.org/TR/NOTE-datetime>

[XHTML]

Steven Pemberton and many others, 1999 XHTML 1.0: The Extensible HyperText Markup Language

<http://www.w3.org/TR/xhtml1/>

See also Dave Raggett, HyperText Markup Language Activity Statement

<http://www.w3.org/MarkUp/Activity.html>

[XML]

Extensible Markup Language

<http://www.w3.org/XML/>



Metadata associated with this resource: <http://dublincore.org/documents/2005/07/25/dcmi-dcsv/index.shtml.rdf>

[Copyright](#) © 1995-2005 [DCMI](#) All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).



[Home](#) > [Documents](#) > [2000](#) > [07](#) > [28](#) > [Dcml-dcsv](#) >

DCMI DCSV: A syntax for writing a list of labelled values in a text string

Creator: [Simon Cox](#)

Creator: [Renato Iannella](#)

Date Issued: 2000-07-28

Identifier: <http://dublincore.org/documents/2000/07/28/dcml-dcsv/>

Replaces: <http://dublincore.org/documents/2000/07/11/dcml-dcsv/>

Is Replaced By: <http://dublincore.org/documents/2005/07/25/dcml-dcsv/>

Latest version: <http://dublincore.org/documents/dcml-dcsv/>

Status of document: This is a DCMI [Recommendation](#).

Description of document: We describe a method for recording lists of labelled values in a text string, called Dublin Core Structured Values, with the label DCSV. The notation is intended for structured information within attribute values in markup-languages such as HTML and XML. This is likely to be useful in recording complex element values in metadata systems based on the qualified Dublin Core model.

NOTICE TO IMPLEMENTORS: The syntax examples included in this document are provisional, and are currently under review as part of the DCMI work on recommending coordinated syntax recommendations for HTML, XML, and RDF. These recommendations and minor editorial changes in this document can be expected to take place in the near future. **Note that the use of "=" as a separator is a change from earlier versions of this specification which used ":" in the same position.** This change was considered desirable because the ":" character occurs frequently within strings which are likely to be used as names and values. Using "=" as a separator reduces the need to escape characters in the data.

Table of Contents

- [Introduction](#)
- [Structured Values - the DCSV scheme](#)
- [Parsing DCSV](#)
- [Examples](#)
- [Sample Code for parsing DCSV coded values](#)
- [Acknowledgments](#)
- [References](#)

Introduction

It is highly desirable to be able to encode or *serialise* structured values within a plain-text string. Some generic methods are in common use. Inheriting conventions from natural languages, commas (,) and semi-colons (;) are frequently used as list separators. Similarly, comma-separated-values (CSV) and tab-separated-values (TSV) are common export formats from spreadsheet and database software, with *line-feeds* separating rows or tuples. Dots (.) and dashes (-) are sometimes used to imply hierarchies, particularly in thesaurus applications. The eXtensible Markup Language [XML] provides a general solution, using tags contained within angle brackets (<, >) to indicate the structure.

A number of named encoding schemes use punctuation characters within a text string to indicate specific

components. For example, a colon (:) terminates the protocol label, and slashes (/), question-marks (?), ampersands (&) and hashes (#) are used to separate other fields in identifiers coded as URI's [URI]. Colons (:) separate specified labels from values within a field, and semi-colons (;) separate fields within a personal description according to a common implementation of vCard [vCard]. Hyphens are used to separate fields in a date according with the W3C profile of ISO8601 [W3C-DTF]. For some schemes - vCard and W3C-DTF, for example - the punctuation indicates a very formal structure to the value, and is expected to be parsed automatically.

Element *attributes* in markup languages, such as HTML [HTML4] and XML [XML], provide a position for recording data. For some "empty" elements - such as the and <META> elements in HTML - attributes are the only place to hold data. In other cases there may be good reasons to store data in element attributes rather than element content. For example, fragments of XML can be included in the <HEAD> of a HTML document, and will be safely ignored by most client software (eg browsers) *provided the elements have no content*. This syntax trick can be used to embed XML-RDF encoded data safely in current versions of HTML [RDF-in-HTML].

Future versions of HTML are expected to overcome these limitations by allowing general XML documents to be included [XHTML]. Nevertheless, there is strong interest in using HTML <META> elements to record data with more structure than normally implied by a plain-text string, in particular to record metadata according to the qualified Dublin Core model [Q-DC-HTML].

However, the use of element attributes for storing data has some technical limitations:

1. attributes may occur no more than once
2. values are constrained to a set of types which restricts the permissible character-strings [HTML4] in some contexts. Use of XML's angle-bracket delimiters (<, >) and various other punctuation characters is only valid in certain cases (i.e. when the content type is CDATA), and is only generally reliable using escape-mechanisms (i.e. as *character entities*). In general, strings containing these characters are prone to misinterpretation by some user-agents (e.g. browsers).

Note that there is no intrinsic way to indicate structure within the values of attributes of HTML elements.

Our intention in this recommendation is to define a compact human-readable data-structuring method for HTML attribute values of content type CDATA, avoiding certain punctuation characters which are prone to cause difficulties in some encoding environments. The notation should normally be used only when no other suitable scheme is available. It is based on methods used and found successful elsewhere, but is more generalised than the preceding standards. It may be used as the basis of profiles designed to encode particular data types [Profiles].

Structured Values - the DCSV scheme

To allow the recording of generic **Structured Values**, we introduce the Dublin Core Structured Values (**DCSV**) scheme.

We distinguish between two types of substring - *labels* and *values*, where a label is the name of the type of a value, and a value is the data itself. Furthermore, we allow a complete value to be disaggregated into set of *components*, each of which has its own label and value. A value that is comprised of components in this way is called a *structured value*.

Punctuation characters are used in recording a structured value as follows:

- equals-signs (=) separate plain-text labels of structured value-components from the values themselves
- semi-colons (;) separate (optionally labelled) value-components within a list
- dots (.) indicate hierarchical structure in labels, if required.

The labels and the component values themselves each consist of a text-string. The intention is that the label will be a word or code corresponding to the name of the value-component. Labels may be absent, in which case the entire sub-string delimited by semi-colons (;) or the end of the string comprise a component value.

The following patterns show how structured values may be recorded in strings using DCSV:

```
"u1; u2; u3"
"cA=v1"
```



```
"cA=v1; cB.part1=v2; cB.part2=v3"
"cA=v1; u2; u3"
```

where u1, u2 and u3 are unlabelled components, cA and cB are the labels of Structured Value components, part1 and part2 are sub-components of cB, and v1, v2 and v3 are values of the components.

The use of specific punctuation characters in DCSV coded values means that care must be exercised if these characters are to be used directly within strings which comprise the content (either labels or values) of the components. For DCSV, therefore, when an equals-sign (=), or a semi-colon (;) is required within the value, the characters are escaped using a backslash, appearing as \= \;. There should be no ambiguity regarding the dot, full-stop or period (.) within strings: when it is part of a label, a dot indicates some hierarchy; when part of a value, it has the conventional meaning for the context. This method of escaping special characters largely preserves readability and the ability to enter DCSV coded metadata values easily using a text-editor if required. Software written to process DCSV coded values must make the necessary substitutions.

Note that in HTML the double-quote (") character can be used directly within a CDATA attribute value if the full string is delimited by single-quotes ('), but in XML the double-quote must be encoded as a character entity in element attributes.

As there is no explicit grouping mechanism, DCSV can only be used to record a list. DCSV is only intended to be used for relatively simple structured values, probably as an interim approach, pending more general support for syntaxes such as XML which allow recording of more complex hierarchical structures. However, it is more compact than the XML equivalent, and is more easily read and constructed in some common contexts, such as within HTML <meta > elements.

Parsing DCSV

A simple method can be used to parse metadata values recorded according to the DCSV scheme. For a single value recorded using the DCSV scheme:

1. split the text-string into a list of substrings on any unescaped semi-colons (;);
if no semi-colon is present, there is a single substring
2. split each substring into its (label,value) on any unescaped equals-signs (=);
if no = is present, the label is empty
3. within each value replace the escaped characters with the actual character required.

A short Perl program which performs this parsing operation is included at the end of this recommendation.

Examples

```
"name.given=Renato; name.family=Iannella; employer=DSTC; Contact=Level 7, Gehrman Labs, The University of
Queensland, Qld. 4072, Australia"
"rows=200; cols=450"
```

The DCSV scheme provides useful support for the representation of complex values for metadata elements in HTML, while remaining fully compatible with all commonly used tools (browsers, editors, metadata harvesters). When used in this way "DCMIDCSV" or the name of one of its derivatives can be noted as the value of the SCHEME attribute of the HTML <META> element as shown in the following examples of qualified Dublin Core metadata:

```
<META NAME="DC.Contributor" SCHEME="DCMIDCSV"
CONTENT="name.given=Eric; name.family=Miller; employer=OCLC; height=170 cm">
<META NAME="DC.Format" SCHEME="DCMIDCSV" CONTENT="rows=200; cols=450">
<META NAME="DC.Coverage.spatial" SCHEME="DCMIBOX" CONTENT="name=Western Australia; northlimit=-13.5; southlimit=-
35.5; westlimit=112.5; eastlimit=129">
<META NAME="DC.Coverage.spatial" SCHEME="DCMIPOINT" CONTENT="name=Bridgnorth, Shropshire, U.K.; east=372000;
north=293000; units=m; projection=U.K. National Grid">
<META NAME="DC.Date" SCHEME="DCMIPERIOD" CONTENT="name=Perth International Arts Festival, 2000; start=2000-01-26;
end=2000-02-20;">
```

Sample Code for parsing DCSV coded values

The following Perl program reads a DCSV coded string entered on stdin, and prints a formatted version of the

structured result. This code is provided for demonstration purposes only and contains no error-checking.

```
#!/usr/local/bin/perl
use strict
print "Enter string to be parsed:\n";
my $string = join(' ', <STDIN>);
print "\nString to be parsed is [$string]\n";
# First escape % characters
$string =~ s/%/"%.unpack('C','%')."%/eg;
# Next change \ escaped characters to %d% where d is the character's ascii code
$string =~ s/\\(.)/"%.unpack('C',$1)."%/eg;
print "\nEscaped string is [$string]\n";
# Now split the string into components
my @components = split(/ /, $string);
print "\nComponents:\n";
foreach $component (@components) {
    my ($label, $value) = split(/=/, $component, 2);
    # if there is no = copy contents of $label into $value and empty $label
    if (!$value) {
        $value = $label;
        $name = '';
    }
    # strip whitespace from name string
    $label =~ s/^\s*(\S+)\s*$/$1/;
    # convert % escaped characters back in label string
    $label =~ s/%(\d+)/pack('C',$1)/eg;
    #convert % escaped characters back in value string
    $value =~ s/%(\d+)/pack('C',$1)/eg;
    print "Label [$label] has value [$value]\n";
}
```

Acknowledgments

John Kunze encouraged us to write up this proposal formally. Kim Covil wrote the perl code. Eric Miller nagged regarding the overlap with XML. Steve Tolkin convinced us to switch to =.

References

[DCMI]

Dublin Core Metadata Initiative, OCLC, Dublin Ohio.

<http://dublincore.org/>

[HTML4]

Dave Raggett, Arnaud Le Hors, Ian Jacobs, 1999, *HTML 4.01 Specification*

<http://www.w3.org/TR/html4/>

[Profiles]

DCMI Box - specification of the spatial limits of a place, and methods for encoding this in a text string

<http://dublincore.org/documents/dcmi-box/>

DCMI Point - a point location in space, and methods for encoding this in a text string

<http://dublincore.org/documents/dcmi-point/>

DCMI Period - specification of the limits of a time interval, and methods for encoding this in a text string

<http://dublincore.org/documents/dcmi-period/>

[Q-DC-HTML] S. Cox, 2000, *Recording qualified Dublin Core metadata in HTML*

<http://dublincore.org/documents/dcq-html/>

[RDF-in-HTML] This uses the most compact form of XML-RDF [RDF-syntax], in which all the data occurs as attribute values. In this form several important capabilities are not available, such as multiple (repeated) values. For an example, see Figure 5 in S.J.D. Cox and K.D. Covil, "A web-based geological information system using metadata". Proc. 3rd IEEE META-DATA Conference

http://computer.org/conferen/proceed/meta/1999/papers/7/cox_covil.html

[URI]

T. Berners-Lee, R. Fielding, L. Masinter, 1998 Uniform Resource Identifiers (URI): Generic Syntax RFC2396

<http://www.ietf.org/rfc/rfc2396.txt>

T. Berners-Lee, L. Masinter, and M. McCahill, 1994 Uniform Resource Locators, RFC1738

<http://www.ietf.org/rfc/rfc1738.txt>

T. Berners-Lee, 1994 Universal Resource Identifiers in WWW: A Unifying Syntax for the Expression of Names and Addresses of Objects on the Network as used in the World-Wide Web, RFC1630

<http://www.ietf.org/rfc/rfc1630.txt>

[vCard]

F. Dawson, T. Howes, vCard MIME Directory Profile RFC2426

<http://www.ietf.org/rfc/rfc2426.txt>

[W3C-DTF]

M. Wolf, C. Wicksteed, 1997, Date and Time Formats

<http://www.w3.org/TR/NOTE-datetime>

[XHTML]

Steven Pemberton and many others, 1999 XHTML 1.0: The Extensible HyperText Markup Language

<http://www.w3.org/TR/xhtml1/>

See also Dave Raggett, HyperText Markup Language Activity Statement

<http://www.w3.org/MarkUp/Activity.html>

[XML]

Extensible Markup Language

<http://www.w3.org/XML/>



Metadata associated with this resource: <http://dublincore.org/documents/2000/07/28/dcmi-dcsv/index.shtml.rdf>

[Copyright](#) © 1995-2005 [DCMI](#) All Rights Reserved. DCMI [liability](#), [trademark/service mark](#), [document use](#) and [software licensing](#) rules apply. Your interactions with this site are in accordance with our [privacy](#) statements. Please feel free to [contact us](#) for any questions, comments or media inquiries.

DCMI and the DCMI Web site are hosted by [OCLC Research](#).

Date: Tue, 26 Jul 2005 14:35:30 +0100
From: Ann Apps <ann.apps@MANCHESTER.AC.UK>
Subject: [DCSV and DCMI BOX] Comments
To: DC-GENERAL@JISCMail.AC.UK

Some minor comments on the DCSV and the DCMI Box (saving bandwidth by sending one message...)

DCSV document:

- Section 2, first bullet point 'equals-signs': componentLabels is misspelt.
- There are a lot of references at the end that are not cited anywhere in the document, and the relevance of some of them isn't immediately obvious

DCMI Box

- The image in Figure 2 does not display.

Date: Sun, 31 Jul 2005 14:11:10 +0100
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: Review of revised version of DCMI DCSV (2005-07-25)
To: DC-GENERAL@JISCMail.AC.UK

These comments are made in response to the request for public comment on the document

DCMI DCSV: A syntax for writing a list of labelled values in a text string

<http://dublincore.org/documents/dcmi-dcsv/>

Document Metadata

=====

The description of the document reads

===

This document describes a method for recording lists of labelled values in a text string, called Dublin Core Structured Values, with the label DCSV. The notation is intended for structured information within attribute values in Dublin Core metadata descriptions.

===

I think the last sentence was an explicit reference to SGML/XML attributes and is now redundant in this version. According to the DCMI Abstract Model, there are no "attribute values" in DC "descriptions". So this sentence should be deleted.

(See next point for discussion of the term "value")

Values and value strings in the DCMI Abstract Model

=====

My main comment is that the use of the term "value" in this document is not consistent with the use of that term in the DCAM, and since the definition of "value" from the DCAM is also included in the glossary of this document, the text is at times confusing, if not contradictory.

The DCAM definition says

- > A value is the physical or conceptual entity that
- > is associated with a property when it is used to describe a resource.

That is, a value is a resource (document, collection, concept, person, place,

date, etc).

Given the DCAM use of "value", the title/name of the this specification itself is, I think, problematic:

> DCMI DCSV: A syntax for writing a list of labelled values in a text string

I can't "write a labelled value" in the sense that the term "value" is used in the DCAM.

I'm not sure I have a good suggestion for an alternative. Maybe something like:

> DCMI DCSV: A syntax for representing simple structured data in a text string

Similarly, I'm not sure that the use of "value" in the first sentence of section 1 makes sense:

> It is often highly desirable to be able to encode or serialise
> values within a plain-text string.

I don't think I can serialise or encode a concept or a person or a place. I can serialise a description of a value/resource or some information about a value/resource.

(But N.B "description" also has a specific use in the DCAM, a structured value (string) is not necessarily a (representation of) a "description" as used in the DCAM - there is no mapping of DCSV components to statements etc)

The main point is that this is not a specification for structuring `_values_`; it is a specification for structuring value `_strings_`.

So the last sentence of paragraph 2 of section 2 is incorrect:

> A value that is comprised of components in this way
> is called a structured value.

It is `_not_` the value (concept, person, place etc) that is made up of components; it is the value string that is made up of components. So I think this sentence should read

> A value string that is comprised of components in this way
> is called a structured value string.

Essentially, I think the document needs to be revised to ensure that the use of the term "value" is consistent with the definition provided: in some cases it needs to be replaced by "value string"; in others by "information about a value" or "information about a resource".

Alternatively, it should be made clear where "value" is used as it is used in the DCAM, and where it is used in some other sense.

Similarly, the use of the term "componentValue" is perhaps potentially confusing, because it refers to a string, not to a "value" as the term is used in the DCAM, though I don't have any good suggestions for a replacement.

Definition of component

=====

A "component" is defined as

> A component is one of a set of one or more text strings
> structured according to the DCSV scheme that together make up a statement.

where a "statement" is (from the DCAM)

> A statement is made up of a property URI (a URI reference
> that identifies a property), zero or one value URI (a URI
> reference that identifies a value of the property), zero or

> one vocabulary encoding scheme URI (a URI reference that
> identifies the class of the value) and zero or more value
> representations of the value.

I don't understand this definition of "component". A set of "components" certainly does not make up a "statement". It makes up a "value string" (or a "value representation") but it does not make up a statement (a set of components does not provide a property URI or a vocabulary encoding scheme URI, for example).

Hierarchy in components/componentLabels
=====

> dots (.) indicate hierachical structure in componentLabels, if required

"Hierarchical" is mis-spelled.

But the "hierarchical structure" is a structure of the `_components_`, right?

I think this should read something like:

> dots (.) may be used within componentLabels to indicate
> hierarchical/containment relationships between components

However, the last sentence of section 2 says

> As there is no explicit grouping mechanism, DCSV can only be used
> to record a list. DCSV is only intended to be used for relatively
> simple structured values.

This seems to contradict the section above: if DCSV supports the representation of hierarchical data structures, it is not true that it can be used only to record a list.

References
=====

As Ann has noted, some references seem redundant given the removal of the discussion of SGML/XML attributes.

My surname is mis-spelled in the reference to the DCMI Abstract Model, and my name appears in a different form from that of my co-authors ;-)

Date: Sun, 31 Jul 2005 22:37:11 +0100
Sender: DCMI Architecture Group <DC-ARCHITECTURE@JISCMail.AC.UK>
From: Pete Johnston <p.johnston@UKOLN.AC.UK>
Subject: DCMI Box/Period/Point schemes

Revised versions of the DCMI Box/Period/Point specifications are currently available for public comment

See

<http://dublincore.org/news/documents.shtml#pubcomjul05>

A couple of times on this list [1, 2] it has been pointed out that while the approach of representing structured data in a string may be useful for some syntaxes with limited expressivity, it makes the structure of the data inaccessible to a DC or RDF application.

Should the DC Arch WG consider the development of DCAM/RDF bindings for DCMI Box/Period/Point as part of its workplan for the forthcoming year?

Pete

[1] <http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0407&L=DC-ARCHITECTURE&P=198>

[2] <http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0410&L=DC-ARCHITECTURE&P=3733>

Guidelines for using Agent Roles in Dublin Core (Draft)
An Appendix to: "Using Dublin Core"

1/23/04, dih
2/12/04, rsg
2/16/04, dih
9/2/04, dih
9/29/04, rsg
9/30/04, dih
5/9/05. dih
5/11/05 rsg

11. Background

The need to express a role for the "Agent" elements (Creator, Contributor, and, to a lesser extent, Publisher) in the Dublin Core element Set has been expressed for many years and there have been a number of ideas proposed for how to accommodate this need. A role is a term that further refines the contribution of the agent to the resource described by specifying the particular contribution. An example is that "illustrator" might be a role associated with the element Contributor when that person provided illustrations to the resource rather than being responsible for other aspects of the intellectual content.

The DCMI Usage Board has discussed the issue several times and agreed that the role values are properly element refinements. At its meeting in Florence in Oct. 2002, the Board considered deprecating Creator and Publisher in favor of Contributor, since the role values Creator and Publisher could be used to refine Contributor if needed. Because of negative response to this level of change in the Dublin Core element set, the DCMI Usage Board decided to recommend role refinements only to Contributor, but to leave Creator, Contributor and Publisher as separate elements.

Because a standardized, widely adopted list of roles already existed in the MARC Code List for Relators, it was recommended early in these discussions that DCMI not develop its own. Although earlier discussions considered defining only a small subset of the list available for use with Agent elements, there was consensus in the DC Libraries Working Group (which was developing an application profile including use of the MARC relator terms) and the Usage Board that users should not be constrained by a restricted list of elements and that the entire list of relator terms should be available given the difficulty of anticipating needs in various domains.

In order to be consistent with DCMI principles and practice, relator terms to be used as element refinements must not extend the scope of the semantics of `dc:contributor`. The UB agreed that, in principle and practice, refinements of elements must in every case be a valid subproperty by refining rather than extending the semantics of that element or property. The obvious solution was to specify which terms are subproperties of `dc:contributor` by virtue of falling under the definition of "an entity responsible for making contributions to the content of the resource."

2. The MARC Relator list: what it is and how it's structured

The MARC Code List for Relators was developed by the Library of Congress for use in MARC 21 bibliographic records to express the relationship between a name and a work. The list includes both role terms and three-character codes that represent those terms. The terms are only included on the list when the

name and its associated role are considered important enough to include on a bibliographic record as an access point. The Library of Congress is the maintenance agency for this list and regularly adds new terms when the need is expressed and documented.

The MARC Relator list includes three-character alphabetic codes to be used to identify roles. These are to be considered synonyms for the terms they represent. In addition the list provides definitions for use of the term/code.

3. Application

Relator terms that are considered to refine the semantics of "an entity responsible for making contributions to the content of the resource", are designated as such by including a statementan assertion that it is a subproperty of dc:contributor. Terms that do not contain this assertion are not to be considered a refinement of dc:contributor. In determining whether the subproperty assertion applies, LC and the Usage Board took a fairly narrow view. The assertion is included only if that contribution always applies in terms of the content of the resource. For example, "binder" does not have the subproperty assertion, since it depends upon what the resource is; sometimes a binder may contribute to the content if the item is valued as an art object, while in other instances, the binder has not contributed to content.

The Library of Congress has prepared an RDF expression of the MARC relator list, to be used in conjunction with the Dublin Core element Contributor. The following designates whether the particular role term is a subproperty of dc:contributor as follows:

```
<rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/contributor" />.
```

In the RDF representation, the codes are tokens to be used for the term and are part of the URI. In some cases unused terms refer to used terms; these are included in the RDF representation as a note (dc:description).

For those implementations wishing to use terms from the MARC relators list that do not have a subproperty relationship to dc:contributor, an implementation may use these terms with no intrinsic harm to interoperability by using those terms directly as MARC relator terms. As an example:

Original term	Dumb-down	"Simple DC"
marcrel:degreeGrantor	marcrel:degreeGrantor ---	
marcrel:owner	marcrel:owner ---	
marcrel:illustrator	dc:contributor	dc:contributor

Thus, in the context of a DC record based on an application profile using MARC relator terms, usage of roles not on the list of valid subproperties approved by DC could be used in a Qualified DC expression, but not in a Simple DC expression, according to the rules for dumb-down.

In order to minimize the possibility of confusion, the Usage Board has authorized the use of roles only with the element Contributor. Because Creator is in some sense a role elevated to a position at the level of element, the Board decided that it there is little value in providing another level of roles beneath that particular element.

An assertion is made that marcrel:publisher is a subproperty of dc:publisher, because its semantics are narrower; in this instance publisher may or may not also be a contributor to

the resource, so the subproperty of contributor assertion is not made. In the case of marcrel:creator, an assertion is made that it is a subproperty of dc:creator, also because of narrower semantics and it is also a subproperty of dc:contributor. If marcrel:creator is used instead of dc:creator, this should be done consistently-- the two terms should probably not be used together in the same instance. In addition, the term "depicted" is asserted as a subproperty of dc:subject and "distributor" a subproperty of dc:publisher.

Because roles are to be used only with the Contributor element, appropriate "Dumb Down" of all agent refinements (except "depicted" and "distributor") expressed as roles will be to Contributor. Given this, implementors may choose (preferably within the context of an application profile), to specify explicitly whether the MARC relator term of creator should be used, based on the fact that the distinction could be retained in Simple Dublin Core if the Element level term is retained for those particular roles.

Using Roles in XML and other Schemas

Because the maintenance of the MARC Relator list will remain with the Library of Congress, the namespace of the roles will be established by LC and will not be a DCMI namespace. Thus, schemas will need to include the MARC relator namespace in order to properly express role terms. See the document Guidelines for Implementing Dublin Core in XML <<http://dublincore.org/documents/dc-xml-guidelines/>> for specific information on using non-DCMI namespaces.

Terms not on the MARC Relators list

The MARC Relator list has been developed over many years to meet a wide variety of needs. New terms are added on the basis of need, and LC will continue to expand the list upon request, and a process to evaluate new terms will be initiated. Implementers also have the option to create and expose alternative vocabularies for the expression of other kinds of roles not reflected in the MARC Relator list. [d1].

Managing the Use of Role in an Implementation

The full MARC Relator list includes approximately 150 separate terms for various roles. LC also provides a list of the subset that may be used with dc:contributor at: <http://lcweb2.loc.gov/cocoon/relators/dccontributor.html>. Even within this subset some of the roles on the list were created for specific domains and would be of little use in other communities. It might therefore be useful for implementations to declare a further subset of the role vocabulary as relevant to their specific goals, preferably by way of a formal application profile.

Additional Information and Examples:

A document containing additional technical information about the use of MARC Relator terms as well as examples of usage in XML, XHTML and RDF/XML can be found at: <http://www.ukoln.ac.uk/metadata/dcmi/marcrel-ex/>

The full MARC Relator list in RDF can be found at: <http://lcweb2.loc.gov/cocoon/relators/relators.xml>

The subset of terms to be used with dc:contributor is at: <http://lcweb2.loc.gov/cocoon/relators/dccontributor.html>.

Page 1

OUTLINE**Part I—Usage Board Overview, Meetings, Documentation**

1. Usage Board Membership
2. Meetings
3. Categories of Usage Board Decisions

Part II—Proposals: Form and Process (MOST REVISIONS)

1. Proposals for New Terms
 - a. DCMI Namespace Terms
 - b. Alternative Namespace Terms Accompanying Application Profiles
2. Proposals for Endorsement of Existing Terms (e.g., LOC relators)
3. Proposals for Registration of Application Profiles
4. Proposals for Term Revisions
 - a. DCMI Namespace Terms
 - b. Terms Accompanying Application Profiles
5. Proposals for Application Profile Revisions

Part III—Usage Board: Internal Procedures

1. Revision of Usage Board Processes

{{ NOTE: Currently, we have deleted the section on registration of controlled vocabularies assuming that aspects of this dormant task would be subsumed by the application profile registration processes. }}

{{ NOTE: In this set of revisions, we intend to ‘flatten’ the process document’s section structure to fewer levels of hierarchy. }}

Preface

The Usage Board acts in accordance with its charter under the DCMI Bylaws, Article II, section D. While providing more guiding detail than the broad mandate of the DCMI Bylaws, the following process statements are intended to comport fully with that mandate. Should discrepancies between these process statements and the DCMI Bylaws emerge, the DCMI Bylaws control.

The following process statements guide the Usage Board in executing its responsibility "to ensure an orderly evolution of the metadata terms maintained by the Dublin Core Metadata Initiative." The process statements are amended from time to time to reflect the evolving nature of DCMI and metadata.

Part I—Usage Board: Overview, Meetings, Documentation

1. Usage Board Membership

Page 2

1.1. The UB will consist of at least seven and no more than eleven people (nine is ideal) appointed by the DCMI Directorate.

1.2. Usage Board member terms shall be for two years, renewable ~~once~~. Initial appointments will be made so as to stagger terms.

1.3. Members should be selected based on the following criteria:

1.3.1. Knowledgeable concerning the development history and purpose of the DC element set and its relationship to the metadata world at large;

1.3.2. Related to a metadata community relevant to DCMI;

1.3.3. Willing and able to commit time and energy to the functions of the UB;

1.3.4. Able to communicate verbally and in writing in English well enough to prepare documents and discuss complex issues in a group setting;

1.3.5. Geographic and domain distribution of members is relevant but will not override other criteria.

1.4. The UB Chair will be appointed from one of the membership by the DCMI Directorate. The term of the chair shall be for two years, renewable ~~once~~.

1.5. Liaisons from DCMI affiliates may be appointed by DCMI management in consultation with the Usage Board Chair.

1.5.1. Liaisons are non-voting and do not serve as shepherds, but are encouraged to participate in discussion on the Usage Board list and at meetings.

1.6. For internal communication the UB uses the closed mailing list dc-usage@jiscmail.ac.uk. The messages are archived and publicly available at <http://www.jiscmail.ac.uk/lists/dc-usage.html>.

2. Meetings

2.1. Scheduling

2.1.1. Meetings should be held at least twice a year.

2.1.1.1. One meeting should be scheduled during the annual DC general workshop/conference.

2.1.1.2. The second should be scheduled at a different time of the year, preferably close to other conferences, so as to make attendance convenient for

Page 3

as many members as possible.

2.1.1.3. Scheduling should be done far enough in advance so that as many UB members as possible may be present.

2.1.1.4. The calendar of UB meetings will be announced prominently on the UB DCMI homepage and announced on the DC-General mailing-list.

2.2. Funding for regular UB members attendance at meetings should be supported as much as possible by DCMI.

2.2.1. Funding for the attendance of Liaisons at UB meetings should be supported by their institution.

2.3. Meeting agenda

2.3.1. The UB Chair maintains the agenda, which cites links to relevant supporting documentation, including JISCMail postings.

2.3.2. All materials pointed to in the agenda are archived at <http://dublincore.org/usage/meetings/> after the final pre-meeting version of the agenda has been distributed. After the meeting, the archive version of the agenda is edited to point to these archive copies.

2.4. Attendance by members

2.4.1. Members must attend at least one meeting in a given year to maintain membership in good standing.

2.4.2. Members who miss two meetings in succession may be replaced by the DC Directorate.

2.5. Attendance by others

2.5.1. Attendance at UB meetings by other than the UB is by invitation.

2.5.1.1. People interested in attending should request an invitation via the UB Chair or the Managing Director.

2.5.2. Participation in discussion of proposals by any interested parties is encouraged.

2.6. Agenda preparation and distribution

Page 4

2.6.1. The UB chair is responsible for preparing the meeting agendas and assigning shepherds to proposals.

2.6.2. Agenda items shall include the name and email address of the UB member responsible for shepherding the proposal through the UB process.

2.6.3. Agendas shall be available at <http://www.dublincore.org/usage/meetings/> a few weeks before the meeting.

2.7. Important decisions will be assigned a number for citation purposes and documented on the DCMI website.

3. Categories of Usage Board Decisions

3.1. *Recommended:* Elements, Element Refinements, and DCMI-maintained Vocabulary Terms (e.g., member terms of the DCMI Type Vocabulary) useful for resource discovery across domains.

3.2. *Conforming:* Elements, Element Refinements and Application Profiles may be assigned a status of conforming. Elements and Element Refinements assigned a status of conforming are those for which an implementation community has a demonstrated need and which conform to the [grammar of Elements and Element Refinements DCMI Abstract Model](#), though without necessarily meeting the stricter criteria of usefulness across domains or usefulness for resource discovery.

3.3. *Obsolete:* For Elements and Element Refinements that have been superseded, deprecated, or rendered obsolete. Such terms will remain in the registry for use in interpreting legacy metadata.

3.4. *Registered:* Used for Vocabulary Encoding Schemes and language translations for which the DCMI provides information but not necessarily a specific recommendation. {{ NEEDS REVISION }}

3.5. *Endorsed:* Terms managed by registration authorities other than DCMI that [assert a relationship with DCMI Terms](#) ~~are~~ [may be](#) endorsed by DCMI for use in DCMI metadata instances as though they were promulgated by DCMI. {{ e.g., LOC relators }}

Part II—Proposals: Form and Process

1. Proposals for new (cross-domain?) terms

1.1. DCMI namespace terms

1.1.1. Sources of proposals may be: (a) existing DCMI working groups; (b) new

Page 5

working groups established for the purpose of developing proposals; (c) metadata implementers; or (d) the UB itself.

1.1.2. Requirements for proposals for "Recommended" (cross-domain) status

1.1.2.1. **Information** to be supplied by the proposers (see table below):

Proposal Requirements Table	
Name	A suggested unique token for use in encodings
Label	A suggested human-readable label for the proposed term
Definition	The suggested definition of the term
Comment	Information concerning the possible application of the proposed term
Examples	Examples of use of the proposed term, making clear what type of literal values are expected
Type of term	Is the proposed term an "element," or an "element refinement" (as defined in http://dublincore.org/usage/documents/principles) [NOTE: Encoding schemes are registered using a separate process]
Term qualified	If the proposed term is an element refinement, which term does it qualify?
Why needed	A justification of the need for the proposed term
Working Group or community support	Demonstration and documentation that the proposed new term has substantial support of Working Group members as well as others in the relevant community. Evidence of such support can include votes held on mailing lists or in face-to-face meetings or positive endorsements from members of the DC-GENERAL mailing list.
Proposal status	Is the term proposed as Recommended or Conforming?
Related DCMI terms	A discussion of possible overlap with existing terms
Related non-DCMI terms	An annotated listing of related terms in non-DCMI metadata vocabularies
Impact on applications	An annotated listing of existing applications that could be affected by recognition of this term
About the proposers	A pointer to a description, in standard form (to be specified) of the working group or organization putting forward the proposal: its scope, aims, a brief history, current status, and a pointer to archives

1.1.2.2. To be supplied by the UB shepherd:

1.1.2.2.1. A summary history of the post-announcement discussion

1.1.3. Guidelines: The following criteria are offered as guidelines for developing a proposal -- they reflect criteria that the Usage Board will use in its decision-making. They do not constitute further requirements for the formal documentation of a proposal.

1.1.3.1. Among the major criteria used for evaluating a term proposal are the following:

1.1.3.1.1. Clarity

1.1.3.1.1.1. Can the term be clearly defined?

1.1.3.1.1.2. Can the semantics of the proposed element or element refinement be expressed precisely, unambiguously, and briefly?

1.1.3.1.2. Practicality

1.1.3.1.2.1. Is the term practical?

1.1.3.1.2.2. How difficult would it be for people creating metadata to comprehend the semantics of the proposed element or element refinement and to apply it reasonably in the description of resources?

1.1.3.1.3. Placement

1.1.3.1.3.1. Does the term refine an existing element?

1.1.3.1.3.2. If the proposed term is an element, can it reasonably be handled as effectively as an element refinement or encoding scheme for an existing element?

1.1.3.1.3.3. Are there alternative ways of implementing the term? Within the conceptual framework of the Dublin Core Element Set (i.e., element/element refinements and encoding schemes), are there alternative ways to achieve the ends sought?

1.1.3.1.4. Needs

1.1.3.1.4.1. Is there a clear requirement in existing implementations for the term in support of resource discovery?

1.1.3.1.4.2. Is there a demonstrated need for the proposed element or element refinement?

1.1.3.1.4.3. Are there existing implementations or encoding schemes, etc., which use the term?

1.1.3.1.5. Fits with other DCMI-maintained terms

1.1.3.1.5.1. Follows existing principles of refinement

Page 7

1.1.3.1.5.2. Is well-formed

1.1.3.1.5.3. Does not conflict with or create ambiguity with regard to existing DCMI-maintained terms

1.1.3.1.5.4. Does not create problems for existing legacy implementations if those implementations have followed recommended practice

1.1.4. Decision tree for assessing the need for a new term

Decision Tree Table		
Condition 1:	Can the need be solved with a vocabulary encoding scheme for an existing DCMI Element or Element Refinement?	If so, do that; else ...
Condition 2:	Can the need be solved through an application profile that references an element or element refinement from an existing and recognized non-DCMI namespace?	If so, do that; else ...
Condition 3:	Can the need be solved with a new refinement for an existing DCMI element?	If so, do that; else ...
Condition 4:	Create a new DCMI Element (and, if necessary, Element and Vocabulary Encoding Scheme) to meet the need.	

1.1.5. Process for Moving Proposals**1.1.5.1.** Appointment of Shepherds

1.1.5.1.1. Each proposal shall be assigned a shepherd by the UB chair from among the UB membership.

1.1.5.1.2. Shepherds should have knowledge of the proposal issues or be connected to the WG originating the proposal.

1.1.5.1.3. Responsibilities

1.1.5.1.3.1. Monitor discussion on relevant lists (shepherds should be members of the relevant DC WG list during the time of consideration of a proposal and are encouraged to join in the discussion to ensure that all relevant issues are exposed during the discussion period).

1.1.5.1.3.2. Summarize the comment period discussion and points of contention of the proposal for the UB, either verbally at the meeting or in writing prior to the meeting (preferred).

Page 8

1.1.5.1.3.3. Serve as liaison to the relevant WG or community during the time the proposal is under discussion and after a decision has been made.

1.1.5.1.3.4. Verify registration information for the DCMI Web Team.

1.1.5.1.3.5. Prepare draft of UB official decision on the proposal for review and approval by the UB.

1.1.5.2. Proposal is received by DCMI Managing Director or UB Chair.

1.1.5.3. Proposal is given preliminary review for completeness by DCMI Managing Director and UB Chair.

1.1.5.4. If complete and no revisions needed, proposal is circulated to UB members and announced for public comment by the Managing Director. A period of two weeks will be allowed between the date of the decision on completeness and the public announcement of the proposal to provide time for preparation of the supporting materials for public dissemination.

1.1.5.5. If incomplete or revisions needed, proposal is returned to originator, with request for revision or additional information.

1.1.5.6. Announcements

1.1.5.6.1. Announcements of comment period for proposals to be discussed by the UB shall be made in the following manner:

1.1.5.6.1.1. Announcement of the start of the public comment period shall be made on the DC General mailing list.

1.1.5.6.1.2. Comments regarding a proposal may be addressed to the relevant Working Group mailing list, the DC General mailing list or privately to the shepherd.

1.1.5.6.2. At the commencement of the public comment period, proposals for new terms must be moved to the DCMI Web site, given DCMI page headers and a status of 'Proposed term'.

1.1.5.6.3. Announcements of proposals shall be made by the shepherd.

1.1.5.6.4. Announcements will include:

1.1.5.6.4.1. Links to relevant information to be considered with the

Page 9

proposal

1.1.5.6.4.2. Relevant deadlines for comments

1.1.5.6.4.3. Addresses for comment submission

1.1.5.6.4.4. Information about UB meeting at which the proposal will be discussed, including place, time, and how to request an invitation to participate

1.1.5.6.4.5. Name and contact information for the assigned shepherd

1.1.5.6.4.6. The announcement should ask specifically for communications supporting the proposal in order to gauge the level of community support.

1.1.5.7. Communication Responsibility Table

Communication Responsibility Table			
What	Where	Who	Comment
Proposal draft posted	WG list, DC-General	WG Chair	
Proposal added to UB agenda	UB Website, UB list	UB Chair	
Proposal announced for public comment DC-General	DCMI Managing Director	Proposal announced for public comment DC-General	
Usage Board Outcome DC-General	DCMI Managing Director	Usage Board Outcome DC-General	

1.1.5.8. Comment period

1.1.5.8.1. Comment period on proposals should be managed on the DC-General list.

1.1.5.8.2. Comment periods should be at least one month in length and commence at least six weeks before the UB meeting at which action is to be taken.

1.1.5.8.3. Public discussions of UB related issues during public comment periods should take place on DC-General or other working group mailing lists as specified in the announcement. The public discussion must start at least six weeks before the UB meeting at which the issues will be discussed.

Page 10

1.1.5.9. Voting

1.1.5.9.1. Voting shall be limited to scheduled meetings and conference calls.

1.1.5.9.2. Voting shall be limited to UB members present at the meeting or conference call and able to participate in the discussion.

1.1.5.9.3. UB members who cannot be present may present their arguments for or against a proposal in writing prior to a meeting (this shall not constitute a vote).

1.1.5.9.4. UB members who cannot be present may explore other options with the chair, if they cannot be present for an important vote. In all cases, a vote may not be cast by a member who is not present, either physically or virtually, for the relevant discussion.

1.1.5.9.5. A proposal is approved if more than 50% of assigned votes in are in favor and fewer than 25% of assigned votes are against the proposal. Every effort will be made to achieve a firm consensus on a proposal before it is deemed approved.

1.1.6. Decisions of the UB are forwarded to the DCMI Directorate for endorsement and approval.

1.1.7. Registration of UB Decisions on Proposals

1.1.7.1. A document explaining the UB decision regarding a proposal will be written in a timely fashion by the shepherd and approved by the UB.

1.1.7.1.1. The decision will include brief statements of recommendations being issued and detailed explanations of UB decisions not to issue recommendations.

1.1.7.1.2. UB decisions will be in a form determined by the UB and numbered consecutively for the purpose of citation.

1.1.7.1.3. UB decisions must be sufficiently documented so that the rationale for the decision is clear and useful in guiding the development of future proposals. This is particularly true where the decision rejects a proposal or recommends further action.

1.1.7.1.4. The DCMI Web Team will publish UB decisions in the Documents section of the DCMI Web site in a category named DCMI Usage Board Decisions.

1.1.7.2. Recommended terms will be put into the official DCMI

documentation by the UB Chair.

1.2. Proposals for terms accompanying application profile submissions

1.2.1. New terms appearing in application profile submissions must be evaluated for compliance with the DC Abstract Model prior to evaluation of the Application Profile itself.

1.2.2. New terms deemed in compliance with the DC AM may be registered in DC-hosted namespaces as 'conforming'

1.3. Proposals for endorsement of terms ~~{{e.g., LOC relators}}~~ in other namespaces for use within Application Profiles

1.3.1. Existing terms housed in other namespaces to be used within Application Profiles seeking review must be evaluated for compliance with the DC Abstract Model prior to evaluation of the Application Profile itself.

1.3.2. Existing terms deemed in compliance with the DC AM may be noted as 'endorsed' within the registered Application Profile.

1.4. Proposals for registration of application profiles

1.4.1. Sources of proposals

1.4.1.1. Existing working groups or working groups established for the purpose of developing proposals

1.4.1.1.1. Designation of application profile as DCMI 'strategic activity'

1.4.1.2. Metadata implementers (established projects, communities or research groups)

1.4.1.3. UB itself

1.4.2. ~~For the purposes of review~~ Review by the Usage Board:

1.4.2.1. The Usage Board is interested in reviewing application profiles that make substantial use of Dublin Core elements. The review of application profiles by the Usage Board serves to:

1.4.2.1.1. analyze the usage of Dublin Core within significant implementations;

1.4.2.1.2. assign a DCMI status of "stamp of approval conforming;"

1.4.2.1.3. promote the sharing of application profiles between

communities; and

1.4.2.1.4. identify new terms as candidates for inclusion in **DCMI-hosted** namespaces.

1.4.2.2. Application profiles must provide, for each term, an identifier of the element set where it is defined, ideally in the form of URIs for individual terms.

1.4.2.3. If the terms in an application profile describe anything other than generic "resources" (the typical domain of Dublin Core), the application profile must make this clear. This is particularly important if an application profile is based on a data model that describes multiple classes of resources, such as agents or collections.

1.4.2.4. It is recommended that application profiles be prepared using the Dublin Core Application Profile guidelines published by CEN [<http://www.cenorm.be/cenorm/businessdomains/businessdomains/iss/cwa/cwa14855.asp>].

1.4.2.5. Each application profile must provide, or point to, a short text that describes:

1.4.2.5.1. The context and purposes in which the application profile is used or is likely to be used.

1.4.2.5.2. The organizations or individuals involved in its development and a capsule history thereof.

1.4.2.5.3. Any arrangements, policies, or intentions regarding the future development and maintenance of the application profile.

1.4.3. [Results of](#) review of Application Profiles by the Usage Board

1.4.3.1. An application profile is "well-formed"-if it is presented in accordance with the broad and flexible requirements outlined above. These presentation requirements may become more specific as "good practice" emerges over time.

1.4.3.2. The Usage Board will evaluate terms to determine their conformance with the **DCMI Abstract Model**.

1.4.3.3. The use of terms related to Dublin Core (such as refinements of Dublin Core elements, or Dublin Core elements that have been constrained for particular contexts) will be evaluated from the standpoint of semantic conformance, grammatical principle (eg, "dumb-down"), clarity, and good practice.

1.4.4. Publication and use of Usage Board Reviews

1.4.4.1. An application profiles that "pass" review will be assigned the status of 'conforming'.

1.4.4.1.1. The status of 'conforming' indicates a Usage Board assessment of the application profile as of the date of its submission for review.

1.4.4.1.2. Changes to already 'conforming' application profiles require further Usage Board review of the application profile in whole or in part according to the processes and criteria outlined in sections 6.1 through 6.3.

1.4.4.2. For application profiles that "pass" review, the Usage Board will publish a Review on a Web page for application profiles.

1.4.4.3. Each Review will include, at a minimum:

1.4.4.3.1. Any comments from the Usage Board on the application profile.

1.4.4.3.2. Pointers to locally archived copies of the application profile as originally submitted and (if necessary) as subsequently amended in light of Usage Board comments.

1.4.4.3.3. A pointer to the "latest version" of an application profile held by its maintainers.

1.4.5. Review represents a form of recognition, and its URL will be persistent for purposes of citation.

1.4.6. Registration of 'conforming' application profiles

1.5. Proposals for term revisions

1.5.1. DCMI namespace terms

1.5.1.1. General process for term changes

1.5.1.1.1. Requests to change terms in this namespace may originate within the Usage Board or externally.

1.5.1.1.2. A Usage Board member will be assigned to draft a proposal for a change

1.5.1.1.3. Changes provisionally approved by the Usage Board will be circulated for general comment on the DC-General discussion list for one month before final approval.

1.5.1.1.4. Final approval for term changes without significant opposition may be approved by email or teleconference vote.

1.5.1.2. Terms from namespace: <http://purl.org/elements/1.1/> require changes to the relevant standards: ISO Standard 15836-2003 (February 2003) and NISO

Standard Z39.85-2001 (September 2001)1.5.1.3. Terms from DCMI hosted namespaces (to be added)1.5.2. Application profile terms

1.5.2.1. Application profile terms residing on DCMI hosted namespaces will be subject to the same changes processes as other DCMI terms, but managed by the entities responsible for the terms.

1.5.2.2. Application profile terms residing on non-DCMI namespaces will be subject to term policies of the host entity.

1.6. Proposals for application profile revisions

1.6.1. Changes to already 'conforming' application profiles require further Usage Board review of the application profile in whole or in part according to the processes and criteria outlined in sections @@@ and @@@

1.6.2. Changes to DCMI-registered 'conforming' application profiles will be versioned according to DCMI namespace policies.

Part III—Usage Board: Internal Processes**1. Changes to Usage Board Procedures**

Title: Decision on the proposed term "Accessibility"
Creator: Tom Baker
Creator: Stuart Sutton
Identifier: <http://dublincore.org/usage/decisions/2005/2005-04.Accessibility.html>
Date: 2005-06-13

A proposal from the DCMI Accessibility Working Group for a new element -- "Accessibility" -- was discussed at the Usage Board meeting in Shanghai on 10 October 2004. As proposed, "Accessibility" was defined as [1, see Topic 10]:

A reference to a machine-readable profile that describes the qualities of a resource that can be used to match the needs and preferences of a user as expressed in a machine-readable user profile.

The preliminary decision of the Usage Board in Shanghai was to approve "Accessibility" subject to a re-wording of the definition along the following lines [2]:

A description of the qualities of the resource in terms of control, display and content that can be used to match the needs and preferences of a user.

The decision was subject to the blanket qualification that "Usage Board decisions are not considered official until decision documents are finalized and published on the DCMI Web site" [2]. It was reported back to the Accessibility Working Group on 15 October that the outcome was positive but that additional work remained to be done [3].

The process of finalization, however, proved to be more difficult than expected. An informal survey of colleagues suggested that the proposed wording was open to multiple interpretations. Attempts to correct this ambiguity revealed even more fundamental questions about the meaning and intended use of the element -- questions too substantial to resolve by simple refinement of language and consequently beyond the mandate of the Usage Board.

Though this subsequent discussion made the decision reached in Shanghai seem premature, the Usage Board stood by its initial affirmation of the crucial need of supporting accessibility statements in a cross-domain manner. In response, the Working Group suggested a revised definition for consideration at the mid-year Usage Board meeting on 19 May 2005, changing the name of the element from "Accessibility" to "Adaptability" [4, see Topic 1]:

A statement describing characteristics of the resource that affect how it can be adapted so it can be perceived, understood or interacted with by users.

In Washington, the Usage Board felt that this definition (and name) differed enough from the definition (and name) originally proposed to qualify, in effect, as a new proposal. Even if UB members could understand the path leading to this result, it seemed necessary to put the proposal through the standard procedure of discussion and approval by the wider Accessibility/Adaptability community, along with a public comment period, before it could be approved by the Usage Board.

The Usage Board feels it has no choice but to send the proposal back to the Accessibility Working Group for further consideration. In doing so, the UB emphasizes the importance of clarifying how an Accessibility or Adaptability element fits

into the DCMI Abstract Model -- a specification which has since the Shanghai meeting been approved as a DCMI Recommendation [5]. Specifically:

- As proposed, the element is intended to hold several property-value pairs within a value string for a single element. While the Dublin Core Structured Value (DCSV) specification has at times been used this way in implementations, experience has proven that encoding multi-attribute descriptions of a resource sacrifices interoperability to convenience. Equally problematic for interoperability is the use of multi-element XML blocks in an element value.
- If the basic requirement is that of pointing from a Dublin Core description to an "alternative description" of the same resource, what is perhaps needed is a generic mechanism for linking to an alternative description -- regardless of whether that description is written in XML, EARL, or any other language. Such a mechanism has not yet been considered as part of the DCMI Abstract Model; perhaps it should be. This would be a question for consideration by the DCMI Architecture Working Group.
- In the meantime, the set of properties needed to describe a resource from the standpoint of accessibility would seem to overlap with the set of properties needed to describe a resource using Dublin Core itself (e.g., Type, Format, Language, and Relation). Accordingly, the alternative, accessibility-oriented description pointed to from a Dublin Core description could perhaps itself be an application profile of Dublin Core.

The Board is aware that the Working Group considered this overlap as it developed the proposal for a new element. Nevertheless, it is felt that work on development of such a profile could serve to better clarify the Working Group's functional requirements -- both to itself and, crucially, to users of an accessibility element. Working more firmly within the context of the Abstract Model would allow the creation of future proposals for DCMI properties and value-space terms.

- [1] <http://dublincore.org/usage/meetings/2004/10/Meeting-packet.pdf>
- [2] <http://www.dublincore.org/usage/meetings/2004/10/Meeting-summary.shtml>.
- [3] <http://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0410&L=dc-accessibility&T=0&O=D&P=145>
- [4] <http://dublincore.org/usage/meetings/2005/05/Meeting-packet.pdf>
- [5] <http://dublincore.org/documents/abstract-model/>

Accessibility Working Group

ResponseToUsageBoard

Converted from the text at: <http://dublincore.org/accessibilitywiki/ResponseToUsageBoard>

THIS IS A DRAFT FOR DISCUSSION ONLY!

Aim of this doc is to:

- briefly characterize and point to current work or position papers,
- summarize the reactions of WG members to the decision text, and
- summarize in a paragraph or so the discussion on Adaptation versus Accessibility.

Usage Board Decision Components with Responses

Changing the name of the element from "Accessibility" to "Adaptation"

The scope of the proposed element was originally everything to do with accessibility. In the light of the Usage Board's comments, and other considerations, it was decided to narrow the scope of the new element to be one that dealt only with the major aspect that was not already covered in Dublin Core, the adaptation characteristics of the resource, and to use it and re-use other Dublin Core elements in an accessibility application profile.

This change allowed the structure of the values for the new element to be significantly simplified and also allowed it to be more easily generalised for other applications, such as for device independence uses to do with mobility, and flexibility for e-learning. It also meant the name could be changed to disambiguate the element with access which seemed to cause some people problems. Instead of singling out accessibility, it acts to mainstream accessibility issues, satisfying another issue that caused concern to some.

Changing the definition of the element

The definition of the proposed 'accessibility' term was:

A statement describing characteristics of the resource that affect how it can be adapted so it can be perceived, understood or interacted with by users.

With a narrower scope element about adaptation characteristics, the current proposal is for:

A statement describing characteristics of the resource that affect how it can be sensed, understood, or interacted with by users or agents.

There has been significant discussion of these changes. A couple of people commented on the DC-Accessibility mailing list that they were not sure about the changes, including one who was on the Task Group, but there has been a lot of informal discussion in the accessibility community in general and within the task group and the consensus is that adaptation is a better term and the narrow scope is more useful than the original wider 'accessibility'. All the work has been exposed on the DC-Accessibility Wiki for some time and it has been presented in major fora such as the W3C annual conference, accessibility conferences, standards organisations including ISO JTC1 SC36, and more.

UB members considered it necessary to put the changed proposal through the standard procedure of discussion and approval by the wider Accessibility/Adaptation community, along with

a public comment period, before it could be approved by the Usage Board. This has been done. There was also discussion about a new working group for adaptation but that proposal has been withdrawn.

Relationship between new element and DC Abstract Model

The Usage Board questioned how an Adaptation element fits into the DCMI Abstract Model. Work on this was undertaken by the Task group who have developed an abstract model for the new element and clarified how it complies with the DC Abstract Model. See [AccessForAllFramework](#).

Specific concerns of the Usage Board with respect to the abstract model:

As proposed, the element is intended to hold several property-value pairs within a value string for a single element.

The need for structured values has been avoided with the new proposal.

A basic requirement was pointing from a Dublin Core description to an "alternative description" of the same resource.

This has been avoided by the adoption of the narrower scope for the element and the re-use of the existing relation element.

The set of properties needed to describe a resource from the standpoint of accessibility seemed to overlap with the set of properties needed to describe a resource using Dublin Core itself (e.g., Type, Format, Language, and Relation). Accordingly, the alternative, accessibility-oriented description pointed to from a Dublin Core description could perhaps itself be an application profile of Dublin Core.

With the exception of the new narrow element, this is true as so this approach has been adopted. The new element provides information about a resource which is not appropriately expressed in any existing element. The final application profile is not yet developed, but there has been considerable work to ensure that the new term is necessary and if so, what the application profile would look like. This work is reported at [AccessForAllApplicationProfile](#).

RefreshCache for this page (cached 2005-09-02 05:58:27)

EditText of this page (last edited 2005-09-01 12:59:32 by DavidWeinkauf)

Accessibility Working Group

AccessForAllFramework

Converted from the text at: <http://dublincore.org/accessibilitywiki/AccessForAllFramework>

Contributions to this document are very welcome, however significant changes should be first discussed on the dc-accessibility mailing list. To join or leave the dc-accessibility mailing list, please visit <http://www.jiscmail.ac.uk/lists/dc-accessibility.html>.

AccessForAll: an Accessibility Framework

Introduction

This document explains the AccessForAll accessibility framework. The intended audience of this document is anyone interested in accessibility and standards, especially those from the metadata community. A small proficiency in software design is assumed from the reader (for this document uses UML in some of its explanations), however the hope is that the concepts are explained clearly enough to be understood by readers of any technical skill-level.

What is AccessForAll

AccessForAll is a framework designed to define and describe resource accessibility. Its goal is to provide a means whereby resources are matched to the accessibility preferences expressed within an individual preference set. The framework is divided into the following concepts, which, when used in conjunction, make possible the matching of resources to preference sets and the description of resource accessibility:

- access mode
- alternative resource
- adaptation preference and property
- standards conformance

These concepts and their interaction will be discussed further in this document, alongside the presentation of the AccessForAll abstract model.

History

The concepts behind the AccessForAll framework were originally developed by the IMS Accessibility Working Group¹. The working group defined two specifications: the IMS Accessibility for Learner Information Package (AccLIP) and the IMS AccessForAll Meta-data [sp] Specification (AccMD). Together they defined what is currently the AccessForAll framework in an applied, XML-specific way. This document hopes to explain the main concepts behind the AccLIP and AccMD, i.e. the AccessForAll framework, in an abstract way.

AccessForAll Abstract Model

Introduction

This section specifies an abstract model for the AccessForAll framework. The primary purpose of this section is to provide a reference model against which particular metadata encodings can be written.

AccessForAll abstract model

The abstract model of the preference sets defined in the AccessForAll framework

is as follows:

- Each preference set has zero or more required access modes.
- Each preference set has zero or more prohibited access modes.
- Each preference set has zero or more adaptation preference / value pairs.

The abstract model of the resources defined in the AccessForAll framework is as follows:

- Each resource has one or more access modes [2].
- Each resource may be related to zero or more alternative resources.
- Each resource has zero or more adaptation property / value pairs.
- Each adaptation property matches an adaptation preference.
- Each adaptation property value / pair may contain access mode information.
- Each resource conforms to zero or more standards.

The AccessForAll abstract model for resources and records is represented as a UML class diagram in the following illustration (see <http://gabriel.sub.uni-goettingen.de/~tbaker/madrid/files/2005-09-04.AccessForAll-AbstractModel.png>).

Readers not familiar with UML class diagrams should note that lines ending in a block-arrow should be read as 'is' or 'is a' (for example, 'a required access mode is an access mode ') and that lines starting with a block-diamond should be read as 'contains a' or 'has a' (for example, 'an adaptation property / value pair has a value and a property'). Other relationships are labeled appropriately [3].

Access mode

An access mode is the human sense or medium through which a user receives the output of a resource. The mode refers to either the perceptual system, or the cognitive faculty engaged by the user. An access mode is defined either as a sense, to reference a perceptual system, or as a medium to connect with a cognitive ability. Some examples will clarify:

Describing a resource's access mode as "visual" implies that a user will use their visual system to process it. Pictorial and video resources are examples of such resources.

Describing a resource's access mode as "textual" implies that a user will rely on their ability to read in order to understand the resource's content [4].

Alternative resource

An alternative resource is the same intellectual content of the referenced resource, but presented in another access mode.

Adaptation preference and property

An adaptation preference states how a user desires to access a resource. In effect, it defines how a resource should be adapted in order to provide adequate means of access to a user. An adaptation property is a statement describing characteristics of the resource that affect how it can be sensed, understood, or interacted with by users or agents [5]. The two share a reflexive relationship in that an adaptation property matches an adaptation preference.

Conforms to

A reference to an established standard to which the

resource conforms [6].

Putting it all together

Preference Set

A user is able to state his/her required and prohibited access modes. In this way a user can state what he/she wants and what he/she does not want for an access mode. In addition to this for each required, prohibited, or combination of required and prohibited access modes, a user is able to state his/her adaptation preferences. Adaptation preferences may qualify the required and prohibited access modes with information about the adaptation characteristics of the resources the user wishes to interact with, however they may also stand alone.

Resource

A resource declares its access mode(s). A resource may be an alternative to another resource and another resource may be an alternative to it. In addition to its access mode(s), a resource states its adaptation properties. A resource may conform to a number of standards.

Matching resources to preference sets

The goal of the AccessForAll framework is to match resources to preference sets. The following is a list of guidelines for matching resources to preference sets:

A resource or alternative resource's access mode is the same as the preference set's required access mode.

A resource or alternative resource's access mode is not the same as the preference set's prohibited access mode.

A resource or alternative resource's adaptation properties match the preference set's adaptation preferences.

A resource or alternative resource's adaptation property values are the same as the preference set's adaptation preference values.

A resource or alternative resource conforms to a standard that satisfies the preference set's adaptation preferences and values. [Editorial Note: This statement needs further explanation.]

Appendix A Relationship with Web Content Accessibility Guidelines (WCAG)

The Web Content Accessibility Guidelines (WCAG) are a set of principles and guidelines that define and explain the "requirements for making Web-based information and applications accessible to a wide range of people with disabilities [7]." The WCAG does not define new technologies, but rather techniques that can be applied to any type of Web content. The AccessForAll framework defines a different approach to resource accessibility, however one that complements the WCAG: The AccessForAll Framework states (via metadata on resources) the accessibility properties that are recommended by the WCAG. This enables the AccessForAll Framework a means whereby resources can be matched to the accessibility preferences expressed within an individual preference set.

Appendix B Editors

David Weinkauff, Adaptive Technology Resource Centre, University of Toronto, Canada

Joseph Scheuhammer, Adaptive Technology Resource Centre, University of Toronto,

Canada

Appendix C Contributors

Anastasia Cheetham, Adaptive Technology Resource Centre, University of Toronto, Canada

Martyn Cooper, Accessibility in Educational Media Team, Institute of Educational Technology, Open University, UK

Andy Heath, Sheffield-Hallam University, UK

Liddy Nevile, Computer Science Department, La Trobe University, Australia

Madeleine Rothberg, WGBH-National Center for Accessible Media, USA

Jutta Treviranus, Faculty of Information Sciences, University of Toronto, Canada

1 The Website for the IMS Accessibility Working Group is located at <http://www.imsglobal.org/accessibility>.

2 We acknowledge that declaring mandatory properties on a resource is unrealistic for most metadata practices, however the compulsory nature of access modes as properties of resources is true in reality, and is thus reflected as such in the abstract model.

3 UML explanation from the DCMI abstract model (<http://www.dublincore.org/documents/abstract-model/>).

4 Textual content may be rendered into speech or Braille by a processing system, however these would not be considered the resource's (original) access modes.

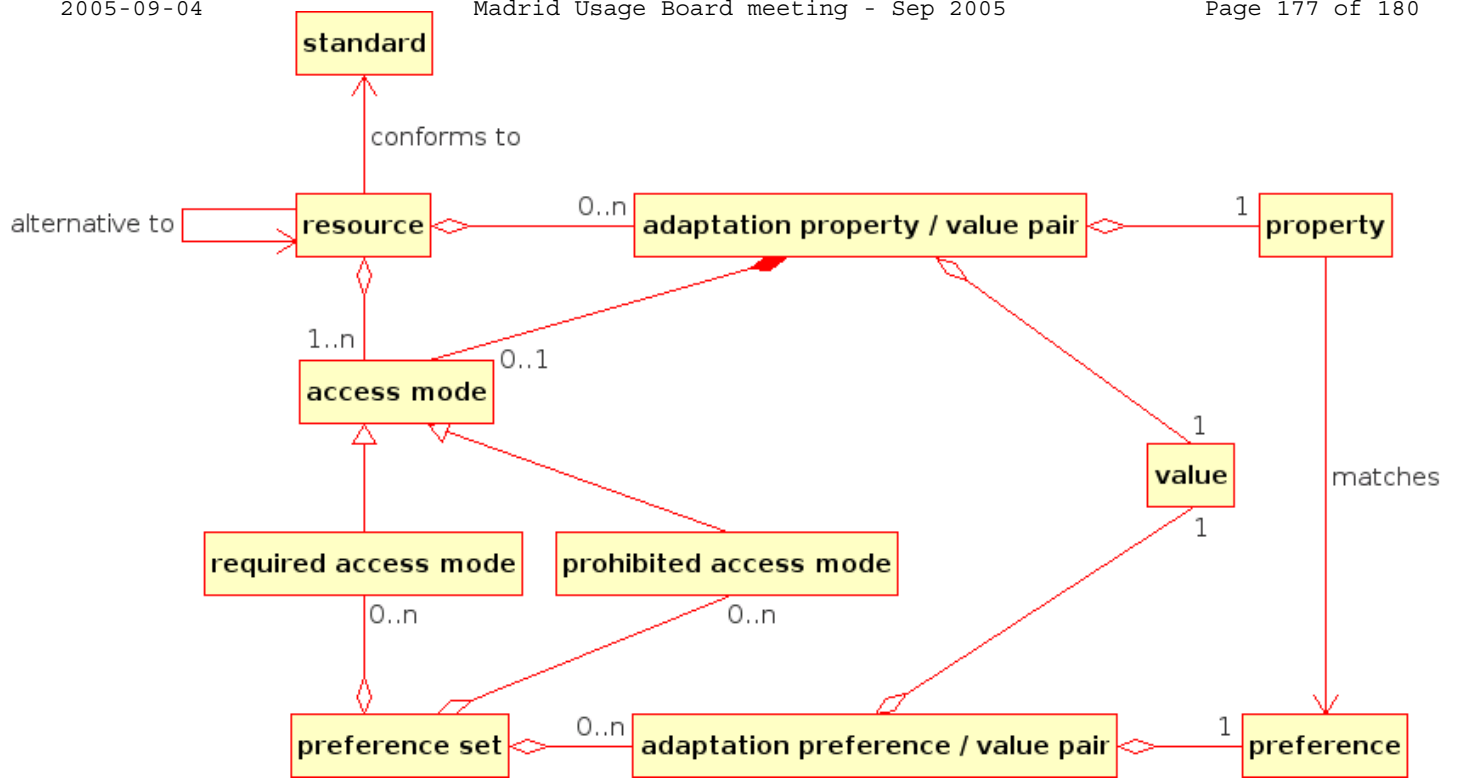
5 Current definition of the proposed Dublin Core Adaptation term (<http://dublincore.org/accessibilitywiki/NewElementProposal>).

6 Definition of the Dublin Core conformsTo element refinement (<http://www.dublincore.org/documents/usageguide/qualifiers.shtml#conformsTo>).

7 From the Web Content Accessibility Guidelines 2.0 (<http://www.w3.org/TR/WCAG20/>).

RefreshCache for this page (cached 2005-09-02 06:05:22)

EditText of this page (last edited 2005-09-01 18:43:12 by DavidWeinkauf)



Accessibility Working Group

NewElementProposal

Converted from the text at: <http://dublincore.org/accessibilitywiki/NewElementProposal>

Contributions to this document are very welcome, however significant changes should be first discussed on the dc-accessibility mailing list. To join or leave the dc-accessibility mailing list, please visit <http://www.jiscmail.ac.uk/lists/dc-accessibility.html>.

Adaptation Term Proposal

Adaptation Requirements Table

Name <http://purl.org/dc/terms/adaptation>

Label Adaptation

Definition A statement describing characteristics of the resource that affect how it can be sensed, understood, or interacted with by users or agents.
Comment An Adaptation description might be used to match a (digital or physical) resource to a description of user or user agent needs and preferences.

Examples Adaptation="Closed captions"
Adaptation="Extended audio descriptions"
Adaptation="Contains video and text transcript of action"

Type of Term Element

Term qualified None

Why needed The availability of an Adaptation term will allow for more precise descriptions of resources: many governments and communities mandate the accessibility of resources and services. A means of describing the relevant accessibility characteristics of resources is currently not available in DCMI metadata terms. The addition of an Adaptation term will enable this. Working Group support There has been significant online and face-to-face discussion of the proposed new element. A couple of people commented on the DC-Accessibility mailing list that they were not sure about it being an adaptation element, but there has been a lot of informal discussion in the accessibility community in general and within the task group and there is general consensus that a narrow scope adaptation term is what is needed.

This element and the background AccessForAll work has been undertaken in collaboration with a number of other bodies in the hope that interoperability and industry adoption can flow more easily across communities. This has meant consensus in a far wider community than just the DC community although that has been a priority. All the work has been exposed (via the website and email list) on the DC-Accessibility Wiki for some time and it has been presented in major fora such as the W3C annual conference, accessibility conferences in Europe, north America, Asia, and considered by standards and specifications organisations including ISO JTC1 SC36, CEN ISS LTSC, CEN ISS MMI-DC and IMS Global Consortium.

Proposed status Recommended

Related DCMI terms The conformsTo element refinement is a reference to an established standard to which the resource conforms. The standards referenced might be accessibility standards. There may be overlap in that conformance to an accessibility standard may imply certain adaptation properties but the explicit statement of the exact adaptation properties is

achievable only through the Adaptation term.

Related non-DCMI terms - IMS AccessForAll Metadata Specification (AccMD) Version 1.0: The requirements of the Adaptation term proposal, specifically its ability to match resources to the accessibility preferences of a user, are highly influenced by the IMS AccMD specification. The AccMD specification documents are located at the IMS Accessibility Web site. A brief technical explanation of the key concepts behind the AccMD can be found in the AccessForAllFramework. - ISO JTC1 SC36 AccessForAll Metadata Personal Needs and Preferences and Digital Resource Descriptions

Impact on applications Minimal. Current DC-based applications provide no conflicting means of identifying adaptation characteristics of resources. About the proposers <http://dublincore.org/groups/access/>

RefreshCache for this page (cached 2005-09-02 06:01:10)

EditText of this page (last edited 2005-09-01 17:01:33 by Liddy Nevile)

Topic: Encoding Scheme Types
Identifier: <http://www.bi.fhg.de/People/Thomas.Baker/agenda/topic-encoding-scheme-types/>
See also: <http://www.bi.fhg.de/People/Thomas.Baker/agenda/>
Created: 2005-05-12
Modified: 2005-05-16 17:28, Monday
Maintainer: Tom Baker

For each of the currently recommended encoding schemes we need to determine if it is a Syntax Encoding Scheme or a Vocabulary Encoding Scheme.

In the DCMI Abstract Model, these are defined as follows:

Each resource may be a member of one or more classes. Note that where the resource is a value, the class is referred to as a vocabulary encoding scheme.

Syntax encoding schemes are also known as 'datatypes' in some contexts.

In Washington, we need to decide on the following:

- 1) Whether we accept Andy's criteria for deciding on the type of encoding scheme and his interpretation of the existing encoding schemes in light of those criteria [1].

[1] <http://www.bi.fhg.de/People/Thomas.Baker/public/2005-05-12.encoding-scheme-types.txt>

- 2) How a decision to declare these types should be reflected in DCMI documentation. Specifically, the "Type of Term" is currently shown in the Terms source data (which is used to generate Web pages and RDF schemas) for each encoding scheme as:

`http: //dublincore.org/usage/documents/principles/#encoding-scheme`

Do we want to change each of those into one of the following:

`http: //dublincore.org/usage/documents/principles/#vocabulary-encoding-scheme`
`http: //dublincore.org/usage/documents/principles/#syntax-encoding-scheme`

In

`http: //dublincore.org/usage/xml/terms.xml`

Which is used to generate:

`http: //dublincore.org/usage/terms/history/`
`http: //dublincore.org/documents/dcmi-terms/`
`http: //purl.org/dc/terms/`

Note that this change would trigger the creation of a new historical version for each encoding scheme (but with no consequences for term URIs).

- 3) Decide whether this difference needs to be further emphasized in DCMI documentation -- e.g., by splitting the section "Encoding Schemes" in the DCMI Terms document into separate sections on "Syntax Encoding Schemes" and "Vocabulary Encoding Schemes".