Architecture Working Group

> TermDecisionTree

User
UserPreferences
Site
Page
Actions

- AttachFile
- DeletePage
- LikePages
- LocalSiteMap
- SpellCheck

Search

Title: [   ] 🔍
Text: [   ] 🔍

DCMI-compliant 'term' decision tree

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This document is currently under development. It is being worked on by the Self:DC RDF Taskforce. Comments should be sent to the 🌐 dc-rdf-taskforce@jiscmail.ac.uk mailing list.

Introduction

This decision tree can be used to see if something is a DCMI-compliant element, element refinement or encoding scheme, where "DCMI-compliant" means conformant with the DCMI Abstract Model and therefore suitable for use in DC metadata descriptions.

Note that in the following text, the italicised terms are defined in the terminology section below.

Decision tree

1. Has the thing been explicitly declared as a DCMI *element* (i.e. as an RDF *property*)?
   The declaration should take the form of a human-readable statement, e.g.

   ```
   X is a DCMI 'element'
   ```

   or

   ```
   X is an RDF property.
   ```

   and a machine-readable RDFS declaration

   ```
   <rdf:Property rdf:about="http://example.org/term/X">
     ...
   </rdf:Property>
   ```

   If 'yes', go to question 2. Otherwise, go to question 3.
2. Have the expected *values* of the *element* been assigned *value URIs* or can they be represented using simple *value strings* (plain text strings)?
   If 'yes', go to question 9. Otherwise, go to question 3.
3. Has the thing been explicitly declared as a DCMI *element refinement* (i.e. as an RDF *property*)?
   The declaration should take the form of a human-readable statement, e.g.

   ```
   X is a DCMI 'element refinement'.
   ```

   or

   ```
   X is an RDF property.
   ```

   and a machine-readable RDFS declaration

```
<rdf:Property rdf:about="http://example.org/term/X">
 ...
</rdf:Property>
```

If 'yes', go to question 4. Otherwise, go to question 5.

4. Have the expected *values* of the *element refinement* been assigned *value URIs* or can they be represented using simple *value strings* (plain text strings)?

    If 'yes', go to question 9. Otherwise, go to question 5.

5. Has the thing been explicitly declared as a DCMI *syntax encoding scheme*?

    The declaration should take the form of a human-readable statement, e.g.

```
X is a DCMI 'syntax encoding scheme'.
```

or

```
X is an RDF datatype.
```

and a machine-readable RDFS declaration

```
<rdfs:Datatype rdf:about="http://example.org/term/X">
 ...
</rdfs:Datatype>
```

    If 'yes', go to question 6. Otherwise, go to question 7.

6. Are all the valid constructs according to the *syntax encoding scheme* simple *value strings* (plain text strings)?

    If 'yes', go to question 9. Otherwise, go to question 7.

7. Has the thing been explicitly declared as a DCMI *vocabulary encoding scheme*?

    The declaration should take the form of a human-readable statement, e.g.

```
X is a DCMI 'vocabulary encoding scheme'.
```

or

```
X is an RDF class.
```

and a machine-readable RDFS declaration

```
<rdfs:Class rdf:about="http://example.org/term/X">
 ...
</rdfs:Class>
```

    If 'yes', go to question 9. Otherwise, the thing is not a valid DCMI *element*, *element refinement* or *encoding scheme*.

8. Have all the valid members of the *vocabulary encoding scheme resources* been assigned *value URIs* or can they be represented using simple *value strings* (plain text strings)?

    If 'yes', go to question 9. Otherwise, the thing is not a valid DCMI *element*, *element refinement* or *encoding scheme*.

9. Has the thing been assigned a URI (a *property URI* or an *encoding scheme URI*)?

    For example: http://example.org/term/X . Dereferencing the URI should result in an HTTP 303 redirect to HTML (text/html) and RDF (application/rdf+xml) representations of the *term*. HTTP content negotiation should be used to select one or other representation. **If 'yes', the thing is a valid DCMI *element*, *element refinement* or *encoding scheme*.** Otherwise, the thing is not a valid DCMI *element*, *element refinement* or *encoding scheme*.
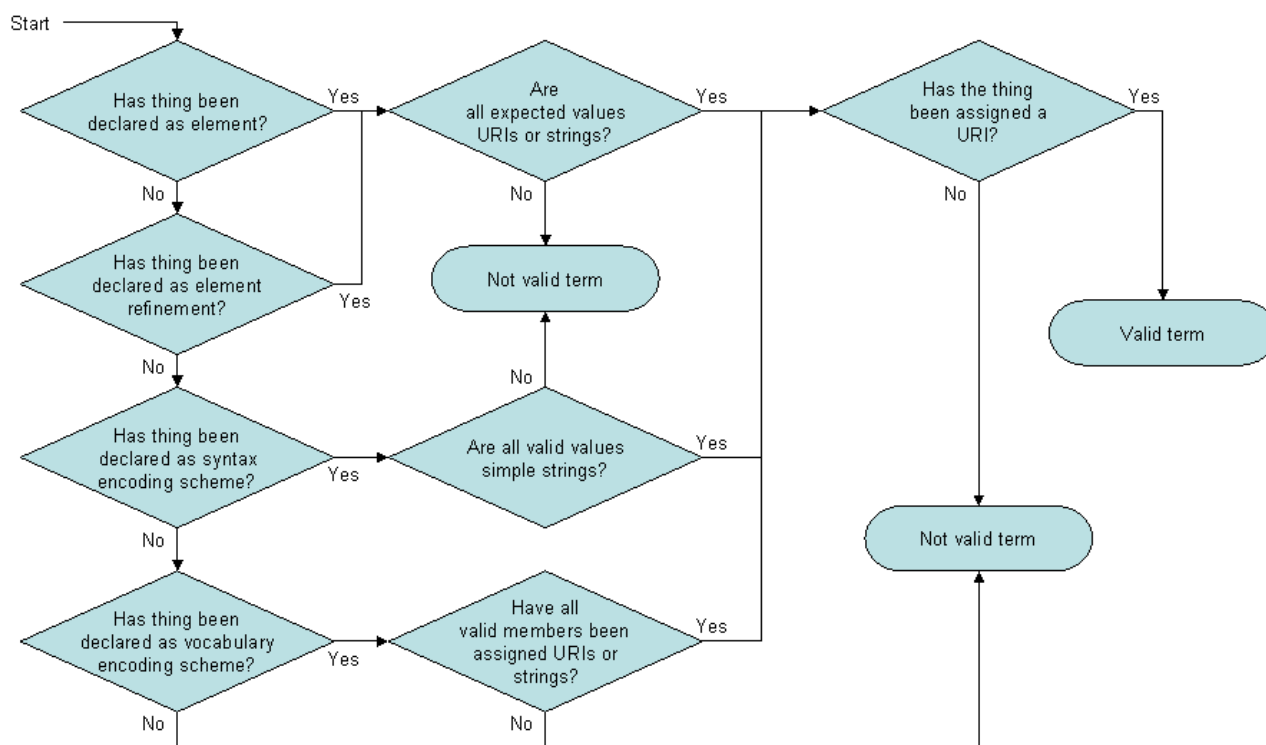
DC-compliant term decision tree

Notes

Best practice for serving representations of metadata terms using HTTP is still emerging. DCMI suggests the approach recommended above. Further, DCMI suggests serving an RDF declaration for each term that includes enough contextual information to interpret the term in the context of related terms. For example, it may be sensible to serve an RDF declaration for all the terms in a given namespace as the representation of each of the individual terms within that namespace.

New *terms* that are proposed during the creation of an application profile may be temporarily assigned *term URIs* using the `example.org` domain name, pending the assignment of a proper *term URI* by the DCMI Usage Board. In this case, the criteria concerning dereferencing the URI to obtain a human-readbale or machine-reable representation of the *term* do not apply.

The diagram above is also available as a MS-Powerpoint file.

Terminology

"class"

> A group containing members that have attributes, behaviours, relationships or semantics in common; a kind of category.

"class URI"

> A URI that identifies a *class*.

"element"

> A *property* of a *resource*.

"element refinement"

> 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.

"encoding scheme"

> A *vocabulary encoding scheme* or a *syntax encoding scheme*.

"encoding scheme URI"

A *vocabulary encoding scheme URI* or a *syntax encoding scheme URI*.

"property"

A specific aspect, characteristic, attribute, or relation used to describe resources.

"property URI"

A URI that identifies a single *property*.

"syntax encoding scheme"

An indication 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 URI that identifies a *syntax encoding scheme*.

"term"

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"

A URI that identifies a *term*.

"vocabulary encoding scheme"

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 URI that identifies a *vocabulary encoding scheme*.