Schema documentation for labslink.xsd

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Schema(s)

Main schema labslink.xsd

Annotations
This schema specifies the structure for the two separate XML documents required for participation in Europe PMC's External Links Service: one that contains basic information about the provider of links (with a <providers> root element) and another that contains the links (with a <links> root element.)

Changelog:
v1.0 (2013-07-09): First release
v1.1 (2013-11-04): Fixes to allow leading and trailing whitespace in string values
v1.2 (2014-03-18): Added the ability to identify Europe PMC records by DOI
v1.3 (2015-06-08): Made the doi regex less restrictive
All versions are backwards compatible.

Properties
attribute form default: unqualified
element form default: unqualified
version: 1.2

Element(s)

Element links

Annotations
One of two permitted root elements. It should contain a list of multiple child <link> elements.

Diagram

Properties
content: complex

Children
link

Element links / link

Annotations
Required, only permitted, multiply-occurring child element of the <links> root element. Each <link> must have a @providerId attribute and two child elements: <resource> and either <record> or <doi>. Each link is a mapping of a single external resource to a single bibliographic record.
Diagram

Properties
content: complex
minOccurs: 1
maxOccurs: unbounded

Children
doi, record, resource

Attributes
<table>
<thead>
<tr>
<th>QName</th>
<th>Type</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>providerId</td>
<td>xs:integer</td>
<td>required</td>
</tr>
</tbody>
</table>

Required attribute of each <link> element. Contains the number assigned to the link provider upon approval of their participation in the External Links Service. If you do not have a provider ID, send an email to labslink@europepmc.org to request one. This is used to associate each link with an organisation or individual, so that their links will be attributed to them on the Europe PMC web site.

Element links / link / resource

Annotations
Required first child of <link> elements. Contains details of a single external resource (e.g. a web page, a PDF document.)

Diagram

Properties
content: complex
minOccurs: 1
maxOccurs: 1

Children
title, url

Element links / link / resource / url

Annotations
Required child of <resource> elements. Contains the full URL of an external resource. Only URLs beginning with http://, https:// or ftp:// are currently allowed.

Diagram

Type
restriction of xs:string

Properties
content: simple
minOccurs: 1
maxOccurs: 1

Facets
pattern \s*(ht|f)tps*://.*\s*

Element links / link / resource / title

Annotations
Optional child of <resource> elements, containing the text to be displayed on the Europe PMC web site alongside the URL.

Diagram

Type
xs:string
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<table>
<thead>
<tr>
<th>Properties</th>
<th>content: simple</th>
</tr>
</thead>
<tbody>
<tr>
<td>minOccurs:</td>
<td>0</td>
</tr>
<tr>
<td>maxOccurs:</td>
<td>1</td>
</tr>
</tbody>
</table>

**Element links / link / record**

**Annotations**
Second child of <link> elements. Contains details of the Europe PMC record to be associated with the external resource specified in the sibling <resource> element. Alternatively, a <doi> element can be used, but not both.

**Diagram**

```
  +----------------+        +----------------+        +----------------+
  |   source       |        | id             |        | Type             |
  | Type: Property |        | Type: xs:string |        | restriction of xns:normalizedString |
  |                |        |                |        |                  |
  +----------------+        +----------------+        +----------------+
```

**Properties**
content: complex
minOccurs: 1
maxOccurs: 1

**Children**
id, source

**Element links / link / record / source**

**Annotations**
Required child of <record> elements, containing a three-letter code indicating the source of the Europe PMC record. Europe PMC is an aggregator of content which has mostly been acquired from other sources. Therefore, to uniquely identify a record, the source must be specified in addition to the individual record's ID. The allowed values are listed below, and are the same as the values returned in the <source> element of the Europe PMC web service responses, but not necessarily the same as the prefixes to identifiers displayed on the Europe PMC web site.

**Diagram**

```
  +----------------+        +----------------+
  |   source       |        | Type             |
  | Type: Property |        | restriction of xns:normalizedString |
  |                |        |                  |
  +----------------+        +----------------+
```

**Type**
restriction of xs:normalizedString

**Properties**
content: simple

**Facets**
enumeration AGR
enumeration CIT
enumeration CBA
enumeration CTX
enumeration ETH
enumeration HIR
enumeration MED
enumeration PAT
enumeration PMC

**Element links / link / record / id**

**Annotations**
Required child of <record> elements, containing the identifier of the record to be linked. It is the same value as returned in the <id> element of the Europe PMC web service responses.

**Diagram**

```
  +-------------+        +---------------+
  |   id        |        | Type: xs:string |
  |             |        |                  |
  +-------------+        +---------------+
```

**Type**
xs:string

**Properties**
content: simple

**Element links / link / doi**

**Annotations**
Alternative second child of <link> elements. If used, it must contain a string value which is a full valid DOI as per the specification at http://www.doi.org/doi_handbook/2_Numbering.html#2.2 (i.e. must start with "10.", do not prefix with "doi:" or the URL of a DOI resolver, and shortDOIs are not supported.) When DOIs are used, instead of the identifiers of Europe PMC records, an attempt
will made to match against our internal database of DOIs. If no match can be found, the link will not appear on Europe PMC.

### Diagram

- **Type**: restriction of xs:string
- **Properties**:
  - content: simple
  - minOccurs: 1
  - maxOccurs: 1
- **Facets**:
  - pattern: `\s*10\.\[da-zA-Z\]+/\S+\s*`

### Element providers

- **Annotations**: One of two permitted root elements. Contains at least one child <provider> element, each of which describes the links provided in a separate file.
- **Diagram**
- **Properties**:
  - content: complex
- **Children**: provider

### Element providers / provider

- **Annotations**: Required, only permitted, multiply-occurring child element of the <providers> root element. Most users will require only one <provider> but multiple are permitted.
- **Diagram**
- **Properties**:
  - content: complex
  - minOccurs: 1
  - maxOccurs: unbounded
- **Children**: description, email, id, resourceName

### Element providers / provider / id

- **Annotations**: Required child element of <provider> elements. Contains the number assigned to the link provider upon approval of their participation in the External Links Service. If you do not have a provider ID, or wish to maintain multiple profiles, send an email to labslink@europepmc.org to request one.
- **Diagram**
- **Type**: xs:integer
- **Properties**:
  - content: simple

### Element providers / provider / resourceName

- **Annotations**: Required child element of <provider> elements. Contains the text of the heading under which links will be displayed on the Europe PMC web site.
- **Diagram**
- **Type**: xs:string
- **Properties**:
  - content: simple
**Element providers / provider / description**

Annotations
Required child element of <provider> elements. Contains a short description of the resource and/or the methodology used to link Europe PMC records to the resource.

Diagram
![Diagram for description]

Type
xs:string

Properties
content: simple

**Element providers / provider / email**

Annotations
Required child element of <provider> elements. Contains a single email address of a person who can respond to, or redirect, both technical issues (e.g. invalid XML files, broken links) and any enquiries we might have about the quality or legality of the linked resources. An automated report will be sent to this address each time new or updated links are processed.

Diagram
![Diagram for email]

Type
restriction of xs:string

Properties
content: simple

Facets
pattern
```
\s*[^\s;@]+@[^\s;@]+\.[^\s;@]+\s*
```