



# **LAWs Syndication Standard Technical Specification**

**Version 1.0 - March 2004**

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## 1.1 About the Document

This document defines the technical specification of the LAWs syndication standard. The syndication standard was one output from the LAWs national project which ended in March 2004.

For more information about the LAWs national project itself please refer to the project's web site: <http://www.laws-project.org.uk/>

The key outputs from the syndication standard work package were three documents that together define and explain the LAWs content syndication standard. These documents are:

- **LAWs Syndication Standard - Technical Specification**  
The standard itself.
- **LAWs Syndication Standard - Guidelines for Using the Standard**  
A practical guide for people who wish to implement the standard
- **LAWs Syndication Standard – Introduction and Best Practises**  
A broader discussion document that introduces the context of the standard and highlights various issues that should be considered when syndicating content.

This is the **LAWs Syndication Standard – Technical Specification** document.

### 1.1.1 Who should read this document?

This document is a technical reference document detailing only that which is necessary to define the syndication standard. You should read this document if you need to check a certain aspect of the standard itself.

The target audience is expected to be fairly technical and already familiar with the concepts involved.

If you are not familiar with syndication, or are otherwise unsure which document to read, we suggest you first read the '**Introduction and Best Practises**' document.

## 2 Introduction

This document specifies the LAWs syndication standard. Where an externally defined standard is to be adopted, this document does not try to explain or describe that adopted standard. Rather, the reader is directed to refer to the original specification of the adopted standard. For guide to the standard and how to use it please refer to the '**Guidelines for Using the Standard**' document.

### 2.1 Scope

This specification covers the syndication by local authorities of headlines, metadata and structured content whose content need only be protected by a copyright statement.

For a broader discussion about the scope of this standard please refer to the '**Introduction and Best Practises**' document.

### 2.2 Authors

The standard was developed initially under consultation with a core group of interested parties drawn from the LAWs project, Small Business Service and the Office of the E-envoy. The consultation process was similar to that used by W3C, involving an "inner" circle of experts who had a number of group meetings as well as exchanging documents on email. The proposed standard was then placed on the ESD Toolkit web site for broader public feedback and further revision.

The "inner" circle included the following people: Oli Sharpe, Mike Thacker, Simon Buckle, Tom Ragget, Clive Glover, Sheila Apicella, Jeremy Tuck and Enda Farrel.

## 3 Use RSS 1.0

The central pillar of this standard is the adoption of the RDF Site Summary (RSS 1.0) standard as the basis for all local authority content syndication.

An overview of the RSS 1.0 standard can be found here:

- <http://web.resource.org/rss/1.0/>

The specification of the RSS 1.0 standard can be found here:

- <http://web.resource.org/rss/1.0/spec>

### 3.1 Optional use of RSS 1.0 modules

The RSS 1.0 standard is extensible with modules. In particular there are three modules that have been adopted as part of RSS 1.0 namely: Syndication, Dublin Core and Content. The LAWs syndication standard adopts each of these as optional modules as well as the Qualified Dublin Core module. The use of these modules comes with the following qualifications.

### 3.1.1 Syndication Module

The use of the syndication module within RSS feeds is **recommended**. The specification of the syndication module can be found here:

- <http://purl.org/rss/1.0/modules/syndication>

### 3.1.2 Dublin Core Module

The use of the Dublin Core module within eGIF compliant RSS 1.0 feeds is **mandated**. This is because the use of the following elements is **mandated** by eGMS:

- `<dc:date>` to give a date associated with the content (see Dublin Core qualified terms module below)
- `<dc:creator>` to name the author of the content.

For the syndication standard the use of the following element is **recommended**:

- `<dc:rights>` for the expression of copyright on the channel and on each content item.

Note that the mandatory eGMS element `title` is covered by the standard RSS 1.0 element `<title>` which is itself defined as a sub-term of the Dublin Core `title` element. It is also possible to include the `<dc:title>` element in addition to the `<title>` element.

The specification of the Dublin Core module can be found here:

- <http://purl.org/rss/1.0/modules/dc>

### 3.1.3 Qualified Dublin Core Module

The use of the Qualified Dublin Core module within RSS 1.0 feeds is **optional**. Some of the eGMS elements are qualified Dublin Core elements that are therefore expressed in RSS 1.0 feeds using this module.

The specification for the qualified Dublin Core module can be found here:

- <http://web.resource.org/rss/1.0/modules/dcterms/>

### 3.1.4 Content Module

The use of the content module within RSS 1.0 feeds is **optional** depending on whether or not structured content is being syndicated. If structured content is being syndicated then the content module is **recommended**.

The specification of the content module can be found here:

- <http://purl.org/rss/1.0/modules/content>

## 4 Extensions to RSS 1.0

RSS 1.0 is extensible with new modules. To tailor RSS 1.0 to the needs of local authorities, two RDF Schemas have been written. One, the ESD Module, covers the extension of available elements to cover the necessary eGMS elements, and is it is also an RSS 1.0 module. The other encodes the local government category list (LGCL) in an RDF format for use as a controlled list by RSS 1.0 feeds.

### 4.1 ESD Module

To enable the expression of eGMS metadata within RSS 1.0 feeds, an ESD (electronic service delivery) module has been written. The full list of elements defined by the ESD Module can be found in Appendix A.

The use of elements within the ESD module is dependent on their status within eGMS. For example, the use of `Subject.Category` is required within the eGMS and therefore it is required in RSS 1.0 feeds.

The ESD Module typically uses the prefix `egms` to represent its namespace. This does **not** indicate that the ESD Module is an official eGIF format with which to express eGMS, it is simply a convenient and appropriate prefix given that the elements referred to are from eGMS. To date this is only a LAWs standard.

The only element from the ESD Module that is **mandated** is the `<egms:subjectCategory>` element. Ideally this element should refer to a category chosen from the local government category list (LGCL). As such it is **recommended** that the value of the `<egms:subjectCategory>` element be an `<rdf:Bag>` containing a collection of RDF classes taken from the LGCL module (see below). An example of this would be:

```
<egms:subjectCategory>
  <rdf:Bag>
    <rdf:li>
      <lgcl:WasteDisposal>
        <rdf:value>Waste Disposal</rdf:value>
      </lgcl:WasteDisposal>
    </rdf:li>
    <rdf:li>
      <lgcl:CommunityService>
        <rdf:value>Community Service</rdf:value>
      </lgcl:CommunityService>
    </rdf:li>
  </rdf:Bag>
</egms:subjectCategory>
```

This can also be written as:

```
<egms:subjectCategory>
  <rdf:Bag>
    <rdf:li
      rdf:type="http://www.esd.org.uk/standards/egms/3.0/egms#schema#WasteDisposal"
      rdf:value="Waste Disposal" />
    <rdf:li
      rdf:type="http://www.esd.org.uk/standards/egms/3.0/egms#schema#CommunityService"
      rdf:value="Community Service" />
  </rdf:Bag>
</egms:subjectCategory>
```

If, at the beginning of your RSS 1.0 document you set `&lgcl;` to be an entity with value equal to the namespace of the LGCL, then this can be simplified to:

```
<egms:subjectCategory>
  <rdf:Bag>
    <rdf:li rdf:type="&lgcl;WasteDisposal" rdf:value="Waste Disposal" />
    <rdf:li rdf:type="&lgcl;CommunityService" rdf:value="Community Service" />
  </rdf:Bag>
</egms:subjectCategory>
```

If you are not using terms from the LGCL (or another list expressed similarly in RDFS) then you should use the default class: **egms:SubjectCategoryClass** that comes with the ESD Module as follows:

```
<egms:subjectCategory>
  <rdf:Bag>
    <rdf:li>
      <egms:SubjectCategoryClass>
        <rdf:value>My Local Category</rdf:value>
      </egms:SubjectCategoryClass>
    </rdf:li>
  </rdf:Bag>
</egms:subjectCategory>
```

Or in short form (with the entity **&egms;** defined appropriately) :

```
<egms:subjectCategory>
  <rdf:Bag>
    <rdf:li rdf:type="&egms;SubjectCategoryClass" rdf:value="My Local Category" />
  </rdf:Bag>
</egms:subjectCategory>
```

This ensures that all uses of the `<egms:subjectCategory>` element have the same structure, always giving an RDF Class type to a blank RDF node representing the category.

#### 4.1.1 Expressed in RDFS

The elements defined within the ESD module are all expressed as sub-properties of their parent element (when such a relation exists). For example, the eGMS element **Subject.Category** has the parent Dublin Core element **subject**. This is expressed in the RDF Schema file as:

```
<rdf:Property
  rdf:about="http://www.esd.org.uk/standards/egms/3.0/egms-schema#subjectCategory">

  <rdfs:label>Subject Category</rdfs:label>
  <rdfs:subPropertyOf rdf:resource="http://purl.org/dc/elements/1.1/subject"/>
  <rdfs:comment>An lgcl category for the subject</rdfs:comment>
  <rdfs:isDefinedBy
    rdf:resource=" http://www.esd.org.uk/standards/egms/3.0/egms-schema#" />
</rdf:Property>
```

Any parser of the RDF / RSS should be able to use the 'dumb down' algorithm to use the information provided in the RDF Scheme to deduce a value for the **dc:subject** value, say, given only the **egms:subjectCategory** value.

It is best practise within RDF to express all properties in lower camel. Therefore all of the extension elements (and refinements) are expressed in lower camel with full stops removed. For example, `Subject.Category` is expressed as:  
`<egms:subjectCategory>`.

For each new element within the ESD Module there is also an associated RDF Class representing the type of the terms that can be used with the element. For example, `Subject.Category` is represented with ESD Module element `<egms:subjectCategory>` and also has the associated RDF Class `<egms:SubjectCategoryClass>`.

The associated RDF Class for a given element is always expressed in Upper Camel and ends with the word `Class` added to the element name.

#### 4.1.2 Further reference

The latest version of eGMS can be found on the following site:

- <http://www.govtalk.gov.uk>

The complete list of the eGMS elements defined within the ESD Module can be found in **Appendix A**.

## 4.2 LGCL in RDFS

The LGCL is a controlled list of terms that local authorities should use with the Subject.Category eGMS element. By providing an RDF compliant version of this list it is possible to make more intelligent use of the categorisation provided by an RSS 1.0 feed.

As there are no further elements being defined here, this is not an RSS 1.0 module as such. Rather it is the expression of LGCL in RDFS at a given namespace URI.

The URI for this namespace is:

<http://www.esd.org.uk/standards/lgcl/1.03/lgcl-schema#>

The local prefix for the namespace will typically be: **lgcl**

### 4.2.1 Encoded in RDFS

It is possible to define controlled lists of terms within RDFS. This is achieved by defining each term as an RDF class and then making the term inherit from its parent terms via the RDF typing system.

For example, the snippet of RDFS below, expresses the fact that **International Trade** is a sub-topic of **Business**

```
<rdfs:Class
  rdf:about="http://www.esd.org.uk/standards/lgcl/1.03/lgcl-schema#InternationalTrade">
  <rdfs:label>International Trade</rdfs:label>
  <rdfs:comment>This is the International Trade category.</rdfs:comment>
  <rdfs:isDefinedBy
  rdf:resource="http://www.esd.org.uk/standards/lgcl/1.03/lgcl-schema#" />
  <rdfs:subClassOf
  rdf:resource="http://www.esd.org.uk/standards/lgcl/1.03/lgcl-schema#Business" />
</rdfs:Class>
```

It is best practise within RDF to express RDF class names in upper camel. Therefore, it is **recommended** that all terms within controlled lists defined within RDFS are expressed in upper camel with spaces removed. So, **Housing Benefit** should be represented by the RDF class **<lgcl:HousingBenefit>**

The original definition of the LGCL 1.03 can be found here:

- <http://www.esd.org.uk/standards/lgcl/1.03/lgcl.xml>

The RDFS version of the LGCL can be found here:

- <http://www.esd.org.uk/standards/lgcl/1.03/lgcl.rdfs>

If you write your own controlled lists it is **recommended** that you follow these conventions.

A list of other controlled lists that have also (so far) been expressed in this fashion with an RDFS schema on the ESD Toolkit are listed in **Appendix B**

## 5 References

1. RSS1.0 (<http://web.resource.org/rss/1.0/>)
2. W3C (<http://www.w3.org/>)
  - XML
  - RDF, RDFS
3. OeE (<http://www.e-envoy.gov.uk/>)
  - GovTalk (<http://www.govtalk.gov.uk/>)
  - eGMS
  - eGIF
4. ESD Toolkit (<http://www.esd-toolkit.org/>)
  - LGCL (Local Government Category List)
5. LAWs Project ([www.laws-project.org.uk](http://www.laws-project.org.uk))
  - APLAWS+ ([www.aplaws.org.uk](http://www.aplaws.org.uk))
  - LGOL-NET (<http://www.lgolnet.org>)

## 6 Appendix A: ESD Module Elements

The following is a list of the elements defined by the ESD Module. They are precisely the set of elements defined by eGMS that are not covered by either the Dublin Core or Qualified Dublin Core RSS 1.0 modules. All refinements are also expressed within the RDFS, but are not listed here.

### 6.1 <egms:addressee> (optional)

<b>Maps to eGMS element</b>	Addressee
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Both channel and item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS
<b>Refinements</b>	As defined by eGMS

### 6.2 <egms:aggregation> (optional)

<b>Maps to eGMS element</b>	Aggregation
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Both channel and item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS
<b>Refinements</b>	As defined by eGMS

### 6.3 <egms:disposal> (optional)

<b>Maps to eGMS element</b>	Disposal
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Both channel and item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS
<b>Refinements</b>	As defined by eGMS

### 6.4 <egms:location> (optional)

<b>Maps to eGMS element</b>	Location
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Both channel and item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS
<b>Refinements</b>	As defined by eGMS

## 6.5 <egms:mandate> (*optional*)

<b>Maps to eGMS element</b>	Mandate
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Both channel and item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS
<b>Refinements</b>	As defined by eGMS

## 6.6 <egms:preservation> (*optional*)

<b>Maps to eGMS element</b>	Preservation
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Both channel and item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS
<b>Refinements</b>	As defined by eGMS

## 6.7 <egms:status> (*optional*)

<b>Maps to eGMS element</b>	Status
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Both channel and item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS
<b>Refinements</b>	As defined by eGMS

## 6.8 Dublin Core subject refinements

### 6.8.1 <egms:subjectCategory> (mandated for eGIF compliance)

<b>Maps to eGMS element</b>	Subject.Category
<b>Obligation in RSS 1.0</b>	Mandated
<b>Channel and / or item</b>	<b>Mandated</b> for content items, <b>optional</b> for channel
<b>Allowed Values in RSS 1.0</b>	<b>Should be from a controlled list.</b>

### 6.8.2 <egms:subjectKeyword> (optional)

<b>Maps to eGMS element</b>	Subject.Keyword
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Channel and / or item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS

### 6.8.3 <egms:subjectService> (optional)

<b>Maps to eGMS element</b>	Subject.Service (proposed)
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Channel and / or item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS

### 6.8.4 <egms:subjectInteraction> (optional)

<b>Maps to eGMS element</b>	Subject.Interaction (proposed)
<b>Obligation in RSS 1.0</b>	Optional
<b>Channel and / or item</b>	Channel and / or item
<b>Allowed Values in RSS 1.0</b>	As defined by eGMS

## 7 Appendix B

The following is the list of all controlled lists that are currently expressed in RDFS and located on the ESD Toolkit's standards web site.

### 7.1 Government Category List: GCL

- o File Location <http://www.esd.org.uk/standards/gcl/2.00/gcl.rdfs>
- o Latest file location <http://www.esd.org.uk/standards/gcl/gcl.rdfs>
- o Namespace <http://www.esd.org.uk/standards/gcl/2.00/gcl-schema#>  
<<http://www.esd.org.uk/standards/gcl/2.00/gcl-schema>>

### 7.2 Local Government Audience List: LGAL

- o File Location <http://www.esd.org.uk/standards/lgal/0.01/lgal.rdfs>
- o Latest file location <http://www.esd.org.uk/standards/lgal/lgal.rdfs>
- o Namespace <http://www.esd.org.uk/standards/lgal/0.01/lgal-schema#>  
<<http://www.esd.org.uk/standards/lgal/0.01/lgal-schema>>

### 7.3 Local Government Business Category List: LGBCL

- o File Location <http://www.esd.org.uk/standards/lgbcl/1.00/lgbcl.rdfs>
- o Latest file location  
<http://www.esd.org.uk/standards/lgbcl/lgbcl.rdfs>
- o Namespace <http://www.esd.org.uk/standards/lgbcl/1.00/lgbcl-schema#>  
<<http://www.esd.org.uk/standards/lgbcl/1.00/lgbcl-schema>>

### 7.4 Local Government Category List: LGCL

- o File Location <http://www.esd.org.uk/standards/lgcl/1.03/lgcl.rdfs>
- o Latest file location <http://www.esd.org.uk/standards/lgcl/lgcl.rdfs>
- o Namespace <http://www.esd.org.uk/standards/lgcl/1.03/lgcl-schema#>  
<<http://www.esd.org.uk/standards/lgcl/1.03/lgcl-schema>>

## 7.5 Local Government Directory List: LGDL

- o File Location <http://www.esd.org.uk/standards/lgdl/2.00/lgdl.rdfs>
- o Latest file location <http://www.esd.org.uk/standards/lgdl/lgdl.rdfs>
- o Namespace <http://www.esd.org.uk/standards/lgdl/2.00/lgdl-schema#>  
<<http://www.esd.org.uk/standards/lgdl/2.00/lgdl-schema>>

## 7.6 Local Government Interactions List: LGIL

- o File Location <http://www.esd.org.uk/standards/lgil/0.01/lgil.rdfs>
- o Latest file location <http://www.esd.org.uk/standards/lgil/lgil.rdfs>
- o Namespace <http://www.esd.org.uk/standards/lgil/0.01/lgil-schema#>  
<<http://www.esd.org.uk/standards/lgil/0.01/lgil-schema>>

## 7.7 Local Government Services List: LGSL

- o File Location <http://www.esd.org.uk/standards/lgsl/2.00/lgsl.rdfs>
- o Latest file location <http://www.esd.org.uk/standards/lgsl/lgsl.rdfs>
- o Namespace <http://www.esd.org.uk/standards/lgsl/2.00/lgsl-schema#>  
<<http://www.esd.org.uk/standards/lgsl/2.00/lgsl-schema>>

## 7.8 Local Government Transactions List: LGTL

- o File Location <http://www.esd.org.uk/standards/lgtl/0.01/lgtl.xml>
- o Latest file location <http://www.esd.org.uk/standards/lgtl/lgtl.xml>
- o Namespace <http://www.esd.org.uk/standards/lgtl/0.01/lgtl-schema#>  
<<http://www.esd.org.uk/standards/lgtl/0.01/lgtl-schema>>