# Schema documentation for labslink.xsd

**July 9, 2013**

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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.)

#### Properties

<table>
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<tr>
<th>Property</th>
<th>Value</th>
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<tr>
<td>attribute form default</td>
<td>unqualified</td>
</tr>
<tr>
<td>element form default</td>
<td>unqualified</td>
</tr>
<tr>
<td>version</td>
<td>1.0</td>
</tr>
</tbody>
</table>

## Element(s)

### Element links

#### Annotations

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

#### Diagram

![Diagram of element links](attachment://links.png)

#### 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 <record>, which forms the mapping of a single external resource with a single Europe PMC record.

#### Diagram

![Diagram of element links / link](attachment://link.png)

#### Properties

- **content**: complex
- minOccurs: 1
- maxOccurs: unbounded
### Attributes

<table>
<thead>
<tr>
<th>QName</th>
<th>Type</th>
<th>Fixed</th>
<th>Default</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>providerId</td>
<td>xs:integer</td>
<td></td>
<td></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.

**Diagram**

- `resource` (Type: restriction of `xs:string`)
- `title` (Type: `xs:string`)
- `url` (Type: restriction of `xs:string`)

**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**

- `url` (Type: restriction of `xs:string`)

**Type**

restriction of `xs:string`

**Properties**

- content: simple
- minOccurs: 1
- maxOccurs: 1

**Facets**

pattern `(ht|f)tps*:/*/`
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 website.

Diagram

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

Type xs:string

Properties content: simple

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.
Properties

<table>
<thead>
<tr>
<th>content:</th>
<th>complex</th>
</tr>
</thead>
<tbody>
<tr>
<td>minOccurs:</td>
<td>1</td>
</tr>
<tr>
<td>maxOccurs:</td>
<td>unbounded</td>
</tr>
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</table>

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**

```
<id>
  <Type xs:integer/>
```

**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**

```
<resourceName>
  <Type xs:string/>
```

**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**

```
<description>
  <Type xs:string/>
```

**Type**
xs:string

**Properties**
content: simple

**Element providers / provider / email**

**Annotations**
Required child element of <provider> elements. Contains a single email address of the person who can respond to, or redirect, both technical issues (e.g. invalid XML files, broken links) and enquiries about the quality or legality of the linked resources.

**Diagram**

```
<email/>
```

**Type**
restriction of xs:string

**Properties**
content: simple

**Facets**
pattern

```
[^
\s;@]+@[^
\s;@]+\.
```

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