Office of
PUBLIC SECTOR INFORMATION

Legislation Schema

User Guide

Version 0.9.4

Contents

Introduction

Overview

The 'Legislation Schema' (hereafter referred to as the schema) is a comprehensive encoding of United Kingdom primary and secondary legislation. It is a W3 (www.w3.org) compliant schema. To be more precise there are actually two schemas. There is a base version and a strict version. The only difference is that the strict version has tighter control over linking.

Objectives

The objectives for the schema included the following points:

- It should be able to describe all existing data (within reason)
- It should be possible to typeset documents using the schema
- The mark-up should allow maximum use of the functionality of different media, e.g. hyperlinking on websites
- A modular approach should be used as far as possible
- It should conform to international standards wherever possible and practicable (i.e. W3, UK Government schema guidelines)
- The schema should allow fragmentation of the data (for editing purposes).

Deployment

Due to the relatively recent nature of schemas the tools and applications that are capable of processing them have been developing rapidly. Appendix A gives a list of tools and applications that the schema has been checked against.

Terminology used in this document

The following is assumed in this documentation:

- That reference to 'the schema' is the legislation schema
- That reference to a 'chapter' number also includes measure numbers for church measures

Sample files

The schema has an associated set of reference files, which give examples of almost all of the features of the schema. Each XML file has its associated PDF where possible. In addition Appendix C contains an element list detailing in which file an example of each element can be found.

Design

The scope of the schema

This section gives an overview of the scope of the schema and lists those things that it was decided to include and those it was decided to exclude. This is to give a feel as to some of the design and implementation decisions that have been taken.

In scope

The scope of the schema covers all UK primary and secondary legislation. It also covers explanatory notes for secondary legislation.

Out of scope

Associated documents

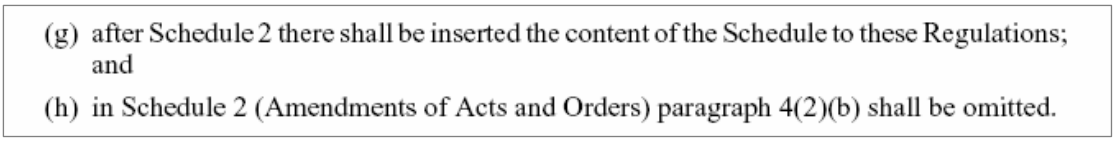
Explanatory memoranda and other associated documents other than explanatory notes were not included.

Legal meaning

It was decided not to attempt to capture any of the legal meaning within the document – only the structure of the document. By legal meaning we are describing the interpretation of the text to retrieve information from it. A good example is definitions of terms. In some simple cases it would be possible to capture the term and its definition. However, definitions can become very complex, non-contiguous and dependent upon the interpretation of other information.

Inline amendments

It was deemed too complex (or impossible) to attempt to capture inline amendments. Although some inline amendments are simply textual replacements the graphic below is a good example of what we mean. For example, how would it be possible to capture the meaning of the text in paragraph (g). Paragraph (h) is not so difficult but still presents the problem of how to capture the concept of a deletion as an amendment (and this is a simple example of a deletion).



(g) after Schedule 2 there shall be inserted the content of the Schedule to these Regulations; and

(h) in Schedule 2 (Amendments of Acts and Orders) paragraph 4(2)(b) shall be omitted.

Modular approach

The schema has been created using a modular approach. The modules break down into three different types:

- Legislation specific
- Generic
- Off-the-shelf

Legislation-specific modules are those modules that are needed to describe structures specific to legislation – or, to put it conversely – those that are not completely generic.

It was a prime consideration that international standards should be used where possible and to that extent MathML, namespace and Dublin Core modules are used as supplied 'off-the-shelf'.

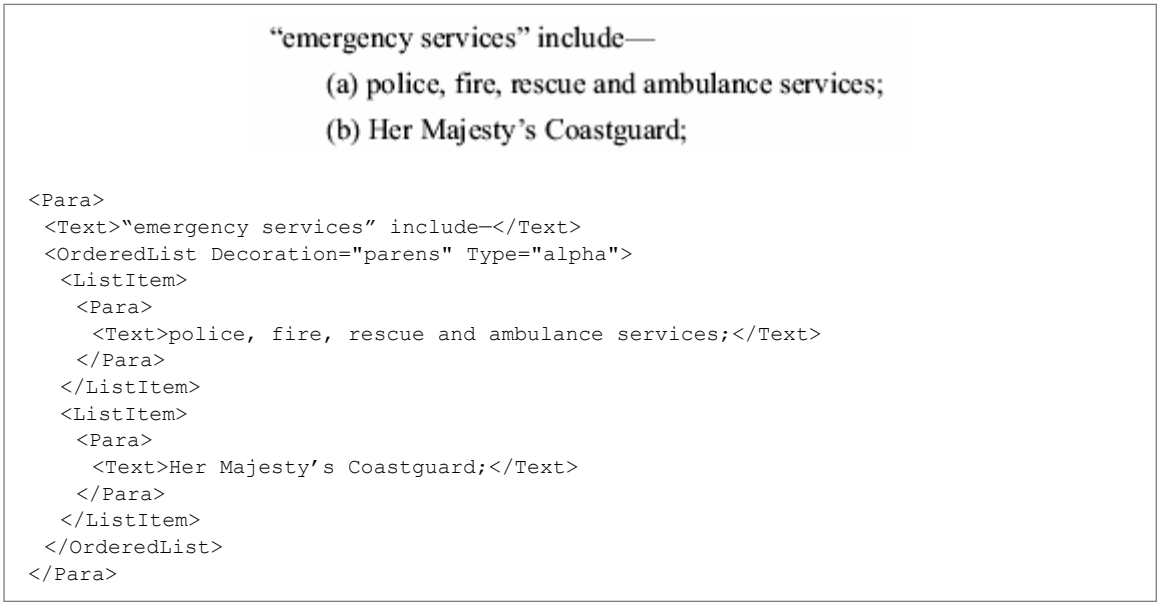
As legislation is, in one form, a printed product, it has to conform to the typographical rules that are typical in any long document published on paper. To that extent, it contains paragraphs, tables, lists, footnotes, etc. Additionally, the desire to maximise use of different media has resulted in incorporating functionality such as hyperlinking – something that is, again, not specific to legislation. Therefore, the secondary objective was to create generic modules for features that could be applicable to other products.

Paragraph model

The paragraph model implemented in the schema is the 'true' paragraph model. This is the concept whereby a paragraph is itself a modular concept and is built up of items of text, lists, tables etc. That is, items, such as lists, *belong* to the paragraph. This is different to, for instance, HTML, where the sibling-blocks model is used – that is, structures such as lists do not belong to the paragraph.

The schema paragraph model therefore gives us paragraphs, structured, for example, as follows:

Example taken from uksi_20051643_en (PDF p. 2, XML Ref. UG00001)



"emergency services" include—

(a) police, fire, rescue and ambulance services;

(b) Her Majesty's Coastguard;

```
<Para>
 <Text>"emergency services" include—</Text>
 <OrderedList Decoration="parens" Type="alpha">
  <ListItem>
   <Para>
    <Text>police, fire, rescue and ambulance services;</Text>
   </Para>
  </ListItem>
  <ListItem>
   <Para>
    <Text>Her Majesty's Coastguard;</Text>
   </Para>
  </ListItem>
 </OrderedList>
</Para>
```

This paragraph model was chosen because it is intuitive and semantically recreates the general understanding of what a paragraph 'is'. It also makes for easy processing as each piece of the paragraph is a separate element and mappings for each of these can easily be programmed.

Implementation

High-level document structure

At the highest level the root element of a document consists of a <Legislation> element. Within this the following structures can occur:

- Metadata (<ukm:Metadata> element)
- Arrangements (<Contents> element)
- High level class container (<Primary> or <Secondary> element)
- Footnotes (<Footnotes> element)
- Margin notes (<MarginNotes> element)
- Versions (<Versions> element)
- Resources (<Resources> element)

All of these, with the exception of <Primary> and <Secondary> (which are explained below), are detailed on the following pages. Footnotes, margin notes, versions and resources are regarded as 'out-of-line' constructs – that is, they are separate from the main flow of the content and are referenced from that content. The main reasons this approach is taken is that the items in these constructs may be referenced more than once, and by removing them from the main content it allows the main content to 'flow' more easily.

<Primary> and <Secondary> elements describe the content that can occur in the relevant legislation. The structure is almost the same and consists of the following:

- Preliminary matter (<PrimaryPrelims> for primary legislation and <SecondaryPrelims> for secondary legislation)
- The body of the document (<Body> element)
- Schedules (<Schedules> element)
- Explanatory notes (<ExplanatoryNotes> element – this is only actually used for secondary legislation)
- Earlier orders (<EarlierOrders> element – only available for secondary legislation)

Again, each of these is explained in detail on the following pages.

Metadata

Introduction

The metadata for legislation will comply with the e-Government Metadata Standard (e-GMS) which is currently at version 3.

Alongside the standard metadata is legislation specific metadata. Primary and secondary legislation have their own metadata due to the differing nature of the documents.

An XML schema module that can simply be plugged in to the legislation schema does not exist for e-GMS version 3. At the time of writing work is underway on e-GMS version 4, which should make the 'plug-in' approach possible in the future. At present Dublin Core metadata consistent with e-GMS version 3 is used to store the standard metadata, while for the legislation specific metadata, a legislation metadata namespace is used.

The metadata module of the legislation schema will be fully revised when e-GMS version 4 is released to bring it into line with the new standard. Work is also underway at the European level to develop a metadata standard for legislation across the EU. That activity will also inform the future development of the metadata component of the legislation schema.

Regnal years

It is first pertinent to give an explanation of regnal years, which are used to date early legislation.

The full official citation for a public general Act consists of year and chapter number. The year was, until the beginning of 1963, always the regnal year – that is, the year of the monarch's reign; for example 7 & 8 Eliz.2 represents the 7th and 8th year of the present monarch's reign – that is, session 1959–1960. The chapter number is a running number given to Acts passed during a year and is given in the form C 33. A new series of numbers starts at the beginning of every session. Thus 7 & 8 Eliz.2, C 33, represents the 33rd public Act passed in the 7th–8th year of the present reign, which was, in fact, the House Purchase and Housing Act 1959. Since 1963, however, this has been simplified and the year stated is always the calendar year, for example 1965 C 31 means the 31st Act passed in 1965, namely the Solicitors Act of that year.

Local and private Acts are numbered similarly, but the chapter number is in Roman numerals. For example 7 & 8 Eliz.2 C xxxiii signifies the Reading and Berkshire Water Act 1959, which was the 33rd local Act of that year. Since 1963 local and private Acts also use the calendar year: for example 1965 Cxxxi refers to the St. Lawrence, Catford Act 1965.

In schema document instances legislation is identified by using the calendar year and number of the document (the number value varies depending upon whether it is primary or secondary legislation). However, for early legislation it may be necessary to include the regnal year to explicitly identify a piece of legislation, as it is possible for two pieces of legislation from the same calendar year to have the same number.

Dublin Core

Dublin Core (DC) metadata is used to hold information where possible. The following section lists the elements used from the DC metadata set and how they are applied with respect to primary and secondary legislation.

dc:title

For primary legislation this should contain the short title (which, for the purposes of the schema, also includes the year). For secondary legislation there is only one title and that should form the content for this element.

dc:creator

The DC definition of this element should be followed. That is:

> 'An entity primarily responsible for making the content of the resource'

Examples of creator include a person, an organization, or a service. Typically the name of a creator should be used to indicate the entity.

dc:subject

For secondary legislation there should be one dc:subject entry for each main subject under which the document has been categorised.

dc:description

For primary legislation the suggested use of the element is to hold the long title. For secondary legislation the suggested use is an edited version of the enacting text combined with the title.

dc:publisher

Use of this element in the context of the schema is undefined at present.

dc:contributor

The DC definition of this element should be followed. That is:

> 'An entity responsible for making contributions to the content of the resource'

Examples of a contributor include a person, an organization, or a service. Typically the name of a contributor should be used to indicate the entity.

dc:date

The DC definition for this element is:

> 'A date of an event in the lifecycle of the resource'

For the purposes of the schema this is date of creation or availability of the resource.

The actual encoding of the date, should, again, follow the DC recommendation:

> 'Recommended best practice for encoding the date value is defined in a profile of ISO 8601 [W3CDTF] and includes (among others) dates of the form YYYY-MM-DD.'

That is, dates should be encoded, for example, as '2005-08-31'.

dc:type

This should contain the word 'text'.

dc:format

This should contain ‘text/xml’.

dc:identifier

It is recommended that this identifier contain the ISBN of the printed version of the document. This should be in the form ‘urn:isbn:0110456424’.

dc:source

Use of this element in the context of the schema is undefined at present.

dc:language

This should contain the two character (ISO 639) character code relevant to the main language of the document. For English this will be ‘en’ and for Welsh ‘cy’.

dc:relation

For secondary legislation the suggested use is to reference the enabling act. It would be desirable for primary legislation to reference any secondary legislation that has had an effect but it is understood that this may be impracticable.

dc:coverage

This should contain information relevant to the territorial extent of the legislation.

dc:rights

This should contain the text ‘Crown Copyright 2005’ or the year relevant to the legislation.

Metadata common to both primary and secondary legislation

Some aspects of the metadata are common to both primary and secondary legislation: These are:

- document classification (`<DocumentClassification>` element)
- year (`<Year>` element)
- number (`<Number>` element)
- alternative number (`<AlternativeNumber>` element)
- coming into force (`<ComingIntoForce>` element)

Document classification

`<DocumentClassification>` is a container for information that categorises the type of document. It is broken down into four elements:

- `<DocumentCategory>`
- `<DocumentMainType>`
- `<DocumentMinorType>`
- `<DocumentStatus>`

The `<DocumentCategory>` element defines whether the content is primary or secondary legislation.

The <DocumentMainType> element defines the type of legislation in more detail and can be one of the following values:

- EnglandAct
- GreatBritainAct
- IrelandAct
- NorthernIrelandAct
- NorthernIrelandAssemblyMeasure
- NorthernIrelandParliamentAct
- NorthernIrelandOrderInCouncil
- NorthernIrelandStatutoryRule
- NorthernIrelandStatutoryRuleLocal
- ScottishAct
- ScottishStatutoryInstrument
- ScottishStatutoryInstrumentLocal
- UnitedKingdomChurchMeasure
- UnitedKingdomLocalAct
- UnitedKingdomPrivateAct
- UnitedKingdomPublicGeneralAct
- UnitedKingdomStatutoryInstrument
- UnitedKingdomStatutoryInstrumentLocal
- WelshAssemblyMeasure
- WelshStatutoryInstrument
- WelshStatutoryInstrumentLocal

<DocumentMinorType> only applies to secondary legislation and further refines the class of document by defining the subclass of the document. The values are:

- order
- regulation
- rule
- scheme
- resolution
- unknown

<DocumentStatus> defines whether the document is in a draft stage or in a final version. If the value is ‘draft’ then for secondary legislation this has a direct relation to a draft version of the document. For primary legislation draft is presently undefined, but it is expected it will be used as equivalent to a Bill in the future.

Year

This element (<Year>) has a different meaning for primary and secondary legislation. For primary legislation it is the year of enactment. For secondary legislation it is related to the making of the document and the date of registration.

Number

This element (<Number>) is the number associated with the document. For primary legislation this will be the chapter number and for secondary it will be the registered number.

Alternative number

The use of the <AlternativeNumber> element has two meanings. For secondary legislation for some classes of document there may be one or more subsidiary numbers associated with it. For early primary legislation documents were also identified by the regnal year.

The values that should be used in the Category attribute of this element are listed in the table below:

Attribute value	Explanation
C	Commencement and/or Appointed Day orders that bring into force an Act or part of an Act
L	Legal series
S	Scottish series
NI	Northern Ireland series
W	National Assembly for Wales series. Where the document is in Welsh the value will be Cy
Regnal	Indicates the number is a regnal year

The Value attribute should hold the actual number/text.

Coming into force

This element (<ComingIntoForce>) can contain one or more <DateTime> elements, each of which can store a date and (optionally) time. If desired the different dates stated within the document when parts of the legislation come into force can be stored using this mechanism.

Primary metadata

The only element specific to primary legislation in the metadata is the <EnactmentDate> element. This holds the date of enactment of the legislation using a Date attribute. An example is given below:

Example taken from ukpga_20030004_en (PDF p. 1, XML Ref. UG00101)

```
<ukm:Metadata>
 <dc:title>Health (Wales) Act 2003</dc:title>
 <dc:identifier>urn:isbn:0105404039</dc:identifier>
 <ukm:PrimaryMetadata>
  <ukm:DocumentClassification>
   <ukm:DocumentCategory Value="primary"/>
   <ukm:DocumentMainType Value="UnitedKingdomPublicGeneralAct"/>
   <ukm:DocumentStatus Value="final"/>
  </ukm:DocumentClassification>
  <ukm:Year Value="2003"/>
  <ukm:Number Value="4"/>
  <ukm:EnactmentDate Date="2003-04-08"/>
 </ukm:PrimaryMetadata>
</ukm:Metadata>
```

Secondary metadata

Secondary legislation has a more complex data-set than primary legislation – basically because there are more dates that can usefully be captured. The additional information captured is:

- department code (`<DepartmentCode>` element)
- made date (`<Made>` element)
- laid date (`<Laid>` element)
- date of resolution (`<Resolution>` element)
- date of royal presence (`<RoyalPresence>` element)

Examples of secondary metadata are given below:

Example taken from uksi_20051643_en (PDF p. 1, XML Ref. UG00002)

```
<ukm:Metadata>
 <dc:title>The Control of Noise at Work Regulations 2005</dc:title>
 <dc:subject>Health and safety</dc:subject>
 <dc:identifier>urn:isbn:0000000000</dc:identifier>
 <dc:language>en</dc:language>
 <ukm:SecondaryMetadata>
  <ukm:DocumentClassification>
   <ukm:DocumentCategory Value="secondary"/>
   <ukm:DocumentMainType Value="UnitedKingdomStatutoryInstrument"/>
   <ukm:DocumentStatus Value="final"/>
   <ukm:DocumentMinorType Value="regulation"/>
  </ukm:DocumentClassification>
  <ukm:Year Value="2005"/>
  <ukm:Number Value="1643"/>
  <ukm:Made Date="2005-06-18"/>
  <ukm:Laid Date="2005-06-24" Class="UnitedKingdomParliament"/>
  <ukm:ComingIntoForce>
   <ukm:DateTime Date="2006-04-06"/>
  </ukm:ComingIntoForce>
 </ukm:SecondaryMetadata>
</ukm:Metadata>
```

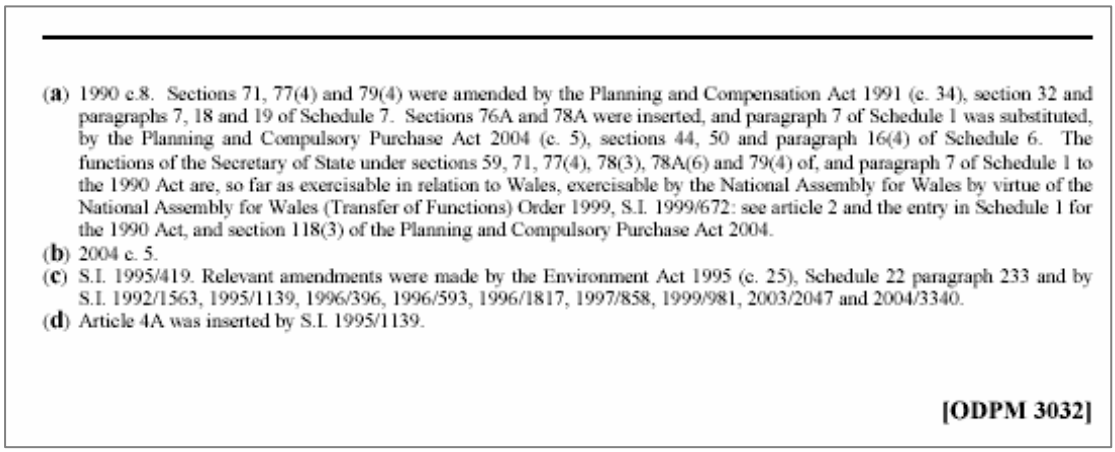
Example taken from uksi_20052087_en (PDF p. 1, XML Ref. UG00201)

```
<ukm:Metadata>
 <dc:title>The Town and Country Planning (General Development Procedure) (Amendment)
(England) Order 2005</dc:title>
 <dc:subject>Town and country planning, England</dc:subject>
 <dc:identifier>urn:isbn:0110731948</dc:identifier>
 <dc:language>en</dc:language>
 <ukm:SecondaryMetadata>
  <ukm:DocumentClassification>
   <ukm:DocumentCategory Value="secondary"/>
   <ukm:DocumentMainType Value="UnitedKingdomStatutoryInstrument"/>
   <ukm:DocumentStatus Value="final"/>
   <ukm:DocumentMinorType Value="order"/>
  </ukm:DocumentClassification>
  <ukm:Year Value="2005"/>
  <ukm:Number Value="2087"/>
  <ukm:DepartmentCode Value="ODPM 3032"/>
  <ukm:Made Date="2005-07-25"/>
  <ukm:Laid Date="2005-08-03" Class="UnitedKingdomParliament"/>
  <ukm:ComingIntoForce>
   <ukm:DateTime Date="2005-08-24"/>
  </ukm:ComingIntoForce>
 </ukm:SecondaryMetadata>
</ukm:Metadata>
```

Department code

Secondary legislation may have a department code, also known as a domestic serial number. This is usually printed at the bottom of the first page of the document in the hardcopy version. The following image shows a department code (this image corresponds to the first metadata example code above).

Example taken from uksi_20052087_en (PDF p. 1, XML Ref. UG00202)



(**a**) 1990 c.8. Sections 71, 77(4) and 79(4) were amended by the Planning and Compensation Act 1991 (c. 34), section 32 and paragraphs 7, 18 and 19 of Schedule 7. Sections 76A and 78A were inserted, and paragraph 7 of Schedule 1 was substituted, by the Planning and Compulsory Purchase Act 2004 (c. 5), sections 44, 50 and paragraph 16(4) of Schedule 6. The functions of the Secretary of State under sections 59, 71, 77(4), 78(3), 78A(6) and 79(4) of, and paragraph 7 of Schedule 1 to the 1990 Act are, so far as exercisable in relation to Wales, exercisable by the National Assembly for Wales by virtue of the National Assembly for Wales (Transfer of Functions) Order 1999, S.I. 1999/672: see article 2 and the entry in Schedule 1 for the 1990 Act, and section 118(3) of the Planning and Compulsory Purchase Act 2004.
(**b**) 2004 c. 5.
(**c**) S.I. 1995/419. Relevant amendments were made by the Environment Act 1995 (c. 25), Schedule 22 paragraph 233 and by S.I. 1992/1563, 1995/1139, 1996/396, 1996/593, 1996/1817, 1997/858, 1999/981, 2003/2047 and 2004/3340.
(**d**) Article 4A was inserted by S.I. 1995/1139.

[ODPM 3032]

Made date

This is the made date (`<MadeDate>`) of the document and the actual date is held in a `Date` attribute in the format *yyyy-mm-dd*, where *yyyy* is the year, *mm* is the month padded to two digits and *dd* is the day, padded to two digits. This should correspond to the value held in the `<MadeDate>` element in the preliminary matter. For some documents the making needs to be more specific than a day. For this situation there is a `Time` attribute.

Laid date

This is the laid date (<LaidDate>) of the document and the actual date is held in a Date attribute, which should be formatted as for the made date. This should correspond to the value held in a <LaidDate> element in the preliminary matter. For some documents the laying needs to be more specific than a day. For this situation there is a Time attribute.

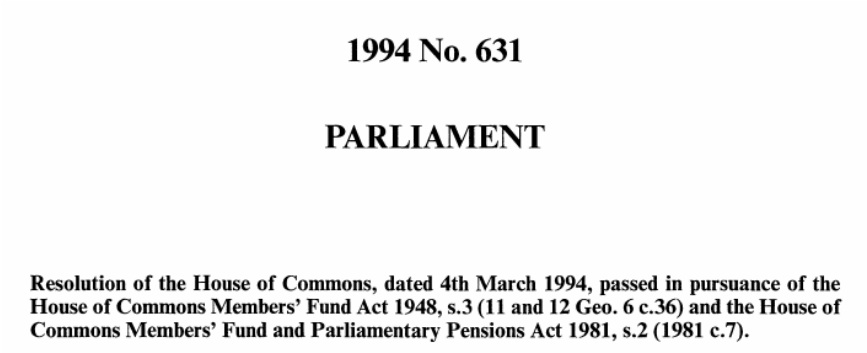
A document can be laid in one of four locations and this information is held in the Class attribute. The possible values are:

- NorthernIrelandAssembly
- ScottishParliament
- UnitedKingdomParliament
- WelshAssembly

Date of resolution

The <Resolution> element (metadata namespace) only applies to secondary legislation that has a document subclass of resolution (which is very rare). It is the date of resolution of the document and the actual date is held in a Date attribute, which should be formatted as for the made date. The value should be taken from the <Resolution> element in the preliminary matter, as in the example below:

Example taken from uksi_19940631_en (PDF p. 1, XML Ref. UG00401)



1994 No. 631

PARLIAMENT

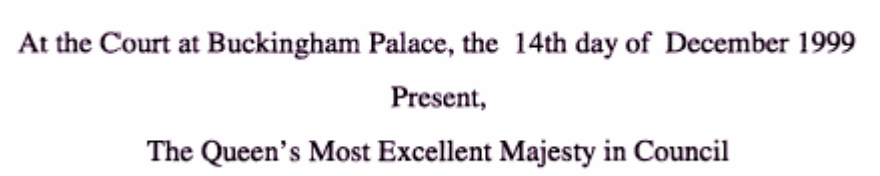
Resolution of the House of Commons, dated 4th March 1994, passed in pursuance of the House of Commons Members' Fund Act 1948, s.3 (11 and 12 Geo. 6 c.36) and the House of Commons Members' Fund and Parliamentary Pensions Act 1981, s.2 (1981 c.7).

```
<Resolution>
 <Para>
  <Text>Resolution of the House of Commons, dated 4th March 1994, passed in pursuance
of the <Citation id="c00101" Class="ukpga" Year="1948" Number="36">House of Commons
Members' Fund Act 1948</Citation>, <CitationSubRef id="c00102"
CitationRef="c00101">s.3</CitationSubRef> (11 and 12 Geo.6 c.36) and the <Citation
id="c00103" Class="ukpga" Year="1981" Number="0007">House of Commons Members' Fund and
Parliamentary Pensions Act 1981</Citation>, <CitationSubRef id="c00104"
CitationRef="c00103">s.2</CitationSubRef> (<Citation id="c00002" Class="ukpga"
Year="1981" Number="0007">1981 c. 7</Citation>).</Text>
 </Para>
</Resolution>

<ukm:SecondaryMetadata>
 <ukm:DocumentClassification>
  <ukm:DocumentCategory Value="secondary"/>
  <ukm:DocumentMainType Value="UnitedKingdomStatutoryInstrument"/>
  <ukm:DocumentStatus Value="final"/>
  <ukm:DocumentMinorType Value="resolution"/>
 </ukm:DocumentClassification>
 <ukm:Year Value="1994"/>
 <ukm:Number Value="631"/>
 <ukm:Resolution Date="1994-03-04"/>
</ukm:SecondaryMetadata>
```

Date of royal presence

The <RoyalPresence> element (metadata namespace) should be present where there has been a royal presence in passing the legislation. It is the date of royal presence and the actual date is held in a Date attribute. The value should be taken from the <RoyalPresence> element (legislation namespace) as in the example below:

Example taken from uksi_19993320_en (PDF p. 1, XML Ref. UG00501)


At the Court at Buckingham Palace, the 14th day of December 1999

Present,

The Queen's Most Excellent Majesty in Council

```
<ukm:SecondaryMetadata>
 <ukm:DocumentClassification>
  <ukm:DocumentCategory Value="secondary"/>
  <ukm:DocumentMainType Value="UnitedKingdomStatutoryInstrument"/>
  <ukm:DocumentStatus Value="final"/>
  <ukm:DocumentMinorType Value="order"/>
 </ukm:DocumentClassification>
 <ukm:Year Value="1999"/>
 <ukm:Number Value="3320"/>
 <ukm:Made Date="1999-12-14"/>
 <ukm:Laid Date="1999-12-22" Class="UnitedKingdomParliament"/>
 <ukm:Laid Date="1999-12-22" Class="ScottishParliament"/>
 <ukm:ComingIntoForce>
  <ukm:DateTime Date="2000-02-01"/>
 </ukm:ComingIntoForce>
 <ukm:RoyalPresence Date="1999-12-14"/>
</ukm:SecondaryMetadata>


<RoyalPresence>
 <Para>
  <Text>At the Court at Buckingham Palace, the 14th day of December 1999</Text>
  <Text>Present,</Text>
  <Text>The Queen's Most Excellent Majesty in Council</Text>
 </Para>
</RoyalPresence>
```

IDs

`id` attributes are ubiquitous in the schema and allow an element to be given a unique identifier which can then be used for linking. The format of this identifier is *yxxxxx* where *y* is a letter and *xxxxx* is a number, padded to five digits. Those elements that are commonly referenced have fixed values for *y* and are listed in the table below.

ID value	Element
c*xxxxx*	Citation, CitationSubRef
e*xxxxx*	ExternalVersion
f*xxxxx*	Footnote
g*xxxxx*	Figure, Image
i*xxxxx*	InternalVersion
m*xxxxx*	MarginNote
p*xxxxx*	P1group, P2group, P3group, P1, P2, P3, P4, P5, P6, P7, P
r*xxxxx*	ResourceGroup, Resource
t*xxxxx*	Tabular and all XHTML table elements
v*xxxxx*	Version
x*xxxxx*	Formula

It is possible that two elements in a file will have the same identifier but only if one occurs in a section of the file that the schema indicates should not be parsed, such as `<Version>`. The reason that this may be desirable is that if a section is replaced by an alternate version and there are links to the original version, the links to the alternate version would still work.

XML attributes

The standard XML attributes `xml:lang`, `xml:space` and `xml:base` are included on each element. Their use as defined by the W3 specification should be respected.

`xml:lang` should be used to indicate the main language of the content contained by the element upon which the attribute is appearing. Values should be taken from the ISO 639 standard. This attribute should be used where the language is different from the main language of the document.

`xml:space` is used to indicate whether white space is significant in the contained content and can contain the value ‘default’ or ‘preserve’. For a value of ‘default’, it is left to an application as to how to treat white space.

`xml:base` is used to change the base from which relative URLs are calculated.

Arrangements

Large legislation documents usually have an arrangement. The headings and wording in the arrangement generally matches that in the document itself. However, in some documents the draftsperson has chosen to override the defaults.

The objective for the schema was to make arrangement handling flexible. Therefore, it is possible to indicate that an automatic arrangement should be generated, or it is possible to actually add a 'hard-wired' arrangement.

To indicate that an arrangement should be automatically created the `<Contents>` element should be inserted into the XML but left empty. Rendering engines should take the presence of this attribute when empty to mean an arrangement should be generated.

If the arrangement is to be hard-wired then the structures are available to match the structure of the document. These are:

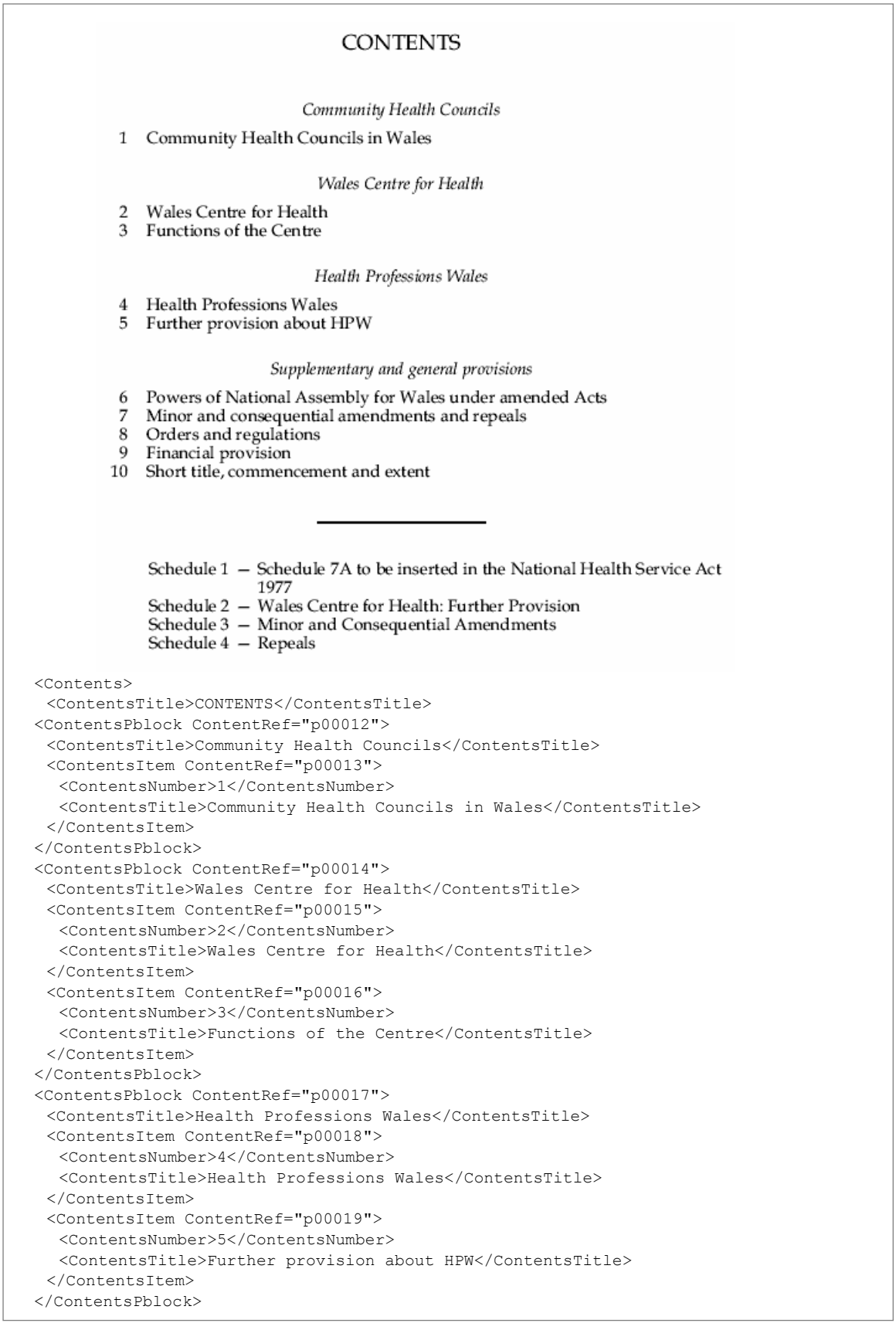
- ContentsGroup
- ContentsPart
- ContentsChapter
- ContentsPblock
- ContentsPsubBlock
- ContentsSchedules
- ContentsAppendix

It is also possible to have an arrangement in a schedule or appendix. The approach is the same as the main arrangement apart from the fact that they cannot contain `<ContentsSchedules>` elements, and an arrangement in an appendix cannot contain a `<ContentsAppendix>` element.

It can be seen from the example below that each `<ContentsItem>` element contains `<ContentsNumber>` and `<ContentsTitle>` elements. This principle of number and title elements applies to all elements in the arrangement hierarchy (although that is not to say they must be used).

Obviously, for a manually generated arrangement, the connection between the items in the arrangement and the relevant parts of the document is lost. The schema provides a mechanism to reconnect the two in the form of the `ContentRef` attribute. This can contain the id of the element to which the contents item applies. Use of this mechanism is strongly encouraged.

Example taken from ukpga_20030004_en (PDF p. 1, XML Ref. UG00102)



CONTENTS

Community Health Councils

1 Community Health Councils in Wales

Wales Centre for Health

2 Wales Centre for Health
3 Functions of the Centre

Health Professions Wales

4 Health Professions Wales
5 Further provision about HPW

Supplementary and general provisions

6 Powers of National Assembly for Wales under amended Acts
7 Minor and consequential amendments and repeals
8 Orders and regulations
9 Financial provision
10 Short title, commencement and extent

Schedule 1 — Schedule 7A to be inserted in the National Health Service Act 1977
Schedule 2 — Wales Centre for Health: Further Provision
Schedule 3 — Minor and Consequential Amendments
Schedule 4 — Repeals

```
<Contents>
 <ContentsTitle>CONTENTS</ContentsTitle>
<ContentsPblock ContentRef="p00012">
 <ContentsTitle>Community Health Councils</ContentsTitle>
 <ContentsItem ContentRef="p00013">
  <ContentsNumber>1</ContentsNumber>
  <ContentsTitle>Community Health Councils in Wales</ContentsTitle>
 </ContentsItem>
</ContentsPblock>
<ContentsPblock ContentRef="p00014">
 <ContentsTitle>Wales Centre for Health</ContentsTitle>
 <ContentsItem ContentRef="p00015">
  <ContentsNumber>2</ContentsNumber>
  <ContentsTitle>Wales Centre for Health</ContentsTitle>
 </ContentsItem>
 <ContentsItem ContentRef="p00016">
  <ContentsNumber>3</ContentsNumber>
  <ContentsTitle>Functions of the Centre</ContentsTitle>
 </ContentsItem>
</ContentsPblock>
<ContentsPblock ContentRef="p00017">
 <ContentsTitle>Health Professions Wales</ContentsTitle>
 <ContentsItem ContentRef="p00018">
  <ContentsNumber>4</ContentsNumber>
  <ContentsTitle>Health Professions Wales</ContentsTitle>
 </ContentsItem>
 <ContentsItem ContentRef="p00019">
  <ContentsNumber>5</ContentsNumber>
  <ContentsTitle>Further provision about HPW</ContentsTitle>
 </ContentsItem>
</ContentsPblock>
```

```
  <ContentsPblock ContentRef="p00020">
   <ContentsTitle>Supplementary and general provisions</ContentsTitle>
   <ContentsItem ContentRef="p00021">
    <ContentsNumber>6</ContentsNumber>
    <ContentsTitle>Powers of National Assembly for Wales under amended
Acts</ContentsTitle>
   </ContentsItem>
   <ContentsItem ContentRef="p00022">
    <ContentsNumber>7</ContentsNumber>
    <ContentsTitle>Minor and consequential amendments and repeals</ContentsTitle>
   </ContentsItem>
   <ContentsItem ContentRef="p00023">
    <ContentsNumber>8</ContentsNumber>
    <ContentsTitle>Orders and regulations</ContentsTitle>
   </ContentsItem>
   <ContentsItem ContentRef="p00024">
    <ContentsNumber>9</ContentsNumber>
    <ContentsTitle>Financial provision</ContentsTitle>
   </ContentsItem>
   <ContentsItem ContentRef="p00025">
    <ContentsNumber>10</ContentsNumber>
    <ContentsTitle>Short title, commencement and extent</ContentsTitle>
   </ContentsItem>
  </ContentsPblock>
  <ContentsSchedules>
   <ContentsSchedule ContentRef="p00026">
    <ContentsNumber>Schedule 1</ContentsNumber>
    <ContentsTitle>Schedule 7A to be inserted in the National Health Service Act
1977</ContentsTitle>
   </ContentsSchedule>
   <ContentsSchedule ContentRef="p00027">
    <ContentsNumber>Schedule 2</ContentsNumber>
    <ContentsTitle>Wales Centre for Health: Further Provision</ContentsTitle>
   </ContentsSchedule>
   <ContentsSchedule ContentRef="p00028">
    <ContentsNumber>Schedule 3</ContentsNumber>
    <ContentsTitle>Minor and Consequential Amendments</ContentsTitle>
   </ContentsSchedule>
   <ContentsSchedule ContentRef="p00029">
    <ContentsNumber>Schedule 4</ContentsNumber>
    <ContentsTitle>Repeals</ContentsTitle>
   </ContentsSchedule>
  </ContentsSchedules>
</Contents>
```

The following example is the target of the last example with the first three connections shown:

Example taken from ukpga_20030004_en (PDF p. 3, XML Ref. UG00104)

```
<Body>
 <Pblock id="p00012">
  <Title>Community Health Councils</Title>
  <P1group id="p00013">
   <Title>Community Health Councils in Wales</Title>
   <P1 id="p00030">
    <Pnumber>1</Pnumber>
    <P1para>
     <P2>
```

Preliminary matter

The preliminary matter for primary and secondary legislation differs enough that the decision was taken to create separate mark-up for each.

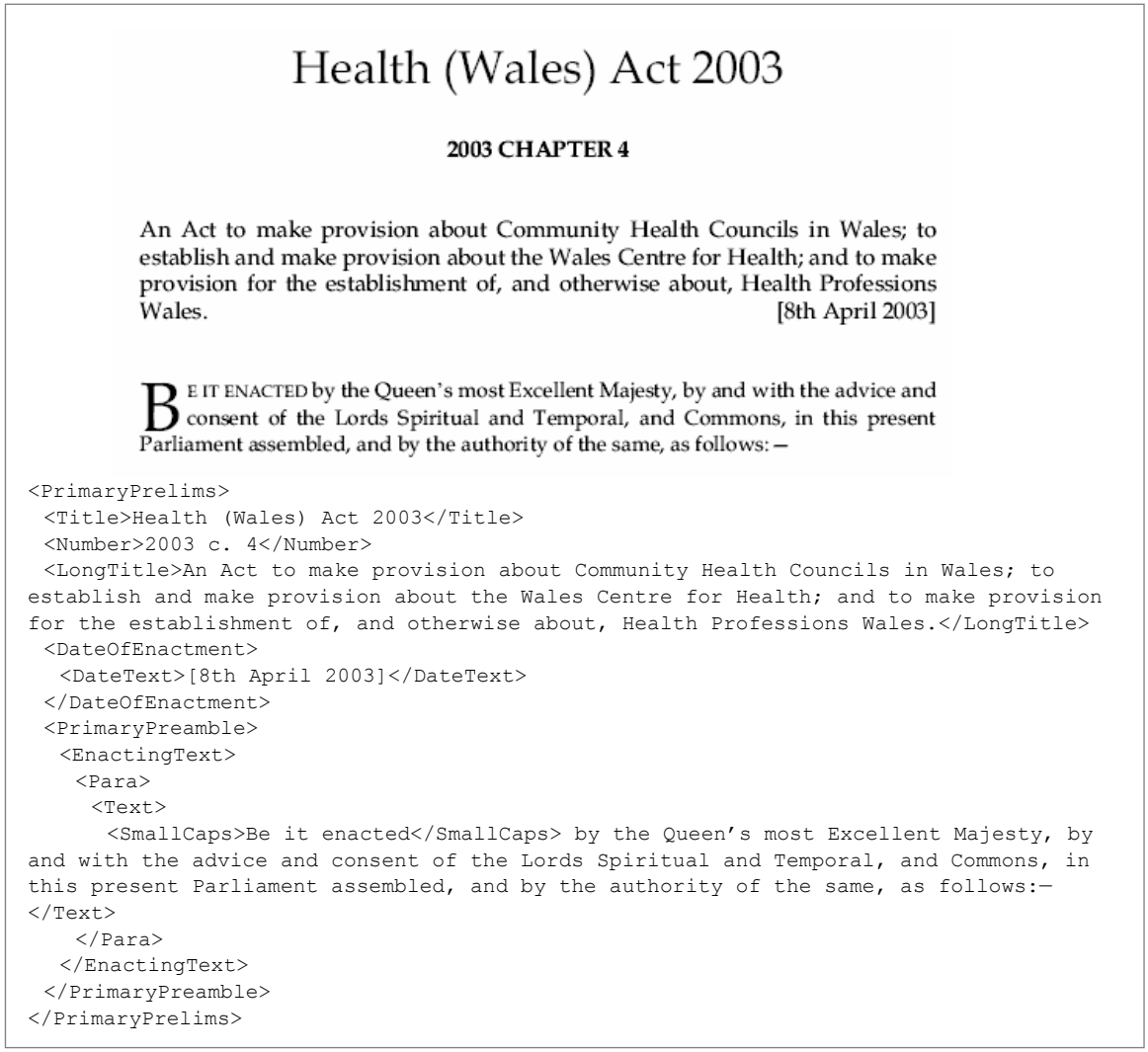
Primary preliminary matter

The preliminary matter for primary legislation contains the following structures:

- Informal citation (<Title> element)
- Formal citation (<Number> element)
- Long title (<LongTitle> element)
- Date of enactment (<DateOfEnactment> element)
- Preamble (<PrimaryPreamble> element) which itself contains a number of structures (detailed below)

The following is a fairly standard example of primary preliminary matter:

Example taken from ukpga_20030004_en (PDF p. 1, XML Ref. UG00103)



Health (Wales) Act 2003

2003 CHAPTER 4

An Act to make provision about Community Health Councils in Wales; to establish and make provision about the Wales Centre for Health; and to make provision for the establishment of, and otherwise about, Health Professions Wales. [8th April 2003]

BE IT ENACTED by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

```
<PrimaryPrelims>
 <Title>Health (Wales) Act 2003</Title>
 <Number>2003 c. 4</Number>
 <LongTitle>An Act to make provision about Community Health Councils in Wales; to
establish and make provision about the Wales Centre for Health; and to make provision
for the establishment of, and otherwise about, Health Professions Wales.</LongTitle>
 <DateOfEnactment>
  <DateText>[8th April 2003]</DateText>
 </DateOfEnactment>
 <PrimaryPreamble>
  <EnactingText>
   <Para>
    <Text>
     <SmallCaps>Be it enacted</SmallCaps> by the Queen's most Excellent Majesty, by
and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in
this present Parliament assembled, and by the authority of the same, as follows:—
</Text>
   </Para>
  </EnactingText>
 </PrimaryPreamble>
</PrimaryPrelims>
```

Informal citation

This is the short title of the Act combined together with the year. It is marked up using the <Title> element.

Formal citation

Although this element is called <Number> is may be interpreted as being the formal citation. The content should actually contain the year of enactment as well as the chapter number. For legislation pre-1963 it will contain the regnal year instead of the calendar year.

Long title

This is the full title of the act, generally known as the long title.

Date of enactment

This is the date of enactment. The Scottish version of this is somewhat more verbose as in the example below:

Example taken from asp_20020006_en (PDF p. 5, XML Ref. UG00601)

Protection of Wild Mammals (Scotland) Act 2002

2002 asp 6

The Bill for this Act of the Scottish Parliament was passed by the Parliament on 13th February 2002 and received Royal Assent on 15th March 2002

An Act of the Scottish Parliament to protect wild mammals from being hunted with dogs; and for connected purposes.

```
<PrimaryPrelims>
 <Title>Protection of Wild Mammals (Scotland) Act 2002</Title>
 <Number>2002 asp 6</Number>
 <LongTitle>An Act of the Scottish Parliament to protect wild mammals from being
hunted with dogs; and for connected purposes.</LongTitle>
 <DateOfEnactment>
  <DateText>The Bill for this Act of the Scottish Parliament was passed by the
Parliament on 13th February 2002 and received Royal Assent on 15th March
2002</DateText>
 </DateOfEnactment>
 <PrimaryPreamble>
  <EnactingTextOmitted/>
 </PrimaryPreamble>
</PrimaryPrelims>
```

Preamble

The <PrimaryPreamble> element is a container element that holds the introductory text and enacting text.

The <IntroductoryText> element is less frequently used now than in the past, but when used generally contains an explanation as to why the Act is being introduced.

The actual words of enactment are held in the <EnactingText> element. If there is no enacting text (as in the Scottish example above) the <EnactingTextOmitted> element should be used.

Secondary preliminary matter

The preliminary matter for secondary legislation contains the following structures:

- Draft text (<Draft> element)
- Number (<Number> element)
- Subject information (<SubjectInformation> element)
- Title (<Title> element)
- Approved text (<Approved> element)
- Laid in draft text (<LaidDraft> element)
- Laid information (<LaidDate> element)
- Made information (<MadeDate> element)
- Coming into force text (<ComingIntoForce> element)
- Preamble (<SecondaryPreamble> element) which itself contains a number of structures (detailed below)

The following is a fairly standard example of secondary preliminary matter:

Example taken from uksi_20051643_en (PDF p. 1, XML Ref. UG00003)

2005 No.1643

HEALTH AND SAFETY

The Control of Noise at Work Regulations 2005

Made - - - -	*18th June 2005*
Laid before Parliament	*28th June 2005*
Coming into force - -	*6th April 2006*

```
<SecondaryPrelims>
 <Number>2005 No. 1643</Number>
 <SubjectInformation>
  <Subject>
   <Title>Health and safety</Title>
  </Subject>
 </SubjectInformation>
 <Title>The Control of Noise at Work Regulations 2005</Title>
 <MadeDate>
  <Text>Made</Text>
  <DateText>18th June 2005</DateText>
 </MadeDate>
 <LaidDate>
  <Text>Laid before Parliament</Text>
  <DateText>24th June 2005</DateText>
 </LaidDate>
 <ComingIntoForce>
  <Text>Coming into force</Text>
  <DateText>6th April 2006</DateText>
 </ComingIntoForce>
 <SecondaryPreamble>
  <EnactingText>
   <Para>
    <Text>The Secretary of State, in the exercise of the powers conferred on him by
sections 15(1), (2), and (5), and 82(2) and (3) of, and paragraphs 1(1)(a) and (c),
8(1), 9, 11, 13(2) and (3), 14, 15(1), 16 and 20 of Schedule 3 to the Health and
Safety at Work etc. Act 1974<FootnoteRef Ref="f00001"/> ("the 1974 Act") and of all
other powers enabling him in that behalf, for the purpose of giving effect without
modifications to proposals submitted to him by the Health and Safety Commission under
section 11(2)(d) of the 1974 Act after the carrying out by the said Commission of
consultations in accordance with section 50(3) of that Act, hereby makes the following
Regulations:</Text>
   </Para>
  </EnactingText>
 </SecondaryPreamble>
</SecondaryPrelims>
```

Draft text

The <Draft> element has two uses and a double meaning. For draft secondary legislation it will usually contain some text about the draft nature of the document. Its other use is where there has been a drafting error, in which situation the text consists of corrective information. Two examples are given below:

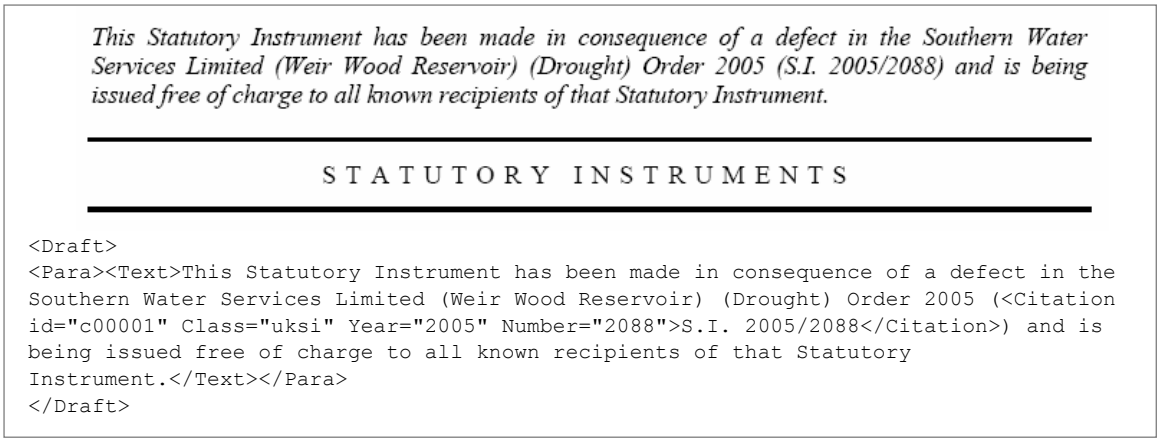
Example taken from ukdsi_0110289390_en (PDF p. 1, XML Ref. UG00701)

Draft Regulations laid before Parliament under section 51(5) of the National Minimum Wage Act 1998, for approval by resolution of each House of Parliament

DRAFT STATUTORY INSTRUMENTS

```
<Draft>
 <Para>
  <Text>Draft Regulations laid before Parliament under section 51(5) of the National
Minimum Wage Act 1998, for approval by resolution of each House of Parliament</Text>
 </Para>
</Draft>
```

Example taken from uksi_20052141_en (This is not in the reference files)



This Statutory Instrument has been made in consequence of a defect in the Southern Water Services Limited (Weir Wood Reservoir) (Drought) Order 2005 (S.I. 2005/2088) and is being issued free of charge to all known recipients of that Statutory Instrument.

STATUTORY INSTRUMENTS

```
<Draft>
<Para><Text>This Statutory Instrument has been made in consequence of a defect in the
Southern Water Services Limited (Weir Wood Reservoir) (Drought) Order 2005 (<Citation
id="c00001" Class="uksi" Year="2005" Number="2088">S.I. 2005/2088</Citation>) and is
being issued free of charge to all known recipients of that Statutory
Instrument.</Text></Para>
</Draft>
```

Number

This should contain the year and registration number for the legislation.

Subject information

The `<SubjectInformation>` element contains subjects and sub-subjects. For some legislation there may be multiple sub-subjects to a subject and/or there may also be multiple subjects. Each subject group is held in a `<Subject>` element with the main subject marked up using the `<Title>` element and the sub-subjects marked up using the `<Subtitle>` element.

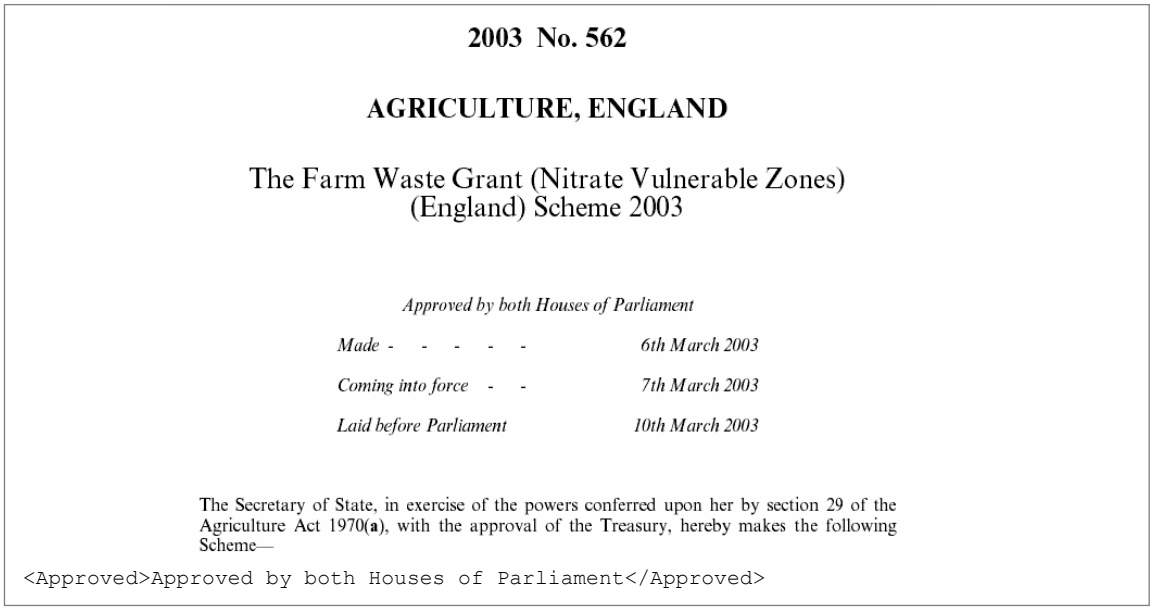
Title

This is simply the title for the legislation.

Approved text

For legislation that needs to be approved (subject to the affirmative resolution procedure), the `<Approved>` element can be used to hold the text. For example:

Example taken from uksi_200300562_en (PDF p. 1, XML Ref. UG00801)



2003 No. 562

AGRICULTURE, ENGLAND

The Farm Waste Grant (Nitrate Vulnerable Zones) (England) Scheme 2003

Approved by both Houses of Parliament

Made - - - - -	*6th March 2003*
Coming into force - -	*7th March 2003*
Laid before Parliament	*10th March 2003*

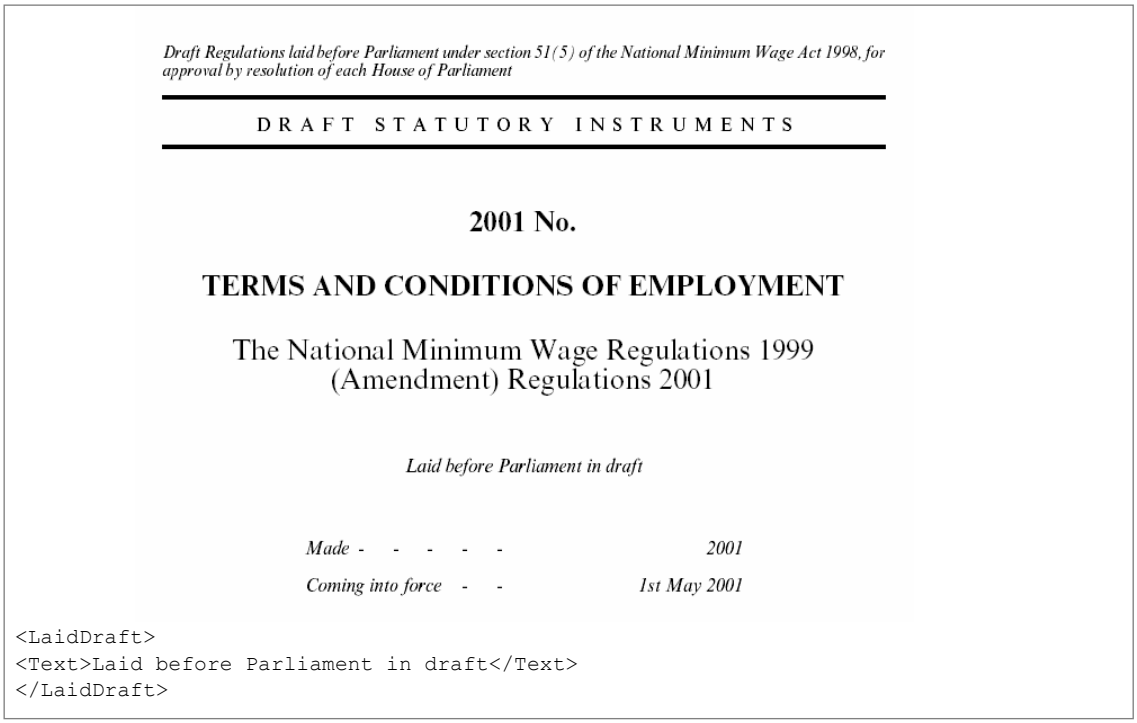
The Secretary of State, in exercise of the powers conferred upon her by section 29 of the Agriculture Act 1970(**a**), with the approval of the Treasury, hereby makes the following Scheme—

```
<Approved>Approved by both Houses of Parliament</Approved>
```

Laid in draft text

For draft legislation that has been laid the <LaidDraft> element can be used to contain the necessary text for where the document has been laid. It is also possible for the draft laying to contain date information – in which case the <DateText> element can be used to hold the text of the date. Generally a document containing this element will also contain a <Draft> element.

Example taken from ukdsi_0110289390_en (PDF p. 1, XML Ref. UG00702)



Draft Regulations laid before Parliament under section 51(5) of the National Minimum Wage Act 1998, for approval by resolution of each House of Parliament

DRAFT STATUTORY INSTRUMENTS

2001 No.

TERMS AND CONDITIONS OF EMPLOYMENT

The National Minimum Wage Regulations 1999
(Amendment) Regulations 2001

Laid before Parliament in draft

Made - - - - - *2001*

Coming into force - - *1st May 2001*

```
<LaidDraft>
<Text>Laid before Parliament in draft</Text>
</LaidDraft>
```

Laid information

The laid date of the document – that is, the date when the document was laid before Parliament, the House of Commons, or the relevant body. This element is the textual description of the laid date (<Text> element) as on the printed copy and the date text (<DateText> element).

Made information

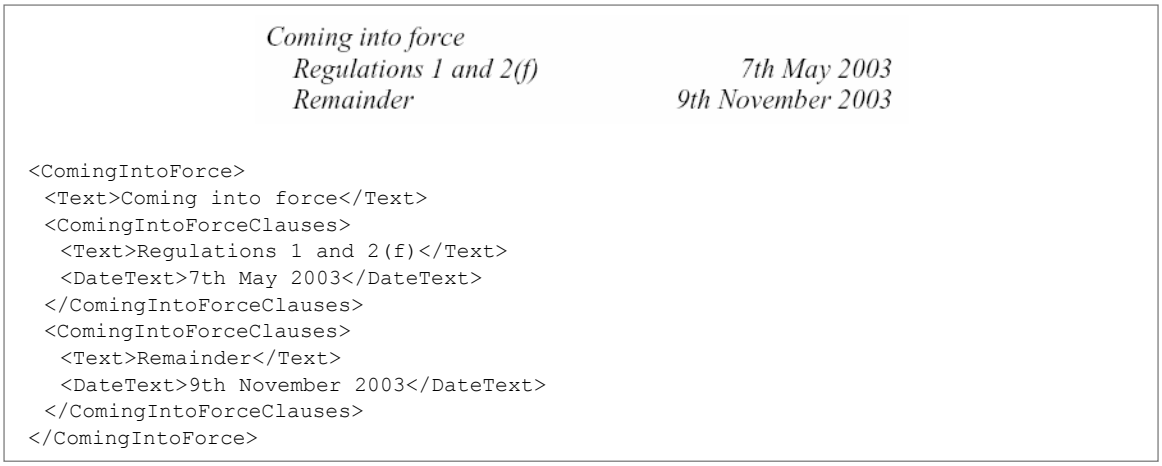
Secondary legislation is 'made' when signed by a minister (or person with authority under the Act); in other words, the instrument is not in draft. This element contains the text and date of the making in the same way as the laid date – that is, using a <Text> element for the textual description and a <DateText> element for the actual date text.

Coming into force text

The 'coming into force' date of the legislation. This element is the textual description of the coming into force date (<Text> element) as on the printed copy and the date text (<DateText> element).

For some legislation, different provisions come into force on different dates. In this situation the text is structured differently, as in the example below:

Example taken from uksi_20031099_en (PDF p. 1, XML Ref. UG00901)



Coming into force

Regulations 1 and 2(f)	*7th May 2003*
Remainder	*9th November 2003*

```
<ComingIntoForce>
 <Text>Coming into force</Text>
 <ComingIntoForceClauses>
  <Text>Regulations 1 and 2(f)</Text>
  <DateText>7th May 2003</DateText>
 </ComingIntoForceClauses>
 <ComingIntoForceClauses>
  <Text>Remainder</Text>
  <DateText>9th November 2003</DateText>
 </ComingIntoForceClauses>
</ComingIntoForce>
```

In this instance the <ComingIntoForce> element should just contain a <Text> element and each dated grouping of provisions should be contained in a <ComingIntoForceClauses> element, which, as for the <ComingIntoForce> element, can contain <Text> and <DateText> elements.

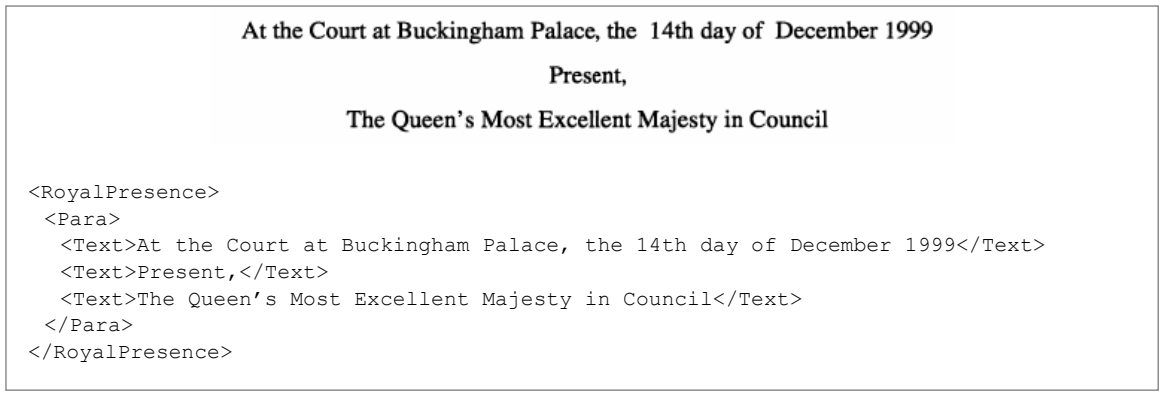
Preamble text

The <SecondaryPreamble> element is a container element that holds one of the following combinations of content:

- Royal presence, introductory text and enacting text; or
- Resolution text; or
- Introductory text and enacting text.

The <RoyalPresence> element contains text indicating the presence of royalty or a representative of royalty. An example is given below:

Example taken from uksi_19993320_en (PDF p. 1, XML Ref. UG00502)



At the Court at Buckingham Palace, the 14th day of December 1999

Present,

The Queen's Most Excellent Majesty in Council

```
<RoyalPresence>
 <Para>
  <Text>At the Court at Buckingham Palace, the 14th day of December 1999</Text>
  <Text>Present,</Text>
  <Text>The Queen's Most Excellent Majesty in Council</Text>
 </Para>
</RoyalPresence>
```

The <Resolution> element is used when the legislation is actually a resolution of the House of Commons. An example is given below:

Example taken from uksi_19940631_en (PDF p. 1, XML Ref. UG00402)

1994 No. 631

PARLIAMENT

Resolution of the House of Commons, dated 4th March 1994, passed in pursuance of the House of Commons Members' Fund Act 1948, s.3 (11 and 12 Geo. 6 c.36) and the House of Commons Members' Fund and Parliamentary Pensions Act 1981, s.2 (1981 c.7).

```
<Resolution>
 <Para>
  <Text>Resolution of the House of Commons, dated 4th March 1994, passed in pursuance
of the <Citation id="c00101" Class="ukpga" Year="1948" Number="36">House of Commons
Members' Fund Act 1948</Citation>, <CitationSubRef id="c00102"
CitationRef="c00101">s.3</CitationSubRef> (11 and 12 Geo.6 c.36) and the <Citation
id="c00103" Class="ukpga" Year="1981" Number="0007">House of Commons Members' Fund and
Parliamentary Pensions Act 1981</Citation>, <CitationSubRef id="c00104"
CitationRef="c00103">s.2</CitationSubRef> (<Citation id="c00002" Class="ukpga"
Year="1981" Number="0007">1981 c. 7</Citation>).</Text>
 </Para>
</Resolution>
```

The <IntroductoryText> element generally contains an explanation as to why the legislation is being introduced.

The actual words of enactment are held in the <EnactingText> element.

The following example, although a little lengthy, is a very good example of complicated introductory text:

Example taken from uksi_20031076_en (PDF p. 1, XML Ref. UG01001)

Whereas:

(1) it appears to the Secretary of State for Health ("the Secretary of State") that—

(a) such of the operations of the Department of Health as are described in Schedule 1 to this Order (being operations for which he is responsible) are suitable to be financed by means of a fund established under the Government Trading Funds Act 1973(**a**) (referred to in this Order as "the 1973 Act") and, in particular, to be so managed that the revenue of the fund would consist principally of receipts in respect of goods or services provided in the course of the operations in question, and

(b) the financing of the operations in question by means of such a fund would be in the interests of the improved efficiency and effectiveness of the management of those operations;

(2) in accordance with sections 1(3) and 6(4) of the 1973 Act, the Secretary of State has taken such steps as appear to him to be appropriate to give an opportunity to such persons as appear to him to be appropriate to make representations to him and has laid before Parliament a report about the representations received and his conclusions;

(3) in accordance with section 2 of the 1973 Act, the Secretary of State has determined with the concurrence of the Treasury what Crown assets and liabilities are properly attributable to the operations for which a fund is to be established and are suitable to be appropriated to that fund;

(4) in accordance with section 6(2) of the 1973 Act, a draft of this Order has been laid before the House of Commons and has been approved by a resolution of that House;

Now, therefore, the Secretary of State in exercise of powers conferred by sections 1, 2, 2A(1), 2AA, 2C(1) and 6(1) of the 1973 Act, and of all other powers enabling him in that behalf, with the concurrence of the Treasury, hereby makes the following Order:—

```
<SecondaryPreamble>
 <IntroductoryText>
  <P>
   <Text>Whereas:</Text>
   <P2>
    <Pnumber>1</Pnumber>
    <P2para>
     <Text>it appears to the Secretary of State for Health ("the Secretary of State")
that—</Text>
      <P3>
       <Pnumber>a</Pnumber>
       <P3para>
        <Text>such of the operations of the Department of Health as are described in
Schedule 1 to this Order (being operations for which he is responsible) are suitable
to be financed by means of a fund established under the Government Trading Funds Act
1973<FootnoteRef Ref="f00001"/> (referred to in this Order as "the 1973 Act") and, in
particular, to be so managed that the revenue of the fund would consist principally of
receipts in respect of goods or services provided in the course of the operations in
question, and</Text>
       </P3para>
      </P3>
      <P3>
       <Pnumber>b</Pnumber>
       <P3para>
        <Text>the financing of the operations in question by means of such a fund
would be in the interests of the improved efficiency and effectiveness of the
management of those operations;</Text>
       </P3para>
      </P3>
     </P2para>
   </P2>    <P2>
    <Pnumber>2</Pnumber>
    <P2para>
     <Text>in accordance with sections 1(3) and 6(4) of the 1973 Act, the Secretary
of State has taken such steps as appear to him to be appropriate to give an
opportunity to such persons as appear to him to be appropriate to make representations
to him and has laid before Parliament a report about the representations received and
his conclusions;</Text>
    </P2para>
   </P2>
   <P2>
    <Pnumber>3</Pnumber>
    <P2para>
     <Text>in accordance with section 2 of the 1973 Act, the Secretary of State has
determined with the concurrence of the Treasury what Crown assets and liabilities are
properly attributable to the operations for which a fund is to be established and are
suitable to be appropriated to that fund;</Text>
    </P2para>
   </P2>
   <P2>
    <Pnumber>4</Pnumber>
    <P2para>
     <Text>in accordance with section 6(2) of the 1973 Act, a draft of this Order has
been laid before the House of Commons and has been approved by a resolution of that
House;</Text>
    </P2para>
   </P2>
  </P>
 </IntroductoryText>
 <EnactingText>
  <Para>
   <Text Hanging="indented">Now, therefore, the Secretary of State in exercise of
powers conferred by sections 1, 2, 2A(1), 2AA, 2C(1) and 6(1) of the 1973 Act, and of
all other powers enabling him in that behalf, with the concurrence of the Treasury,
hereby makes the following Order:—</Text>
  </Para>
 </EnactingText>
</SecondaryPreamble>
```

Headings

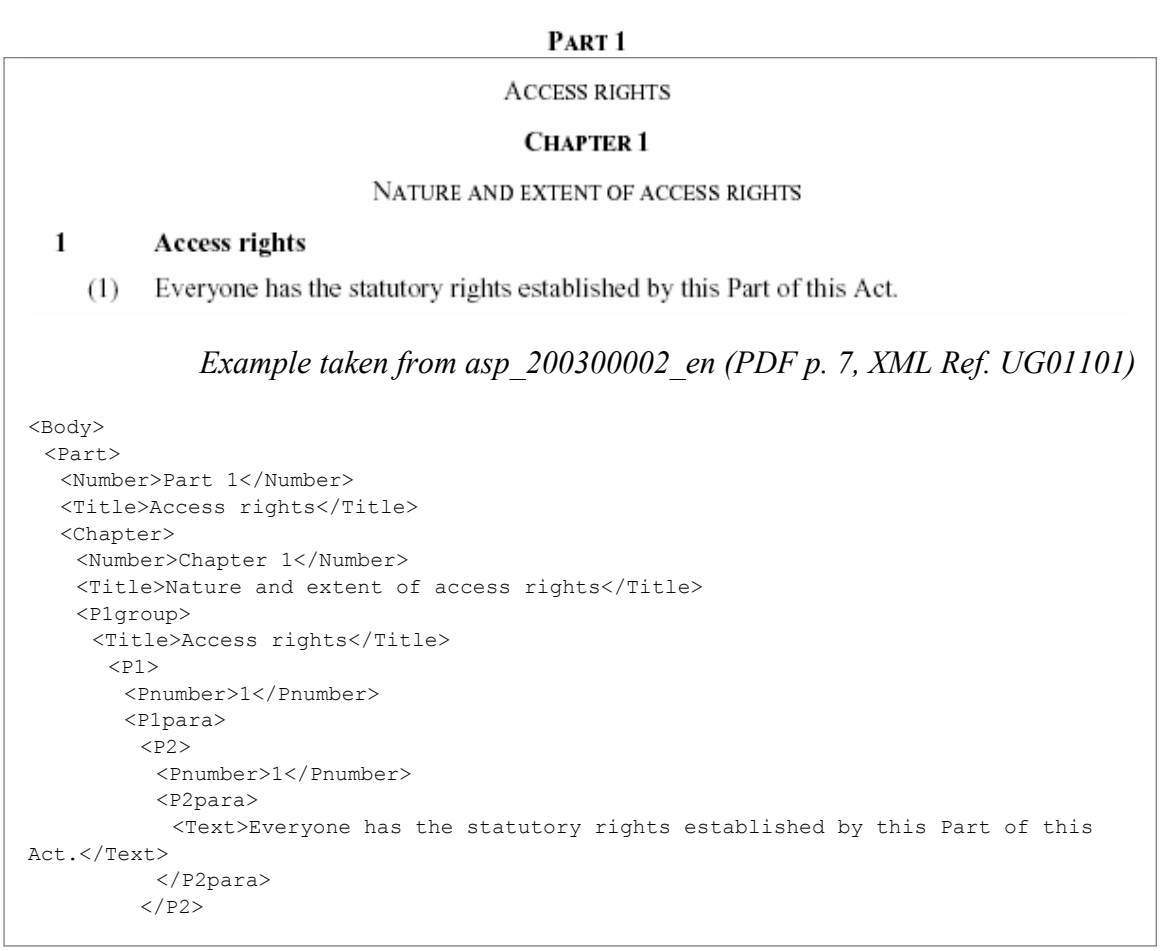
Careful analysis of primary and secondary legislation reveals that five levels of heading are sufficient. In the schema these have been given generic names that apply equally well to primary and secondary legislation, as well as most other documents. The <Pblock> and <PsubBlock> naming may seem a little obscure, and ideally we would have liked to have called them 'Section' and 'Subsection', but because primary legislation refers to sections and subsections, it was decided that this could cause confusion and a more generic solution was needed. The following is a list of the heading structures:

- <Group>
- <Part>
- <Chapter>
- <Pblock>
- <PsubBlock>

The <PsubBlock> level does not tend to occur in primary legislation.

Each level can contain <Number> and <Title> elements although the <Number> element is not always used for all document types. The <Number> element should contain words such as 'Part 1', whilst the <Title> element should contain the text of the heading for the section.

An example from a Scottish Act is given below:



PART 1

ACCESS RIGHTS

CHAPTER 1

NATURE AND EXTENT OF ACCESS RIGHTS

1 Access rights

(1) Everyone has the statutory rights established by this Part of this Act.

Example taken from asp_200300002_en (PDF p. 7, XML Ref. UG01101)

```
<Body>
 <Part>
  <Number>Part 1</Number>
  <Title>Access rights</Title>
  <Chapter>
   <Number>Chapter 1</Number>
   <Title>Nature and extent of access rights</Title>
   <P1group>
    <Title>Access rights</Title>
     <P1>
      <Pnumber>1</Pnumber>
      <P1para>
       <P2>
        <Pnumber>1</Pnumber>
        <P2para>
         <Text>Everyone has the statutory rights established by this Part of this
Act.</Text>
        </P2para>
       </P2>
```

In addition, each heading can have a <Reference> element, which is used to list the sections of the document to which the heading relates.

Schedules

For many pieces of legislation the schedules form the major part of the document and generally provide the detail to content described in the body of the document. The <Schedules> section follows on from the <Body> element.

It can contain a <Title> element that, for most documents, if it occurs, contains the word 'Schedules'. It can then contain the following structures:

- Abstract (<Abstract> element)
- Schedule (<Schedule> element)
- Signatures (<SignedSection> element)
- Appendix (<Appendix> element)

Abstracts, signed sections (signatures) and appendices are described elsewhere in this document. There may be an appendix to all the schedules, in which case it should be part of the <Schedules> element and occur after the schedules or, alternatively, it may be an appendix, in which case it should be part of a <Schedule> element – see below.

An actual schedule can contain the following structures:

- Schedule number (<Number> element)
- Schedule title (<Title> element)
- Reference to paragraphs (<Reference> element)
- Introductory text (<IntroductoryText> element)
- Arrangement (<Contents> element)
- The body of the schedule (<ScheduleBody> element)
- Appendix (<Appendix> element)

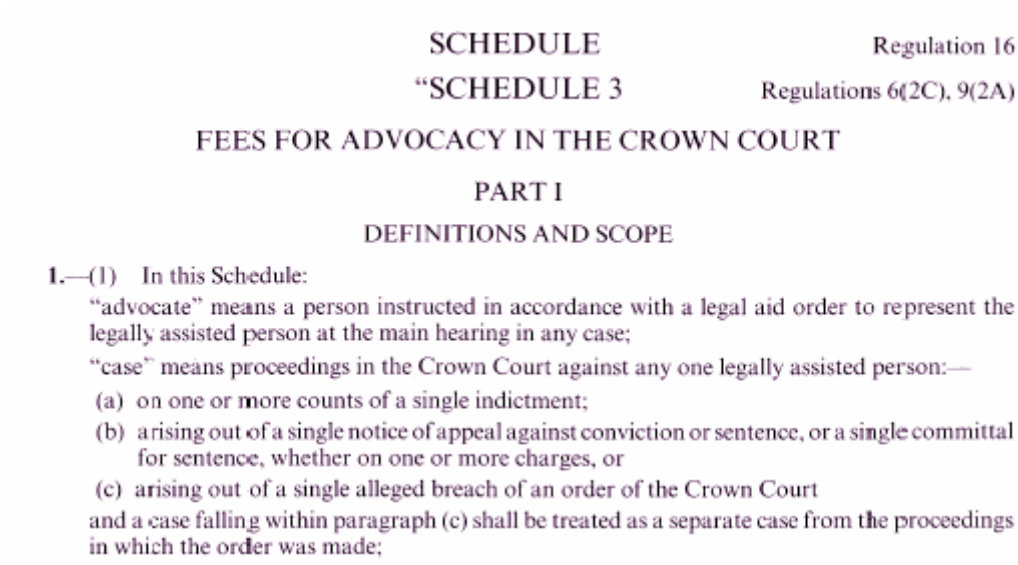
The <Number> and <Title> elements should hold the schedule number and title respectively.

The <Reference> element is used to list the sections of the document to which the schedule relates.

Introductory text can, sometimes, occur between the schedule title and the arrangement of the schedule (if one occurs). The <IntroductoryText> element can be used to contain this text.

The following is an excellent example, where a schedule is amending a schedule and both contain <Reference> elements:

Example taken from uksi_19962544_en (This is not a reference file)



SCHEDULE Regulation 16

"SCHEDULE 3 Regulations 6(2C), 9(2A)

FEES FOR ADVOCACY IN THE CROWN COURT

PART I

DEFINITIONS AND SCOPE

1.—(1) In this Schedule:

"advocate" means a person instructed in accordance with a legal aid order to represent the legally assisted person at the main hearing in any case;

"case" means proceedings in the Crown Court against any one legally assisted person:—

(a) on one or more counts of a single indictment;

(b) arising out of a single notice of appeal against conviction or sentence, or a single committal for sentence, whether on one or more charges, or

(c) arising out of a single alleged breach of an order of the Crown Court

and a case falling within paragraph (c) shall be treated as a separate case from the proceedings in which the order was made;

```
<Schedules>
 <Schedule>
  <Number>Schedule</Number>
  <Reference>Regulation 16</Reference>
  <ScheduleBody>
   <BlockAmendment TargetClass="secondary" TargetSubClass="regulation"
Context="schedule" Format="default">
    <Schedule>
     <Number>Schedule 3</Number>
     <TitleBlock><Title>Fees for Advocacy in the Crown Court</Title></TitleBlock>
     <Reference>Regulations 6(2C), 9(2A)</Reference>
     <ScheduleBody>
      <Part>
       <Number>Part I</Number>
       <Title>Definitions and Scope</Title>
       <P1>
        <Pnumber>1</Pnumber>
        <P1para>
         <P2>
          <Pnumber>1</Pnumber>
          <P2para><Text>In this Schedule:</Text>
           <UnorderedList Decoration="none" Class="Definition">
            <ListItem>
             <Para><Text>"advocate" means a person instructed in accordance with a
legal aid order to represent the legally assisted person at the main hearing in any
case;</Text></Para>
            </ListItem>
            <ListItem>
             <Para><Text>"case" means proceedings in the Crown Court against any
one legally assisted person:—</Text>
              <OrderedList Decoration="parens" Type="alpha">
               <ListItem>
                <Para><Text>on one or more counts of a single
indictment;</Text></Para>
               </ListItem>
               <ListItem>
                <Para><Text>arising out of a single notice of appeal against
conviction or sentence, or a single committal for sentence, whether on one or more
charges, or</Text></Para>
               </ListItem>
```

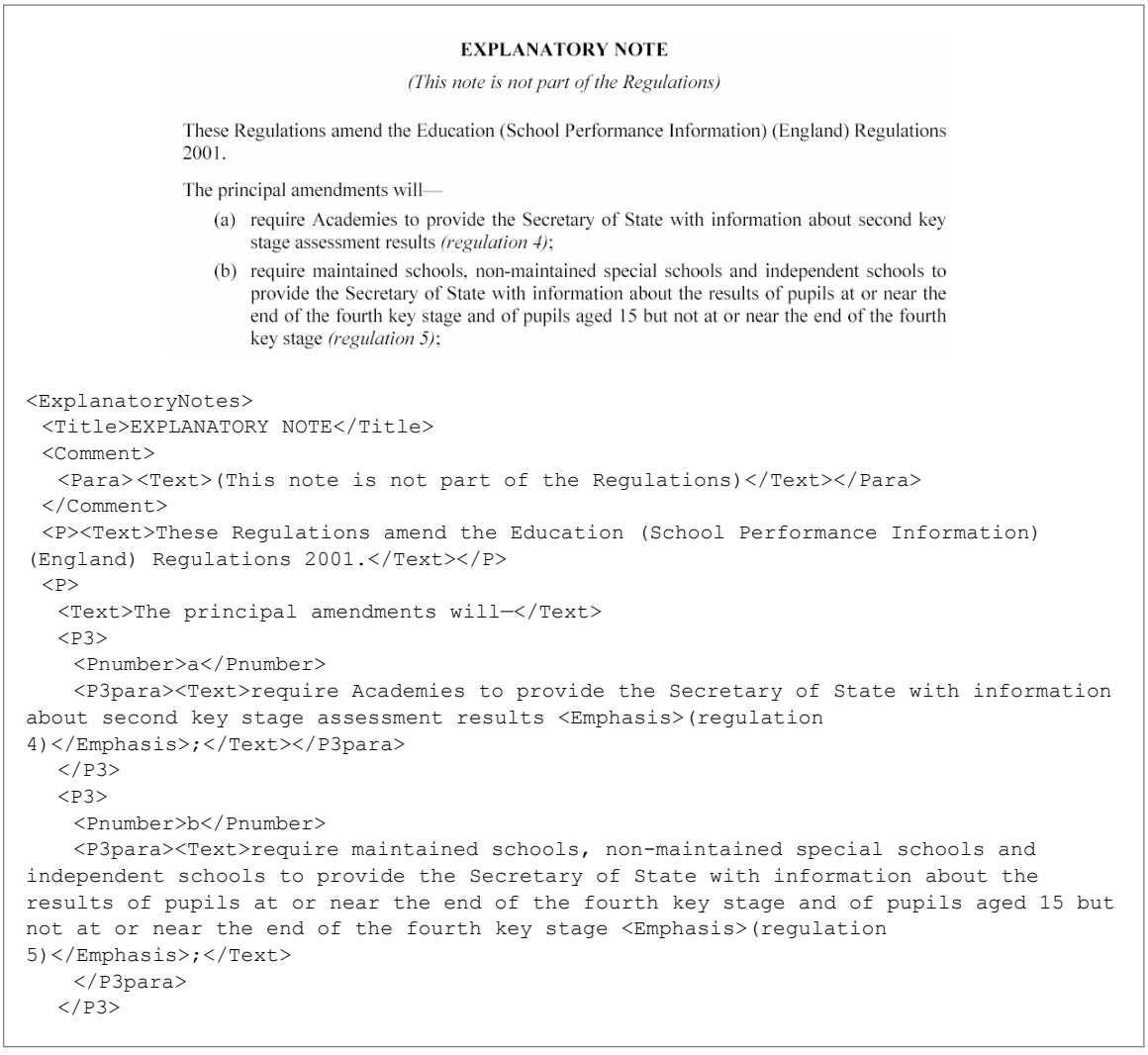
Provisions and paragraphs

The main body of legislation consists of numbered paragraphs (to give them a generic name). There are seven levels of numbered paragraphs in the schema, with element names of <P1>–<P7>. The level that should be used should reflect the structural level that is required. This can generally be ascertained by the level of indent on the hardcopy version of the legislation. Each numbered level must contain a <Pnumber> element that contains the number of the paragraph. Note that any extraneous punctuation for the number should not be marked up – this is implied formatting. However, if the punctuation needs to be overridden, for whatever reason, the attributes puncBefore and puncAfter can be used to do so.

In addition to the numbered paragraphs there are grouping elements for the first three levels. These allow a heading to be associated with a number of paragraphs. The groups are called <P1group>, <P2group> and <P3group>. Each grouping must contain a <Title> element, which should hold the heading text.

In addition to the seven numbered paragraph levels there is also a <P> element. Although not strictly true this can be thought of as a <P0> element as it may contain <P1> (although it must start with some inline content) and lower levels. It is an unnumbered paragraph. A <P1group> element may contain <P> elements allowing for a heading to a collection of paragraphs, although this use is rare and discouraged. An example of <P> is given below:

Example taken from uksi_20052338_en (PDF p. 4, XML Ref. UG01201)



EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations amend the Education (School Performance Information) (England) Regulations 2001.

The principal amendments will—

(a) require Academies to provide the Secretary of State with information about second key stage assessment results *(regulation 4)*;

(b) require maintained schools, non-maintained special schools and independent schools to provide the Secretary of State with information about the results of pupils at or near the end of the fourth key stage and of pupils aged 15 but not at or near the end of the fourth key stage *(regulation 5)*;

```
<ExplanatoryNotes>
 <Title>EXPLANATORY NOTE</Title>
 <Comment>
  <Para><Text>(This note is not part of the Regulations)</Text></Para>
 </Comment>
 <P><Text>These Regulations amend the Education (School Performance Information)
(England) Regulations 2001.</Text></P>
 <P>
  <Text>The principal amendments will—</Text>
  <P3>
   <Pnumber>a</Pnumber>
   <P3para><Text>require Academies to provide the Secretary of State with information
about second key stage assessment results <Emphasis>(regulation
4)</Emphasis>;</Text></P3para>
  </P3>
  <P3>
   <Pnumber>b</Pnumber>
   <P3para><Text>require maintained schools, non-maintained special schools and
independent schools to provide the Secretary of State with information about the
results of pupils at or near the end of the fourth key stage and of pupils aged 15 but
not at or near the end of the fourth key stage <Emphasis>(regulation
5)</Emphasis>;</Text>
   </P3para>
  </P3>
```

There is also a <Para> element. This is used where it is not possible for a paragraph to contain numbered paragraphs (it may include numbered lists). For example:

Example taken from uksi_20051643_en (PDF p. 1, XML Ref. UG00004)

The First Secretary of State, in exercise of the powers conferred on him by sections 59, 71, 76A(5), (6) and (10), 77(4), 78(3), 78A(6) and 79(4) of, and paragraph 7 of Schedule 1 to, the Town and Country Planning Act 1990(**a**), and section 54 of the Planning and Compulsory Purchase Act 2004(**b**), makes the following Order:

```
<EnactingText>
 <Para>
  <Text>The Secretary of State, in the exercise of the powers conferred on him by
sections 15(1), (2), and (5), and 82(2) and (3) of, and paragraphs 1(1)(a) and (c),
8(1), 9, 11, 13(2) and (3), 14, 15(1), 16 and 20 of Schedule 3 to the Health and
Safety at Work etc. Act 1974<FootnoteRef Ref="f00001"/> ("the 1974 Act") and of all
other powers enabling him in that behalf, for the purpose of giving effect without
modifications to proposals submitted to him by the Health and Safety Commission under
section 11(2)(d) of the 1974 Act after the carrying out by the said Commission of
consultations in accordance with section 50(3) of that Act, hereby makes the following
Regulations:</Text>
 </Para>
</EnactingText>
```

The next example shows an example covering the first three levels of paragraph.

Example taken from ukpga_20000032_en (PDF p. 2, XML Ref. UG00303)

General functions of the Board.

3.—(1) The Board shall secure the maintenance of the police in Northern Ireland.

(2) The Board shall secure that—

(a) the police,

(b) the police support staff, and

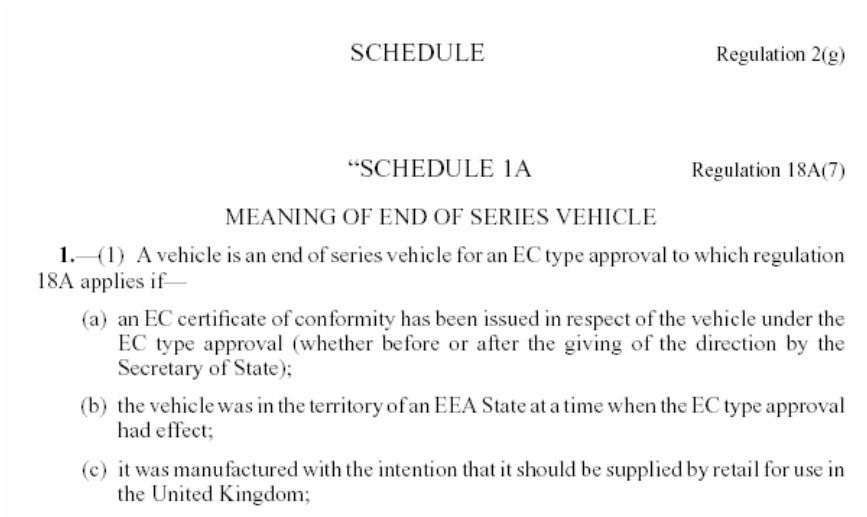
(c) traffic wardens appointed by the Board under section 71,

are efficient and effective.

```
<P1group id="p00005">
 <Title>General functions of the Board</Title>
 <P1>
  <Pnumber>3</Pnumber>
  <P1para>
   <P2 id="p00116">
    <Pnumber>1</Pnumber>
    <P2para><Text>The Board shall secure the maintenance of the police in Northern
Ireland.</Text></P2para>
   </P2>
   <P2 id="p00117">
    <Pnumber>2</Pnumber>
    <P2para> <Text>The Board shall secure that—</Text>
     <P3><Pnumber>a</Pnumber>
      <P3para><Text>the police,</Text></P3para>
     </P3>
     <P3><Pnumber>b</Pnumber>
      <P3para><Text>the police support staff, and</Text></P3para>
     </P3>
     <P3>
      <Pnumber>c</Pnumber>
      <P3para><Text>traffic wardens appointed by the Board under <InternalLink
Ref="p00089">section 71</InternalLink>,</Text></P3para>
     </P3>
     <Text>are efficient and effective.</Text></P2para>
   </P2>
```

The following example is from a UK SI and shows the numbering system working within a <BlockAmendment> element (detailed in the section 'Amendments'). Note that exactly the same mark-up is used within the amendment as would be in the main text. Although the formatting is completely different to the previous example the semantics are the same and therefore the mark-up is the same.

Example taken from uksi_20031099_en (PDF p. 6, XML Ref. UG00902)



SCHEDULE Regulation 2(g)

"SCHEDULE 1A Regulation 18A(7)

MEANING OF END OF SERIES VEHICLE

1.—(1) A vehicle is an end of series vehicle for an EC type approval to which regulation 18A applies if—

(a) an EC certificate of conformity has been issued in respect of the vehicle under the EC type approval (whether before or after the giving of the direction by the Secretary of State);

(b) the vehicle was in the territory of an EEA State at a time when the EC type approval had effect;

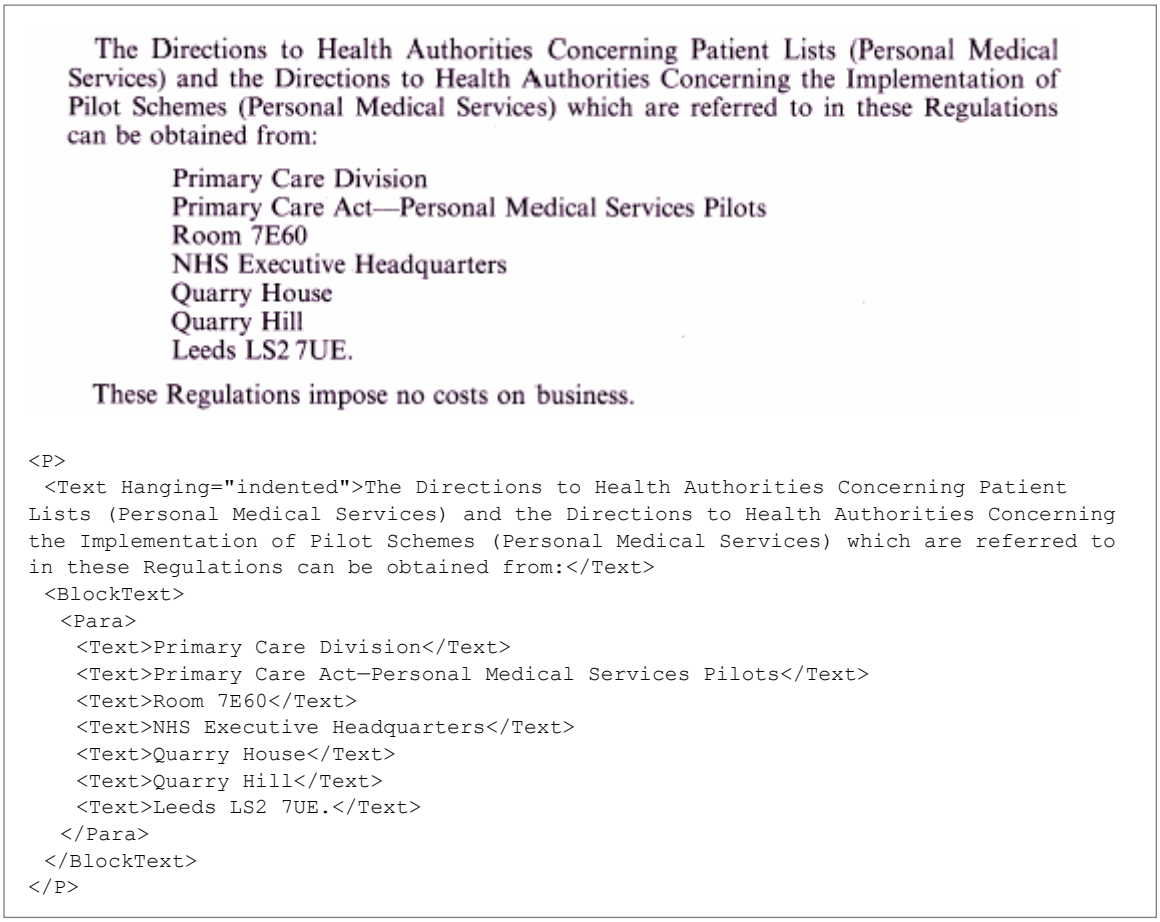
(c) it was manufactured with the intention that it should be supplied by retail for use in the United Kingdom;

```
<Schedules>
 <Schedule>
  <Number>Schedule</Number>
  <Reference>Regulation 2(g)</Reference>
  <ScheduleBody>
   <BlockAmendment TargetClass="secondary" TargetSubClass="regulation"
Context="schedule" Format="default">
    <Schedule>
     <Number>Schedule 1A</Number>
     <TitleBlock>
      <Title>Meaning of End of Series Vehicle</Title>
     </TitleBlock>
     <Reference>Regulation 18A(7)</Reference>
     <ScheduleBody>
      <P1>
       <Pnumber>1</Pnumber>
       <P1para>
        <P2>
         <Pnumber>1</Pnumber>
         <P2para>
          <Text>A vehicle is an end of series vehicle for an EC type approval to
which regulation 18A applies if—</Text>
          <P3>
           <Pnumber>a</Pnumber>
           <P3para><Text>an EC certificate of conformity has been issued in respect
of the vehicle under the EC type approval (whether before or after the giving of the
direction by the Secretary of State);</Text></P3para>
          </P3>
          <P3>
           <Pnumber>b</Pnumber>
           <P3para><Text>the vehicle was in the territory of an EEA State at a time
when the EC type approval had effect;</Text></P3para>
          </P3>
          <P3>
           <Pnumber>c</Pnumber>
           <P3para><Text>it was manufactured with the intention that it should be
supplied by retail for use in the United Kingdom;</Text></P3para>
          </P3>
```

Sub-paragraphs

There are (rare) occasions where a structure occurs in legislation which has content consisting of one or more sub-paragraphs (the term 'sub-paragraphs' is somewhat ambiguous). The schema has a mechanism called <BlockText> to handle this. It should be used where a paragraph contains one or more paragraphs within itself. These paragraphs are usually indented. It should not be confused with an unordered list – which is a list of semantically connected items. An example is given below:

Example taken from uksi_19980668_en (PDF p. 8, XML Ref. UG01301)



The Directions to Health Authorities Concerning Patient Lists (Personal Medical Services) and the Directions to Health Authorities Concerning the Implementation of Pilot Schemes (Personal Medical Services) which are referred to in these Regulations can be obtained from:

Primary Care Division
Primary Care Act—Personal Medical Services Pilots
Room 7E60
NHS Executive Headquarters
Quarry House
Quarry Hill
Leeds LS2 7UE.

These Regulations impose no costs on business.

```
<P>
 <Text Hanging="indented">The Directions to Health Authorities Concerning Patient
Lists (Personal Medical Services) and the Directions to Health Authorities Concerning
the Implementation of Pilot Schemes (Personal Medical Services) which are referred to
in these Regulations can be obtained from:</Text>
 <BlockText>
  <Para>
   <Text>Primary Care Division</Text>
   <Text>Primary Care Act—Personal Medical Services Pilots</Text>
   <Text>Room 7E60</Text>
   <Text>NHS Executive Headquarters</Text>
   <Text>Quarry House</Text>
   <Text>Quarry Hill</Text>
   <Text>Leeds LS2 7UE.</Text>
  </Para>
 </BlockText>
</P>
```

<P1> with first child of <P2group>

This is an unusual combination of mark-up. The following is an example from an actual SI (UKSI 1998 1566). There is the obvious question of where to put the heading to the <P2group> and this example displays the recommended layout.

Example taken from uksi_19981566_en (PDF p. 10, XML Ref. UG01401)

Non-registration test

Induction meters

2.—(1) Induction meters shall be tested to ensure that when the current circuits are open and a voltage of 110 per cent. of the declared system voltage is applied to the voltage circuits, rotors cease to rotate before completing one revolution.

Static meters

(2) Static meters shall be tested for non-registration by one of the following methods—

Method 1

(a) (i) When subjected to the test conditions specified in paragraph 2(1), the meter shall not emit more than one output pulse over the minimum test period determined in paragraph (ii);

```
<P1group>
 <Title>Non-registration test</Title>
 <P1>
  <Pnumber>2</Pnumber>
  <P1para>
   <P2group>
    <Title>Induction meters</Title>
    <P2>
     <Pnumber>2</Pnumber>
     <P2para>
      <Text>Induction meters shall be tested to ensure that when the current circuits
are open and a voltage of 110 per cent. of the declared system voltage is applied to
the voltage circuits, rotors cease to rotate before completing one revolution.</Text>
     </P2para>
    </P2>
   </P2group>
   <P2group>
    <Title>Static meters</Title>
    <P2>
     <Pnumber>2</Pnumber>
     <P2para>
      <Text>Static meters shall be tested for non-registration by one of the
following methods—</Text>
       <P3group>
        <Title>Method 1</Title>
        <P3>
         <Pnumber>a</Pnumber>
         <P3para>
          <P4>
           <Pnumber>i</Pnumber>
           <P4para>
            <Text>When subjected to the test conditions specified in paragraph 2(1),
the meter shall not emit more than one output pulse over the minimum test period
determined in paragraph (ii);</Text>
           </P4para>
          </P4>
```

Lists

Lists in the schema can be ordered lists (e.g. numbered), unordered lists (e.g. bulleted), or key lists (lists that provide a key to something), and in general form part of a paragraph because of the paragraph model used in the schema.

Ordered lists

Ordered lists should not be confused with provisions. Provisions are numbered paragraphs, whereas ordered lists are semantically grouped paragraphs.

Ordered lists are marked up using the <OrderedList> element.

The format of the list numbering is defined using the `Type` attribute and can be one of the values listed in the table below:

Attribute value	Format
arabic	1, 2, 3, 4 …
roman	i, ii, iii, iv …
romanUpper	I, II, III, IV …
alpha	a, b, c, d …
alphaUpper	A, B, C, D …

In addition, it is possible to define the text that surrounds the number in each item in the list using the `Decoration` attribute. The possible values are listed in the table below:

Attribute value	Format
none	1, 2, 3, 4 …
parens	(1), (2), (3), (4) …
parenRight	1), 2), 3), 4) …
brackets	[1], [2], [3], [4] …
bracketRight	1], 2], 3], 4] …
period	1., 2., 3., 4., …
colon	1:, 2:, 3:, 4: …

In some circumstances it will be desirable to start list numbering at a number other than 1 (in an amendment, for instance) and this can be achieved by using the `Start` attribute. The value is the numeric start value of the list, e.g. a value of 3 in an alpha list would start the numbering with a letter ‘c’. The default value is 1.

Unordered lists

Unordered lists provide a mechanism to group together paragraphs that form a semantic list rather than just marking them up as unconnected paragraphs of text. Unordered lists are marked up using the `<UnorderedList>` element.

The `Decoration` attribute defines the type of bullet (if any) that should be used when formatting the content. The possible values are listed in the table below:

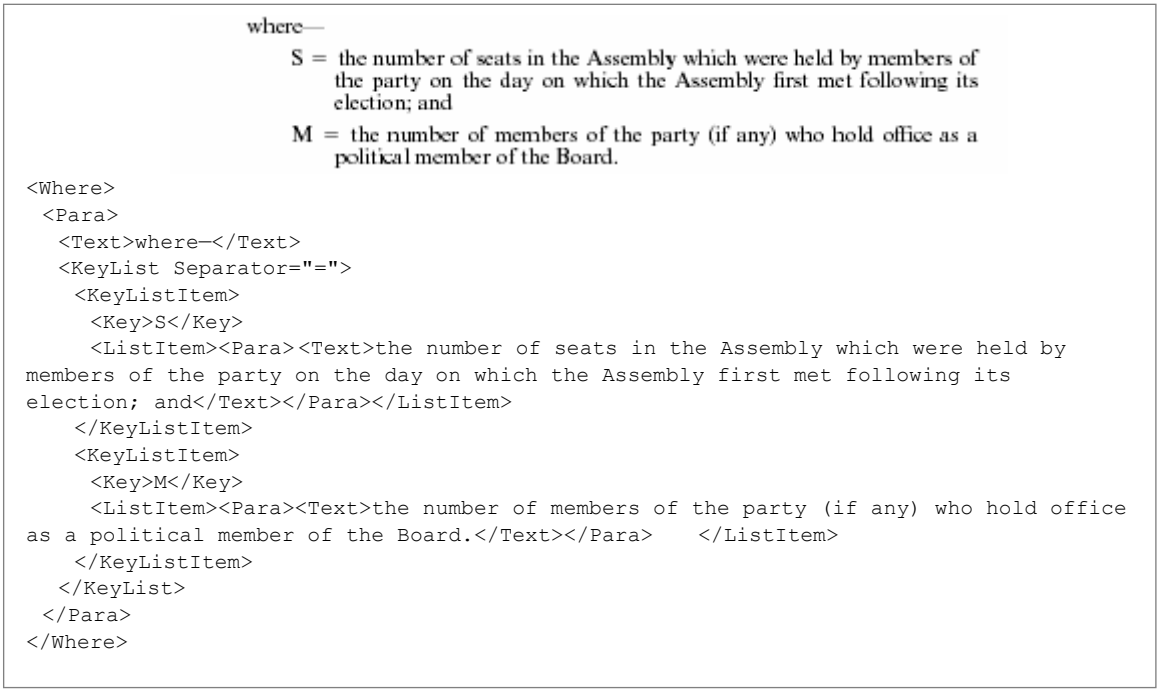
Attribute value	Format
bullet	•
dash	—
arrow	→
none	Also known as a tabbed list

The schema provides a `Class` attribute to identify the purpose of an unordered list – this is designed for use with tabbed lists to act as a hint to identify lists of definitions in secondary legislation. The suggested value for this kind of list is 'Definition'.

Key lists

Key lists are a structure that provides a key to explain some other part of the document. In legislation they generally occur following formulae to provide a key to the meanings of the variables used in the formula. For example:

Example taken from ukpga_20000032_en (PDF p. 49, XML Ref. UG00301)


where—

S = the number of seats in the Assembly which were held by members of the party on the day on which the Assembly first met following its election; and

M = the number of members of the party (if any) who hold office as a political member of the Board.

```
<Where>
 <Para>
  <Text>where—</Text>
  <KeyList Separator="=">
   <KeyListItem>
    <Key>S</Key>
    <ListItem><Para><Text>the number of seats in the Assembly which were held by
members of the party on the day on which the Assembly first met following its
election; and</Text></Para></ListItem>
   </KeyListItem>
   <KeyListItem>
    <Key>M</Key>
    <ListItem><Para><Text>the number of members of the party (if any) who hold office
as a political member of the Board.</Text></Para>   </ListItem>
   </KeyListItem>
  </KeyList>
 </Para>
</Where>
```

The `Separator` attribute can be a text string that contains the text the separates the key item from its definition.

Tables

Tables occur frequently within legislation and can be of reasonable complexity and large in size (both in terms of number of rows and columns and actual printed size).

The schema implements tables using the XHTML table model in a slightly modified format.

The modified version tightens the model slightly. For instance, a `<tbody>` element is obligatory. In some areas unnecessary mark-up is omitted, e.g. `cellspacing` and `cellpadding` attributes. In addition the `style` attribute has been replaced with attributes from XSL:FO (XSL Formatting Objects, http://www.w3.org/TR/xsl), hereafter referred to as 'FO'. The reason for this is to ease the task of processing documents and also to enable easier authoring. If authors where expected to use the style attribute it would entail learning Cascading Style Sheets (CSS) – an extra burden.

Tabular

The schema contains an element called `<Tabular>` that is a wrapper for a table structure. Tabular allows the following structures:

- A number (e.g. Table 1, Table 2, etc) (`<Number>` element)
- A title (e.g. Table of Derivations) (`<Title>` element)
- A subtitle (`<Subtitle>` element)
- Text that precedes the table (`<TableText>` element)
- Multiple tables

The following box gives an example of how the Tabular structure would be used if all of the structures were used (note that the layout is not representative of any true document style).

Table number
Table title
Table subtitle

This would be table text and would generally describe the table in some detail, including perhaps a key for the contents of the table.

Table caption for first table

1	*2*	*3*	*4*	*5*
A	b	C	d	E
Q	w	E	R	t

Table caption for second table

6	*7*	*8*	*9*	*0*
a	b	c	d	E
q	w	e	r	t

From the example it can be seen that each individual table can have a caption. To do this the `<caption>` element is used within each table needing a caption. It is therefore expected that in general the table title will be described using the `<Title>`

element rather than the <caption> element and that the caption element should be reserved for when multiple tables occur in a <Tabular> element

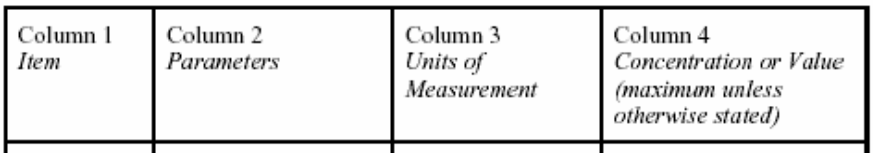
In addition an orientation attribute can be used to rotate the entire structure if necessary by dictating portrait or landscape rendering.

The 'FO' attributes

FO is a page layout and pagination XML-based mark-up language with a lot of its terminology based on CSS – especially attributes for formatting. These attributes can be used to replicate the control that the style attribute would normally give on HTML tables.

FO attributes are used to control the background colour of a cell, the borders on a cell and the orientation of a cell. For example:

Example taken from ukpga_20030666_en (PDF p. 6, XML Ref. UG01501)




```
<thead fo:border-bottom-style="solid" fo:border-left-style="solid" fo:border-right-
style="solid" fo:border-top-style="solid">
 <tr>
  <th fo:border-right-style="solid">
   <ukl:Emphasis>Column 1</ukl:Emphasis>
  </th>
  <th fo:border-right-style="solid">
   <ukl:Emphasis>Column 2</ukl:Emphasis>
  </th>
  <th fo:border-right-style="solid">
   <ukl:Emphasis>Column 3</ukl:Emphasis>
  </th>
  <th>
   <ukl:Emphasis>Column 4</ukl:Emphasis>
  </th>
 </tr>
 <tr>
  <th fo:border-right-style="solid">Item</th>
  <th fo:border-right-style="solid">Parameters</th>
  <th fo:border-right-style="solid">Units of Measurement</th>
  <th>Concentration or Value (maximum unless otherwise stated)</th>
 </tr>
</thead>
```

Note that, in this instance, just the presence of the fo:border-bottom-style attribute is enough to define a border. The fo:border-bottom-width attribute is inferred to default to 0.5pt and the fo:border-bottom-color attribute is inferred to default to black.

FO colour attribute values should be defined using RGB notation or CSS basic colour values as listed in the table below:

Colour name	RGB hex colour value
aqua	#00ffff
black	#000000
blue	#0000ff
fuchsia	#ff00ff
gray	#808080
green	#008000
lime	#00ff00
maroon	#800000
navy	#000080
olive	#808000
purple	#800080
red	#ff0000
silver	#c0c0c0
teal	#008080
white	#ffffff
yellow	#ffff00

The orientation of a cell is controlled by the `fo:reference-orientation` attribute and can hold values of 90, 180 or 270 (degress) in either a positive or negative direction (using negative values will give the inverse rotation to using the positive value) where positive is clockwise.

Decorated groups

Accolades are very long vertical or horizontal objects that typically occur within tables and are used to 'group' content together by visual presentation.

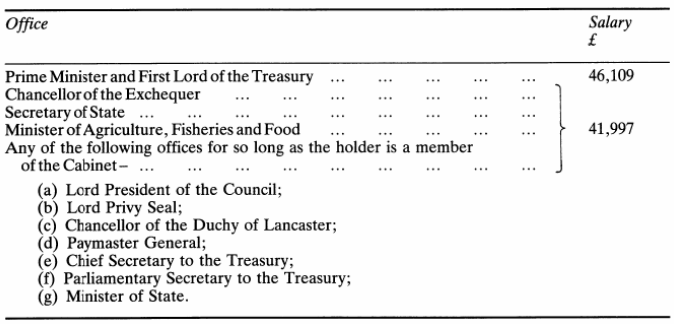
The element `<DecoratedGroup>` exists so that the 'grouping' concept is held structurally within the XML mark-up and the decoration (normally a brace) can then be auto-generated for output.

Usually a decorated group will be made up of two `<GroupItem>` elements, the first containing the text of the first half of the content and the second one containing the second half of the content. The `Orientation` attribute is used to specify the orientation of the accolade. The following table is a list of possible values:

Attribute value	Explanation
leftToRight	Group item 1 on the left, group item 2 on the right, accolade should be output as normal
topToBottom	Group item 1 on the top, group item 2 on the bottom, accolade should be rotated 90 degrees right
bottomToTop	Group item 1 on the bottom, group item 2 on the top, accolade should be rotated 90 degrees left
rightToLeft	group item 1 on the right, group item 2 on the left, accolade should be flipped from right to left

Sometimes the second half of the content is in an adjacent table cell so grouping of the content is not possible across the cell boundaries. The solution is to use a `<GroupItemRef>` element instead of `<GroupItem>`. This uses a `Ref` attribute to reference an id on the associated cell. An example is given below:

Example taken from uksi_19882253_en (PDF p. 2, XML Ref. UG01601)



Office	*Salary* £
Prime Minister and First Lord of the Treasury	46,109
Chancellor of the Exchequer Secretary of State Minister of Agriculture, Fisheries and Food Any of the following offices for so long as the holder is a member of the Cabinet–	41,997
(a) Lord President of the Council; (b) Lord Privy Seal; (c) Chancellor of the Duchy of Lancaster; (d) Paymaster General; (e) Chief Secretary to the Treasury; (f) Parliamentary Secretary to the Treasury; (g) Minister of State.	

```
<tr><td rowspan="1" colspan="1">
   <DecoratedGroup Decoration="}" Orientation="leftToRight"
xmlns="http://www.tso.co.uk/assets/namespace/legislation">
    <GroupItem>
     <Para><Text Hanging="hanging">Chancellor of the Exchequer<Character
Name="DotPadding"/></Text></Para>
     <Para><Text Hanging="hanging">Secretary of State<Character
Name="DotPadding"/></Text></Para>
     <Para><Text Hanging="hanging">Minister of Agriculture, Fisheries and
Food<Character Name="DotPadding"/></Text></Para>
     <Para><Text Hanging="hanging">Any of the following offices for so long as the
holder is a member of the Cabinet—<Character Name="DotPadding"/></Text></Para>
    </GroupItem>
    <GroupItemRef Ref="t01000"/></DecoratedGroup></td>
 <td id="t01000" valign="middle">41,997</td>
</tr>
```

Linking and citations

There are two separate linking mechanisms: internal and external, and the citation mechanism, which provides information about a document without necessarily providing an actual link.

Internal linking

The internal mechanism is implemented as the `<InternalLink>` element and allows a cross-reference to be inserted to any element that has an `id` attribute. This is done using the `Ref` attribute. If required it is also possible to link to a range by using the `EndRef` attribute which, again, links to an `id` attribute.

If the target for a link needs to be in the middle of text then the `<Span>` element can be used to wrap the target text (or even just provide a point target). This element has an `id` attribute and is designed specifically for this kind of task.

The following example shows internal links:

Example taken from uksi_19882253_en (PDF p. 4, XML Ref. UG01701)

```
<P4 id="p00014">
 <Pnumber>ii</Pnumber>
 <P4para>
  <Text>the conditions in <InternalLink Ref="p00002">section 3(1)</InternalLink> and
<InternalLink Ref="p00003">(2)</InternalLink> (savings credit).</Text>
 </P4para>
</P4>
```

External linking

The external link mechanism is implemented as the `<ExternalLink>` element and allows a hyperlink to another document.

The `URI` attribute is used to hold the link and is flexible in that it can contain any URI. This may be a URL (web address) or a DOI (which should be in URN format, e.g. doi:10.1000/182).

The `Title` attribute should hold a description of where the link goes.

The following is an example of external linking:

Example taken from uksi_20031099_en (PDF p. 7, XML Ref. UG00903)

```
<P>
 <Text Hanging="indented">Copies of the Directives referred to in the Regulations may
be obtained from the Stationery Office. Copies of the Transposition Note are available
from the Vehicle Certification Agency, 1 The Eastgate Office Centre, Eastgate Road,
Bristol, BS5 6XX (Telephone number: 0117 9524106; fax number: 0117 9524104). Access to
copies of the Note can also be obtained by visiting the Vehicle Certification Agency's
website at <ExternalLink URI="http://www.vca.gov.uk" Title="Vehicle Certification
Agency website">www.vca.gov.uk</ExternalLink>.</Text>
</P>
```

Citations

Citations provide the ability to cite other documents. There are two levels of citation – main citations that refer to the actual document and sub-references that link to the main citation (or another sub-reference) and which highlight fragments within the cited document.

The `<Citation>` element uses `Year` and `Number` attributes to identify the target document and refer to the following:

- Secondary legislation: the year and number of the legislation
- Primary legislation: the calendar year of enactment and the chapter number. Note that the number is always a numeric value, even when referring the local acts for instance, which are numbered using roman numbering.

Additionally there may be an `AlternativeNumber` attribute. For example an Order that applies to Northern Ireland would have an alternative number of the format 'NI 11'. Alternatively, for early primary legislation (pre-1963), this may hold the regnal year e.g. 7 & 8 Eliz.2. Please see the metadata section for an explanation of regnal years.

The following is an example of a citation sub-reference:

Example taken from ukpga_20020016_en (PDF p. 13, XML Ref. UG01702)

```
<P3>
 <Pnumber>b</Pnumber>
 <P3para>
  <Text>a shared additional pension payable under <CitationSubRef id="c00131"
CitationRef="c00129 c00005">section 55A</CitationSubRef> of either of those Acts
(utilisation of State scheme pension credits on divorce);</Text>
 </P3para>
</P3>
```

It can be seen from this example that it is not immediately apparent to which document the sub-reference is referring. The sub-reference links back to main citation references (it would generally only link to one main reference but the ability is there to link to multiple) using the `CitationRef` attribute. This is shown in the code fragment below:

Example taken from ukpga_20020016_en (PDF p. 13, XML Ref. UG01703)

```
<P4>
 <Pnumber>i</Pnumber>
 <P4para>
  <Text>the <Citation id="c00129" Class="UnitedKingdomPublicGeneralAct" Year="1992"
Number="0004">Contributions and Benefits Act</Citation>; or</Text>
 </P4para>
</P4>
<P4>
 <Pnumber>ii</Pnumber>
 <P4para>
  <Text>the <Citation id="c00005" Class="UnitedKingdomPublicGeneralAct" Year="1992"
Number="0007">Social Security Contributions and Benefits (Northern Ireland) Act 1992
(c. 7)</Citation>;</Text>
 </P4para>
</P4>
```

It is envisaged that main citation references could become hyperlinks to the cited document and that sub-references could either become hyperlinks back to the main

citation, or, by de-referencing the sub-references, could become links to the target document also. Additionally it would be possible to generate tooltips (pop-up text) by aggregating the citation text. For example, from the above code fragments a tooltip could be generated for the sub-reference stating something like the following:

'This refers to: section 55A of both the Contributions and Benefits Act [1992 c. 4] and the Social Security Contributions and Benefits (Northern Ireland) Act 1992 (c. 7)'

A sub-reference may also link to another sub-reference (again using the `CitationRef` attribute). In the example below it can be seen that 'subsection (1)' links to 'section 315' which then links to a main citation.

Example taken from ukpga_20020016_en (PDF p. 14, XML Ref. UG01704)

```
<Para>
 <Text>corresponding in nature to any retired pay or pension to which <CitationSubRef
id="c00153" CitationRef="c00152">subsection (1)</CitationSubRef> of <CitationSubRef
id="c00152" CitationRef="c00013">section 315</CitationSubRef> of the <Citation
id="c00013" Class="UnitedKingdomPublicGeneralAct" Year="1988" Number="0001">Income and
Corporation Taxes Act 1988 (c. 1)</Citation> applies;</Text>
</Para>
```

It is also envisaged that with a processing application using pattern matching it may be possible to link into the target document (assuming of course that there is some form of target to link to). For instance in the example above pattern matching could possibly work out something like the following:

ukpga 1998 c.1 --> section 315 --> subsection (1)

would become a hyperlink such as:

ukpga_19980001_en.html#s315-ss001

(assuming of course that 'ukpga_19980001_en.html#s315-ss001' is a target) by pattern matching 'section' and 'subsection' and from extracting the numbers.

It is accepted that pattern matching is not a full-proof method but the terminology used in legislation is reasonably consistent. As an aid to this a sub-reference can have a `Type` attribute with a value of 'standard' or 'group'. This is a hint as to the text content, e.g. 'group' would indicate the content is something like 'subsections (5) and (6)'.

Citations may have a `Locator` attribute. This can be used where the location of the cited document is known (and preferably persistent), or, where the target cannot be calculated, by using the other attribute values. Restraint should be shown in using this attribute. Target locations should be calculated where possible because the citation will be unchanging but the location of the target document could change over time. Additionally, the citation to the document does not actually point to a particular form of the cited document, which may be available in multiple formats. The target format could change depending upon the circumstances in which the document is being used.

The `<Citation>` element may also have a `DOI` (Digital Object Identifier) attribute. Use of this is encouraged where the target document has a DOI as a DOI is persistent and resolution of the DOI is carried out on-the-fly – that is the location of the target document is stored in a DOI record. A DOI hyperlink will always exist and the resolution process converts this to the actual URL of the document. As long as DOI records are maintained the link will work. It is also possible to maintain information on multiple target formats in the DOI record.

Mathematics

Mathematics does occur in legislation (although not frequently). It ranges from very simple to highly complex and can occur inline or as display. Therefore, it is necessary to include a mechanism to allow for this. Mathematics in the schema is described using MathML (http://www.w3.org/Math/). MathML is a standard XML format for marking up mathematics. It is comprehensive and support for it is on the increase.

Formula module

The mathematics functionality is wrapped up in a module called schemaFormula.xsd. This imports the MathML2 schema.

The `<Formula>` element can contain an equation number (although the need for this is very rare), the actual equation, and a `<Where>` element.

How to use mathematics

The following is an example of how MathML looks in XML mark-up and its equivalent rendering:

```
<math display="block" xmlns="http://www.w3.org/1998/Math/MathML">
 <semantics>
  <mrow>
   <mi>x</mi>
   <mo>=</mo>
   <mrow>
    <mo>(</mo>
    <mrow>
     <mfrac>
      <mi>a</mi>
      <mi>b</mi>
     </mfrac>
    </mrow>
    <mo>)</mo>
   </mrow>
   <mo>+</mo>
   <mn>3</mn>
   <mi>α</mi>
   <mrow>
    <mo>(</mo>
    <mrow>
     <mfrac>
      <mi>c</mi>
      <mi>d</mi>
     </mfrac>
    </mrow>
    <mo>)</mo>
   </mrow>
   <mo>+</mo>
   <mn>5</mn>
   <mi>β</mi>
  </mrow>
 </semantics>
</math>
```

$$x = \left(\frac{a}{b}\right) + 3\alpha\left(\frac{c}{d}\right) + 5\beta$$

MathML sits in the namespace http://www.w3.org/1998/Math/MathML. Therefore it will be necessary to declare the namespace (using the standard XML namespace methods). We would recommend declaring the namespace locally as this allows for the XML fragment to be extracted complete with its namespace information intact. It also simplifies the mark-up.

MathML equations can be created using an application called MathType (www.dessci.com), a subset of which is in embedded into Microsoft Word.

Currently only two browsers support MathML rendering – Amaya and Mozilla. An alternative would be to convert MathML to SVG – most browsers will support SVG plug-ins. Additionally, for XSL:FO output Antenna House (www.antennahouse.com) have a MathML plug-in for their 'XSL Formatter' software.

To aid rendering of mathematics until MathML support is more widespread it is possible to use the 'version' mechanism within the schema to hold an image of the mathematics.

The fragment below is an example of how a display formula can reference an alternate version.

```
<Formula AltVersionRefs="v00007">
<math display="block" xmlns="http://www.w3.org/1998/Math/MathML">
 <semantics>
 …
 …
```

In the <Versions> section of the document place the following mark-up (the Description attribute is optional).

```
<Version id="v00007" Description="Equation graphical version" RestrictOutput="true"
Class="graphic">
 <Figure>
  <Image ResourceRef="r00007" Width="101.25pt" Height="30.75pt"/>
 </Figure>
</Version>
```

In turn this references a resource (from the <Resources> section of the document) that would be marked up as:

```
<Resource id="r00007">
<ExternalVersion URI="uksi_20051643_en_007.tif" Format="tiff"/>
</Resource>
```

For inline mathematics the same can be achieved by using a <Span> element – the <Span> element is simply a generic inline container created specifically for this kind of use. For example:

```
<Span AltVersionRefs="v00001"><math display="inline"
xmlns="http://www.w3.org/1998/Math/MathML">
<semantics>
<mrow>
```

This again references the <Versions> section of the document:

```
<Version id="v00001" Description="Equation graphical version" Class="graphic"
RestrictOutput="true">
<Image ResourceRef="r00001" Width="48pt" Height="17.25pt" />
</Version>
```

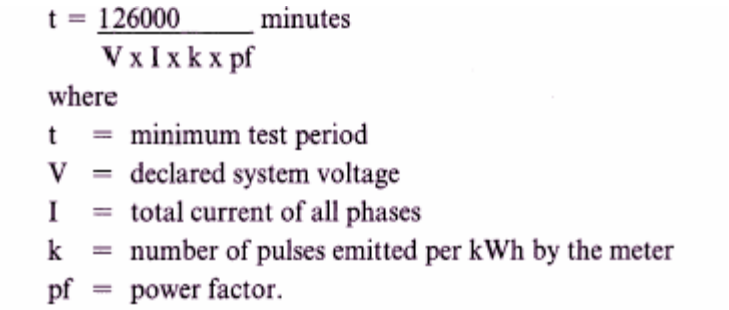
And again this references a resource from the <Resources> section.

```
<Resource id="r00001">
<ExternalVersion URI="uksi_20051643_en_001.tif" Format="tiff" />
</Resource>
```

Formula explanatory text

The <Where> element (if present) contains explanatory text for the variables used within the formula – this is actually quite common in legislation. In general the contents is laid out in a list format. The following is an example of the XML mark-up:

Example taken from uksi_19982566_en (PDF p. 10, XML Ref. UG01402)



$$t = \frac{126000}{V \times I \times k \times pf} \text{ minutes}$$

where

t = minimum test period
V = declared system voltage
I = total current of all phases
k = number of pulses emitted per kWh by the meter
pf = power factor.

```
<Formula>
 <math xmlns="http://www.w3.org/1998/Math/MathML">
  <mrow>
   <mi style="font-style: normal">t</mi>
   <mo>=</mo>
   <mfrac>
    <mrow><mn>12600</mn></mrow>
    <mrow><mi style="font-style: normal">V</mi><mo>×</mo><mi style="font-style:
normal">I</mi><mo>×</mo><mi style="font-style: normal">k</mi><mo>×</mo><mi
style="font-style: normal">pf</mi></mrow>
   </mfrac>
   <mtext>minutes</mtext>
  </mrow>
 </math>
 <Where>
  <Para>
   <Text>where</Text>
   <KeyList separator="=">
    <KeyListItem>
     <Key>t</Key>
     <ListItem><Para><Text>minimum test period</Text></Para></ListItem>
    </KeyListItem>
    <KeyListItem>
     <Key>V</Key>
     <ListItem><Para><Text>declared system voltage</Text></Para></ListItem>
    </KeyListItem>
    <KeyListItem>
     <Key>I</Key>
     <ListItem><Para><Text>total current of all phases</Text></Para></ListItem>
    </KeyListItem>
    <KeyListItem>
     <Key>k</Key>
     <ListItem><Para><Text>number of pulses emitted per kWh by the
meter</Text></Para></ListItem>
    </KeyListItem>
    <KeyListItem>
     <Key>pf</Key>
     <ListItem><Para><Text>power factor.</Text></Para></ListItem>
    </KeyListItem>
   </KeyList>
  </Para>
 </Where>
</Formula>
```

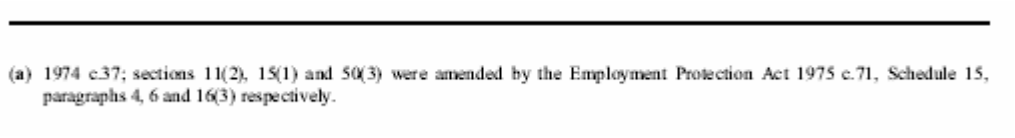
Footnotes and margin notes

There are two constructs available in the schema for notes to the main text – footnotes and margin notes. Footnotes are used in secondary legislation and some primary legislation. Margin notes were only used in old primary legislation (pre-2001) where the layout of the documents was different to that currently used. This also entailed a difference in structure from modern primary legislation where the margin notes are part of the text.

Footnotes

Footnotes are contained in a `<Footnotes>` element. Within that each footnote is held in a `<Footnote>` element as in the example below:

Example taken from uksi_20051643_en (PDF p. 1, XML Ref. UG00005)



(a) 1974 c.37; sections 11(2), 15(1) and 50(3) were amended by the Employment Protection Act 1975 c.71, Schedule 15, paragraphs 4, 6 and 16(3) respectively.

```
<Footnote id="f00001">
 <FootnoteText>
  <Para>
   <Text>
    <Citation id="c00008" Class="ukpga" Year="1974" Number="0037">1974
c.37</Citation>; sections 11(2), 15(1) and 50(3) were amended by the Employment
Protection Act <Citation id="c00009" Class="ukpga" Year="1975" Number="0071">1975
c.71</Citation>, Schedule 15, paragraphs 4, 6 and 16(3) respectively.</Text>
  </Para>
 </FootnoteText>
</Footnote>
```

Each footnote has a unique id of the format f*xxxxx*, where *xxxxx* is a number padded to five digits. This is held in the `id` attribute.

Footnotes generally do not have numbers associated with them. These should be auto-generated. However, if it is important to retain the footnote number (for whatever reason) then the `<Number>` element can be used to override automatic footnote numbering. The value of the element should be the text required as the number. Any footnotes following on from those with overridden numbers should continue the sequence from before the overridden value, e.g. footnotes may be numbered, 1, 2, 2A, 3, 4 …

Footnote numbers may also be necessary in footnotes to images as it is obviously not possible to put a footnote cross-reference in an image.

It is accepted that not storing footnote numbers may cause problems if the footnote number is referenced from another document (and this is partly why an override mechanism is provided), but because of the way footnotes work the number is basically a formatting issue, which is why the recommended approach is not to hold the footnote number. Holding the footnote number may also cause problems (with SIs for instance) where footnote numbering restarts on each page. This could lead to multiple footnotes with the same number stored in the data. While this in itself is not a problem, as the footnote id is the important value, if these footnote numbers were output to, say, a web page, and two footnotes with the same number appeared it could cause confusion.

The body text of the footnote is contained in a <FootnoteText> element.

To reference a footnote the <FootnoteRef> element should be used as in the example below:

Example taken from uksi_20051643_en (PDF p. 1, XML Ref. UG00006)

The Secretary of State, in the exercise of the powers conferred on him by sections 15(1), (2), and (5), and 82(2) and (3) of, and paragraphs 1(1)(a) and (c), 8(1), 9, 11, 13(2) and (3), 14, 15(1), 16 and 20 of Schedule 3 to the Health and Safety at Work etc. Act 1974(a) ("the 1974 Act") and of all other powers enabling him in that behalf, for the purpose of giving effect without modifications to proposals submitted to him by the Health and Safety Commission under section 11(2)(d) of the 1974 Act after the carrying out by the said Commission of consultations in accordance with section 50(3) of that Act, hereby makes the following Regulations:

```
<EnactingText>
 <Para>
  <Text>The Secretary of State, in the exercise of the powers conferred on him by
sections 15(1), (2), and (5), and 82(2) and (3) of, and paragraphs 1(1)(a) and (c),
8(1), 9, 11, 13(2) and (3), 14, 15(1), 16 and 20 of Schedule 3 to the Health and
Safety at Work etc. Act 1974<FootnoteRef Ref="f00001"/> ("the 1974 Act") and of all
other powers enabling him in that behalf, for the purpose of giving effect without
modifications to proposals submitted to him by the Health and Safety Commission under
section 11(2)(d) of the 1974 Act after the carrying out by the said Commission of
consultations in accordance with section 50(3) of that Act, hereby makes the following
Regulations:</Text>
 </Para>
</EnactingText>
```

The Ref attribute holds the id of the footnote being referenced. It is perfectly acceptable to have multiple references to the same footnote, although this is actually very rare.

Margin notes

Margin notes are contained in a <MarginNotes> element. Within that, each note is contained in a <MarginNote> element as in the example below:

Example taken from ukpga_20000032_en (PDF p. 2, XML Ref. UG00302)

(3) In carrying out its functions under subsections (1) and (2) the Board shall—

(a) in accordance with the following provisions of this Act, hold the Chief Constable to account for the exercise of his functions and those of the police, the police support staff and traffic wardens;

(b) monitor the performance of the police in—

(i) carrying out the general duty under section 32(1);

1998 c. 42. (ii) complying with the Human Rights Act 1998;

(iii) carrying out the policing plan;

```
<MarginNote id="m00001">
 <Para>
  <Text>
   <Citation id="c00001" Class="ukpga" Year="1998" Number="0042">1998 c.
42</Citation>.</Text>
 </Para>
</MarginNote>
```

The XML for this text is as follows:

```
<P3>
 <Pnumber>b</Pnumber>
 <P3para>
  <Text>monitor the performance of the police in—</Text>
  <P4>
   <Pnumber>i</Pnumber>
   <P4para>
    <Text>carrying out the general duty under <InternalLink Ref="p00118">section
32(1)</InternalLink>;</Text>
   </P4para>
  </P4>
  <P4>
   <Pnumber>ii</Pnumber>
   <P4para>
    <Text>complying with the <MarginNoteRef Ref="m00001"/>Human Rights Act
1998;</Text>
   </P4para>
  </P4>
  <P4>
   <Pnumber>iii</Pnumber>
   <P4para>
    <Text>carrying out the policing plan;</Text>
   </P4para>
  </P4>
 </P3para>
</P3>
```

It will be noticed from the text that the anchor point for the margin note is somewhat arbitrary as there is nothing in the printed copy to reference the note. It would be down to a rendering engine to format the margin note as closely as possible to the location of the reference.

Images

Images in schema documents can occur inline or display. Whichever location the image is in it is described with an <Image> element. An image does not link directly to a file but to a resource. The reason for this is that the resource may be external, i.e. a file or it may be internal – that is the image may be described within the same document. Please see the section 'Resources' for more details. The resource is referenced with a ResourceRef attribute. It is perfectly acceptable for more than one <Image> element to reference the same resource.

Each <Image> element must have Width and Height attributes. The values held are expected to reflect the size of the original image as printed (not necessarily the actual native size of the image) if absolute values are held (for example, 580pt). The values can be in points or ems. Ems are expected mainly to be used inline (where it would be likely that the image would be less than 1em high to avoid problems with line spacing). Obviously for display images ems may not have a defined value, in which case it would be down to the implementation to define what an em is.

However, it is possible to use relative values. These have been created with authoring of legislation in mind. The table below explains the meanings of the different values.

Attribute value	Explanation
auto	This indicates that the image should be scaled automatically for the output format. This is generally used in conjunction with 'scale-to-fit' on the other attribute to maintain the aspect ratio of the image. If the image will not fit on the output then it should be cropped. If both attributes are auto then the image should be output at its native size.
scale-to-fit	This should enlarge the image for either the width or height (whichever attribute this is on) to fit the output format. For printed output this would generally be the page width or height. It would be down to implementations as to how to treat this value for, say, web output.
fit-page-to-image	This is designed for use with oversize images where it is desirable to enlarge the page size to fit the image. For other output formats it would be down to implementation as to how to treat this value
spread	This is also designed for use with oversize images but in this instance it indicates that for printed documents the output should be put on a page spread.
%	For values defined as percent this should be a percentage of the containing area. For printed output this will be the printable section of the page.

For display images a <Figure> element is used to wrap the images (there may be more than one image in a figure). The figure may, optionally, have a number, a title, explanatory paragraphs of text and notes (i.e. footnotes to the figure). These are described using <Number>, <Title>, <Para> and <Notes> elements. Use of

these elements is rare in legislation but the following gives an example (not a true piece of legislation):

```
<Figure ImageLayout="vertical" Orientation="landscape">
 <Number>Figure 1</Number>
 <Title>Form for Visa application for United States of America</Title>
 <Para>
  <Text>This form should be used by people applying for a visa to the United States of
America</Text>
 </Para>
 <Image ResourceRef="r00000" Width="580pt" Height="auto"/>
 <Notes>
  <Footnote>
   <Number>*</Number>
   <FootnoteText>
    <Para>
     <Text>For application from 1 August 2005.</Text>
    </Para>
   </FootnoteText>
  </Footnote>
 </Notes>
</Figure>
```

It is possible to control the orientation of the figure as a whole using the `Orientation` attribute. The attribute can take values of 'portrait' or 'landscape'. Obviously this will only make sense for certain output formats.

The `ImageLayout` attribute defines the layout of the images. This mainly applies when there is more than one image in a figure. They may be laid vertically (normal), horizontally, e.g. across the page, or, when there are many images, in a matrix format up to 5 images wide.

There is the possibility that this option may cause a conflict on image widths and page size. It is left to individual implementations as to how this should be resolved.

The possible values are listed in the table below:

Attribute value	Explanation
vertical	Images will be laid below each other on the page
horizontal	Images will be placed beside each other on the page
matrix-2-wide	Images will be placed two to a line, using enough lines as needed to place all the images
matrix-3-wide	Images will be placed three to a line, using enough lines as needed to place all the images
matrix-4-wide	Images will be placed four to a line, using enough lines as needed to place all the images
matrix-5-wide	Images will be placed five to a line, using enough lines as needed to place all the images

Additionally a figure can carry an `id` attribute which acts as a unique identifier for the figure. The format of this identifier should be g*xxxxx*, where *xxxxx* is a five digit padded number. For example: g00010, g01353.

An example of display images is given below:

Example taken from uksi_20031153_en (PDF p. 4, XML Ref. UG00302)

```
<Schedule>
 <Number>Schedule 1</Number>
 <TitleBlock>
  <Title>Form of Part 1 of an Outturn Statement</Title>
 </TitleBlock>
 <Reference>Regulation 4(1)(a)</Reference>
 <ScheduleBody>
  <P>
   <Text>Part 1 of an outturn statement shall be in the following form.</Text>
  </P>
  <Figure ImageLayout="vertical" Orientation="landscape">
   <Image ResourceRef="r00000" Width="580pt" Height="auto"/>
  </Figure>
  <Figure ImageLayout="vertical" Orientation="landscape">
   <Image ResourceRef="r00001" Width="scale-to-fit" Height="auto"/>
  </Figure>
  <Figure ImageLayout="vertical" Orientation="landscape">
   <Image ResourceRef="r00002" Width="scale-to-fit" Height="auto"/>
  </Figure>
  <Figure ImageLayout="vertical" Orientation="landscape">
   <Image ResourceRef="r00003" Width="scale-to-fit" Height="auto"/>
  </Figure>
 </ScheduleBody>
</Schedule>
```

Inline structures and local formatting

Text and characters

Documents using the schema are capable of making full use of the Unicode character set. However, for some characters, when viewing or authoring schema documents, it is difficult to tell what the actual character is. In addition, there are some text effects not possible with Unicode (as they are not actually characters). To deal with both situations the schema has a `<Character>` element. This allows the following to be marked up:

Attribute value	Explanation
DotPadding	Fills to the end of the line with dots and gives a similar effect to a right tab with a dot leader
EmSpace	Unicode x2003
EnSpace	Unicode x2002
LinePadding	Fills to the end of the line with space and gives a similar effect to a right tab
NonBreakingSpace	Unicode x00a0
Minus	Unicode x2212, included to avoid confusion with a hyphen
ThinSpace	Unicode x2009

The following is an example of the use of a non-breaking space to hold text together on the same line.

Amendment to the Food (Peanuts from China) (Emergency Control) (England) (No. 2) Regulations 2002

2. In paragraph (1) of regulation 2 (interpretation) of the Food (Peanuts from China) (Emergency Control) (England) (No. 2) Regulations 2002(**c**) for the definition of "the Commission Decision" there shall be substituted the following definition —

```
<P1group>
 <Title>Amendment to the Food (Peanuts from China) (Emergency Control) (England)
(No.<Character Name="NonBreakingSpace" />2) Regulations 2002</Title>
 <P1>
 <Pnumber>2</Pnumber>
  <P1para>
   <Text>In paragraph (1) of regulation 2 (interpretation) of the Food (Peanuts from
China) (Emergency Control) (England) (No. 2) Regulations 2002<FootnoteRef Ref="f00003"
/> for the definition of "the Commission Decision" there shall be substituted the
following definition —</Text>
```

It is known that for early legislation using old English that characters may appear that are not in the Unicode set. Rather than add more entries for the <Character> element it is envisaged that the private use area of the Unicode set could be used to cover those characters. However, this is not a trivial task and the work has, as yet, not taken place.

Formatting

The schema attempts to follow the spirit of XML with formatting separated from structure. To this end almost all formatting is implied. That is, it is the job of a rendering engine to apply the formatting dependent upon the document type and the context of the content being rendered.

To aid the task of an application attempting to render schema documents as in the Queen's Printer version of the legislation (the printed hardcopy), 'Appendix B Implied formatting and text' provides tables of implied formatting and implied punctuation/text.

The schema provides the following formatting elements:

- <Strong>
- <Emphasis>
- <SmallCaps>
- <Underline>
- <Inferior>
- <Superior>

<Strong> and <Emphasis> act as toggles – that is they will reverse the formatting being applied at that point, i.e. in a bold heading, <Strong> would make the text not bold (roman). This is more desirable than, say, using <Bold> and <Italic> which would appear to imply explicit formatting, i.e. <Bold> used in a bold heading would still be bold – in which case a tag such as <Roman> would be needed. The bold/italic approach seems to imply that an author needs to know how an element will be formatted which goes against the separation of structure from formatting and can cause terrible confusion when the same mark-up is formatted different ways with different documents (or even within the same document).

The strong/emphasis approach allows an author to key with only the knowledge that they want to highlight the text in some manner without needing to worry about how it will be formatted.

If <Strong> or <Emphasis> is nested inside itself then it would negate itself.

In addition there are also <SmallCaps>, <Underline>, <Inferior> and <Superior> elements which do exactly what their names imply. <Inferior> and <Superior> are slightly different in that nesting the elements produces second-level inferior or superior text – it does not negate the initial effect.

The <Span> element

The <Span> element is a general-purpose inline container. It main uses are:

- to serve as an anchor for an <InternalLink> to provide character accurate linking.
- to allow for language information to be added. For example, if there is a fragment of Welsh the span element can use the xml:lang attribute to describe the language of the content, therefore allowing all the benefits that can be provided by this such as localised spellchecking.
- to act as a container of inline content when an alternate version is available (for example a graphical version of inline MathML)

The following is an example from a UK statutory instrument that includes Welsh text.

Example taken from uksi_19940725_en (PDF p. 1, XML Ref. UG01901)

(i) in question 4 of "Ffurflen Rhif 5", "Ffurflen Rhif 6", "Ffurflen Rhif 7", "Ffurflen Rhif 9A" and "Ffurflen Rhif 10", add after the words "ar ba lawr" the words "neu loriau";

```
<P4>
 <Pnumber>i</Pnumber>
 <P4para>
  <Text>in question 4 of "<Span xml:lang="cy">Ffurflen Rhif 5</Span>", "<Span
xml:lang="cy">Ffurflen Rhif 6</Span>", "<Span xml:lang="cy">Ffurflen Rhif 7</Span>",
"<Span xml:lang="cy">Ffurflen Rhif 9A</Span>" and "<Span xml:lang="cy">Ffurflen Rhif
10</Span>", add after the words "<Span xml:lang="cy">ar ba lawr</Span>" the words
"<Span xml:lang="cy">neu loriau</Span>";</Text>
 </P4para>
</P4>
```

For an example of using <Span> around inline mathematics see the section 'How to use mathematics'.

Acronyms and Abbreviations

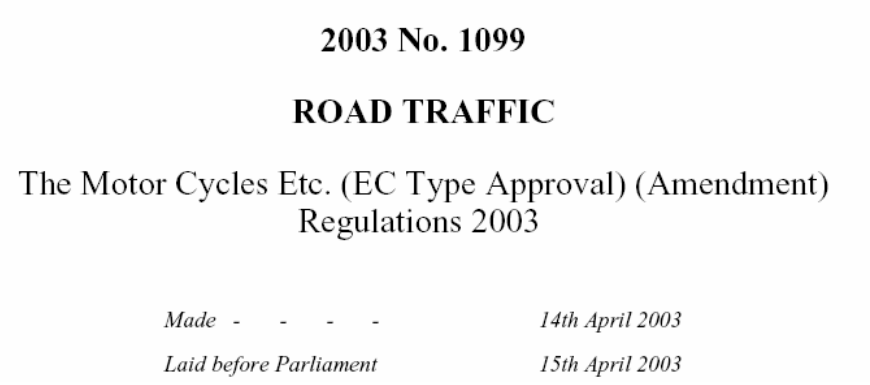
Although the use of acronym and abbreviation mark-up does not add anything structurally to the legislation it does allow for explanations of the use of either of these. This becomes extremely useful with regard to web outputs where accessibility requirements demand that acronyms and abbreviations are expanded out.

Both the `<Acronym>` element and the `<Abbreviation>` element function in the same manner. An attribute – `Expansion` – is used to hold the expanded version.

Due to the fact that an acronym or abbreviation can occur frequently within the same document it is only required to mark up the first instance.

The following is an example of an acronym from a UK statutory instrument.

Example taken from uksi_20031099_en (PDF p. 1, XML Ref. UG00904)



2003 No. 1099

ROAD TRAFFIC

The Motor Cycles Etc. (EC Type Approval) (Amendment) Regulations 2003

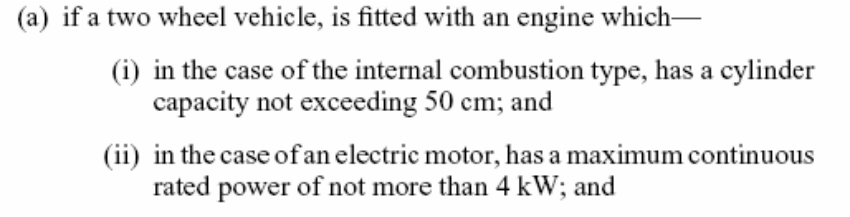
Made - - - - *14th April 2003*

Laid before Parliament *15th April 2003*

```
<Secondary>
 <SecondaryPrelims>
  <Number>2003 No. 1099</Number>
  <SubjectInformation>
   <Subject>
    <Title>Road Traffic</Title>
   </Subject>
  </SubjectInformation>
  <Title>The Motor Cycles Etc. (<Acronym Expansion="European Commission">EC</Acronym>
Type Approval) (Amendment) Regulations 2003</Title>
  <MadeDate>
   <Text>Made</Text>
   <DateText>14th April 2003</DateText>
  </MadeDate>
```

The following is an example of an abbreviation taken from a UK statutory instrument.

Example taken from uksi_20031099_en (PDF p. 1, XML Ref. UG00905)


(a) if a two wheel vehicle, is fitted with an engine which—

(i) in the case of the internal combustion type, has a cylinder capacity not exceeding 50 cm; and

(ii) in the case of an electric motor, has a maximum continuous rated power of not more than 4 kW; and

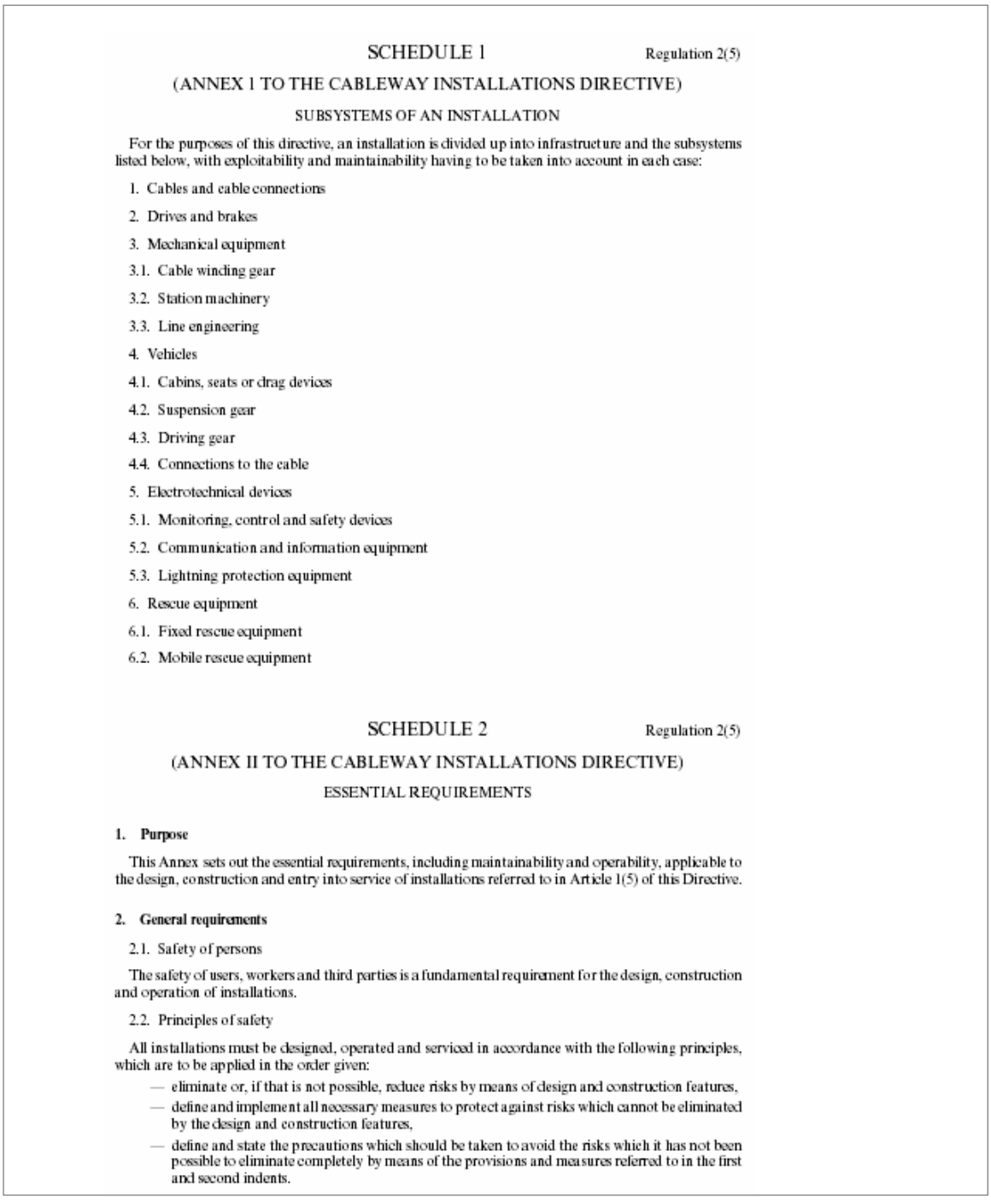
```
<ListItem>
 <Para>
  <Text>if a two wheel vehicle, is fitted with an engine which—</Text>
  <OrderedList Decoration="parens" Type="roman">
   <ListItem>
    <Para>
     <Text>in the case of the internal combustion type, has a cylinder capacity not
exceeding 50 <Abbreviation Expansion="centimetres">cm</Abbreviation>; and</Text>
    </Para>
   </ListItem>
   <ListItem>
    <Para>
     <Text>in the case of an electric motor, has a maximum continuous rated power of
not more than 4 <Abbreviation Expansion="kilowatts">kW</Abbreviation>; and</Text>
    </Para>
   </ListItem>
  </OrderedList>
 </Para>
</ListItem>
```

Included documents and forms

The schema only attempts to provide structures to describe primary and secondary legislation. Both of these document types do, however, amend or include documents that are not primary or secondary legislation (treaties, for example).

Rather than attempt to 'shoe-horn' this data into the schema the concept of 'included documents' was created. This is the ability to call-in another document (possibly from another namespace) at certain points in the document.

The following is an example of an SI that has 'included' text from an EC directive in the schedules.



SCHEDULE 1 Regulation 2(5)

(ANNEX I TO THE CABLEWAY INSTALLATIONS DIRECTIVE)

SUBSYSTEMS OF AN INSTALLATION

For the purposes of this directive, an installation is divided up into infrastructure and the subsystems listed below, with exploitability and maintainability having to be taken into account in each case:

1. Cables and cable connections
2. Drives and brakes
3. Mechanical equipment
3.1. Cable winding gear
3.2. Station machinery
3.3. Line engineering
4. Vehicles
4.1. Cabins, seats or drag devices
4.2. Suspension gear
4.3. Driving gear
4.4. Connections to the cable
5. Electrotechnical devices
5.1. Monitoring, control and safety devices
5.2. Communication and information equipment
5.3. Lightning protection equipment
6. Rescue equipment
6.1. Fixed rescue equipment
6.2. Mobile rescue equipment

SCHEDULE 2 Regulation 2(5)

(ANNEX II TO THE CABLEWAY INSTALLATIONS DIRECTIVE)

ESSENTIAL REQUIREMENTS

1. Purpose

This Annex sets out the essential requirements, including maintainability and operability, applicable to the design, construction and entry into service of installations referred to in Article 1(5) of this Directive.

2. General requirements

2.1. Safety of persons

The safety of users, workers and third parties is a fundamental requirement for the design, construction and operation of installations.

2.2. Principles of safety

All installations must be designed, operated and serviced in accordance with the following principles, which are to be applied in the order given:

— eliminate or, if that is not possible, reduce risks by means of design and construction features,

— define and implement all necessary measures to protect against risks which cannot be eliminated by the design and construction features,

— define and state the precautions which should be taken to avoid the risks which it has not been possible to eliminate completely by means of the provisions and measures referred to in the first and second indents.

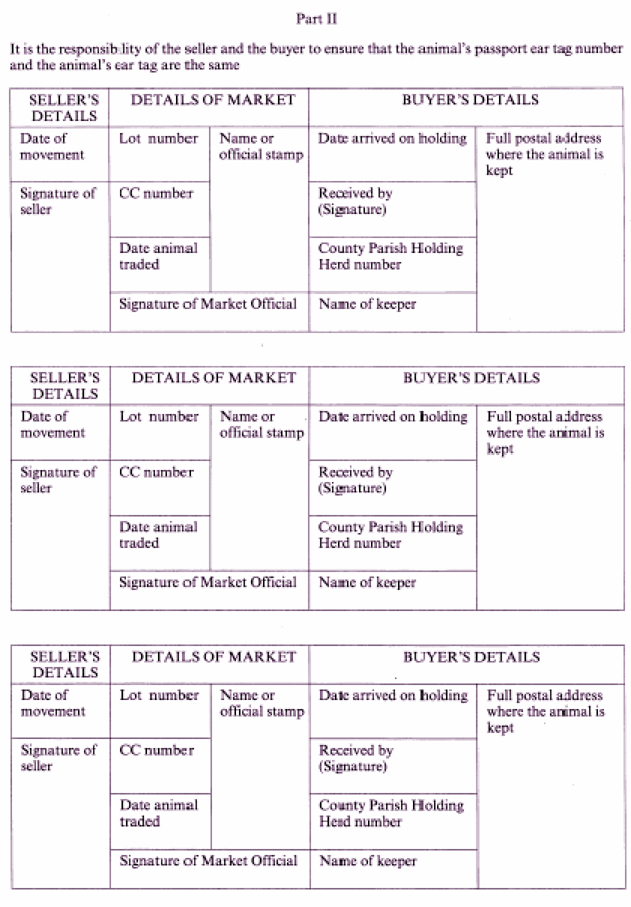
It can be seen that the numbering in Schedule 1 does not conform to normal SI numbering and that the bold headings in Schedule 2, which are numbered, again, do not conform to normal SI numbering. Additionally, the numbering in Schedule 2 is not the same as in SIs.

Ideally a European directive would have its own schema and the included document could then be marked up in that schema. Obviously, processing applications would need to be able to process the schema.

An included document references a resource and it can, therefore, be anything that can be held in a `<Resource>` element. For forms the recommendation would be to use Scalable Vector Graphics (SVG) to mark up.

The following is an example of an included document that is a form:

Example taken from uksi_19961686_en (PDF p. 9, XML Ref. UG01901)



Part II

It is the responsibility of the seller and the buyer to ensure that the animal's passport ear tag number and the animal's ear tag are the same

SELLER'S DETAILS	DETAILS OF MARKET		BUYER'S DETAILS	
Date of movement	Lot number	Name or official stamp	Date arrived on holding	Full postal address where the animal is kept
Signature of seller	CC number		Received by (Signature)	
	Date animal traded		County Parish Holding Herd number	
	Signature of Market Official		Name of keeper	

SELLER'S DETAILS	DETAILS OF MARKET		BUYER'S DETAILS	
Date of movement	Lot number	Name or official stamp	Date arrived on holding	Full postal address where the animal is kept
Signature of seller	CC number		Received by (Signature)	
	Date animal traded		County Parish Holding Herd number	
	Signature of Market Official		Name of keeper	

SELLER'S DETAILS	DETAILS OF MARKET		BUYER'S DETAILS	
Date of movement	Lot number	Name or official stamp	Date arrived on holding	Full postal address where the animal is kept
Signature of seller	CC number		Received by (Signature)	
	Date animal traded		County Parish Holding Head number	
	Signature of Market Official		Name of keeper	

```
<Part>
 <Number>Part II</Number>
 <P>
  <Text>It is the responsibility of the seller and the buyer to ensure that the animal’s passport ear tag number and the animal’s ear tag are the same</Text>
 </P>
 <Form><IncludedDocument ResourceRef="r00001"/></Form>
 <Form><IncludedDocument ResourceRef="r00001"/></Form>
 <Form><IncludedDocument ResourceRef="r00001"/></Form>
 <Form><IncludedDocument ResourceRef="r00001"/></Form>
</Part>
```

Resources

The <Resources> section of a schema document holds all of the content that is needed by the document but is not part of the main flow of the document or is external to the document, e.g. graphics.

Resources may be held internally or externally.

If the resource is held internally then it may be held as XML content, e.g. SVG for a graphic. Internal versions are held using the <InternalVersion> element. It is expected that an application processing the schema should know how to handle the following namespaces:

- SVG
- XSL:FO
- XHTML

The following example shows how an SVG resource held internally as XML would be marked up.

Example taken from uksi_19961686_en (PDF p. 9, XML Ref. UG02002)

```
<Resources>
 <Resource id="r00001">
  <InternalVersion>
   <XMLcontent>
    <svg xmlns:x="http://ns.adobe.com/Extensibility/1.0/"
xmlns:i="http://ns.adobe.com/AdobeIllustrator/10.0/"
xmlns:graph="http://ns.adobe.com/Graphs/1.0/" i:viewOrigin="80.1851 505.6704"
i:rulerOrigin="0 9.765625e-04" i:pageBounds="0 841.8887 595.2754 -9.765625e-04"
xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:a="http://ns.adobe.com/AdobeSVGViewerExtensions/3.0/" width="439.54"
height="176.852" viewBox="0 0 439.54 176.852" overflow="visible" enable-
background="new 0 0 439.54 176.852" xml:space="preserve">
      <metadata>
       <variableSets xmlns="http://ns.adobe.com/Variables/1.0/">
        <variableSet varSetName="binding1" locked="none">
```

The <XMLcontent> element is used to indicate that the content is in XML format. Note that this content does not get parsed.

An internally held resource may also be held in base64 format – a format that allows raw binary files to be stored. This is done using the <binaryContent> element. The obvious advantage of holding resources internally is that when transporting a file there are no external files to worry about. A Format attribute can be used to give a hint to a processing application as to the format of the encoded data. The possible values are the same as described for <ExternalVersion> below.

If it is held externally the <ExternalVersion> element can be used. The location of the resource is held in the URI attribute, which should contain a URI. An example is given below:

Example taken from uksi_20051643_en (PDF p. 9, XML Ref. UG00007)

```
<Resource id="r00001">
 <ExternalVersion URI="uksi_20051643_en_001.tif" Format="tiff" />
</Resource>
```

The `Format` attribute is used to indicate the format of the object and give a hint to an application how to process the resource. The following table is a list of possible values that can be held in this attribute:

Attribute value	Format
doc	Word document
eps	EPS graphic
gif	GIF graphic
html	HTML document
jpeg	JPEG graphic
mpeg	MPEG video
png	PNG graphic
rtf	Rich Text Format document
svg	SVG graphic
xml	XML document
pdf	PDF document
tiff	TIFF graphic

If the resource is not one of these formats the value ‘other’ can be used but it should be understood that an application processing the document may not know how to handle the file as it would only have the filename to go by.

Versions

One of the key objectives of the schema was to provide features that would be able to improve accessibility to legislation. To this end 'versions' has been introduced as a concept. Versions allow an unlimited different number of versions of practically any piece of the document to be held. Thus it would be possible to hold a paragraph in a different language, as a link to an audio version.

As an example this is an extract from UK SI 1994 725, where the explanatory notes appear in both English and Welsh. By holding the Welsh version as an alternate version of the English version the semantic link that it is actually the same piece of text is retained. Therefore, if someone expressed a wish to view a document in Welsh if possible a rendering engine would be able to output the Welsh version instead of the English version.

Example taken from uksi_19940725_en (PDF p. 2, XML Ref. UG01902)

```
<Versions>
 <Version Class="text" Language="Welsh" id="v00001" Description="Welsh version">
  <ExplanatoryNotes xml:lang="cy">
   <Title>Nodyn Esboniadol</Title>
   <Comment>
    <Para>
     <Text>(Nid yw'r nodyn hwn yn rhan o'r Rheoliadau)</Text>
    </Para>
   </Comment>
   <P>
    <Text>Pennodd y Rent Act 1977 (Forms, etc) (Welsh Forms and Particulars)
Regulations 1993<FootnoteRef Ref="f00010"/> ("y Rheoliadau Cymraeg") fersiynau Cymraeg
o Ffurflenni rhif 5, 6, 7, 9A, 10, 11, 12 a 13 y Rent Act 1977 (Forms, etc)
(Amendment) Regulations 1980<FootnoteRef Ref="f00011"/> fel y'u diwygiwyd gan y Rent
Act 1977 (Forms, etc) (Amendment) Regulations 1984<FootnoteRef Ref="f00012"/>,
1987<FootnoteRef Ref="f00013"/>, 1988<FootnoteRef Ref="f00014"/> a 1993<FootnoteRef
Ref="f00015"/> . Mae'r Rheoliadau hyn yn cael eu gwneud i gywiro diffygion yn y
Rheoliadau Cymraeg. </Text>
   </P>
  </ExplanatoryNotes>
 </Version>
</Versions>
```

To enable a processing application to be able to detect the purpose and language of the alternate version the `Class` and `Language` attribute can be used to categorise the content. The `Description` attribute can also be used to give more explanation as the purpose of the version – this is a free-text field. The possible values for the `Class` attribute are:

Attribute value	Verion
audio	Audio
braille	Braille
graphic	Graphical, e.g. images
text	Textual
video	Video
other	Undefined

Note that if the class is 'other' the processing application may not be able to successfully detect the purpose of the version.

The possible values for the `Language` attribute are:

- Arabic
- Bengali
- Chinese
- Danish
- Dutch
- English
- Finnish
- French
- Gaelic
- German
- Greek
- Hindi
- Hungarian
- Icelandic
- Italian
- Latin
- Latvian
- Lithuanian
- Norwegian
- Polish
- Russian
- Slovenian
- Spanish
- Urdu
- Welsh
- notApplicable
- other

It is expected that the value 'notApplicable' will be used where the format is a graphic that has no text and therefore the language is not of importance.

By default alternate versions should be output along with the main version unless the `RestrictOutput` attribute is set to 'true'. In some documents a different language version of a fragment of the document is output following the main language version. It would be desirable to hold the alternate language as a version as it is the same piece of text, just in a different language. However, to recreate the original printed

document it would be necessary to output both. In different circumstances and alternate version may, for instance be a graphical version of a MathML equation and it would not be required to be output along with the MathML version. Therefore, a flag is needed to indicate if the alternate version should be output (or not) by default.

It should be noted that if an alternate version references a resource or a footnote that the resource/footnote should be stored in the `<Resources>` or `<Footnotes>` section – not within a `<Version>`. This is true for all out-of-line objects. It also allows multiple alternate versions to reference the same item.

At the time of writing there appears to be a bug in XMLSpy, which states that the document is invalid when this situation occurs. This does not occur in Oxygen or MSML4.

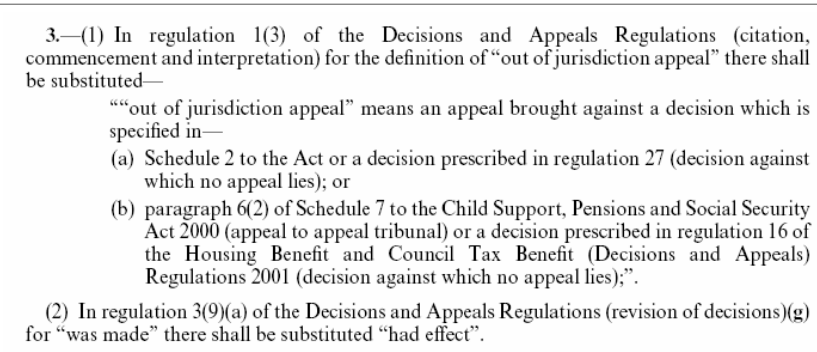
It should also be noted that the schema does not parse the contents of `<Version>` elements. This is to avoid any clashes of unique id values. This does, however, mean that, if an application is replacing fragments of the document with alternate versions then the application should parse the document to ensure that the document is still valid – which should be the case. It would be incorrect use of the schema to hold a version that would break the document if it replaced the main version.

Amendments

Legislation is unusual in the fact that it can alter other documents. This is done via amendments that state which passages of text are to be altered, inserted or removed. When amending text the new text is 'quoted' – that is, it becomes part of the amending document. This leads to situations where, not only does primary legislation contain amedments to other primary legislation and secondary legislation contain amendments to secondary legislation, but primary legislation can also contain secondary legislation and vice-versa. When formatting documents the format of the amendment depends on when the document was created. For instance, a new style Act (introduced in 2001) amending an old style Act will format the amendment in the new style. However, for SIs created using the SI template, for instance, most amendments take on the style of an SI.

To get around the problem of how to format the amendment, information is carried on amendments giving details about the document being amended. The rendering on any amendment can then be left to the rendering engine as to whether to format an amendment in the format of the amending document, or the format of the amended document. An example of an amendment is given below:

Example taken from uksi_20031050_en (PDF p. 2, XML Ref. UG02101)



3.—(1) In regulation 1(3) of the Decisions and Appeals Regulations (citation, commencement and interpretation) for the definition of "out of jurisdiction appeal" there shall be substituted—

""out of jurisdiction appeal" means an appeal brought against a decision which is specified in—

(a) Schedule 2 to the Act or a decision prescribed in regulation 27 (decision against which no appeal lies); or

(b) paragraph 6(2) of Schedule 7 to the Child Support, Pensions and Social Security Act 2000 (appeal to appeal tribunal) or a decision prescribed in regulation 16 of the Housing Benefit and Council Tax Benefit (Decisions and Appeals) Regulations 2001 (decision against which no appeal lies);".

(2) In regulation 3(9)(a) of the Decisions and Appeals Regulations (revision of decisions)(g) for "was made" there shall be substituted "had effect".

```
<P2><Pnumber>1</Pnumber>
<P2para>
 <Text>In regulation 1(3) of the Decisions and Appeals Regulations (Citation,
commencement and interpretation) for the definition of "out of jurisdiction appeal"
there shall be substituted—</Text>
 <BlockAmendment TargetClass="secondary" TargetSubClass="regulation" Context="main"
Format="default">
  <P2para>
   <Text>"out of jurisdiction appeal" means an appeal brought against a decision
which is specified in—</Text>
   <OrderedList Decoration="parens" Type="alpha">
    <ListItem>
     <Para><Text>Schedule 2 to the Act or a decision prescribed in regulation 27
(decision against which no appeal lies); or</Text></Para>
    </ListItem>
    <ListItem>
     <Para><Text>paragraph 6(2) of Schedule 7 to the Child Support, Pensions and
Social Security Act 2000 (appeal to appeal tribunal) or a decision prescribed in
regulation 16 of the Housing Benefit and Council Tax Benefit (Decisions and Appeals)
Regulations 2001 (decision against which no appeal lies);</Text></Para>
    </ListItem>
   </OrderedList>
  </P2para>
 </BlockAmendment>
 <AppendText>.</AppendText>
</P2para>
</P2>
```

It can be seen from the details on the <BlockAmendment> element that this is amending secondary legislation (TargetClass attribute) of a type 'regulation' (TargetSubClass attribute) and is altering the body of the document (as opposed to a schedule or arrangement) (Context attribute).

The possible values for the TargetClass attribute are:

- primary (for items being described as primary legislation)
- secondary (for items being described as secondary legislation)
- unknown (for all other items)

For the TargetSubClass attribute the values are:

- order
- regulation
- rule
- scheme
- resolution
- unknown

For the Context attribute the values are:

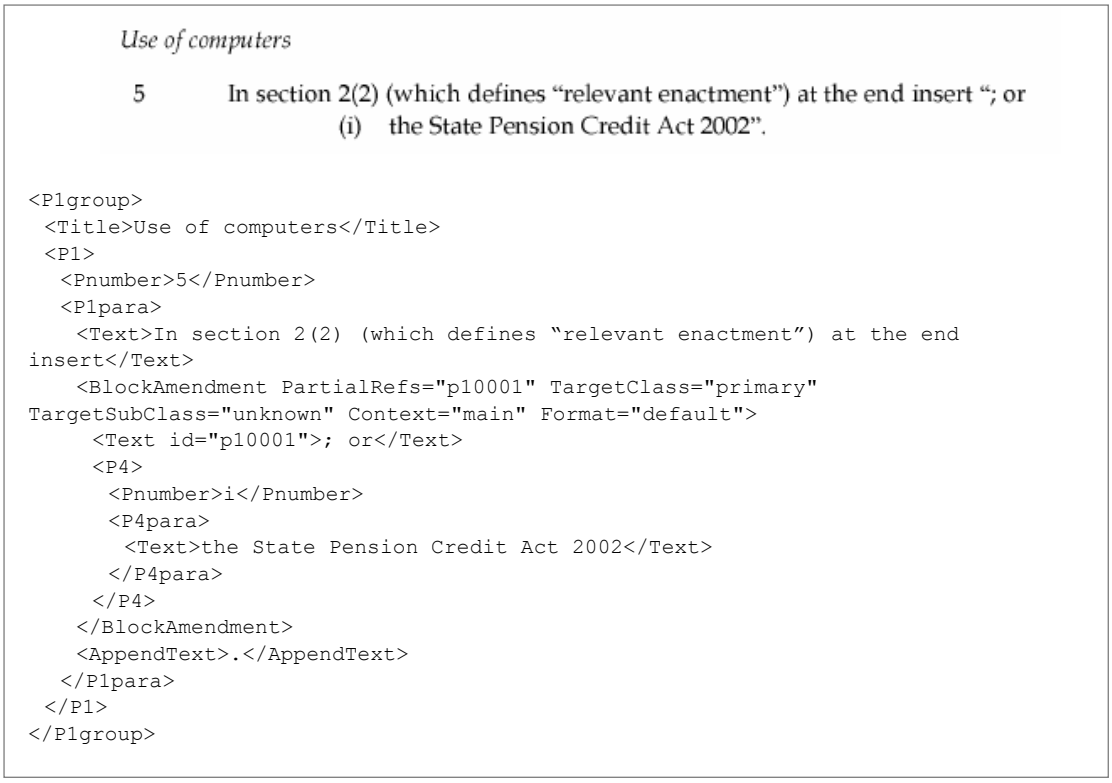
- main
- schedule
- unknown

The Format attribute is used to indicate the type of quotes to surround the amendment. The default value for this attribute is 'default' which is generally double quotes. The other possible values are 'single', 'double' or 'none'. The value 'none' is generally used to correct a drafting error where the quotes have been omitted.

This example also shows the use of <AppendText>. This element is used to indicate that the contents should run on from the end of the amendment (as opposed to starting a new line if a <Text> element was used. The only place <AppendText> can be used is directly following a <BlockAmendment> element, although it should be noted that where a <BlockAmendment> element is a direct child of a major structure then it cannot be used (i.e. where a Schedule contains just an amendment). This is because it would not be correct grammatically, as there is no actual sentence to terminate.

It is also possible in some document types for the amendment to start as run-on text in the previous paragraph. For example:

Example taken from ukpga_20020016_en (PDF p. 19, XML Ref. UG01705)



Use of computers

5 In section 2(2) (which defines "relevant enactment") at the end insert "; or

(i) the State Pension Credit Act 2002".

```
<P1group>
 <Title>Use of computers</Title>
 <P1>
  <Pnumber>5</Pnumber>
  <P1para>
   <Text>In section 2(2) (which defines "relevant enactment") at the end
insert</Text>
   <BlockAmendment PartialRefs="p10001" TargetClass="primary"
TargetSubClass="unknown" Context="main" Format="default">
    <Text id="p10001">; or</Text>
    <P4>
     <Pnumber>i</Pnumber>
     <P4para>
      <Text>the State Pension Credit Act 2002</Text>
     </P4para>
    </P4>
   </BlockAmendment>
   <AppendText>.</AppendText>
  </P1para>
 </P1>
</P1group>
```

The use of the `PartialRefs` attribute indicates that the element references are partial paragraphs. If the referenced element is a `<Text>` element and it is the first child of the amendment then this should run on from the previous paragraph to give the effect as in the example above.

Amendments may be made to just the number or title or a structure, e.g. a part title. Usually these structures form part of a large block of mark-up. To minimise the amount of mark-up necessary to indicate such an amendment two elements exist in the schema: `<FragmentNumber>` and `<FragmentTitle>`. To indicate the context in which the amendment is being made a `Context` attribute is used.

For `<FragmentNumber>` the possible values are:

- Part
- Chapter
- Pblock
- PsubBlock
- Schedule
- Footnote

For `<FragmentTitle>` the possible values are:

- P1group
- P2group
- P3group
- Group

- Part
- Chapter
- Pblock
- PsubBlock
- Schedule
- Figure
- Tabular

An example of a fragment is give below:

Example taken from uksi_20052338_en (PDF p. 3, XML Ref. UG01202)

(b) for the heading to Part 1 of the Schedule, substitute the following heading—

"Pupils in the fourth key stage";

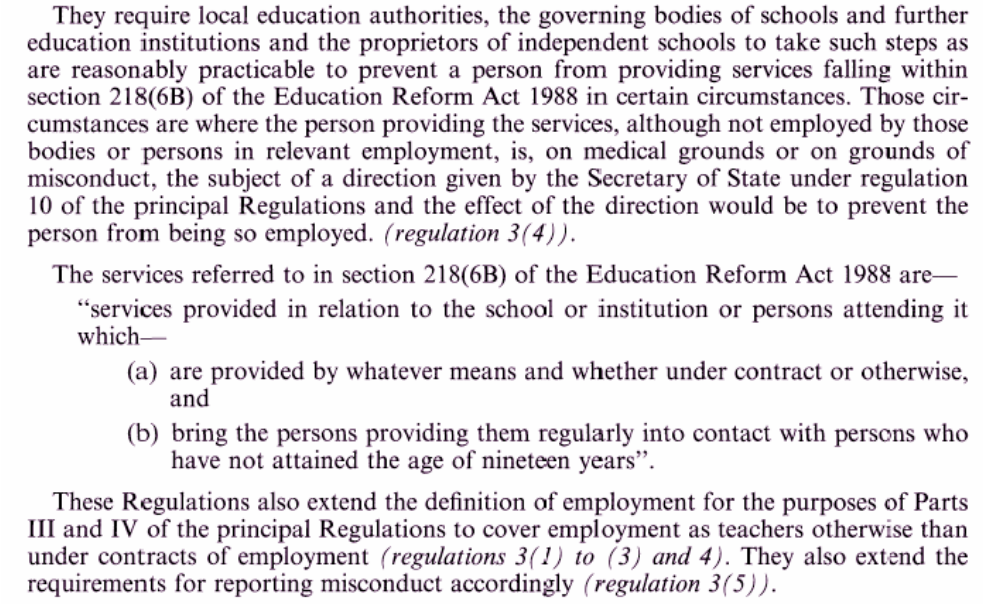
```
<P3>
 <Pnumber>b</Pnumber>
 <P3para>
  <Text>for the heading to Part 1 of the Schedule, substitute the following heading—
</Text>
  <BlockAmendment Context="unknown" TargetSubClass="unknown" Format="double"
TargetClass="unknown">
   <FragmentTitle Context="Part">
    <Title>Pupils in the fourth key stage</Title>
   </FragmentTitle>
  </BlockAmendment>
  <AppendText>;</AppendText>
 </P3para>
</P3>
```

Extracts

In some situations material from another document is quoted – i.e. it is an extract from another document. To handle this situation the schema has <BlockExtract> and <InlineExtract> elements. Both of these situations are rare.

The following gives an example of a <BlockExtract>:

Example taken from uksi_19981584_en (PDF p. 3, XML Ref. UG02201)



They require local education authorities, the governing bodies of schools and further education institutions and the proprietors of independent schools to take such steps as are reasonably practicable to prevent a person from providing services falling within section 218(6B) of the Education Reform Act 1988 in certain circumstances. Those circumstances are where the person providing the services, although not employed by those bodies or persons in relevant employment, is, on medical grounds or on grounds of misconduct, the subject of a direction given by the Secretary of State under regulation 10 of the principal Regulations and the effect of the direction would be to prevent the person from being so employed. *(regulation 3(4))*.

The services referred to in section 218(6B) of the Education Reform Act 1988 are—

"services provided in relation to the school or institution or persons attending it which—

(a) are provided by whatever means and whether under contract or otherwise, and

(b) bring the persons providing them regularly into contact with persons who have not attained the age of nineteen years".

These Regulations also extend the definition of employment for the purposes of Parts III and IV of the principal Regulations to cover employment as teachers otherwise than under contracts of employment *(regulations 3(1) to (3) and 4)*. They also extend the requirements for reporting misconduct accordingly *(regulation 3(5))*.

```
<P>
 <Text>The services referred to in section 218(6B) of the Education Reform Act 1988
are—</Text>
 <BlockExtract SourceClass="primary" Context="main" Format="default">
  <P2para>
   <Text>services provided in relation to the school or institution or persons
attending it which—</Text>
   <P3>
    <Pnumber>a</Pnumber>
    <P3para>
     <Text>are provided by whatever means and whether under contract or otherwise,
and</Text>
    </P3para>
   </P3>
   <P3>
    <Pnumber>b</Pnumber>
    <P3para>
     <Text>bring the persons providing them regularly into contact with persons who
have not attained the age of nineteen years</Text>
    </P3para>
   </P3>
  </P2para>
 </BlockExtract>
 <AppendText>.</AppendText>
</P>
```

This example also shows the use of <AppendText>. This element is used to indicate that the contents should run on from the end of the extract (as opposed to starting a new line if a <Text> element was used. The only place <AppendText> can be used is directly following a <BlockExtract> element, although it should be noted that where a <BlockExtract> element is a direct child of a major

structure then it cannot be used (i.e. where a Schedule contains just an extract). This is because it would not be grammatically correct as there is no actual sentence to terminate.

It can be seen that this example is an extract from an Act. To indicate the source of the extract both elements carry `SourceClass`, `SourceSubClass` and `Context` attributes. Additionally they also carry a `Format` attribute.

The possible values for the `SourceClass` attribute are:

- primary (for items being described as primary legislation)
- secondary (for items being described as secondary legislation)
- unknown (for all other items)

For the `SourceSubClass` attribute the values are:

- order
- regulation
- rule
- scheme
- resolution
- unknown

For the `Context` attribute the values are:

- main
- schedule
- unknown

The `Format` attribute is used to indicate the type of quotes to surround the extract. The default value for this attribute is ‘default’ which is generally double quotes. The other possible values are ‘single’, ‘double’ or ‘none’.

Explanatory notes

Explanatory notes occur for both primary and secondary legislation. For secondary legislation the notes actually form part of the printed document as a single document. This is not the case for primary legislation. Therefore, although a primary document can contain an `<ExplanatoryNotes>` element, at the moment, its use is undefined.

For secondary legislation the `<ExplanatoryNotes>` element may contain a `<Title>` element and a `<Comment>` element, both of which normally contain a standard piece of text. The title is not needed if it contains the standard text 'Explanatory Notes'. If the `<Title>` element is missing a rendering engine should generate a title with the words '**EXPLANATORY NOTES**'.

The following is an example of secondary legislation explanatory notes:

Example taken from uksi_20000933_en (PDF p. 3, XML Ref. UG02301)

EXPLANATORY NOTE

(This note is not part of the Order)

This Order brings into force a variation to the Public Lending Right Scheme 1982 made by the Secretary of State on 30th March 2000.

The variation is set out in the Appendix. The effect of the variation is to include within the Scheme as eligible persons under Article 5 of the Scheme those authors who are resident in any country of the European Economic Area.

```
<ExplanatoryNotes>
 <Title>Explanatory Note</Title>
 <Comment>
  <Para>
   <Text>(This note is not part of the Order)</Text>
  </Para>
 </Comment>
 <P>
  <Text>This Order brings into force a variation to the Public Lending Right Scheme
1982 made by the Secretary of State on 30th March 2000.</Text>
 </P>
 <P>
  <Text>The variation is set out in the Appendix. The effect of the variation is to
include within the Scheme as eligible persons under Article 5 of the Scheme those
authors who are resident in any country of the European Economic Area.</Text>
 </P>
</ExplanatoryNotes>
```

Signatures

Signatures occur in both primary and secondary legislation although they are very rare in primary legislation. The container for the signatures is a `<SignedSection>` element. This can contain one or more `<Signatory>` elements. A signatory is one or more persons connected for some reason (i.e. by department). Each `<Signatory>` element can contain a `<Para>` element and then one or more `<Signee>` elements. It may also have a `Date` attribute to hold the value of a date mentioned in the paragraph text.

Each `<Signee>` element can have an optional `<LSseal>` element and then a choice of either an `<Image>` element (for where a signature has been scanned or digitally created) or the following elements:

- `<PersonName>` (zero or more)
- `<JobTitle>` (optional)
- `<Department>` (optional)
- `<Address>` (optional)
- `<DateSigned>` (optional)

The `<LSseal>` element is used to indicate the presence of a seal used as part of the signature. It may optionally reference a resource using the `ResourceRef` attribute if it is required to reference a specific image. It may also have a `Date` attribute to indicate the date of the seal. It is rare (but possible) for any content to be within the element.

The `<PersonName>` element should hold a persons name (as free form text). Note that there may be more than one signee if the role is split between people.

The `<JobTitle>`, `<Department>` and `<Address>` elements should hold the information as their names suggest.

The `<DateSigned>` element should hold the date of signing. The `Date` attribute should be used to hold the date in schema format – that is *yyyy-mm-dd*, where *yyyy* is the year, *mm* is the month, padded to two digits, and *dd* is the day, padded to two digits

The following are examples of signatures:

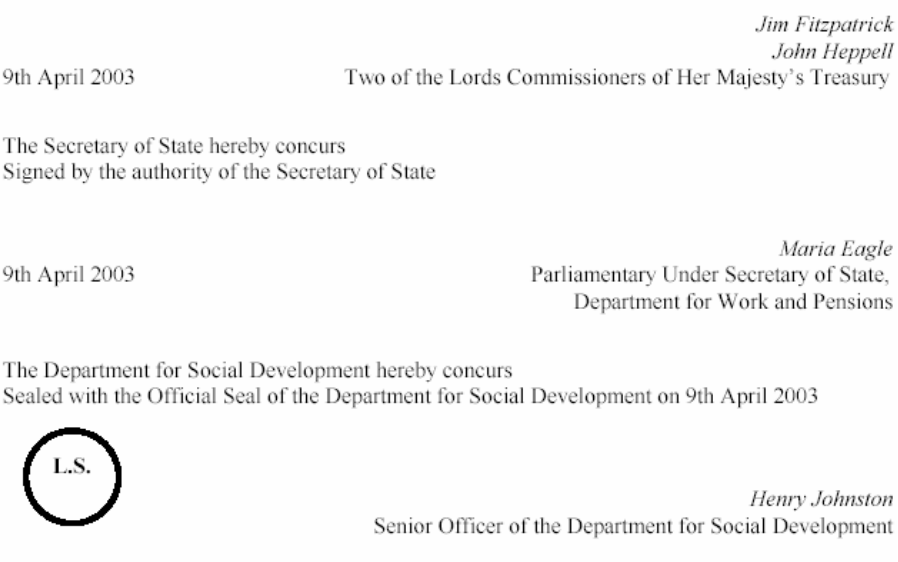
Example taken from uksi_20000933_en (PDF p. 1, XML Ref. UG02302)

30th March 2000

Chris Smith
Secretary of State for Culture, Media and Sport

```
<SignedSection>
 <Signatory>
  <Signee>
   <PersonName>Chris Smith</PersonName>
   <JobTitle>Secretary of State for Culture, Media and Sport</JobTitle>
   <DateSigned Date="2000-03-30">
    <DateText>30th March 2000</DateText>
   </DateSigned>
  </Signee>
 </Signatory>
</SignedSection>
```

Example taken from uksi_20031059_en (PDF p. 3, XML Ref. UG02401)



Jim Fitzpatrick
John Heppell
9th April 2003 Two of the Lords Commissioners of Her Majesty's Treasury

The Secretary of State hereby concurs
Signed by the authority of the Secretary of State

Maria Eagle
9th April 2003 Parliamentary Under Secretary of State,
Department for Work and Pensions

The Department for Social Development hereby concurs
Sealed with the Official Seal of the Department for Social Development on 9th April 2003

L.S.

Henry Johnston
Senior Officer of the Department for Social Development

```
<SignedSection>
 <Signatory>
  <Signee>
   <PersonName>Jim Fitzpatrick</PersonName>
   <PersonName>John Heppell</PersonName>
   <JobTitle>Two of the Lords Commissioners of Her Majesty's Treasury</JobTitle>
   <DateSigned Date="2003-04-09">
    <DateText>9th April 2003</DateText>
   </DateSigned>
  </Signee>
 </Signatory>
 <Signatory>
  <Para>
   <Text>The Secretary of State hereby concurs</Text>
  </Para>
  <Para>
   <Text>Signed by the authority of the Secretary of State</Text>
  </Para>
  <Signee>
   <PersonName>Maria Eagle</PersonName>
   <JobTitle>Parliamentary Under Secretary of State</JobTitle>
   <Department>Department for Work and Pensions</Department>
   <DateSigned Date="2003-04-09">
    <DateText>9th April 2003</DateText>
   </DateSigned>
  </Signee>
 </Signatory>
 <Signatory Date="2003-04-09">
  <Para>
   <Text>The Department for Social Development hereby concurs</Text>
  </Para>
  <Para>
   <Text>Sealed with the Official Seal of the Department for Social Development on
9th April 2003</Text>
  </Para>
  <Signee>
   <LSseal Date="2003-04-09"/>
   <PersonName>Henry Johnston</PersonName>
   <JobTitle>Senior Officer of the Department for Social Development</JobTitle>
  </Signee>
 </Signatory>
</SignedSection>
```

Appendices

Appendices do not occur frequently. They can appear after the body of the document, after a schedule, or after the schedules (in which case they apply to all the schedules).

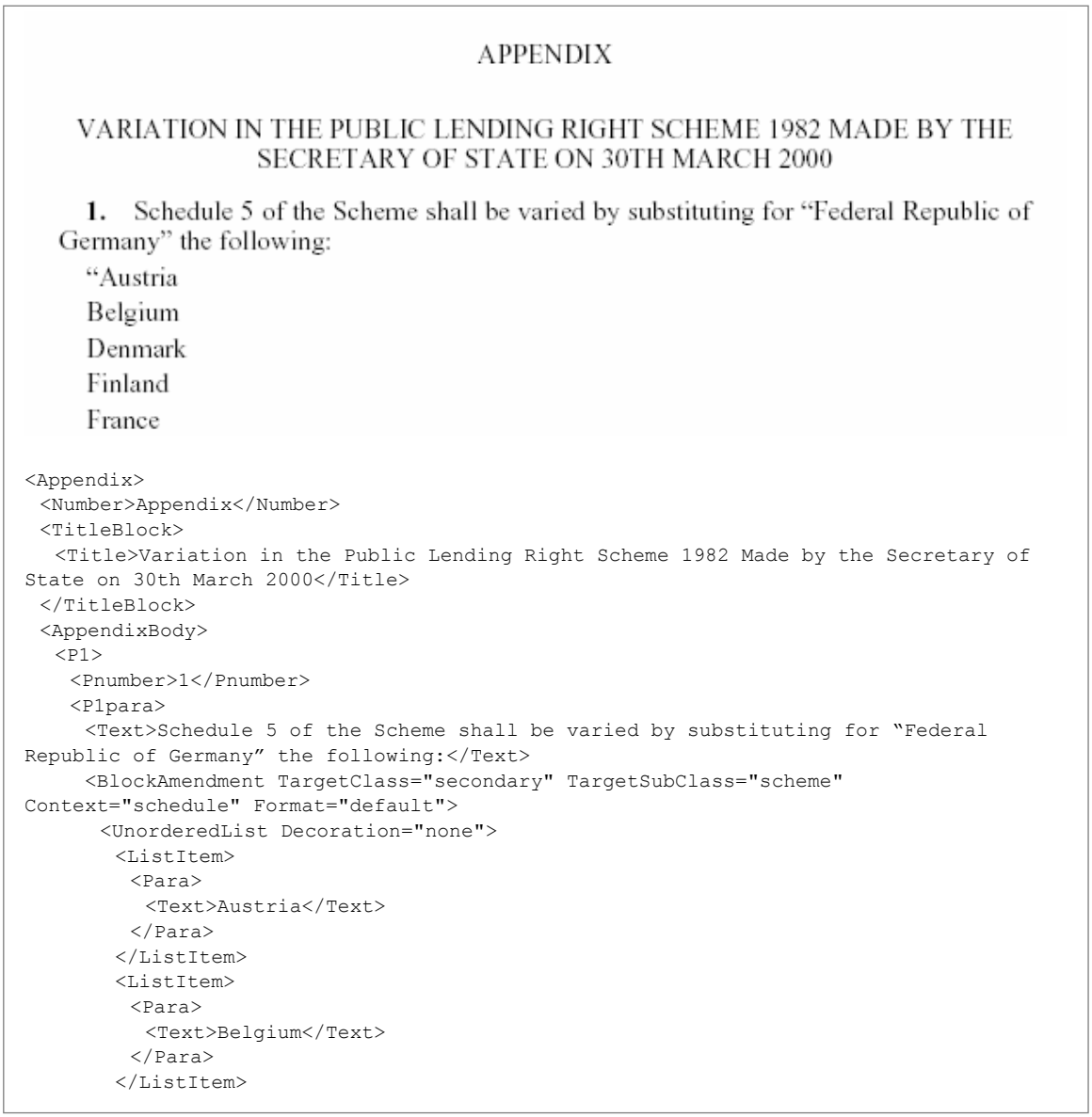
The <Appendix> element must contain a <Number> element, and may also, optionally, contain a <Titleblock> element. A <Reference> element can be used to refer back to paragraphs with the body or schedules of the document.

Additionally, there may also be a table of contents for the appendix, held in the <Contents> element.

The content of the appendix is held in the <AppendixBody> element.

An example is given below:

Example taken from uksi_20000933_en (PDF p. 2, XML Ref. UG02303)



APPENDIX

VARIATION IN THE PUBLIC LENDING RIGHT SCHEME 1982 MADE BY THE SECRETARY OF STATE ON 30TH MARCH 2000

1. Schedule 5 of the Scheme shall be varied by substituting for "Federal Republic of Germany" the following:

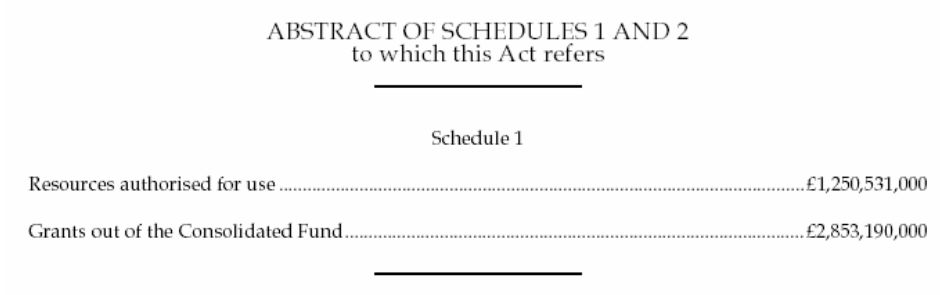
"Austria
Belgium
Denmark
Finland
France

```
<Appendix>
 <Number>Appendix</Number>
 <TitleBlock>
  <Title>Variation in the Public Lending Right Scheme 1982 Made by the Secretary of
State on 30th March 2000</Title>
 </TitleBlock>
 <AppendixBody>
  <P1>
   <Pnumber>1</Pnumber>
   <P1para>
    <Text>Schedule 5 of the Scheme shall be varied by substituting for "Federal
Republic of Germany" the following:</Text>
    <BlockAmendment TargetClass="secondary" TargetSubClass="scheme"
Context="schedule" Format="default">
     <UnorderedList Decoration="none">
      <ListItem>
       <Para>
        <Text>Austria</Text>
       </Para>
      </ListItem>
      <ListItem>
       <Para>
        <Text>Belgium</Text>
       </Para>
      </ListItem>
```

Abstracts

Abstracts are rare (the only regular occurrence is the Appropriation Act). They provide a summary of the contents of the schedules (they are *not* an arrangement). The `<Abstract>` element contains a `<TitleBlock>` element, where a title and subtitle can be held, and a `<AbstractBody>` element, where the main content of the abstract is held.

Example taken from ukpga_20010021_en (PDF p. 2, XML Ref. UG02501)



ABSTRACT OF SCHEDULES 1 AND 2
to which this Act refers

Schedule 1

Resources authorised for use £1,250,531,000

Grants out of the Consolidated Fund £2,853,190,000

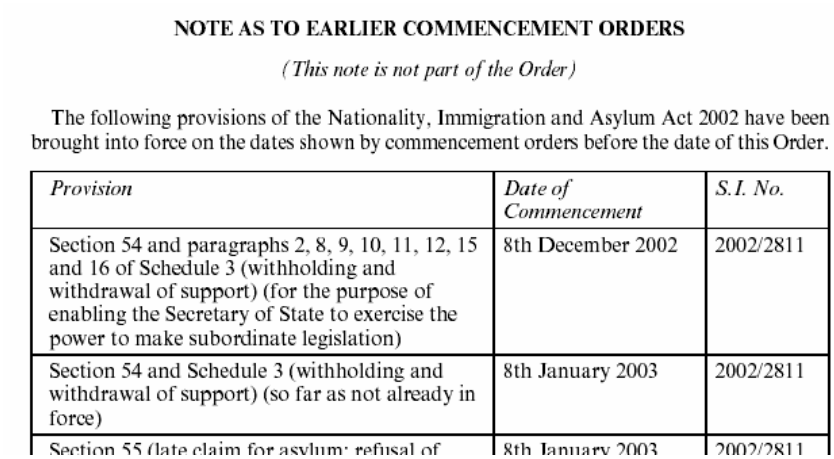
```
<Abstract>
 <TitleBlock>
  <Title>Abstract of schedules 1 and 2</Title>
  <Subtitle>to which this Act refers</Subtitle>
 </TitleBlock>
 <AbstractBody>
  <Chapter>
   <Number>Schedule 1</Number>
   <Tabular Orientation="portrait">
    <table width="100%" cols="2" xmlns="http://www.w3.org/1999/xhtml">
     <col width="80%"/>
     <col width="20%" align="right"/>

     <tbody>
      <tr>
       <td>Resources authorised for use <ukl:Character Name="DotPadding"/>
       </td>
       <td>£1,250,531,000</td>
      </tr>
      <tr>
       <td>Grants out of the Consolidated Fund <ukl:Character Name="DotPadding"/>
       </td>
       <td>£2,853,190,000</td>
      </tr>
     </tbody>
    </table>
   </Tabular>
  </Chapter>
```

Structures specific to secondary legislation

Earlier Orders

Earlier orders gives a list of commencement orders that apply to the document. The `<EarlierOrders>` element only applies to secondary legislation. This element may contain a `<Title>` element and a `<Comment>` element, both of which normally contain a standard piece of text. The following is an example:

Example taken from uksi_20030001_en (PDF p. 4, XML Ref. UG02601)



NOTE AS TO EARLIER COMMENCEMENT ORDERS

(This note is not part of the Order)

The following provisions of the Nationality, Immigration and Asylum Act 2002 have been brought into force on the dates shown by commencement orders before the date of this Order.

Provision	*Date of Commencement*	*S.I. No.*
Section 54 and paragraphs 2, 8, 9, 10, 11, 12, 15 and 16 of Schedule 3 (withholding and withdrawal of support) (for the purpose of enabling the Secretary of State to exercise the power to make subordinate legislation)	8th December 2002	2002/2811
Section 54 and Schedule 3 (withholding and withdrawal of support) (so far as not already in force)	8th January 2003	2002/2811
Section 55 (late claim for asylum: refusal of	8th January 2003	2002/2811

```
<EarlierOrders>
 <Title>Note as to Earlier Commencement Orders</Title>
 <Comment>
  <Para><Text>(This note is not part of the Order)</Text></Para>
 </Comment>
 <P>
  <Text>The following provisions of the Nationality, Immigration and Asylum Act 2002
have been brought into force on the dates shown by commencement orders before the date
of this Order.</Text>
  <Tabular Orientation="portrait">
   <table cols="3" fo:border-left-style="solid" fo:border-bottom-style="solid"
fo:border-right-style="solid" fo:border-top-style="solid"
xmlns="http://www.w3.org/1999/xhtml">
     <col width="50%"/>
     <col width="25%"/>
     <col width="25%"/>
     <thead fo:border-bottom-style="solid" fo:border-top-style="solid">
      <tr>
       <th fo:border-right-style="solid">Provision</th>
       <th fo:border-right-style="solid">Date of Commencement</th>
       <th>S.I. No. </th>
      </tr>
     </thead>
     <tbody>
      <tr>
       <td>Section 54 and paragraphs 2, 8, 9, 10, 11, 12, 15 and 16 of Schedule 3
(withholding and withdrawal of support) (for the purpose of enabling the Secretary of
State to exercise the power to make subordinate legislation)</td>
       <td>8th December 2002</td>
       <td>2002/2811</td>
      </tr>
      <tr>
<td>Section 54 and Schedule 3 (withholding and withdrawal of support) (so far as not
already in force)</td>
       <td>8th January 2003</td>
       <td>2002/2811</td>
      </tr>
```

Appendix A
Using the schema with common applications and tools

Microsoft Office 2003

The schema has been tested to parse in Microsoft Office 2003.

MSXML4

The schema has been test to parse in MSXML4 SP2.

XMetal

Due to a limitation of its implementation of schemas XMetal does not support namespace coercion. That is where a module does not have a target namespace and is included into a module that does have a target namespace the elements in the included module are 'coerced' into the namespace of the including document. Target namespaces were left off where possible to make the modules more portable. To use the schema in XMetal it will be necessary to add targetNamespace attributes to each module that does not have one and a default namespace (xmlns) attribute also.

XML Spy

Unfortunately XML Spy has had various bugs in the different versions and files will not parse directly within it. Even the latest version – 2006 appears to have a small bug although this only relates to the metadata within a module which could be commented out with no side effect.

Oxygen XML Editor

The schema has been tested to parse in Oxygen 6.2.

Appendix B
Implied formatting and text

The legislation schema attempts to follow the practice of excluding formatting from the mark-up where possible. However, this means that for the rendering of documents the formatting is implied by the document type. That is a P1group title will render differently in an Act Schedule from an SI body for example.

In addition to this, punctuation and characters that are essentially formatting are omitted from the XML.

To aid the rendering of schema documents the following tables provides information on the implied punctuation/characters and formatting for the different types of document that can be stored in the schema. This implied rendering reflects the original printed Queen's Printer's copy.

This should also help with converting data into schema format, where data that has 'hard-wired' formatting information will need the information stripping.

The schema uses formatting such as 'Strong' and 'Emphasis' to imply exactly that – it does not specifically state bold or italic. However, in practical terms Strong does equate to bold and Emphasis does equate to italic. Therefore if Strong occurs in an implied bold heading for instance that would actually render the text not bold (or roman).

Implied text

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
Body text									
P1/Pnumber	Bold period following number	Bold period following number	Bold period following number	Bold period following number	None	Bold period following number	None	None	None
P1/P2 on same line	Emdash separating numbers	Emdash separating numbers	Emdash separating numbers	Emdash separating numbers	N/A	Emdash separating numbers	N/A	N/A	N/A
P2/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P3/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P4/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
P5/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P6/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P7/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
Schedule text									
P1/Pnumber	Bold period following number	Bold period following number	Bold period following number	Bold period following number	None	Roman period following number	None	None	None
P1/P2 on same line	Emdash separating numbers	Emdash separating numbers	Emdash separating numbers	Emdash separating numbers	N/A	Emdash separating numbers	N/A	N/A	N/A
P2/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
P3/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P4/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P5/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P6/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number
P7/Pnumber	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number	Roman parentheses preceding and following number

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
Explanatory text									
Explanatory Notes/Title	Bold text 'EXPLANATORY NOTES'	Bold text 'EXPLANATORY NOTES'	Bold text 'EXPLANATORY NOTES'	Bold text 'EXPLANATORY NOTES'	N/A	N/A	N/A	N/A	N/A

Implied formatting

Where the words 'Not Known' appear this means that the original hardcopy where it was known the mark-up occurred was unobtainable and therefore could not be checked, or that it has never occurred (or has not been found) in which case it is undefined. N/A means that the structure is not applicable to the document class. Where element paths are separated by '//', it means that the element can be more than one level below the parent element.

As far as capitalisation of text is concerned, the data should be keyed in upper and lower case, with the assumption that the text will be formatted accordingly and correctly. If an author must insist on text being upper case then the text should be keyed in upper case. Using these rules frees the author from the need to worry about how text will be formatted.

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
Preliminary matter									
PrimaryPrelims/Number	N/A	N/A	N/A	N/A	Bold Caps	Roman Caps	Bold	Bold Caps	Bold
PrimaryPrelims/Title	N/A	N/A	N/A	N/A	Roman	Roman	Roman	Roman	Roman
PrimaryPrelims/LongTitle	N/A	N/A	N/A	N/A	Roman	Roman	Roman	Roman	Roman
PrimaryPrelims/DateOfEnactment	N/A	N/A	N/A	N/A	Roman	Roman	Bold	Roman	Roman
SecondaryPrelims/Number	Bold	Bold	Bold	Bold	N/A	N/A	N/A	N/A	N/A
SecondaryPrelims//Subject	Bold Caps	Bold Caps	Bold Caps	Bold Caps	N/A	N/A	N/A	N/A	N/A
SecondaryPrelims//Subsubject	Bold Caps	Bold Caps	Bold Caps	Bold Caps	N/A	N/A	N/A	N/A	N/A
SecondaryPrelims/Title	Roman	Roman	Roman	Roman	N/A	N/A	N/A	N/A	N/A
SecondaryPrelims/MadeDate	Italic	Italic	Italic	Italic	N/A	N/A	N/A	N/A	N/A

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
SecondaryPrelims/LaidDate	Italic	Italic	Italic	Italic	N/A	N/A	N/A	N/A	N/A
SecondaryPrelims/ComingIntoForce	Italic	Italic	Italic	Italic	N/A	N/A	N/A	N/A	N/A
IntroductoryText	Roman	Roman	Roman	Roman	N/A	Roman	N/A	Roman	N/A
EnactingText	Roman	Roman	Roman	Roman	Roman	Roman	N/A	Roman	Roman
Contents									
Contents/Title	Roman Caps	Roman Caps	Roman Caps	Roman Caps	Roman Caps	Roman Caps	Roman Caps	Roman Caps	Roman Caps
ContentsGroup/ContentsNumber	Roman	Roman	Roman	Roman	Bold Small Caps	Roman Small Caps	Bold Small Caps	Roman Small Caps	Roman Small Caps
ContentsGroup/ContentsTitle	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps
ContentsPart/ContentsNumber	Roman	Roman	Roman	Roman	Bold Small Caps	Roman Small Caps	Bold Small Caps	Roman Small Caps	Roman Small Caps
ContentsPart/ContentsTitle	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps
ContentsChapter/ContentsNumber	Roman	Roman	Roman	Roman	Bold Small Caps	Roman Small Caps	Bold Small Caps	Not known	Not known
ContentsChapter/ContentsTitle	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Not known	Not known

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
ContentsPblock/ContentsNumber	Roman	Roman	Roman	Roman	N/A	N/A	N/A	N/A	N/A
ContentsPblock/ContentsTitle	Italic	Italic	Italic	Italic	Italic	Italic	Italic	Italic	Italic
ContentsPsubBlock/Number	Roman	Roman	Roman	Roman	N/A	N/A	N/A	N/A	N/A
ContentsPsubBlock/Title	Italic	Italic	Italic	Italic	N/A	N/A	N/A	N/A	N/A
ContentsSchedule//ContentsNumber	Roman	Roman	Roman	Roman	Roman	Roman	Roman	Roman	Roman
ContentsSchedule//ContentsTitle	Roman	Roman	Roman	Roman	Roman	Roman	Roman	Roman	Roman
Body text									
Group/Number	Roman	Roman	Roman	Roman	Bold Small Caps	Roman Small Caps	Bold Small Caps	Bold Small Caps	Roman Small Caps
Group/Title	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps
Part/Number	Roman	Roman	Roman	Roman	Bold Small Caps	Roman Small Caps	Bold Small Caps	Bold Small Caps	Roman Small Caps
Part/Title	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps
Chapter/Number	Roman	Roman	Roman	Roman	Bold Small Caps	Roman Small Caps	Bold Small Caps	Not known	Not known

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
Chapter/Title	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Not known	Not known
Pblock/Number	Roman	Roman	Roman	Roman	N/A	N/A	N/A	N/A	N/A
Pblock/Title	Italic	Italic	Italic	Italic	Italic	Italic	Italic	Italic	Italic
PsubBlock/Number	Roman	Roman	Roman	Roman	N/A	N/A	N/A	N/A	N/A
PsubBlock/Title	Italic	Italic	Italic	Italic	N/A	N/A	N/A	N/A	N/A
P1group/Title	Bold	Bold	Bold	Bold	Bold	Roman	Bold	Bold	Bold
P2group/Title	Italic	Italic	Italic	Italic	Not known	Not known	Not known	Not known	Not known
P3group/Title	Italic	Italic	Italic	Italic	Not known	Not known	Not known	Not known	Not known
P1/Pnumber	Bold	Bold	Bold	Bold	Bold	Bold	Bold	Bold	Bold
Signature text									
Signatory/Para	Roman	Roman	Roman	Roman	Not known	Not known	Not known	Not known	Not known
Signee/PersonName	Italic	Italic	Italic	Italic	Not known	Not known	Not known	Not known	Not known
Signee/JobTitle	Roman	Roman	Roman	Roman	Not known	Not known	Not known	Not known	Not known
Signee/Department	Roman	Roman	Roman	Roman	Not known	Not known	Not known	Not known	Not known
Signee/DateSigned	Roman	Roman	Roman	Roman	Not known	Not known	Not known	Not known	Not known

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
Schedule text									
Abstract/TitleBlock/Title	Not known	Not known	Not known	Not known	Roman Caps	Roman Caps	Not known	Not known	Not known
Abstract/TitleBlock/Subtitle	Not known	Not known	Not known	Not known	Roman Small Caps	Roman	Not known	Not known	Not known
AbstractBody/Chapter/Number	Not known	Not known	Not known	Not known	Roman	Roman	Not known	Not known	Not known
AbstractBody/Chapter/Title	Not known	Not known	Not known	Not known	Roman	Roman	Not known	Not known	Not known
Schedules/Title	Not known	Not known	Not known	Not known	Roman Caps	Roman Caps	N/A	Roman Caps	Roman Caps
Schedule/Number	Roman	Roman	Roman	Roman	Roman Caps	Roman Caps	Roman Caps	Roman Caps	Roman Caps
Schedule/TitleBlock/Title	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps
Schedule/TitleBlock/Subtitle	Not known	Not known	Not known	Not known	Not known	Not known	Not known	Not known	Not known
Schedule/Reference	Roman	Roman	Roman	Roman	Roman	Roman	Italic centred	Roman	Roman
Group/Number	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Bold Small Caps	Roman Small Caps	Roman Small Caps

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
Group/Title	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps
Part/Number	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Bold Small Caps	Roman Small Caps	Roman Small Caps
Part/Title	Roman	Roman	Roman	Roman	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps	Roman Small Caps
Chapter/Number	Roman	Roman	Roman	Roman	Roman Small Caps	N/A	Bold Small Caps	Not known	Not known
Chapter/Title	Roman	Roman	Roman	Roman	Roman Small Caps	N/A	Roman Small Caps	Not known	Not known
Pblock/Number	Roman	Roman	Roman	Roman	N/A	N/A	N/A	N/A	N/A
Pblock/Title	Italic	Italic	Italic	Italic	Italic	Italic	Italic	Italic	Italic
PsubBlock/Number	Roman	Roman	Roman	Roman	N/A	N/A	N/A	N/A	N/A
PsubBlock/Title	Italic	Italic	Italic	Italic	N/A	N/A	N/A	N/A	N/A
P1group/Title	Bold	Bold	Bold	Bold	Italic	N/A	Italic	Italic	Italic
P2group/Title	Italic	Italic	Italic	Italic	Not known	Not known	Not known	Not known	Not known
P3group/Title	Italic	Italic	Italic	Italic	Not known	Not known	Not known	Not known	Not known
P1/Pnumber	Bold	Bold	Bold	Bold	Roman	Roman	Roman	Roman	Roman

	UKSI	SSI	WSI	NISR	UKPGA New style	UKPGA Old style	SPGA	UKLA	UKCM
Explanatory Notes/Earlier Orders									
Title	Bold Caps	Bold Caps	Bold Caps	Bold Caps	N/A	N/A	N/A	N/A	N/A
Comment	Italic	Italic	Italic	Italic	N/A	N/A	N/A	N/A	N/A
Tables									
Tabular/Number	Bold set left	Bold set left	Bold set left	Bold set left	Roman Centred	Not known	Not known	Not known	Not known
Tabular/Title	Bold set left	Bold set left	Bold set left	Bold set left	Roman Centred	Not known	Not known	Not known	Not known
caption	Bold set left	Bold set left	Bold set left	Bold set left	Roman set left	Roman set left	Roman set left	Roman set left	Roman set left
thead/th*	Italic	Italic	Italic	Italic	Italic Centred	Roman Centred	Italic centred	Italic centred	Italic Centred
tbody/th*	Bold	Bold	Bold	Bold	Bold	Bold	Bold	Bold	Bold
Figures									
Figure/Number	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred
Figure/Title	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred	Bold Centred

Appendix C
Reference List

Reference files have been produced to give definitive examples of mark-up for the schema.

In the Element List common usage elements are marked with the word 'Common' next to them indicating that almost every file will make use of that element. Where an element is common only to primary legislation the words 'Common (primary legislation)' will appear and where an element is common only to secondary legislation the words 'Common (secondary legislation)'.

There are a few elements with no example of mark-up in the reference files. Where this is the case the words 'No example at present' will appear.

Element List

Mark-Up	Location
Abbreviation	ukpga_20031099_en.xml
Abstract	ukpga_20010021_en.xml
AbstractBody	ukpga_20010021_en.xml
Acronym	ukpga_20031099_en.xml
Address-AddressLine	Common (secondary legislation)
Address	Common (secondary legislation)
Appendix	uksi_20000933_en.xml
AppendixBody	uksi_20000933_en.xml
AppendText	Common
Approved	uksi_20030562_en.xml
BinaryContent	No example at present
BlockAmendment	Common
BlockExtract	uksi_19981584_en.xml
BlockText	uksi_19980668_en.xml
Body	Common
Caption	uksi_19962655_en.xml
Chapter	ukpga_20010021_en.xml
Character	Common
Citation	Common
CitationSubRef	ukpga_20020016_en.xml
col	uksi_19882253_en.xml
colgroup	No example at present
ComingIntoForce-ComingIntoForceClauses	uksi_20031099_en.xml
ComingIntoForce	Common (secondary legislation)
Comment	Common (secondary legislation)
Contents	ukpga_20030004_en.xml
ContentsAppendix	No example at present
ContentsChapter	asp_20030002_en.xml
ContentsItem	ukpga_20030004_en.xml

ContentsNumber	ukpga_20030004_en.xml
ContentsPart	asp_20030002_en.xml
ContentsPblock	ukpga_20030004_en.xml
ContentsPsubBlock	No example at present
ContentsSchedule	ukpga_20030004_en.xml
ContentsSchedules	ukpga_20030004_en.xml
ContentsSubItem	No example at present
ContentsTitle	ukpga_20030004_en.xml
DateOfEnactment	Common (primary legislation)
DateSigned	Common (secondary legislation)
DateText	Common
DecoratedGroup	uksi_19882253_en.xml
Department	Common (secondary legislation)
Draft	uksi_19940725_en.xml
EarlierOrders	uksi_20030001_en.xml
Emphasis	uksi_19940631_en.xml
EnactingText	Common (primary legislation)
EnactingTextOmitted	asp_20020006_en.xml
ExplanatoryNotes	Common (secondary legislation)
ExternalLink	uksi_20031099_en.xml
ExternalVersion	uksi_20031153_en.xml
Figure	uksi_20031153_en.xml
Footnote-FootnoteText	Common (secondary legislation)
Footnote	Common (secondary legislation)
FootnoteRef	Common (secondary legislation)
Footnotes	Common (secondary legislation)
Form	uksi_19961686_en.xml
Formula-EquationNumber	No example at present
Formula	uksi_20030536_en.xml
FragmentNumber	No example at present
FragmentTitle	uksi_20053338_en.xml
Group	Ukpga_20060052_en.xml
GroupItem	uksi_19882253_en.xml
GroupItemRef	uksi_19882253_en.xml
Image	uksi_20031153_en.xml
IncludedDocument	uksi_19961686_en.xml
Inferior	uksi_20030666_en.xml
InlineExtract	No example at present
InternalLink	ukpga_20020016_en.xml
InternalVersion	uksi_19961686_en.xml
IntroductoryText	Common
JobTitle	Common (secondary legislation)
Key	uksi_19981566_en.xml
KeyList	uksi_19981566_en.xml
KeyListItem	uksi_19981566_en.xml
LaidDate	Common (secondary legislation)
LaidDraft	ukdsi_0110289390_en.xml

Legislation	Common
ListItem	uksi_20031059_en.xml
LongTitle	Common (primary legislation)
LSseal	uksi_20031059_en.xml
MadeDate	Common (secondary legislation)
MarginNote	ukpga_19940022_en.xml
MarginNoteRef	ukpga_19940022_en.xml
NarginNotes	ukpga_19940022_en.xml
Notes	No example at present
Number	Common
OrderedList	uksi_20030562_en.xml
P	Common
P1	Common
P1group	Common
P1para	Common
P2	Common
P2group	uksi_19981566_en.xml
P2para	Common
P3	Common
P3group	uksi_19981566_en.xml
P3para	Common
P4	Common
P4para	Common
P5	uksi_20031099_en.xml
P5para	uksi_20031099_en.xml
P6	No example at present
P6para	No example at present
P7	No example at present
P7para	No example at present
Para	Common
Part	uksi_19882253_en.xml
Pblock	ukpga_20030004_en.xml
PersonName	Common (secondary legislation)
Pnumber	Common
Primary	Common (primary legislation)
PrimaryPreamble	Common (primary legislation)
PrimaryPrelims-Number	Common (primary legislation)
PrimaryPrelims-Title	Common (primary legislation)
PrimaryPrelims	Common (primary legislation)
PsubBlock	No example at present
Reference	uksi_19882253_en.xml
Resolution	uksi_19940631_en.xml
Resource	uksi_20031153_en.xml
ResourceGroup	No example at present
Resources	uksi_20031153_en.xml
RoyalPresence	uksi_19993320_en.xml
Schedule	uksi_20031099_en.xml

ScheduleBody	uksi_20030001_en.xml
Schedules	uksi_20030001_en.xml
Secondary	Common (secondary legislation)
SecondaryPreamble	Common (secondary legislation)
SecondaryPrelims-Number	Common (secondary legislation)
SecondaryPrelims-Title	Common (secondary legislation)
SecondaryPrelims	Common (secondary legislation)
Signatory	Common (secondary legislation)
SignedSection	Common (secondary legislation)
Signee	Common (secondary legislation)
SmallCaps	ukpga_20030004_en.xml
Span	uksi_19940725_en.xml
Strong	uksi_20030536_en.xml
SubjectInformation-Subject	Common (secondary legislation)
SubjectInformation	Common (secondary legislation)
Subtitle	uksi_20031050_en.xml
Superior	uksi_20030271_en.xml
Table	uksi_19882253_en.xml
Tabular-TableText	uksi_19962655_en.xml
Tabular	uksi_19882253_en.xml
tbody	uksi_19882253_en.xml
td	uksi_19882253_en.xml
Text	Common
tfoot-tr-td	uksi_20030666_en.xml
tfoot-tr	uksi_20030666_en.xml
tfoot	uksi_20030666_en.xml
th	uksi_19882253_en.xml
thead	uksi_19882253_en.xml
Title	uksi_20031059_en.xml
TitleBlock	uksi_19882253_en.xml
tr	uksi_19882253_en.xml
ukm:AlternativeNumber	uksi_20030001_en.xml
ukm:ComingIntoForce	Common (secondary legislation)
ukm:DepartmentCode	uksi_20031099_en.xml
ukm:DocumentCategory	Common
ukm:DocumentClassification	Common
ukm:DocumentMainType	Common
ukm:DocumentMinorType	Common (secondary legislation)
ukm:DocumentStatus	Common
ukm:EnactmentDate	Common (primary legislation)
ukm:Laid	Common (secondary legislation)
ukm:Made	Common (secondary legislation)
ukm:Metadata	Common
ukm:Number	Common
ukm:PrimaryMetadata	Common (primary legislation)
ukm:Resolution	uksi_19940631_en.xml
ukm:RoyalPresence	uksi_19993320_en.xml

ukm:SecondaryMetadata	Common (secondary legislation)
ukm:Year	Common
Underline	No example at present
UnorderedList	uksi_20031059_en.xml
Version	uksi_19940725_en.xml
Versions	uksi_19940725_en.xml
Where	uksi_20030536_en.xml
XMLcontent	uksi_19961686_en.xml