



---

# **The Irish Public Service Metadata Standard**

**Version 1.1**

---

**USER GUIDE**

---

June 2002



<b>Introduction.....</b>	<b>4</b>
Irish Public Service Metadata Standard.....	4
What this website does .....	5
Using the website.....	5
Status and Version History .....	5
<b>Overview .....</b>	<b>6</b>
Background.....	6
What is metadata? .....	7
Why use metadata? .....	7
<b>Deployment Decisions.....</b>	<b>9</b>
Which information resources? .....	9
New Resources.....	9
Existing Resources.....	9
How much metadata should be created for each resource? .....	10
<b>The Business Process .....</b>	<b>11</b>
<b>Roles and Responsibilities .....</b>	<b>12</b>
Central Support.....	12
Local Role.....	12
Who in the organisation will create and maintain the metadata? .....	12
<b>Metadata Elements .....</b>	<b>13</b>
Dublin Core Metadata Element Set .....	13
Irish Public Service Metadata Element Set.....	14
Title .....	16
Creator .....	17
Publisher .....	19
Description.....	19
Subject .....	20
Identifier.....	21
Date.....	21
Date Ranges .....	23
Type .....	24
Contributor.....	26
Format.....	27
Source .....	29
Language.....	30
Coverage .....	30
Rights .....	31
Relation.....	32
Qualifiers .....	33
<b>Qualifiers .....</b>	<b>36</b>
Element Refinements.....	36
Controlling Data ('Encoding Schemes').....	37
<b>Encoding Syntax.....</b>	<b>41</b>
HTML .....	41



XML/RDF .....	42
<b>Accuracy .....</b>	<b>43</b>
<b>Storage .....</b>	<b>44</b>
Within Page.....	44
Stored Separately .....	44
Which to use?.....	44
<b>Tools .....</b>	<b>45</b>
A simple template .....	45
Template .....	46
<b>Search Engines .....</b>	<b>47</b>
<b>FAQs.....</b>	<b>47</b>
<b>Glossary .....</b>	<b>52</b>
<b>Appendix A.....</b>	<b>53</b>
Sample metadata record in HTML .....	53
<b>Appendix B .....</b>	<b>56</b>
XML/RDF .....	56



## Introduction

Information is the primary output of government. The volume of information produced by government and its agents is growing at an ever-increasing rate, and bringing order to the mass of information produced is essential to ensure its continued availability, use and value. It is essential that both access to information and the ability of the citizen to locate information relevant to his or her needs is enhanced where possible. With this purpose in mind, a metadata standard, serving this body of information and its user population, was devised.

**Definition:**

Metadata is information about information. It facilitates the finding of information by the assigning of consistent descriptors to information resources.

Metadata facilitates the discovery of information. The tagging of information resources allows the end user to find what they are looking for and determine the suitability of information resources. To be effective, and to instill a confidence in the end-user that all public sector resources are equally accessible, the tagging must be consistent in use and application.

This User Guide is designed to assist those directly involved in the task of creating metadata associated with online resources. It includes in its audience content creators, content editors, and webmasters. It will also prove useful to those charged with the responsibility of managing those resources and making them available to the wider public.

The Guide will help you in your understanding of the metadata elements and their usage, how to create metadata, and knowing what is required to ensure compliance with the Irish Public Service Metadata Standard, and consequently improve the likelihood of your resources being discovered and used by your audience

## Irish Public Service Metadata Standard

The Irish Public Service Metadata Standard (IPSMS) is designed to help the user find public service information more quickly and more easily. Public service organisations making information available via the Internet can increase the visibility and accessibility of their information resources by applying metadata to those resources.

The IPSMS is primarily a resource discovery standard; however, this does not preclude the standard from being extended to facilitate other information management



requirements. The principles of development and extension are necessary to allow for developing needs and the changing environment in which the standard applies.

These guidelines are primarily intended for managers with responsibility for delivering information content via the Internet and those directly responsible for creating and maintaining the metadata records.

## **What this website does**

This website is designed to assist in the implementation of the IPSMS. It consists of guidelines both for managers and those with the task of creating the metadata associated with online resources.

## **Using the website**

The site consists of four main sections: an introduction, guidelines for managers, the user manual, and a ‘frequently asked questions’ section (FAQ).

## **Status and Version History**

This is version one (Version 1.0) of the guidelines.



## Overview

### Background

The Irish Public Service Metadata Standard (IPSMS) has been developed as a result of a requirement to assist citizens in the location of public sector information and services. It forms a key building block in the development and provision of public sector on-line information and services.

The importance of a metadata standard for Irish public sector organisations was first acknowledged in the recommendations included in the **Recommended Guidelines for Public Sector Organisations** Web Publication Report of the Interdepartmental Group, October 1999;

#### Recommendation #6.1

It is recommended that all new documents be described using metadata tags and, in so far as is possible, existing information should also be tagged [extract].

#### Recommendation #6.2

The standard set of metadata elements recommended by the Group is based on a widely accepted standard known as the Dublin (Ohio) Core Metadata element set [extract].

The report of the Interdepartmental Group on web publication was in fulfilment of the commitment given in paragraph 42 of the **Government Action Plan on the Information Society in Ireland**;

Service-wide guidelines and practices will be adopted regarding content format and presentation etc. for websites, and an Inter-departmental group will be established to deal with these issues.

A Metadata Working Group was set up to examine the issue of metadata, followed by the appointment of a Metadata Project Co-ordinator charged with examining the various standards for cataloguing and describing information on the Internet, the requirements of the Irish Public Service, and with recommending and documenting a standard meeting those requirements.

As part of the process, a consultation paper was made available inviting comments and contributions. As a result of the investigations and recommendations of the Metadata Project Co-ordinator, and the feedback from the consultative process, the Metadata Working Group agreed the proposed standard, to be known as the Irish Public Service Metadata Standard (IPSMS).



## **What is metadata?**

Metadata simply described is ‘information about information’. It enables people to search for and locate the information they need on the Internet, and can help them to determine whether or not a particular information resource is the one that meets their needs.

Metadata facilitates the finding of information by allocating precise descriptors to a document. In effect it is summary information about a resource. As such, it helps in the identification, location and retrieval of online resources by end-users.

We are exposed to metadata in our everyday lives, often without realising it. When we look up a mail order catalogue to select a consumer product. When we look up a library catalogue to locate a book. We are facilitated in finding and selecting products by exposure to summary information describing the content, the availability, the nature or the constituents of those products.

In relation to online information, metadata can answer the following questions:

- Who is responsible for producing the content and making it available?
- What is the subject matter?
- Where can I locate it?
- Why was it provided?
- What language is it in?
- When was it produced and last updated?
- Can I access it on my computer?
- From what sources was the information compiled?
- What is the intended audience?
- Are there restrictions on its use?

Metadata can also facilitate the management of records, by including such information as when a record ought to be archived or destroyed, who has access rights and rights to amend, and a change history of the record.

## **Why use metadata?**

The concept of “information overload” has become an all too familiar one with the vast amount of information available in electronic form. One of the problems associated with having a vast amount of information available is the difficulty in finding the right information. Information available via the Internet can be of variable quality, and it can be difficult to verify its authenticity and value.



In conjunction with a search engine capable of performing a metadata search, metadata can greatly facilitate the user in locating the information they seek, thus reducing the problems associated with vast quantities of information being available for searching.

- Document creators and providers making use of the same elements to capture and display particular data facilitates more precise and accurate information retrieval.
- Document owners are facilitated by the identification of a clear and consistent set of metadata elements for the storage of information about those documents.
- Metadata contributes to the integration of public services online through the improved means of retrieval resulting from standardised data entry and description.
- Consistent use of metadata facilitates information sharing across systems and organisations.
- More precise searches result from the facility to search on particular elements. For example, with metadata descriptors it is possible to distinguish between a search looking for Joe Green in the *Creator* field and The Green Paper on Adult Education in the *Title* field to help the user find precisely what they are looking for.
- Search precision is enhanced by the ability to provide relevant details about a resource, details that may be missing from the actual resource itself. Terms accurately relaying the concepts inherent in a document but missing from the body of the document can be readily included.
- It becomes easier to locate information and the time spent searching is reduced.
- Metadata provides for a way to store relevant, clear and consistent data.
- Maintenance is helped by allowing for the identification of information that requires updating or archiving, or that has not been updated for a certain period of time. It can indicate who is responsible for maintaining a record and when it ought to be reviewed.
- Care given to the creation of metadata can be evidence of the quality of the resource described and the information provided.
- The metadata can act as a surrogate or summary that facilitates the selection process. By viewing a metadata record, users can determine the suitability of a document.





## Deployment Decisions

### Which information resources?

Information resources may be assigned metadata at the item-level or aggregate-level, the decision depending to a large measure on the information resources in question. Other important factors are: At what level do clients want to find resources? Do they need individual documents, or collections of documents?

Organisations will decide the appropriate level at which metadata is to be assigned, all the time ensuring compliance with the IPSMS requirement that all web-based resources be accessible via the use of metadata.

The deployment of metadata ought to be such as to ensure that all your Internet-accessible information resources are retrievable via the creation and deployment of metadata.

### New Resources

New resources should have metadata assigned as a first order of priority.

### Existing Resources

Assigning metadata to existing resources might require a phased approach. Information resources may need to be categorised according to importance, role, and usefulness to the end-user. To assist you in determining an order of priorities for applying metadata to existing resources, consider the following:

- information in high demand by the organisation's user community;
- information required by the citizen to understand his or her rights and entitlements;
- documents that allow the user to transact business with the organisation (e.g. application forms);
- information provided on foot of any statutory requirement (FOI);
- publications (e.g. reports, policy documents, etc.);
- press releases;
- text of speeches;
- entry points or indexes and menus to a range of closely related topics (aggregate-level metadata);
- information about the powers and responsibilities of the organisation in so far as they affect the citizen or target groups;
- information about the organisation, its services and activities.



The minimum requirement of the IPSMS is that the citizen and business community in their interactions with public sector bodies can discover the online resources provided by those bodies that they seek.

## **How much metadata should be created for each resource?**

A metadata record should consist of a certain number of mandatory elements, and whatever number of non-mandatory elements as facilitates information discovery. Non-mandatory elements may also be included where they might facilitate other requirements, such as resource selection.

How much information is included in each element will depend to a large measure on the resource being described – a guiding principle is be concise and to the point and exclude redundant information.



## The Business Process

Metadata creation is a part of the web publishing process, and as such needs to be factored into that process at an early stage. Consideration needs to be given to who creates the metadata and when metadata is to be created.

It is recommended that metadata be created as early in the life of the resource as possible, as those responsible for the information content are likely to be the persons most familiar with the content, and consequently best placed to assign the information which goes to make up a metadata record. There also needs to be a means of ensuring consistency of records and compliance with the IPSMS.

Organisations should ensure that included in the publishing process are people with the necessary skills, including those who are trained in the area of information management, such as librarians.

Organisations thinking of, or in the midst of, reviewing their web publishing processes should take the opportunity to factor in the creation of IPSMS-compliant metadata in any proposed solution. Specifications sent to third-party vendors should include IPSMS compliance as a requirement.

Metadata creation should not prove a burden on an organisation, and the IPSMS is designed to minimise the effort required in reaping the benefits to be gained in adopting the standard. There is minimum use made of qualifiers, yet using qualifiers as recommended in the standard enhances metadata record quality. Any search engine in use or proposed for use on the government website will be configured to take full advantage of the metadata element set included as part of the IPSMS.



## Roles and Responsibilities

### Central Support

The designated lead agency fulfills the following roles;

- maintaining and developing the IPSMS
- promoting the use of the standard
- maintaining and developing the user guidelines
- maintaining the IPSMS website
- providing advice and support on implementation of the IPSMS
- monitoring compliance
- liaising with the international Dublin Core metadata community
- reviewing the standard in consultation with the user community

### Local Role

Organisations applying the standard have the following roles and responsibilities;

- creation and maintenance of metadata in conformance with the IPSMS
- ensuring systems are in place to facilitate the process
- ensuring compliance with the IPSMS
- contributing to the ongoing development of the standard

### Who in the organisation will create and maintain the metadata?

It is recommended that metadata be created as early in the life of the resource as possible, as those responsible for the information content are likely to be most familiar with that content, and consequently best placed to assign the information which goes to make up a metadata record.

If the person(s) responsible for creating and maintaining metadata is/are not responsible for the actual content of the resource, then a process needs to be in place whereby they are notified of changes to the resource. Metadata should be reviewed every time a resource is changed.

Where web publishing is a distributed process, certain metadata elements may be more suitably added at different phases in that process. This may facilitate the inclusion of those who are trained in the area of information management, including librarians, who can put their skills to use in this environment.

Consequently, organisations may want to ensure that included in the publishing process are people with the necessary skills, including those who are trained in the area of information management.



## Metadata Elements

The Irish Public Service Metadata Element Set (IPSMES), Version 1.0, is based on the Dublin Core metadata element set (DCMES), Version 1.1. 'IPSMES' is here used to identify the elements and their usage as laid out in the IPSMS.

### Dublin Core Metadata Element Set

The DCMES was developed over a period of five years as a broadly international and cross-disciplinary effort. In contrast to other schemes that target particular types of materials and particular user communities, DCMES can be used to describe nearly any type of information resource.

The interdisciplinary Dublin Core metadata effort is considered by many to be the most obvious metadata scheme for facilitating the discovery of information in an interdisciplinary environment. It is generally agreed to be the leading scheme for achieving the goal of simple resource description for Internet resources.

One of the basic functions of the Dublin Core is the description of the contents of web pages. It consists of fifteen elements which can be categorised into the following;

- Elements related primarily to resource content
- Elements related to intellectual property
- Elements related mainly to the instantiation of the resource

The content items include *title, subject, description, source, language, relation, and coverage*.

The intellectual elements consist of *creator, publisher, contributor, and rights*.

The instantiation elements are *date, type, format, and identifier*.

The Dublin Core standard has received NISO (National Information Standard Organisation) approval and as of October 2001 is an official ANSI (American National Standards Institute) standard (Z39.85-2001).

From this point on, the element set will be referred to as the Irish Public Service Metadata Element Set (IPSMES).



## Irish Public Service Metadata Element Set

Elements are categorised as being any one of three types – *Mandatory*, *Conditional* or *Recommended*.

Condition	Definition
Mandatory	Element must be present in order for a metadata record to be in compliance with the IPSMS.
Conditional	Mandatory in certain circumstances.
Recommended	Element should be included where its use enhances the discovery process or assists in a determination as to the suitability or accessibility of a resource.

Each metadata record is to include a number of mandatory elements, namely *Title*, *Creator*, *Publisher*, *Subject*, *Date*, *Type* and *Identifier*.

The *Type* element is mandatory where a resource matches one of a specified limited number of types taken from a controlled list of terms maintained and approved by the lead agency.

Recommended elements are used where they facilitate resource discovery, resource selection or indicate accessibility. An organisation may also identify recommended elements as necessary to facilitate its own particular requirements.

Elements used without qualifiers are known as ‘simple’ elements. Where qualifiers are used they are known as ‘qualified’ elements.

The *Date* element **must** be qualified.

For a record to be in compliance with the IPSMS the mandatory elements must be present.



Element	Element Use	Definition	Obligation
<b>Title</b>	DC.Title	Typically, a name given to a resource.	Mandatory
<b>Creator</b>	DC.Creator	An entity primarily responsible for the intellectual content of the resource.	Mandatory
<b>Subject</b>	DC.Subject	The topic(s) of the content of the resource.	Mandatory
<b>Description</b>	DC.Description	An account of the content of the resource.	Recommended
<b>Publisher</b>	DC.Publisher	An entity responsible for making the resource available.	Mandatory
<b>Date</b>	DC.Date.created DC.Date.modified	A date associated with an event in the life cycle of the resource.	Mandatory.
<b>Identifier</b>	DC.Identifier	A unique identifier for the resource.	Mandatory
<b>Contributor</b>	DC.Contributor	An entity responsible for making a significant contribution to the content of the resource but whose contribution is secondary to the entity entered in the <i>Creator</i> element	Recommended
<b>Type</b>	DC.Type	The category of the resource. Typically, this might indicate whether a resource was a report, a legislative work, a press release or a circular. Selected from a controlled list.	Conditional
<b>Format</b>	DC.Format	The data format of the resource. Typically, <i>Format</i> may include the media-type or dimensions (e.g. size, duration) of the resource. Selected from a controlled list.	Recommended
<b>Source</b>	DC.Source	A reference to a resource from which the present resource is derived	Recommended
<b>Language</b>	DC.Language	The language(s) of the intellectual content of the resource	Recommended
<b>Relation</b>	DC.Relation	A reference to a related resource	Recommended
<b>Coverage</b>	DC.Coverage	The extent or scope of the content of the resource. Typically identifies the spatial or temporal characteristics of the resource, or jurisdiction.	Recommended
<b>Rights</b>	DC.Rights	Information about rights held in and over a resource. Typically, a copyright notice or terms of use statement.	Recommended



## Title

Name	DC.Title
Definition	Name given to a document or resource by the creator or publisher
Purpose	Allows the searcher to locate a document based on the title of the document or words contained within
Obligation	Mandatory
Qualifier	Alternative
Qualifier label	DC.Title.alternative
Qualifier Definition	Any form of the title used as a substitute or alternative to the formal title of the resource.
Qualifier obligation	Recommended
Encoding Scheme	-----
Examples	<pre>&lt;meta name="DC.Title" content="The Housing Market in Ireland: An Economic Evaluation of Trends and Prospects"&gt;</pre> <pre>&lt;meta name="DC.Title.alternative" contents="Third Bacon Report"&gt;</pre>

The title entered in the *DC.Title* element should be the same as the title that appears in the <TITLE> tag in the <HEAD> of the document. It does not have to mirror that included in the body of the document, which may sometimes differ.

Where more than one title exists, best practice is to include the formal title of the document or resource in the *DC.Title* element, and enter second and subsequent (common, popular or alternate forms of) titles in the qualified *DC.Title.alternative* element.

A translation of a title is considered a form of the title, and consequently, can be input as an alternative title entry.

Example:

```
<meta name="DC.Title. " lang="en" content="Charting our Education Future - White Paper on Education: Summary.">
```

```
<meta name="DC.Title.alternative" lang="ga" content="Cairt don Oideachais sna Blianta Romhainn - An Páipéar Bán Oideachais: Achoimre.">
```





## Creator

Label	DC.Creator
Definition	Entity primarily responsible for the content of the resource
Purpose	Allows the searcher to locate a document based on the creator(s) of the document
Obligation	Mandatory
Qualifier	-----
Encoding Scheme	-----
Recommendation	Creators should be listed separately.
Examples	<pre>&lt;meta name="DC.Creator" content="Peter Bacon and Associates"&gt;</pre> <pre>&lt;meta name="DC.Creator" content="Comhairle"&gt;</pre>

The *DC.Creator* element can be repeated.

### Recommendation

Best practice is to enter the creator as the corporate unit within an agency or organisation responsible for the content of the resource, rather than the name of any individual within that agency or organisation

An exception to the above recommendation might be where an individual is directly attributed, within the body of the document/resource itself, with responsibility for creating the intellectual content. Where the responsibility cannot be attributed to one specific division or unit, the larger organisation, or sub-section of the organisation, may be more appropriately attributed as the creator. Alternatively, if more than one entity is responsible for the content of the document/resource, repeat the use of the *DC.Creator* element.

## Guidance on Name Entries

Personal names, where used, should be listed in inverted order (surname first, followed by forename).

Example:

```
<meta name="DC.Creator" content="Byrne, Edward">
```

Use direct entries for corporate names, i.e. do not invert entries.

Example:



<meta name="DC.Creator" content="Peter Bacon and Associates">

<meta name="DC.Creator" content="Department of Finance">

NOT

<meta name="DC.Creator" content="Finance, Department of">

OR

<meta name="DC.Creator" content="Finance (Department)">

The creator entry should also indicate, where appropriate, the larger organisation and any division or section of which the creator is a part. The format is as follows;

[Top-level organisation name]. [Main sub-section]. [Unit responsible]

(Note the period separator and use of space)

Examples:

<meta name="DC.Creator" content="Department of Health and Children. Corporate Services Division. Freedom of Information Unit">

<meta name="DC.Creator" content="Department of Public Enterprise. Human Resources Unit">

NOT

<meta name="DC.Creator" content="Human Resources Unit, Department of Public Enterprise">



## Publisher

Label	DC.Publisher
Definition	Identifies the (corporate) entity responsible for making the resource available in its current form
Purpose	Allows the searcher to locate a document based on the publisher of the document, or to find all resources made available by a particular organisation.
Obligation	Mandatory
Qualifier	-----
Encoding Scheme	-----
Examples	<pre>&lt;meta name="DC.Publisher" content="Department of Finance"&gt;</pre> <pre>&lt;meta name="DC.Publisher" content="Comhairle"&gt;</pre>

Best practice is to list the name of the organisation that provides access to the resource in its current form, not the name of the person or section, e.g. Department of Finance, Office of the Ombudsman. Though they may be one and the same, the organisation that hosts the document on its web server is not to be mistaken for the publisher.

## Description

Label	DC.Description
Definition	An account of the content of a resource
Purpose	A description can facilitate the searcher in assessing the appropriateness or otherwise of a document. It can also prove a useful source of indexable terms.
Obligation	Recommended
Qualifier	-----
Encoding Scheme	-----
Examples	<pre>&lt;meta name="DC.Description" content="Information on how to contact the Department of Health and Children customer call-in centre"&gt;</pre> <pre>&lt;meta name="DC.Description" content="Guidelines for employers on the management of workplace health and safety, the preparation of safety statements, and the carrying out of risk assessments"&gt;</pre>

A description may include but is not limited to: an abstract, table of contents or a free-text account (summary) of the content. A description may also be used to indicate the intended audience or purpose of a resource, if appropriate.



Descriptive information may be taken from the item itself. If a description cannot be found either in the introductory or front matter, or the first few paragraphs, it needs to be created following an analysis of the content. A description ought to be informative of the content of the document. Normally, a description should be limited to a few brief sentences.

The *DC.Description* element may not be required where the title included in the *DC.Title* element is adjudged descriptive of the content of the resource. In all other cases, best practice is to include a description so as to facilitate the searcher in assessing a document for relevance.

## Subject

Label	DC.Subject
Definition	The topic(s) of the content of the resource
Purpose	The <i>Subject</i> element is useful for locating material on a particular topic. For example, ‘ <i>Find all information about... adult literacy</i> ’. It may also help users determine the relevancy or otherwise of a resource.
Obligation	Mandatory
Qualifier	-----
Encoding Scheme	-----
Examples	<pre>&lt;meta name="DC.Subject" content="information technology; people with disabilities; internet; assistive technology"&gt;</pre> <p>alternatively;</p> <pre> &lt;meta name="DC.Subject" content="health and safety"&gt; &lt;meta name="DC.Subject" content="occupational health"&gt; &lt;meta name="DC.Subject" content="safety statements"&gt; &lt;meta name="DC.Subject" content="workplace safety"&gt; </pre>

The subject or topic matter of a resource (what a resource is about), to be expressed as keywords or phrases.

The intent is to capture the concept(s) inherent in a document/resource. Values must be descriptive of the content, ‘the aboutness’, of a document/resource. Subject terms should reflect the specificity of the content being covered. Avoid using terms too general for the material being covered. Concepts or subject matter minor in nature or given only passing reference should not be described in the *Subject* element.

Please note that terms should be input using the semi-colon delimiter, or alternatively using separate DC.Subject tags.



Terms assigned should be selected from a controlled vocabulary or thesaurus if available, in order to control the content of the element and help achieve a consistency in the use of terms.

**Terms input from a controlled vocabulary such as the Public Service Thesaurus (PST) should indicate the scheme in use, as follows;**

```
<meta name="DC.Subject" scheme="PST" content="information technology; people with disabilities; internet; assistive technology">
```

Resource discovery is the primary purpose in the use of the *Subject* element.

## Identifier

Name	DC.Identifier
Definition	A unique identifier for the resource
Purpose	The <i>Identifier</i> element is used to indicate the location (where available) of the document/resource
Obligation	Mandatory
Qualifier	-----
Encoding Scheme	-----
Examples	<meta name="DC.Identifier" content="http://www.basis.ie/sub1/riskasse.htm">

Generally, the URL (Uniform Resource Locator) of the resource. It is used to indicate the resource location and to distinguish resources from one another. This element can also be used for local identifiers (e.g. ID numbers or call numbers) assigned by the Creator of the resource to apply to a particular item.

## Date

Label (unqualified)	DC.Date
Under the IPSMS, the date element <b>must be qualified</b> in order to indicate the meaning of the date given. See below for the two qualifiers approved for use in the IPSMS, Version 1.0.	

Label	DC.Date.created
Definition	The date a resource or document was created in its present form.
Purpose	The created date indicates when a resource was created. It indicates the currency or time relevance of a resource. It allows a search to be restricted to resources created within a particular time span or on a particular date.



Obligation	Mandatory
Encoding Scheme	ISO 8601 standard
Examples	<meta name="DC.Date.created" content="2001-07-14">

Label	DC.Date.modified
Definition	The date a resource was modified or updated.
Purpose	The modified date indicates when a resource was modified. It indicates the currency or time relevance of a resource. It allows a search to be restricted to resources modified within a particular time span or on a particular date.
Obligation	Mandatory
Encoding Scheme	ISO 8601 standard
Examples	<meta name="DC.Date.modified" content="2001-08-24">

Label	DC.Date.valid
Definition	Date of validity of a resource
Purpose	The valid date indicates when a resource becomes valid or ceases to be valid. It may be most useful to represent the time period in which a resource is valid by expressing the period as a range of dates.
Obligation	Recommended.
Encoding Scheme	ISO 8601 standard
Examples	[Indicating a tax period in which a resource is applicable]: <meta name="DC.Date.valid" content="2000-04-01/2001-03-31">

Label	DC.Date.issued
Definition	Formal publication date of a resource
Purpose	The issued date indicates when a resource was formally published in its current form
Obligation	Recommended.
Encoding Scheme	ISO 8601 standard
Examples	<meta name="DC.Date.issued" content="2001-02-09">

Label	DC.Date.available
Definition	Date resource became available.
Purpose	
Obligation	Recommended.
Encoding Scheme	ISO 8601 standard
Examples	<meta name="DC.Date.available" content="2001-03-19">

**Note:**

The date is to be recorded using the ISO 8601 standard. .  
This is: yyyy-mm-dd.

**Recommendation:**

When the creation date is first being input (i.e. new document), insert the same date as the modified date.

Rationale: Until a document sees its first change after its initial creation, its creation date is in reality the last time the document was modified. Consequently its creation and modified dates are one and the same until a change in the document content occurs.

The date refers to the resource, not the metadata record itself. A date range for the intellectual content of a resource must be described using the *DC.Coverage* element.

DC.Date qualifiers (*created*, *modified*) allow for increased precision. They are intended to enhance discovery, allowing for a search to be refined based on a document's creation or modification date.

If the full date is unknown, month and year (YYYY-MM) or just year (YYYY) may be used. ISO 8601 also allows for the expression of time if required.

## Date Ranges

A date range may be appropriate where metadata has been assigned at a collection-level, and the resources that make up the collection covered include various creation dates. It may also be appropriate where the period of validity of a resource needs to be expressed.

A date range should be expressed making use of a solidus (/) which separates the two dates. ISO 8601 allows the use of the '/' separator. Example:

```
<meta name="DC.Date.created" content="2001-02-06/2001-07-14">
```



**Note:**

Information seekers and software may have difficulty interpreting other date formats if used.

## Type

Label	DC.Type
Definition	The category of a resource. [DC Definition: <i>The nature or genre of the content of the resource.</i> ]
Purpose	Allows the information seeker to locate different categories of resource, such as document types. It allows a search to be restricted to resources of a certain kind or different categories of documents/resources. For example, 'Find all <i>press releases</i> ...'
Obligation	Conditional
Qualifiers	-----
Encoding Scheme	IPSDT (Irish Public Service Document Type)
Examples	<meta name="DC.Type" scheme="IPSDT" content="press release"> <meta name="DC.Type" content="memorandum">

The *DC.Type* element can be repeated.

The IPSDT list currently approves the following document type indicators:

*legislation*

*policy*

*report*

*form*

*press release*

*speech*

**Note:**

In order to comply with the IPSMS, Version 1.0, documents matching any one of the six document types listed on the IPSDT list must so indicate the document type in the metadata *DC.Type* element.



**Recommendation:**

It is recommended that where terms are taken from a controlled list (i.e. the IPSDT list), the controlled vocabulary should be indicated using the 'scheme' indicator. For example:

```
<meta name="DC.Type" scheme="IPSDT" content="press release">
```

**Note:**

Indication of these document types where appropriate serves to enable the *Publications* list accessible from the Irish Government home page.

The government search engine will scan sites for these document types and list them on the Government website *Publications* page. This will allow information seekers to follow recent developments across all government departments at a single location or to be alerted of recently published material such as legislative acts or policy proposals.

Absence from the IPSDT list does not preclude the use of document types not so included on the list.

A document may qualify as matching more than one document type. An example might be where a green paper constitutes both a policy proposal and reports on the findings of a research study. The method of indicating more than one document type is by repeat use of the metadata 'type' element, e.g.

```
<meta name="DC.Type" scheme="IPSDT" content="policy">
```

```
<meta name="DC.Type" scheme="IPSDT" content="report">
```

## Clarification of IPSDT Document Types:

**Legislation** – specifically Acts, Bills, Statutory Instruments. Not documents about same. An exception is where a document can be described as a 'covering' document (see *What is a 'cover' HTML page?* in the FAQs section).

**Policy** – specifically white papers, green papers, or those documents which are specifically described as policy documents. Not statements of policy – such may constitute press releases or the transcripts of speeches, for example, and be best described as a 'Press Release' or a 'Speech'. An exception might be where a statement of policy is the only record of an official policy proposal or position. Not documents referring to, or



discussing, a white paper, green paper, or documents referring to that which is specifically described as a policy document. An exception is where a document can be described as a 'covering' document (see *What is a 'cover' HTML page?* in the FAQs section).

**Report** – specifically that which formally represents the findings of an investigation. Not a document referring to, or discussing, a formal report. An exception is where a document can be described as a 'covering' document (see *What is a 'cover' HTML page?* in the FAQs section).

Includes annual reports.

**Form** – a document requiring data entry. Includes forms made available online for downloading or printing out. These forms are usually available as MS Word documents or PDF files. Also includes HTML forms that request information from a user, information that can then be processed on the client or sent back to a server. Excludes forms used to send feedback to a webmaster. 'Covering' documents are included (see *What is a 'cover' HTML page?* in the FAQs section).

**Press Release** – specifically an official statement released to the press.

The subject of a press release does not influence the determination of document type, i.e. a press release announcing the publishing of an annual report does not mean that 'Report' is to be entered as a document type along with 'Press Release'. An exception is where a document can be described as a 'covering' document (see *What is a 'cover' HTML page?* in the FAQs section).

**Speech** – specifically the transcript or audio recording of an actual speech.

Does not include documents containing extracts from speeches or documents summarising or including comments on speeches. An exception is where a document can be described as a 'covering' document (see *What is a 'cover' HTML page?* in the FAQs section).

## Contributor

Label	DC.Contributor
Definition	An entity responsible for making a contribution to the content of the resource.
Purpose	Useful if needed to identify an entity that has played an important but secondary role and where searching on that entity may be useful in discovering the resource.
Obligation	Recommended
Qualifiers	-----
Encoding Scheme	
Examples	<meta name="DC.Contributor" content="MacCabe, Fergal">



Used to identify an entity that has played an important but secondary role in creating the content of the resource and is not specified in the *Creator* element.

**Recommendation:**

Only use if the entity's contribution is significant **and** where searching on the entity may be useful in discovering the resource.

If more than one entity has contributed to the intellectual content of the document/resource and requires inclusion, repeat the use of the *DC.Contributor* element.

If a (corporate) entity, the entry should indicate, where appropriate, the larger organisation and any division or section of which the creator is a part. The format is as follows;

[Top-level organisation name]. [Main sub-section]. [Unit responsible]

(Note the period separator and use of space)

Examples:

<meta name="DC.Contributor" content="Department of Public Enterprise. Human Resources Unit">

NOT

<meta name="DC.Contributor" content="Human Resources Unit, Department of Public Enterprise">

Personal names should be listed surname first, followed by forename.

**Format**

Label	DC.Format
Definition	The data format of a resource. [DC Definition: The digital or physical manifestation of a resource. ]
Purpose	The element allows the searcher to decide if a resource is worth accessing or retrieving, based on the ability of their software to cope with the format of the resource.
Obligation	Recommended
Qualifiers	-----
Encoding Scheme	IMT (Internet Media Types)



Examples	<pre>&lt;meta name="DC.Format" content="text/html"&gt;</pre> <pre>&lt;meta name="DC.Format" content="application/pdf; 535kb"&gt;</pre> <pre>&lt;meta name="DC.Format" content="video/quicktime; 4 minutes, 30 seconds"&gt;</pre>
----------	--

Typically, Format may include the media-type or dimensions (e.g. size, duration) of the resource.

Format may be used to determine the software, hardware or other equipment needed to display or operate the resource. Information concerning the size of a resource may be included. Consumers can then decide if they wish to download the resource, or if they have the capability to do so.

In principle, formats can include physical media such as books, serials, or other non-electronic media.

It becomes necessary to indicate data format where, for example, the format requires software other than a web browser (e.g. plug-in), or where download time is lengthy. A typical example would be a pdf document, where a pdf reader is required to access the document.

**Recommendation:**

Recommended best practice is to select a value for the *Format* element from a controlled vocabulary. The value may be selected from the IMT list of terms.

IMT (Internet Media Type) – list of most commonly used document formats:

IMT	Description
text/plain	Unformatted text
text/html	HTML document
text/xml	XML document
application/rtf	Rich Text Format (RTF) document
application/msword	Microsoft Word document



application/pdf	Portable Document Format (PDF) document
video/quicktime	Quicktime encoded video
video/mpeg	MPEG encoded video

A complete list of Internet Media Types (IMT) is available at:

<http://www.isi.edu/in-notes/iana/assignments/media-types/media-types>

## Source

Label	DC.Source
Definition	A reference to a resource from which the present resource is derived.
Purpose	This element can be used if the contained information would be useful for discovery of the current resource.
Obligation	Recommended
Qualifiers	-----
Encoding Scheme	-----
Examples	<p>&lt;meta name="DC.Source" content="Department of Social, Community and Family Affairs leaflet SW17"&gt;</p> <p>&lt;meta name="DC.Source" content="http://www.dscfa.ie/dept/booklets/sw37.htm"&gt;</p>

The Source element is not used to indicate from where the resource is available (*Identifier*), by whom the resource was created (*Creator*), or who makes the resource available (*Publisher*).

In indicating the origin of the intellectual content of a resource, this information may help verify and authenticate the content of the current resource.

## Source vs. Relation

To indicate relationships between resources, it is generally recommended to use the *Relation* element. *Source* is used, however, where the content is **derived from**, but does not replace, the content of another document. The web page from which the content is derived should be shown as the "Source" of the present content. Whereas the present document references the source document, there is no requirement for a link from the source document to the present document.

The *Relation* element does not specifically allow for indicating that one resource has been derived from another. It is there to indicate that one resource



- a) is a version of another, or
- b) replaces another, or
- c) requires the availability of another resource, or
- d) references another resource, or
- e) is also available in another format.

## Language

Label	DC.Language
Definition	The language of the content of the resource.
Purpose	Allows a search to be restricted to resources in a particular language. For example, 'Locate Irish language documents published by the Department of Education. The information seeker can also decide whether a document is worth retrieving or not based on the language of the content.
Obligation	Recommended
Qualifiers	-----
Encoding Scheme	ISO 639-1
Examples	<meta name="DC.Language" content="en">  <meta name="DC.Language" content="ga">

### Recommendation:

Recommended best practice is to use the two-letter language code taken from the ISO 639-1 standard. For example, 'en' for English, 'ga' for Irish.

The full list of ISO 639-1 2-letter language codes is available at;  
<http://www.loc.gov/standards/iso639-2/englangn.html>

## Coverage

Label	DC.Coverage
Definition	The extent or scope of the content of the resource.
Purpose	This element allows a search to be restricted to resources about or relevant to a certain place or time.



	It also allows the information seeker to determine the suitability or otherwise of a particular resource based on, e.g. jurisdictional coverage or time period.
Obligation	Recommended
Qualifiers	-----
Encoding Scheme	-----
Examples	<p>[for Eastern Region Health Authority resource] =  <code>&lt;meta name="DC.Coverage" content="Dublin, Kildare, Wicklow"&gt;</code></p> <p>[for Shannon Development]=  <code>&lt;meta name="DC.Coverage" content="Shannon Region"&gt;</code></p> <p><code>&lt;meta name="DC.Coverage" scheme="ISO 8601" content="2000-04-01/2001-03-31"&gt;</code></p> <p><code>&lt;meta name="DC.Coverage" content="August, 2000"&gt;</code></p>

Used to define spatial coverage (geographic area, administrative area) or date coverage.

Place names, names of administrative areas, or time periods are preferred. Time periods may be indicated by textual representations; however, use of ISO 8601 is recommended.

## **Recommendation:**

Where resources are targeted at a level below national level, it is recommended that *Coverage* be used to indicate the jurisdictional area over which an organisation exercises authority and to which the content is relevant.

## **Recommendation:**

It is recommended that the date coverage be indicated using the ISO 8601 standard.

This is: yyyy-mm-dd.

A date range should be expressed making use of a solidus (/) which separates the two dates. ISO 8601 allows the use of the '/' separator.

## **Rights**



Label	DC.Rights
Definition	Information about rights held in and over the resource.
Purpose	Useful information to display (as part of the results display record) regarding copyright and/or access constraints associated with a resource.
Obligation	Recommended
Qualifiers	-----
Encoding Scheme	-----
Examples	<pre>&lt;meta name="DC.Rights" content="© Department of Health and Children 2000"&gt;</pre> <pre>&lt;meta name="DC.Rights" content="http://oasis.gov.ie/about/copyright.html"&gt;</pre> <pre>&lt;meta name="DC.Rights" content="Copying permitted providing source is acknowledged"&gt;</pre>

A copyright statement is indicative of what a rights statement might entail.

## Recommendation

Though not mandatory, if a resource includes a rights statement, it is recommended to indicate same in the *DC.Rights* element via a textual statement or a URI pointing to such.

## Relation

Label	DC.Relation
Definition	A reference to a related resource.
Purpose	This element should be used if there are significant resources that are related to the current resource, which may be useful for the consumer to also access or retrieve.
Obligation	Recommended
Qualifiers	See below
Qualifier obligation	Optional
Encoding Scheme	-----
Examples	<pre>[Indicating the present resource is also available in pdf format] =</pre> <pre>&lt;meta name="DC.Relation.hasFormat" content="http://www.oasis.gov.ie/rights/entitlements.pdf"&gt;</pre> <pre>[indicating Irish language version of</pre> <pre>http://www.gov.ie/educ/publications/213233a.htm] =</pre>





	<pre>&lt;meta name="DC.Relation.hasVersion" content="http://www.gov.ie/educ/publications/216a33a.htm"&gt;</pre> <p>[without qualifier] =</p> <pre>&lt;meta name="DC.Relation" content="this electronic edition supersedes the hard copy-only second edition, same title, ISBN 0863402017"&gt;</pre>
--	---

The *Relation* element ought to be provided where necessary for discovery, or if necessary to utilise the resource once identified.

The *Relation* element references a related resource, indicating the type of relationship.

## **Recommendation:**

It is recommended that the *Relation* element be qualified. Alternatively, include a free text entry stipulating the relationship.

The *Relation* element is not to be used for indicating that one resource has been derived from another. The *Source* element is used where the content **is derived from**, but does not replace, the content of another document.

For web-based resources the content of the element will usually be a URI. If the related resource is a non-electronic resource some other form of identification for the related resource can be used, such as title, ISBN etc.

## Qualifiers

The qualifiers below are recommended for the *Relation* element:

Name	isVersionOf
Label	DC.Relation.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.

Name	hasVersion
Label	DC.Relation.hasVersion
Obligation	Recommended
Definition	The described resource has a version, edition, or adaptation, namely,



	the referenced resource.
--	--------------------------

Name	isReplacedBy
Label	DC.Relation.isReplacedBy
Obligation	Recommended
Definition	The described resource is supplanted, displaced, or superceded by the referenced resource.

Name	replaces
Label	DC.Relation.replaces
Obligation	Recommended
Definition	The described resource supplants, displaces, or supersedes the referenced resource.

Name	isRequiredBy
Label	DC.Relation.isRequiredBy
Obligation	Recommended
Definition	The described resource is required by the referenced resource, either physically or logically.

Name	requires
Label	DC.Relation.requires
Obligation	Recommended
Definition	The described resource requires the referenced resource to support its function, delivery, or coherence of content.

Name	isPartOf
Label	DC.Relation.isPartOf
Obligation	Recommended
Definition	The described resource is a physical or logical part of the referenced resource.

Name	hasPart
Label	DC.Relation.hasPart
Obligation	Recommended
Definition	The described resource includes the referenced resource either physically or logically.

Name	isReferencedBy
Label	DC.Relation.isReferencedBy
Obligation	Recommended
Definition	The described resource is referenced, cited, or otherwise pointed to by



	the referenced resource.
--	--------------------------

Name	references
Label	DC.Relation.references
Obligation	Recommended
Definition	The described resource references, cites, or otherwise points to the referenced resource.

Name	isFormatOf
Label	DC.Relation.isFormatOf
Obligation	Recommended
Definition	The described resource is the same intellectual content of the referenced resource, but presented in another format..

Name	hasFormat
Label	DC.Relation.hasFormat
Obligation	Recommended
Definition	The described resource is available in another format.

Summary Sheet	
Column A	Column B
DC.Relation.isVersionOf	DC.Relation.hasVersion
DC.Relation.isReplacedBy	DC.Relation.replaces
DC.Relation.isRequiredBy	DC.Relation.requires
DC.Relation.isPartOf	DC.Relation.hasPart
DC.Relation.isReferencedBy	DC.Relation.references
DC.Relation.isFormatOf	DC.Relation.hasFormat

Note from the summary sheet above that relationships consist of value pairs (e.g. isFormatOf, hasFormat). If a two-way relationship or association is to be stipulated, one record will indicate one side of the value pair (isFormatOf), while the second record will indicate the other side of the value pair (hasFormat). However, the IPSMS does not require all records to have metadata associated with them, but rather that all records are discoverable via the deployment of metadata. Consequently, it may be in order to use one side only of a value pair, as a resource may reference another with no such reference back from the referenced resource. In the event that a one way relationship only is to be indicated, preference should be given to using the qualifiers indicated in Column B above.

An example might be an HTML document indicating the availability of a PDF or MS Word version, with no reference back to the HTML document from a second metadata



record (since a second does not exist) attached to the PDF or MS Word document.

Example:

[Included in the metadata record embedded in a HTML version of a document]:

```
<meta name="DC.Relation.hasFormat"  
content="http://www.oasis.gov.ie/rights/entitlements.doc">
```

Such a deployment would be in compliance with the IPSMS as both formats would be discoverable as a result of the metadata record associated with the HTML document.

## Qualifiers

Qualifiers are additions and extensions to the metadata elements and give metadata creators the option to refine the meaning or add precision.

For example, it may be of benefit to the user to know that a given date refers to when an item was amended as opposed to when it was first made available. It can be useful to know that the date entry is encoded using a particular convention, or that a term has been selected from a particular list of terms ('controlled vocabulary').

Qualifiers consist of two types – element refinements and encoding schemes.

Qualifiers are not mandatory except when using the *Date* element.

### Element Refinements

Element refinements allow you to be more precise about what an element means.

The IPSMS, Version 1.0, approves the use of a number of qualifiers. These qualifiers are associated with the following elements;

Date

Title

Relation

**Note:**

To ensure compliance with the IPSMS, Version 1.0, the *Date* element **must** be qualified.

The qualifiers approved for use with the date element are;

Date.created

Date.modified



Qualifiers are categorised as being either of two types - *Mandatory*, or *Recommended*.

Condition	Definition
Mandatory	Qualifier must be used with the appropriate element.
Recommended	Qualifier should be included where its use clarifies the meaning of the value input for the element or assists in a determination as to the suitability or accessibility of a resource.

Qualifying ('refining') the *Date* element helps indicate what precisely the date means.

The qualifier for the *Title* element may be used for any title that is not the main title, or is a variation or translation of the main title. Qualifying the *Title* element is not a mandatory requirement.

Qualifying the *Relation* element helps indicate what precisely the relationship is between one resource and another. Neither the use of the *Relation* element or its qualification are mandatory requirements.

Element	Qualifier	Element Use	Description	Obligation
Title	<b>Alternative</b>	<b>DC.Title.alternative</b>	<b>Used where more than one title is identified.</b>	<b>Recommended</b>
Date	<b>Created</b>	<b>DC.Date.created</b>	<b>Date a resource is created.</b>	<b>Mandatory</b>
	<b>Modified</b>	<b>DC.Date.modified</b>	<b>Date a resource is modified.</b>	<b>Mandatory</b>
Relation	<b>Is Version Of</b> <b>Has Version</b> <b>Is Replaced By</b> <b>Replaces</b> <b>Is Required By</b> <b>Requires</b> <b>Is Part Of</b> <b>Has Part</b> <b>Is Referenced By</b> <b>References</b> <b>Is Format Of</b> <b>Has Format</b>	<b>DC.Relation.isVersionOf</b> <b>DC.Relation.hasVersion</b> <b>DC.Relation.isReplacedBy</b> <b>DC.Relation.replaces</b> <b>DC.Relation.isRequiredBy</b> <b>DC.Relation.requires</b> <b>DC.Relation.isPartOf</b> <b>DC.Relation.hasPart</b> <b>DC.Relation.isReferencedBy</b> <b>DC.Relation.references</b> <b>DC.Relation.isFormatOf</b> <b>DC.Relation.hasFormat</b>	<b>Refers to a related resource.</b>	<b>Recommended</b>  <b>Alternatively, free text entry stipulating relationship if qualifier not used.</b>

## Controlling Data ('Encoding Schemes')



Encoding schemes identify the rules or authoritative lists used to control the content of a given field. They facilitate metadata creators by 1) providing lists of terms from which they can choose the appropriate name or term, or 2) indicating the form of the name, term or entry to use. They help eliminate inconsistency in data entry by reducing the likelihood of variant or incorrect forms of the same name or term being used, and ensure that within and across organisations personnel are using the same name forms and terms. Ensuring such consistency across records improves the chances of the appropriate resources being retrieved as the result of a search.

Value encoding schemes are supported directly in HTML <meta> elements, using the attributes *scheme* and language (*lang*).

An encoding scheme may indicate the standard determining the format by which

- a date is entered (e.g. ISO 8601 stipulating date in format yyyy-mm-dd)
- language is indicated (e.g. ISO 639-1 stipulating language entry, e.g. 'en')

**Note:**

The IPSMS approves the ISO 8601 standard for date form entries (yyyy-mm-dd).

The *lang* attribute is used to specify the language of the **content of the metadata element**. It is not to be confused with the *DC.Language* element, which indicates the language of the **content of the resource**.

Use of the *lang* attribute is not essential to the metadata record.

**Recommendation:**

Recommended best practice is to use the two-letter language code taken from the ISO 639-1 standard. For example, 'en' for English, 'ga' for Irish.

**Recommendation:**

It is recommended that a controlled vocabulary be used in conjunction with



the Subject element. The lead agency maintains such a controlled vocabulary, known as the *Public Service Thesaurus* ('PST')..

**Recommendation:**

It is recommended that a controlled vocabulary be used in conjunction with the *Type* element. The lead agency maintains such a controlled list, known as the *Irish Public Service Document Type* list ('IPSDT').

**Note:**

In order to comply with the IPSMS, Version 1.0, documents matching any one of the six approved document types listed on the IPSDT list **must** so indicate the document type in the metadata *DC.Type* element

Currently, there are only six valid entries included in the IPSDT list of document types;

*legislation*

*policy*

*report*

*form*

*press release*

*speech*

The government search engine will scan sites for these document types and present them in date order on the Government Home Page. This will allow browsers to follow recent developments across all government departments at a single location or to be alerted of recently published, e.g., Acts or policy proposals.

**Recommendation:**

It is recommended that where terms are taken from a controlled list, the controlled vocabulary should be indicated using the 'scheme' indicator.

Example:

```
<meta name="DC.Subject" scheme="PST" content="information  
technology; people with disabilities; internet; assistive technology">
```

```
<meta name="DC.Type" scheme="IPSDT" content="press release">
```

**Note:**

Where a *scheme* or *lang* is specified, the value must be encoded according to that scheme.

Example:

```
<... scheme="IPSDT" content="legislation">
```

NOT

```
<... scheme="IPSDT" content="statutory instrument">
```

**Note:**

Agencies or organisations may input values from their own controlled vocabularies if they so desire. The IPSMS does not place restrictions or exclusions on the use of controlled vocabularies.

Where agencies or organisations are using controlled vocabularies not explicitly recommended in the IPSMS, they are asked to register the controlled vocabulary with the lead agency. This may help ensure that conflicts do not exist between vocabularies being used.

**Examples of the use of encoding schemes:**

1) Indicating that the entry in the *DC.Title* field is in English:

```
<meta name="DC.Title" lang="en" content="Guidelines on Preparing Safety Statements  
and Carrying Out Risk Assessments">
```

2) Indicating that the document type entry 'press release' is taken from the IPSDT controlled list of terms:

```
<meta name="DC.Type" scheme="IPSDT" content="press release">
```

3) Indicating that the date format used (yyyy-mm-dd) conforms to the ISO 8601 standard:

```
<meta name="DC.Date.created" scheme="ISO 8601" content="2000-01-28">
```





4) Indicating that the subject terms are taken from the Public Service Thesaurus (PST):

```
<meta name="DC.Subject" scheme="PST" content="information technology; people  
with disabilities; internet; assistive technology">
```

## Encoding Syntax

Syntax is the manner of expressing the metadata. The two means of expressing metadata are HTML and XML/RDF.

### HTML

HTML is the standard way for embedding metadata, utilising the <META> tag in the <HEAD> of a document. It can be viewed by looking at the document source.

The <META> tag has two main attributes: NAME and CONTENT. The values for both attributes are enclosed in straight double quotes.

Each metadata element has a prefix indicating the metadata schema from which the element is drawn. DC indicates that the element is drawn from the Dublin Core metadata scheme.

A DC metadata entry looks like this;

```
<meta name="DC.Title" content="Title of document">
```

Element refinements are not supported directly in HTML <meta> elements, so a syntax convention relying on the use of characters within these text strings is used.

To accommodate element refinements, dots (.) are used to append qualifiers to DC element names.

A qualified element should look like this;

```
<meta name="DC.Date.created" content="2001-08-23">
```

```
<meta name="DC.Relation.isVersionOf" content="hard copy 6th edition, ISBN  
0346289042">
```

HTML 4.0 allows use of two particular attributes of the <meta> elements, *scheme* and *lang* (language). These attributes allow you to indicate an encoding scheme or controlled vocabulary where so used.



The *scheme* and *lang* attributes should be indicated as follows:

```
<meta name="DC.Type" scheme="IPSDT" content="press release">
```

```
<meta name="DC.Title.alternative" lang="ga" content="Tuarascáil Bhliantúil an  
Choimisinéara Faisnéise 2000">
```

Note the use of case in the above examples.

## **XML/RDF**

The W3C Resource Description Framework (RDF) is a developing standard for resource description and discovery using XML and offers the promise of reducing syntax problems. RDF has the status of a W3C recommendation it may soon become the syntax of choice for expressing IPSMS metadata.

Developments in, and recommendations on, the encoding of metadata using XML/RDF will follow pursuant on developments in the use and application of XML across the public sector. The User Guide website will keep you informed of such developments.

[Appendix B: [More information about XML/RDF](#)]



## Accuracy

It is important that the metadata is accurate, complete and the syntax correct. Certain content may be entered by default, thus reducing the amount of manual editing required and consequently reducing the risk of data error.

An inaccurate and/or incomplete record will have an adverse effect on a record's ability to be located, and the information may consequently remain hidden from the client. Care, therefore, needs to be taken, and as much value placed on the metadata as on the content of the document itself.

If you are using a template with default values, check that the defaults are appropriate for the current resource.

If you are making changes to a resource, check the metadata and update if appropriate. If there has been a change to the content of the resource, then, as a minimum, the modified date (*DC.Date.modified*) will need to be updated.

Always proofread your metadata to ensure its accuracy and completeness.



## Storage

Metadata can be stored in two main ways:

- Embedded within the resource being described.
- In a database separately from the resource, or

### **Within Page**

The most common method for embedding metadata within web pages is by using the HTML meta tag within the document HEAD. It is also possible to embed metadata in HTML and XML (eXtensible Markup Language) using the Resource Description Framework (RDF) syntax. RDF is an XML-based syntax for incorporating metadata. RDF is now an official W3C recommendation.

Embedding the metadata in the document is easier for document creators and ensures that the metadata is always attached to the document it describes. Metadata can be created at the same time as the document itself and embedded by the document creator. Changes to the document can quickly be mirrored by updates to the metadata embedded in the document if required.

Metadata embedded in documents can later be harvested and stored in a database if this suits particular requirements.

### **Stored Separately**

A database storing metadata can be implemented using different technologies. It may be a relational database management system or just a file system containing metadata records. There are administrative implications involved in setting up the database and maintaining records. Database storage can suit very large record holdings and can be a more efficient way of storing and managing such large holdings. Difficulties can arise with associating the stored metadata with the web pages and ensuring updates to the metadata to mirror changes to the documents themselves. It can be a more efficient way of dealing with non-HTML documents such as pdfs and word documents. Metadata stored in this way needs to be published and rendered in HTML to facilitate the search engine.

### **Which to use?**

Metadata storage choices are best determined, to a large extent, by specific business needs and resource types. The method selected should meet organisational needs or specific technological capabilities



## Tools

Metadata can be created in a number of ways, using templates (form-based or other), third-party software, or having a third-party content management system incorporate metadata creation into its document publishing process. The solution appropriate to each organisation will depend on a number of variables, such as editing tools currently used, the publishing process and the resources (human and other) currently engaged, amount of content generated, and individual preferences.

Modern content management solutions offer the best prospect of integrating the whole process, and organisations thinking of, or in the midst of, reviewing their web publishing processes should take the opportunity to factor in the creation of IPSMS-compliant metadata into any proposed solution. Specifications sent to third-party vendors should include IPSMS compliance as a requirement.

### A simple template

[See a [ready-made template below](#)]

The template below is a simple means of creating and inserting metadata. The procedure is simple and straightforward and can be used by all. The procedure is as follows;

1. Copy the blank template to a location from where you can access it with ease. Remember, it is always available at this site in any event.
2. You may be able to insert default values in your template for the following elements: Creator, Publisher, Format, Language, Rights.
3. When creating a metadata record, copy your template. The copy is where you will input the information.
4. Double check that any default values are correct for the document being described.
5. Input the remaining information between the inverted commas following the content label (content="").
6. Do not delete any elements not being used. Leave the inverted commas (content="") empty. These elements may come into use with some future modification of the record. Empty elements are simply ignored by the search engine.
7. Likewise, do not delete any comment tags. They are there to guide you.
8. Multiple subject terms may be input in the one Subject element using the semi-colon (;) delimiter. It is the only element where more than one value may be input in the one instance of an element. For other elements, if you need to enter more than one value (e.g. two creators) copy the element and paste it in below, inputting the second value.
9. Cut and paste the completed metadata record into the <HEAD> of the document after the meta <TITLE>.



10. Check that the completed metadata record has been copied and pasted in its entirety.
11. Finally, upload the document to the server

## Template

```
<!--IPSMS DC metadata-->

<!--mandatory IPSMS elements-->

<meta name="DC.Title" content="">
<meta name="DC.Creator" content="">
<meta name="DC.Subject" content="">
<meta name="DC.Publisher" content="">
<meta name="DC.Date.created" scheme="ISO 8601" content="">
<meta name="DC.Date.modified" scheme="ISO 8601" content="">
<!--date format yyyy-mm-dd-->
<meta name="DC.Identifier" content="">
<meta name="DC.Type" scheme="IPSDT" content="">
<!--IPSDT mandatory types=legislation-press release-speech-form-policy-report-->

<!--end of mandatory IPSMS elements-->

<meta name="DC.Title.alternative" content="">
<meta name="DC.Description" content="">
<meta name="DC.Contributor" content="">
<meta name="DC.Type" content="">
<meta name="DC.Format" content="text/html">
<meta name="DC.Source" content="">
<meta name="DC.Language" scheme="ISO 639-1" content="en">
<!--language format english=en irish=ga-->
<meta name="DC.Relation" content="">
<meta name="DC.Coverage" content="">
<meta name="DC.Rights" content="© Government of Ireland">

<!--end of IPSMS DC metadata-->
```



## Search Engines

The Government search engine currently in use and/or any future search engine will be configured to take full advantage of the DC metadata element set included as part of the IPSMS. It will be configured to interrogate all or specific tags, and to facilitate the production of certain outputs, such as recent publications lists.

Web-based search engines currently do not index custom metadata (e.g. DC). Consequently, the traditional meta *Keyword* and *Description* tags should continue in use, mirroring the contents of the *DC.Subject* and *DC.Description* tags, respectively.

## FAQs

### **Do I need to apply IPSMS metadata to all documents?**

Not necessarily. Metadata embedded in one page or document may facilitate the discovery and retrieval of other documents or files.

### **Explain, which pages or documents need metadata and which do not?**

In this instance a document that is divided into more than one web page and has an introductory or top-level page. In these cases, metadata applicable to the ‘whole’ document ought to be assigned to the introductory or top-level page and not to each individual web page. The introductory or top-level page does not constitute a ‘covering’ document (see below); it is rather an integral part of the document.

A second instance is where metadata might be deployed at the aggregate-level (see below).

### **For example?**

Examples might include reports, strategy statements, white papers or legislative works where the publication has been split into different web pages (files). Presentation is often the reason for such division, and the need to avoid large page sizes.

*Likely candidates:*

Department of Foreign Affairs Strategy Statement – contents-listing page plus five content pages - <http://www.irlgov.ie/iveagh/aboutus/strategy/default.asp>



Department of Public Enterprise Report of Integrated Ticketing Committee - contents-listing page plus nine content pages

- <http://www.irlgov.ie/tec/transport/reports/integrated.htm>

Department of Public Enterprise Annual Report and Financial Statements 1999 - contents-listing page plus seventeen content pages

- <http://www.irlgov.ie/tec/report99/>

Attorney General's Irish Statute Book: Finance Act 1998 – contents-listing page plus 138 content pages

- <http://193.120.124.98/ZZA3Y1998.html>

## **What about speeches and press releases?**

Each speech and press release ought to be assigned its own metadata.

## **How do I assign metadata to pdfs, rtfs and word documents?**

Metadata for non-HTML files can either be stored separately in a database (with a link to the resource) or embedded in a cover HTML page (if an HTML version of the document does not exist). The one covering document will suffice where two or more formats exist. If an HTML version does exist, metadata embedded in the HTML document will suffice for discovery of the non-HTML format(s).

## **What is a 'cover' HTML page?**

A covering document is a document that contains a summary or abstract of another along with other details of that document. It is often designed to present the user with either enough information for them to determine the usefulness, accessibility or otherwise of the described document, or contain sufficient information that it might act as a substitute for the described document. *'Where it is not possible to produce a large document in HTML then a summary HTML version should be provided'* (Web publication guidelines, October 1999).

Where a covering document is used, metadata ought to be applied to the covering document only, not to both it and the document so 'covered'.

A resource should not have more than one covering document.

## **Can an index page linking to multiple separate and distinct documents act as a 'covering' document for purposes of including metadata for those resources?**





However, a covering document may relate to more than one resource where it acts as a linking page to like-subject documents only (as distinct from multiple or different subjects). Metadata applied in this manner may be referred to as aggregate-level (or collection-level) metadata. Assigning metadata in this manner allows groups of resources to be retrieved. It is dependent on like material being arranged in a file structure which brings the covered material together and therefore facilitates levels of aggregation and the maintenance of aggregate-level metadata records. Aggregate-level metadata does not necessarily replace item-level metadata, and its deployment is dependent on the requirements the metadata is meant to serve, and in light of any IPSMS (Irish Public Service Metadata Standard) compliance requirement.

Example 1: The Department of Agriculture has grouped all documents relating to foot and mouth disease together, conveniently, in one folder with an introduction page ([www.gov.ie/daff/Areaof/FMD/default.HTM](http://www.gov.ie/daff/Areaof/FMD/default.HTM)). All these documents share the same theme or subject matter, namely foot and mouth disease.

Example 2: The Department of Enterprise, Trade and Employment has grouped all documents on import licensing together, conveniently, in one folder with an introduction page ([www.entemp.ie/tcmp/export.htm](http://www.entemp.ie/tcmp/export.htm)). It has similarly treated content on export licensing in the same manner.

It is important to remember that the aggregate-level metadata record is one record (though referring to more than one document), not an amalgam of a number of metadata records. (see Can I include multiple metadata records covering different documents in the <HEAD> of one document? below).

If an aggregate-level metadata record is used, it is important to add as much information as possible to ensure that the documents covered can be retrieved. This means using subject terms covering all the content covered by the metadata record.

## **What do I input in the *DC.Identifier* element on the cover page?**

The URL for the document being described.

## **Is there an example of what constitute a ‘cover’ document?**

Examples of the use of ‘cover’ documents include;  
<http://www.irlgov.ie/justice/Publications/Equality/KingsInn.htm> – links to (pdf) paper delivered at a Bar Council seminar on refugee and asylum law in Ireland.



<http://www.doh.ie/publications/impres.html> – includes publication details of a report on the implementation of recommendations of The Commission on Nursing with a link to a (pdf) copy.

<http://www.gov.ie/bills28/bills/2000/6900/default.htm> - summary page for Bill with link to Bill in pdf format.

<http://www.gov.ie/educ/educationno2bill.htm> – links to (pdf version of) Education (No.2) Bill, 1997 and separate (pdf version of) explanatory memorandum.

## **Can I, if I so choose, generate HTML versions of pdf documents?**

Pdfs can be converted to HTML using third-party products such as the Magellan plug-in for Acrobat or Icen Gemini or the free online converter Gohtm.com.

## **I hold on my website a copy of a document available at another government website. Do I need to apply metadata to my copy?**

With documents that are held in more than one location, it is only necessary to have metadata attached to one of the records, with due mention of the two or more locations (via repeat use of the *DC.Identifier* element).

This scenario is not dissimilar to that where documents exist in more than one format. (SEE *How do I assign metadata to pdfs, rtf's and word documents?* above). This helps avoid the return of duplicate search results, and inconsistency where two metadata records for the same resource differ. The difficulty is that where there are two separate parties involved, an arrangement needs to be made and adhered to as to which copy contains the metadata record.

## **Can I include multiple metadata records covering different documents in the <HEAD> of one document?**

No. Though visually it might seem that one has separate records when viewing the source of a document, it does not mean that one has separate records. In fact it constitutes one record with repeat use of the elements. One merely ends up with a 'confused' metadata record.

Only one DC metadata record can be associated with any one document.

## **How do I use the template to create the metadata record?**



The [attached template](#) allows you to create metadata records using a simple copy and paste procedure. The data pertinent to a record is entered as the content (content=" "). The text must reside between the double straight quotes " ".

If an element is to be repeated (e.g. document matching two document types), just copy the appropriate line and paste in below. The date entry should match the format given.

When the record has been completed, copy and paste it into the <HEAD> of the document, placing it just before the closing </HEAD> tag.

## **What do I input for a document description?**

The description ought to be a textual summary of what a document is about. You may also wish to indicate intended audience, purpose of document, or any such information as assists the user in determining content and suitability. Whereas a summary may contain within it keywords that may be suitable for indexing a document, it is not appropriate for a description to consist purely of keywords. The *DC.Subject* entry when applied will be the appropriate element for capturing subject terms.

Ideally, the description ought be kept to a maximum of 3-4 lines.



## Glossary

Dublin Core (DC)	An internationally recognised core set of metadata elements used for the description of web-based resources. Element A word representing a distinct unit of descriptive information. Dublin Core consists of 15 elements that together make up the DC element set.
Element	A unit of descriptive information. Dublin Core consists of fifteen elements, each of which describes a specific aspect of a resource.
Element Refinements	Refine and clarify the meaning of an element thereby increasing the specificity or precision of the metadata.
Encoding Schemes	They identify the rules or authoritative lists used to control the content of a given field.
Metadata	Machine understandable descriptive information about a resource and often simply defined as ‘structured data about data’.
Qualifier	A qualifier makes the meaning of the element more specific. Consist of element refinements and encoding schemes.
Thesaurus	A hierarchically arranged vocabulary showing the relationships between concepts represented by words or phrases. Necessary for the creation of consistent metadata.



## Appendix A

### Sample metadata record in HTML

```
<meta name="DC.Title" content=" Guidelines on Preparing Safety Statements and  
Carrying Out Risk Assessments">  
<meta name="DC.Creator" content=" Department of Enterprise, Trade and  
Employment. Basis Project ">  
<meta name="DC.Subject" content="health and safety">  
<meta name="DC.Subject" scheme="PST" content="occupational safety">  
<meta name="DC.Subject" scheme="PST" content="safety statements">  
<meta name="DC.Subject" scheme="PST" content="workplace safety">  
<meta name="DC.Description" content=" Guidelines for employers on the management  
of workplace health and safety, the preparation of  
safety statements, and the carrying out of risk  
assessments">  
<meta name="DC.Publisher" content="Department of Enterprise, Trade and  
Employment">  
<meta name="DC.Date.created" content="2000-01-28">  
<meta name="DC.Date.modified" content="2001-05-09">  
<meta name="DC.Type" scheme="IPSDT" content="Guidelines">  
<meta name="DC.Format" content="text/html">  
<meta name="DC.Identifier" content="http://www.basis.ie/sub1/riskasse.htm">  
<meta name="DC.Source" content="http://www.hsa.ie">  
<meta name="DC.Language" content="en">  
<meta name="DC.Relation.hasFormat"  
content="http://www.basis.ie/sub1/riskasse.pdf">  
<meta name="DC.Coverage" content="National">  
<meta name="DC.Rights" content="© Department of Enterprise, Trade and  
Employment 2000">
```



Previous example excluding tags and with an explanation of usage:

<b>Element</b>	<b>Value</b>	<b>Explanation of Usage</b>
<b>Title</b>	Guidelines on Preparing Safety Statements and Carrying Out Risk Assessments	
<b>Creator</b>	Department of Enterprise, Trade and Employment. Basis Project	
<b>Subject</b>	occupational health safety statements workplace safety	Terms taken from a thesaurus
<b>Description</b>	Guidelines for employers on the management of workplace health and safety, the preparation of safety statements, and the carrying out of risk assessments.	
<b>Publisher</b>	Department of Enterprise, Trade and Employment	
<b>Date.created</b>	2000-01-03	ISO 8601 format
<b>Date.modified</b>	2001-05-09	ISO 8601 format
<b>Type</b>	Guidelines	Possibly taken from a controlled list of document types
<b>Format</b>	text/html	Is a HTML document
<b>Identifier</b>	<a href="http://www.basis.ie/sub1/riskasse.htm">http://www.basis.ie/sub1/riskasse.htm</a>	Location
<b>Source</b>	<a href="http://www.hsa.ie/">http://www.hsa.ie/</a>	Information sourced at this site
<b>Language</b>	en	RFC 1766 denoting English
<b>Relation.hasFormat</b>	<a href="http://www.basis.ie/sub1/riskasse.pdf">http://www.basis.ie/sub1/riskasse.pdf</a>	Indicates document is also available in pdf format



**Coverage** National

**Rights** © Department of Enterprise, Trade and  
Employment 2000

```
<meta name="DC.Title" content="The Annual Report of the Information Commissioner,
2000">
<meta name="DC.Title.alternative" content="Tuarascáil Bhliantúil an Choimisinéara
Faisnéise 2000">
<meta name="DC.Creator" content="Office of the Information Commissioner">
<meta name="DC.Subject" content="freedom of information">
<meta name="DC.Subject" content="annual reports">
<meta name="DC.Description" content="The Annual Report of the Information
Commissioner, 2000">
<meta name="DC.Publisher" content="Office of the Information Commissioner">
<meta name="DC.Date.created" content="2001-04-23">
<meta name="DC.Date.modified" content="2001-06-07">
<meta name="DC.Type" scheme="IPSDT" content="report">
<meta name="DC.Format" content="text/html">
<meta name="DC.Identifier" content="http://www.gov.ie/oic/2342_3c2.htm">
<meta name="DC.Language" content="en">
<meta name="DC.Relation.hasFormat"
content="http://www.gov.ie/oic/report00/Pubg.htm">
<meta name="DC.Relation.hasFormat"
content="http://www.gov.ie/oic233e/oicar00g.rtf">
<meta name="DC.Relation.hasFormat"
content="http://www.gov.ie/oic233e/oicar00gpdf">
<meta name="DC.Rights" content="© Government of Ireland">
```



## Appendix B

### XML/RDF

XML (eXtensible Markup Language ) is a more sophisticated markup language than HTML and it makes it possible to use RDF to express quite complex metadata structures.

RDF (Resource Description Framework) provides a way for applications to automatically exchange and understand information. RDF uses XML to define a framework for processing metadata, making it possible for search engines and Web content providers to automatically understand such things as "title," "author" and "format." Without RDF, software applications would have to know specifically how such information is structured on each Web site to tap in to the data automatically. XML provides the encoding syntax, and the XML-namespace facility makes it straightforward to mix element sets in a given metadata description without the danger of element names colliding. That is, an element established as a component of one namespace, such as the Dublin Core, is in no danger of being confused with an element of the same name from another namespace.

Case is significant in XML, so ‘dc’ means something different to ‘DC’.

In order to adhere to the Dublin Core recommendation, metadata elements are to be described using lower-case only, i.e. ‘dc’ not ‘DC’. This only affects the way metadata is written in RDF, not in HTML.

Qualified metadata looks somewhat different (from its HTML appearance) when written in RDF. One significant difference is that the dot (.) notation used for expressing element qualifiers is not used in RDF. The other obvious feature of RDF is the declaration of the schemas being used in XML-namespace (xmlns) at the top of the metadata record.

Metadata expressed in XML/RDF is stored separately from the resource being described (i.e. is not embedded in the <HEAD> of a document).

[Please note that the way in which metadata is expressed in XML/RDF may change from the following examples]

XML/RDF Examples:

```
<?xml version="1.0"?>
<RDF:RDF xmlns:RDF="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:DC="http://purl.org.metadta/dublin_core#">
<RDF:Description RDF:about="http://oasis.gov.ie/housing/general/paying_for_a_home.html">
  <DC:Contributor RDF:value="None"/>
```





```

<DC:Coverage RDF:value="Ireland"/>
<DC:Creator RDF:value="OASIS Project"/>
<DC:Date.Created RDF:value="2001-01-29" scheme="ISO8601"/>
<DC:Description RDF:value="Loans for buying a home are available from building societies,
banks, and local authorities. There are different kinds of mortgages, and tax relief is available on
interest payments."/>
<DC:Format RDF:value="text/xml"/>
<DC:Identifier RDF:value="http://oasis.gov.ie/housing/general/paying_for_a_home.html"
scheme="URI"/>
<DC:Language RDF:value="en"/>
<DC:Publisher RDF:value="OASIS Project"/>
<DC:Rights RDF:value="© Government of Ireland 2001"/>
<DC:Source>
<RDF:bag
  RDF:_1="CIDB: types of mortgage and choosing a mortgage A01034"
  RDF:_2="01017"/>
</DC:Source>
<DC:Subject>
<RDF:bag
  RDF:_1="house purchase;"
  RDF:_2="mortgages"
  RDF:_3="housing finance"/>
</DC:Subject>
<DC:Title RDF:value="Paying for a home"/>
<DC:Type RDF:value="OASIS services document"/>
</RDF:Description>
</RDF:RDF>

```

```

<?xml version="1.0"?>
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:dcq="http://purl.org/dc/qualifiers/1.0/>
<rdf:Description rdf:about="http://oasis.gov.ie/housing/general/paying_for_a_home.html">
<dc:identifier>http://oasis.gov.ie/housing/general/paying_for_a_home.html</dc:identifier>
<dc:creator xml:lang="en">
<rdf:description>
<rdf:value>OASIS Project</rdf:value>
</rdf:description>
</dc:creator>
<dc:publisher xml:lang="en">
<rdf:description>
<rdf:value>OASIS Project</rdf:value>
</rdf:description>

```



```

</dc:publisher>
<dc:rights>
<rdf:description>
<rdf:value>http://oasis.gov.ie/about/copyright.html</rdf:value>
<dcq:rightsScheme>URI</dcq:rightsScheme>
</rdf:description>
</dc:rights>
<dc:title xml:lang="en">Paying for a Home</dc:title>
<dc:subject>
<rdf:description>
<rdf:value>house purchase; mortgages; housing finance</rdf:value>
<dcq:subjectScheme>IPSThesaurus</dcq:subjectScheme>
</rdf:description>
</dc:subject>
  <dc:description xml:lang="en">Loans for buying a home are available from building societies,
    banks, and local authorities. There are different kinds of mortgages, and tax relief is available
    on interest payments</dc:description>
<dc:language>
<rdf:description>
<rdf:value>en</rdf:value>
<dcq:languageScheme>ISO 639-1</dcq:languageScheme>
</rdf:description>
</dc:language>
<dc:coverage xml:lang="en">
<rdf:description>
<rdf:value>Ireland</rdf:value>
</rdf:description>
</dc:coverage>
<dc:date>
<rdf:description>
<rdf:value>2001-06-12</rdf:value>
<dc:date>created</dc:date>
<dcq:dateScheme>ISO 8601</dcq:dateScheme>
</rdf:description>
</dc:date>
<dc:type xml:lang="en">life event document</dc:type>
<dc:format>
<rdf:description>
<rdf:value>text/html</rdf:value>
<dcq:format>IMT</dcq:format>
</rdf:description>
</dc:format>
</rdf:Description>

```



```
</rdf:RDF>
```