Abstract

RDFa Core 1.1 [RDFA-CORE] defines attributes and syntax for embedding semantic markup in Host Languages. This document defines one such Host Language. This language is a superset of XHTML 1.1 [XHTML11-2e], integrating the attributes as defined in RDFa Core 1.1. This document is intended for authors who want to create XHTML-Family documents that embed rich semantic markup.

Status of This Document

This section describes the status of this document at the time of its publication. Other documents may supersede this document. A list of current W3C publications and the latest revision of this technical report can be found in the W3C technical reports index at http://www.w3.org/TR/.
This is a revision of Sections 8 and 9 and Appendix A of RDFa Syntax 1.0 [RDFA-SYNTAX [p.47]]. Once development is complete, if accepted by the W3C membership, this document will supersede those sections of the previous Recommendation. There are a number of substantive differences between this version and its predecessor, including:

1. Inheritance of basic processing rules from [RDFA-CORE [p.46]].
2. The inclusion of an implementation of the markup language using XML Schema.
3. The addition of @lang to be consistent with recent changes in [XHTML11-2e [p.47]].
4. Deprecation of the use of @version.
5. Removed the collection of TERMS from this document - instead deferring the definitions in a default RDFa Profile document.

A sample test harness is available. This set of tests is not intended to be exhaustive. Users may find the tests to be useful examples of RDFa usage. An implementation report lists several implementations of this specification tested during the Candidate Recommendation period. A community-maintained Wiki page includes subsequent updates.

This document was published by the RDFa Working Group as a Working Draft. This document is intended to become a W3C Recommendation. If you wish to make comments regarding this document, please send them to public-rdfa-wg@w3.org (subscribe, archives). All feedback is welcome.

Publication as a Working Draft does not imply endorsement by the W3C Membership. This is a draft document and may be updated, replaced or obsoleted by other documents at any time. It is inappropriate to cite this document as other than work in progress.

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1. Introduction

XHTML+RDFa 1.1 is an XHTML family markup language. It extends the XHTML 1.1 markup language with the attributes defined in RDFa Core 1.1. The document also defines an XHTML Modularization-compatible [XHTML-MODULARIZATION11-2e][p. 47] module for the RDFa Core attributes in both XML DTD and XML Schema formats.

2. Conformance

As well as sections marked as non-normative, all authoring guidelines, diagrams, examples, and notes in this specification are non-normative. Everything else in this specification is normative.

The key words must, must not, required, should, should not, recommended, may, and optional in this specification are to be interpreted as described in [RFC2119][p. 46].

2.1 Document Conformance

A strictly conforming XHTML+RDFa document is a document that requires only the facilities described as mandatory in this specification. Such a document satisfies the following criteria:

1. The document must conform to the constraints expressed in [Appendix A - XHTML+RDFa XML Schema][p. 8] and [Appendix B - XHTML+RDFa Document Type Definition][p. 29].

2. The local part of the root element of the document must be html.

3. The start tag of the root element of the document must explicitly contain a default namespace declaration for the XHTML namespace [XML-NAMESTI][p. 47]. The namespace URI for XHTML is defined to be http://www.w3.org/1999/xhtml.
The start tag may also contain the declaration of the XML Schema Instance Namespace and an XML Schema Instance schemaLocation attribute [XMLSCHEMA-2 [p.47]]. Such an attribute would associate the XHTML namespace http://www.w3.org/1999/xhtml with the XML Schema at the URI http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-2.xsd.

```xml
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en"
     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
     xsi:schemaLocation="http://www.w3.org/1999/xhtml
                           http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-2.xsd">
</html>
```

Note that in this example, the XML declaration is included. An XML declaration like the one above is not required in all XML documents. XHTML document authors should use XML declarations in all their documents. XHTML document authors must use an XML declaration when the character encoding of the document is other than the default UTF-8 or UTF-16 and no encoding is specified by a higher-level protocol.

XHTML+RDFa documents should be labeled with the Internet Media Type "application/xhtml+xml" as defined in [RFC3236 [p.46]]. For further information on using media types with XHTML family markup languages, see the informative note [XHTML-MEDIA-TYPES [p.47]].

In the previous version of this specification, documents could have used the @version attribute on the html element as a way of announcing which version of XHTML+RDFa was in use. That use of @version is no longer supported. A conforming RDFa Processor must not use the value of @version to effect its processing.

2.2 User Agent Conformance

A conforming user agent must support all of the features required in this specification. A conforming user agent must also support the User Agent conformance requirements as defined in XHTML Modularization [XHTML-MODULARIZATION11-2e [p.47]] section on "XHTML Family User Agent Conformance".
3. Additional RDFa Processing Rules

Documents conforming to the rules in this specification are processed according to [RDFA-CORE] with the following extensions:

- The default vocabulary URI is undefined.
- The default collection of terms is defined in via an RDFa Profile document at http://www.w3.org/1999/xhtml/vocab.
- The base can be set using the base element as defined in [XHTML-MODULARIZATION11-2e].
- The current language can be set using either the @lang or @xml:lang attributes.
- In section 6.5, processing step 6, if no URI is provided by a resource attribute, then first check to see if the element is the head or body element. If it is, then act as if there is an empty @about present, and process it according to the rule for @about.
- In section 6.5, processing step 7, if no URI is provided, then first check to see if the element is the head or body element. If it is, then act as if there is an empty @about present, and process it according to the rule for @about.

4. XHTML+RDFa 1.1 Definition

The XHTML+RDFa 1.1 document type is a fully functional document type with rich semantics. It is a superset of [XHTML11-2e].

The XHTML+RDFa 1.1 document type is made up of the following XHTML modules. The elements, attributes, and content models associated with these modules are defined in "XHTML Modularization" [XHTML-MODULARIZATION11-2e]. The elements are listed here for information purposes, but the definitions in XHTML Modularization should be considered authoritative.

Structure Module
   body, head, html, title

Text Module
   abbr, acronym, address, blockquote, br, cite, code, dfn, div, em, h1, h2, h3, h4, h5, h6, kbd, p, pre, q, samp, span, strong, var

Hypertext Module
   a, and @href is available on all elements.

List Module
   dl, dt, dd, ol, ul, li

Object Module
   object, param

Presentation Module
   b, big, hr, i, small, sub, sup, tt

Edit Module
   del, ins
Bidirectional Text Module

bdo

Forms Module

button, fieldset, form, input, label, legend, select, optgroup, option, textarea

Table Module

caption, col, colgroup, table, tbody, td, tfoot, th, thead, tr

Image Module

img

Client-side Image Map Module

area, map

Server-side Image Map Module

Attribute ismap on img

Intrinsic Events Module

Events attributes

Metainformation Module

meta

Scripting Module

noscript, script

Stylesheet Module

style element

Style Attribute Module Deprecated

@style

Target Module

@target

Link Module

link

Base Module

target

Metainformation Attributes Module[p.7]

@about, @content, @datatype, @typeof, @property, @rel, @resource, @rev, @vocab

XHTML+RDFa also uses the Ruby Annotation module as defined in [RUBY][p.47]:

Ruby Annotation Module

ruby, rbc, rtc, rb, rt, rp

This specification also adds the lang attribute to the I18N attribute collection as defined in [XHTML-MODULARIZATION11-2e][p.47]. The lang attribute is defined in [HTML401][p.46]. When this attribute and the xml:lang attribute are specified on the same element, the xml:lang attribute takes precedence. When both lang and xml:lang are specified on the same element, they must have the same value.

There are no additional definitions required by this document type. An implementation of this document type as an XML Schema is defined in [Appendix A][p.8], and as an XML DTD is defined in [Appendix B][p.29].
5. Metainformation Attributes Module

The Metainformation Attributes Module defines the metainformation attribute collection in the format required by [XHTML-MODULARIZATION11-2e][p.47]. This collection allows elements to be annotated with metadata throughout an XHTML-family document. When this module is included in a markup language, this collection is added to the Common attribute collection as defined in [XHTML-MODULARIZATION11-2e][p.47].

### 5.1 Metainformation Attributes Collection

The following attributes are included in the attribute collection, and take values in the associated datatype:

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>about (CURIEorURI)</td>
<td></td>
</tr>
<tr>
<td>content (CDATA)</td>
<td></td>
</tr>
<tr>
<td>datatype (CURIEorURI)</td>
<td>If not specified, then the default value is string as defined in [XMLSCHEMA-2][p.47].</td>
</tr>
<tr>
<td>typeof (TERMorCURIEorAbsURIs)</td>
<td></td>
</tr>
<tr>
<td>prefix (NCName ':' URI)+</td>
<td></td>
</tr>
<tr>
<td>property (TERMorCURIEorAbsURIs)</td>
<td></td>
</tr>
<tr>
<td>rel (TERMorCURIEorAbsURIs)</td>
<td></td>
</tr>
<tr>
<td>resource (CURIEorURI)</td>
<td></td>
</tr>
<tr>
<td>rev (TERMorCURIEorAbsURIs)</td>
<td></td>
</tr>
<tr>
<td>vocab (URI)</td>
<td>A URI that defines the prefix to use when a CURIE is specified with no prefix and no colon.</td>
</tr>
</tbody>
</table>

An implementation of this module in XML Schema can be found in [Appendix A][p.8] and in XML DTD in [Appendix B][p.29].

### 5.2 XHTML Default RDFa Profile

*This section is non-normative.*

This specification provides a default RDFa Profile. It is available at [http://www.w3.org/1999/xhtml/vocab](http://www.w3.org/1999/xhtml/vocab).
A. XHTML+RDFa XML Schema

This appendix is normative.

This appendix includes an implementation of the XHTML+RDFa 1.1 language using XML Schema. It is implemented by combining the XHTML 1.1 Schema with the XHTML Metainformation Attribute Module. This is done by using a content model module, and then a driver module. There are direct links to the various files, and the files are also contained in the "Gzip'd TAR" and "Zip" archives linked to at the top of this document. Please note that the files targeted by the "latest version" links may change slowly over time. See the [W3C XHTML2 Working Group] home page for more information.

A.1 XHTML Metainformation Attributes Module

You can download this version of this file from SCHEMA/xhtml-metaAttributes-2.xsd. The latest version is available at [http://www.w3.org/MarkUp/SCHEMA/xhtml-metaAttributes-2.xsd].

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema
   xmlns:xs="http://www.w3.org/2001/XMLSchema"
   xmlns:xh11d="http://www.w3.org/1999/xhtml/datatypes/
   elementFormDefault="qualified"
>
   <xs:import namespace="http://www.w3.org/1999/xhtml/datatypes/
   schemaLocation="xhtml-datatypes-1.xsd" />
   <xs:annotation>
      <xs:documentation>
         This is the XML Schema Metainformation Attributes module for XHTML
      </xs:documentation>
      $Id: Overview.html,v 1.28 2010/08/03 15:15:33 smccarro Exp $
   </xs:annotation>

   <xs:annotation>
      <xs:documentation source="xhtml-rdfa-copyright-1.xsd"/>
   </xs:annotation>

   <xs:annotation>
      <xs:documentation>
         XHTML Metainformation Attributes
      </xs:documentation>
   </xs:annotation>

   <xs:attribute name="about" type="xh11d:URIorCURIE"/>
   <xs:attribute name="content" type="xh11d:CDATA"/>
   <xs:attribute name="datatype" type="xh11d:TERMorURIorCURIE"/>
   <xs:attribute name="typeof" type="xh11d:TERMorURIorCURIEs"/>
   <xs:attribute name="prefix" type="xh11d:PREFIX"/>
   <xs:attribute name="property" type="xh11d:TERMorURIorCURIEs"/>
   <xs:attribute name="rel" type="xh11d:TERMorURIorCURIEs"/>
   <xs:attribute name="resource" type="xh11d:URIorCURIE"/>
   <xs:attribute name="rev" type="xh11d:TERMorURIorCURIEs"/>
   <xs:attribute name="vocab" type="xs:anyURI"/>

   <xs:attributeGroup name="xhtml.metaAttributes.attrib">
      <xs:attribute name="about"/>
   </xs:attributeGroup>
```
A.2 XHTML+RDFa Schema Content Model Module

You can download this version of this file from SCHEMA/xhtml-rdfa-model-2.xsd. The latest version is available at [http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-model-2.xsd](http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-model-2.xsd).

<?xml version="1.0" encoding="UTF-8"?><xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xh11d="http://www.w3.org/1999/xhtml/datatypes/" elementFormDefault="qualified">
  <xs:import namespace="http://www.w3.org/1999/xhtml/datatypes/"
              schemaLocation="xhtml-datatypes-1.xsd"/>
  <xs:annotation>
    <xs:documentation>
      This is the XML Schema module of common content models for XHTML11
    </xs:documentation>
  </xs:annotation>
  <xs:documentation source="xhtml-copyright-1.xsd"/>
</xs:schema>

A.2 XHTML+RDFa Schema Content Model Module

XHTML Document Model
This module describes the groupings of elements/attributes that make up common content models for XHTML elements. XHTML has following basic content models:
  xhtml.Inline.mix; character-level elements
  xhtml.Block.mix; block-like elements, e.g., paragraphs and lists
  xhtml.Flow.mix; any block or inline elements
  xhtml.HeadOpts.mix; Head Elements
  xhtml.InlinePre.mix; Special class for pre content model
  xhtml.InlineNoAnchor.mix; Content model for Anchor

Any groups declared in this module may be used to create element content models, but the above are considered 'global' (insofar as that term applies here). XHTML has the following Attribute Groups
  xhtml.Core.extra.attrib
  xhtml.I18n.extra.attrib
  xhtml.Common.extra

The above attribute Groups are considered Global.
Attributes defined here:
XHTML RDFa attributes
</xs:annotation>
</xs:include>
<xs:attributeGroup name="xhtml.I18n.extra.attrib">
<xs:annotation>
<xs:documentation> Extended I18n attribute </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
<xs:attributeGroup ref="xhtml.dir.attrib">
<xs:annotation>
<xs:documentation> "dir" Attribute from Bi Directional Text (bdo) Module </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
</xs:attributeGroup>
<xs:attributeGroup name="xhtml.Common.extra">
<xs:annotation>
<xs:documentation> Extended Common Attributes </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
<xs:attributeGroup ref="xhtml.style.attrib">
<xs:annotation>
<xs:documentation> "style" attribute from Inline Style Module </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
</xs:attributeGroup>
<xs:attributeGroup ref="xhtml.Events.attrib">
<xs:annotation>
<xs:documentation> Attributes from Events Module </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
<xs:attributeGroup ref="xhtml.metaAttributes.attrib">
<xs:annotation>
<xs:documentation> Attributes from Metainformation Module </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
</xs:attributeGroup>
<xs:attributeGroup name="xhtml.Core.extra.attrib"}
<xs:annotation>
  <xs:documentation> Extend Core Attributes </xs:documentation>
</xs:annotation>
<xs:attributeGroup>
  name="xhtml.Global.core.extra.attrib">
<xs:annotation>
  <xs:documentation> Extended Global Core Attributes </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
<xs:attributeGroup>
  name="xhtml.Global.I18n.extra.attrib">
<xs:annotation>
  <xs:documentation> Extended Global I18n attributes </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
<xs:attributeGroup>
  name="xhtml.Global.Common.extra">
<xs:annotation>
  <xs:documentation> Extended Global Common Attributes </xs:documentation>
</xs:annotation>
</xs:attributeGroup>
</xs:group>
<xs:group>
  name="xhtml.Head.extra">
  <xs:sequence/>
</xs:group>
<xs:group>
  name="xhtml.HeadOpts.mix">
<xs:choice>
  <xs:element name="script"
    type="xhtml.script.type"/>
  <xs:element name="style"
    type="xhtml.style.type"/>
  <xs:element name="meta"
    type="xhtml.meta.type"/>
  <xs:element name="link"
    type="xhtml.link.type"/>
  <xs:element name="object"
    type="xhtml.object.type"/>
  <xs:group ref="xhtml.Head.extra"/>
</xs:choice>
</xs:group>
<xs:group>
  name="xhtml.head.content">
  <xs:sequence>
    <xs:group ref="xhtml.HeadOpts.mix"
      minOccurs="0"
      maxOccurs="unbounded"/>
    <xs:choice>
      <xs:element name="title"
        minOccurs="1"
        maxOccurs="1"
        type="xhtml.title.type"/>
    <xs:group>
ref="xhtml.HeadOpts.mix"
minOccurs="0"
maxOccurs="unbounded"/>
</xs:sequence>

<xs:element name="base"
type="xhtml.base.type"/>
</xs:group>

<xs:group>
ref="xhtml.HeadOpts.mix"
minOccurs="0"
maxOccurs="unbounded"/>
</xs:sequence>
</xs:sequence>
<xs:element name="base"
type="xhtml.base.type"
minOccurs="1"
maxOccurs="1"/>
</xs:group>

<xs:element name="title"
minOccurs="1"
maxOccurs="1"
type="xhtml.title.type"/>
</xs:group>

<xs:group>
ref="xhtml.HeadOpts.mix"
minOccurs="0"
maxOccurs="unbounded"/>
</xs:sequence>
</xs:choice>
</xs:sequence>
</xs:group>
<!--
ins and del are used to denote editing changes
-->
<xs:group
name="xhtml.Edit.class">
<xs:choice>
<xs:element name="ins"
type="xhtml.edit.type"/>
<xs:element name="del"
type="xhtml.edit.type"/>
</xs:choice>
</xs:group>

<!--
script and noscript are used to contain scripts and alternative content
-->
<xs:group
name="xhtml.Script.class">
<xs:choice>
<xs:element name="script"
type="xhtml.script.type"/>
<xs:element name="noscript"
type="xhtml.noscript.type"/>
</xs:choice>
</xs:group>
These elements are neither block nor inline, and can essentially be used anywhere in the document body.

<!-- Inline Elements -->
<xs:group name="xhtml.InlStruct.class">
  <xs:choice>
    <xs:element name="br" type="xhtml.br.type"/>
    <xs:element name="span" type="xhtml.span.type"/>
  </xs:choice>
</xs:group>
<xs:group name="xhtml.InlPhras.class">
  <xs:choice>
    <xs:element name="em" type="xhtml.em.type"/>
    <xs:element name="strong" type="xhtml.strong.type"/>
    <xs:element name="dfn" type="xhtml.dfn.type"/>
    <xs:element name="code" type="xhtml.code.type"/>
    <xs:element name="samp" type="xhtml.samp.type"/>
    <xs:element name="kbd" type="xhtml.kbd.type"/>
    <xs:element name="var" type="xhtml.var.type"/>
    <xs:element name="cite" type="xhtml.cite.type"/>
    <xs:element name="abbr" type="xhtml.abbr.type"/>
    <xs:element name="acronym" type="xhtml.acronym.type"/>
    <xs:element name="q" type="xhtml.q.type"/>
  </xs:choice>
</xs:group>
<xs:group ref="xhtml.InlStruct.class"/>
<xs:group ref="xhtml.InlPhras.class"/>
<xs:element name="tt" type="xhtml.InlPres.type"/>
<xs:element name="i" type="xhtml.InlPres.type"/>
<xs:element name="b" type="xhtml.InlPres.type"/>
<xs:group ref="xhtml.I18n.class"/>
<xs:group ref="xhtml.InlSpecial.class"/>
<xs:group ref="xhtml.InlForm.class"/>
<xs:group ref="xhtml.Inline.extra"/>
</xs:choice>
</xs:group>
<!--
InlNoAnchor.class includes all non-anchor inlines, used as a component in mixes
-->
<xs:group name="xhtml.InlNoAnchor.class">
<xs:choice>
<xs:group ref="xhtml.InlStruct.class"/>
<xs:group ref="xhtml.InlPhras.class"/>
<xs:group ref="xhtml.InlPres.class"/>
<xs:group ref="xhtml.I18n.class"/>
<xs:group ref="xhtml.InlSpecial.class"/>
<xs:group ref="xhtml.InlForm.class"/>
</xs:choice>
</xs:group>
<!--
InlinePre.mix
Used as a component in pre model
-->
<xs:group name="xhtml.InlinePre.mix">
<xs:choice>
<xs:group ref="xhtml.InlStruct.class"/>
<xs:group ref="xhtml.InlPhras.class"/>
<xs:element name="tt" type="xhtml.InlPres.type"/>
<xs:element name="i" type="xhtml.InlPres.type"/>
<xs:element name="b" type="xhtml.InlPres.type"/>
<xs:group ref="xhtml.I18n.class"/>
<xs:group ref="xhtml.InlSpecial.class"/>
<xs:group ref="xhtml.InlForm.class"/>
</xs:choice>
</xs:group>
<!--
InlNoAnchor.class includes all non-anchor inlines, used as a component in mixes
-->
<xs:group name="xhtml.InlNoAnchor.class">
<xs:choice>
<xs:group ref="xhtml.InlStruct.class"/>
<xs:group ref="xhtml.InlPhras.class"/>
<xs:group ref="xhtml.InlPres.class"/>
<xs:group ref="xhtml.I18n.class"/>
<xs:group ref="xhtml.InlSpecial.class"/>
<xs:group ref="xhtml.InlForm.class"/>
<xs:group name="xhtml.InlNoAnchor.mix">
  <xs:choice>
    <xs:group name="xhtml.InlNoAnchor.class"/>
    <xs:group name="xhtml.Misc.class"/>
  </xs:choice>
</xs:group>

<xs:group name="xhtml.Inline.mix">
  <xs:choice>
    <xs:group name="xhtml.Inline.class"/>
    <xs:group name="xhtml.Misc.class"/>
  </xs:choice>
</xs:group>

<xs:group name="xhtml.InlNoRuby.mix">
  <xs:choice>
    <xs:group name="xhtml.InlNoRuby.class"/>
    <xs:group name="xhtml.Misc.class"/>
  </xs:choice>
</xs:group>

<xs:group name="xhtml.Heading.class">
  <xs:choice>
    <xs:element name="h1" type="xhtml.h1.type"/>
    <xs:element name="h2" type="xhtml.h2.type"/>
    <xs:element name="h3" type="xhtml.h3.type"/>
  </xs:choice>
</xs:group>
<xs:element name="address"
    type="xhtml.address.type"/>
</xs:choice>
</xs:group>
<xs:group
    name="xhtml.BlkPres.class">
<xs:sequence>
    <xs:element name="hr"
        type="xhtml.hr.type"/>
</xs:sequence>
</xs:group>
<xs:group
    name="xhtml.BlkSpecial.class">
<xs:choice>
    <xs:group ref="xhtml.Table.class"/>
    <xs:group ref="xhtml.Form.class"/>
    <xs:group ref="xhtml.Fieldset.class"/>
</xs:choice>
</xs:group>
<xs:group
    name="xhtml.Block.extra">
<xs:sequence/>
</xs:group>
<!--
Block.class includes all block elements,
used as an component in mixes
-->  
<xs:group
    name="xhtml.Block.class">
<xs:choice>
    <xs:group ref="xhtml.BlkStruct.class"/>
    <xs:group ref="xhtml.BlkPhras.class"/>
    <xs:group ref="xhtml.BlkPres.class"/>
    <xs:group ref="xhtml.BlkSpecial.class"/>
    <xs:group ref="xhtml.Block.extra"/>
</xs:choice>
</xs:group>
<!--
Block.mix includes all block elements plus %Misc.class;
-->  
<xs:group
    name="xhtml.Block.mix">
<xs:choice>
    <xs:group ref="xhtml.Heading.class"/>
    <xs:group ref="xhtml.List.class"/>
    <xs:group ref="xhtml.Block.class"/>
<xs:group name="xhtml.Flow.mix">
    <xs:choice>
        <xs:group ref="xhtml.Heading.class"/>
        <xs:group ref="xhtml.List.class"/>
        <xs:group ref="xhtml.Block.class"/>
        <xs:group ref="xhtml.Inline.class"/>
        <xs:group ref="xhtml.Misc.class"/>
    </xs:choice>
</xs:group>

<!--
BlkNoForm.mix includes all non-form block elements, plus Misc.class
-->
A.3 XHTML+RDFa Schema Modules

You can download this version of this file from SCHEMA/xhtml-rdfa-modules-2.xsd. The latest version is available at [http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-modules-2.xsd](http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-modules-2.xsd).

XHTML Core modules (Required for XHTML Family Conformance)
- text
- hypertext
- lists
- structure

Other XHTML modules
- Edit
- Bdo
- Presentation
- Link
- Meta
- Base
- Scripting
- Style
- Image
- Applet
- Object
- Param (Applet/Object modules require Param Module)
- Tables
- Target
- Forms
- Client side image maps
- Server side image maps

XHTML1.1 Document Type includes the following Modules:

### Text module
The Text module includes declarations for all core text container elements and their attributes.
- block phrasal
- block structural
- inline phrasal
- inline structural

Elements defined here:
- address, blockquote, prew, h1, h2, h3, h4, h5, h6
- div, p
- abbr, acronym, cite, code, dfn, em, kbd, q, samp, strong, var
A.3 XHTML+RDFa Schema Modules

<xs:documentation source='http://www.w3.org/TR/2001/REC-xhtml-modularization-20010410/abstract_modules.html#a_textmodule'/>
</xs:annotation>
</xs:include>

<xs:include schemaLocation='ahtml-list-1.xsd'>
<xs:annotation>
<xs:documentation>
Lists module
Elements defined here:
* dt, dd, dl, ol, ul, li
</xs:documentation>
<xs:documentation source='http://www.w3.org/TR/2001/REC-xhtml-modularization-20010410/abstract_modules.html#a_listmodule'/>
</xs:annotation>
</xs:include>

<xs:redefine schemaLocation='ahtml-struct-1.xsd'>
<xs:annotation>
<xs:documentation>
Structural module
Elements defined here:
* title, head, body, html
</xs:documentation>
<xs:documentation source='http://www.w3.org/TR/2001/REC-xhtml-modularization-20010410/abstract_modules.html#a_structuremodule'/>
</xs:annotation>
</xs:redefine>

<xs:include schemaLocation='ahtml-edit-1.xsd'>
<xs:annotation>
<xs:documentation>
Edit module
Elements defined here:
* ins, del
</xs:documentation>
<xs:documentation source='http://www.w3.org/TR/xhtml-modularization/abstract_modules.html#a_editmodule'/>
</xs:annotation>
</xs:include>

<xs:include schemaLocation='ahtml-bdo-1.xsd'>
<xs:annotation>
<xs:documentation>
Bidirectional element module
Elements defined here:
* bdo
</xs:documentation>
<xs:documentation source='http://www.w3.org/TR/xhtml-modularization/abstract_modules.html#a_bdomodule'/>
</xs:annotation>
</xs:include>

<xs:include schemaLocation='ahtml-pres-1.xsd'>
<xs:annotation>
<xs:documentation>
Presentational module
Elements defined here:
* br, b, big, i, small,sub, sup, tt
</xs:documentation>
<xs:documentation source='http://www.w3.org/TR/xhtml-modularization/abstract_modules.html#a_presentationmodule'/>
</xs:annotation>
</xs:include>
A.3 XHTML+RDFa Schema Modules

XHTML+RDFa 1.1

- 23 -
Client-side mage maps module
Elements defined here:
* area, map

Server-side image maps module
Attributes defined here:
* ismap on img

Object module
Elements defined here:
* object

Param module
Elements defined here:
* param

Tables module
Elements defined here:
* table, caption, thead, tfoot, tbody, colgroup, col, tr, th, td
Forms module

Elements defined here:
- form, label, input, select, optgroup, option,
- textarea, fieldset, legend, button

Changes to XHTML Form Attlist

Changes to XHTML Form Input Element

Changes to XHTML Label Element

Changes to XHTML Select Element
A.4 XHTML+RDFa XML Schema Driver Module

You can download this version of this file from SCHEMA/xhtml-rdfa-2.xsd. The latest version is available at [http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-2.xsd](http://www.w3.org/MarkUp/SCHEMA/xhtml-rdfa-2.xsd).

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
    targetNamespace="http://www.w3.org/1999/xhtml"
    xmlns:xh11d="http://www.w3.org/1999/xhtml/datatypes/"
    xmlns="http://www.w3.org/1999/xhtml"
    elementFormDefault="qualified">

<xs:annotation>
    <xs:documentation>This is the XML Schema driver for XHTML + RDFa Please use this namespace
    for XHTML elements: "http://www.w3.org/1999/xhtml"</xs:documentation>
</xs:annotation>

    schemaLocation="http://www.w3.org/2001/xml.xsd">
    <xs:annotation>
        <xs:documentation> This import brings in the XML namespace attributes The XML attributes
        are used by various modules. </xs:documentation>
    </xs:annotation>
</xs:import>

<xs:import namespace="http://www.w3.org/1999/xhtml/datatypes/"
    schemaLocation="xhtml-datatypes-1.xsd"/>

<xs:include schemaLocation="xhtml-rdfa-model-2.xsd">
    <xs:annotation>
        <xs:documentation> Document Model module for the XHTML+RDFa Document Type. This schema
        file defines all named models used by XHTML Modularization Framework for XHTML+RDFa
        Document Type </xs:documentation>
    </xs:annotation>
</xs:include>

<xs:include schemaLocation="xhtml-rdfa-modules-2.xsd">
    <xs:annotation>
        <xs:documentation> Schema that includes all modules (and redefinitions) for XHTML1.1
        Document Type. </xs:documentation>
    </xs:annotation>
</xs:include>

<!-- link, meta, and a need to be defined directly here -->
<xs:attributeGroup name="xhtml.a.attlist">
    <xs:attributeGroup ref="xhtml.Common.attrib"/>
    <xs:attribute name="href" type="xh11d:URI"/>
    <xs:attribute name="charset" type="xh11d:Charset"/>
    <xs:attribute name="type" type="xh11d:ContentType"/>
    <xs:attribute name="hreflang" type="xh11d:LanguageCode"/>
    <xs:attribute name="accesskey" type="xh11d:Character"/>
    <xs:attribute name="tabindex" type="xh11d:Number"/>
    <xs:attributeGroup ref="xhtml.a.csim.attlist"/>
</xs:attributeGroup>

<xs:annotation>
    <xs:documentation>Redefinition by Client Side Image Map Module</xs:documentation>
</xs:annotation>

<xs:attributeGroup ref="xhtml.a.events.attlist"/>
</xs:attributeGroup>

```

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Redefinition by XHTML Event Attribute Module

Target Module - A Attribute Additions

<xsl:complexType name="xhtml.a.type" mixed="true">
  <xsl:group ref="xhtml.a.content"/>
  <xsl:attributeGroup ref="xhtml.a.attlist"/>
</xsl:complexType>

<xsl:attributeGroup name="xhtml.link.attlist">
  <xsl:attributeGroup ref="xhtml.Common.attrib"/>
  <xsl:attribute name="charset" type="xh11d:Charset"/>
  <xsl:attribute name="href" type="xh11d:URI"/>
  <xsl:attribute name="hreflang" type="xh11d:LanguageCode"/>
  <xsl:attribute name="type" type="xh11d:ContentType"/>
  <xsl:attribute name="media" type="xh11d:MediaDesc"/>
</xsl:attributeGroup>

<xsl:group name="xhtml.link.content">
  <xsl:sequence/>
</xsl:group>

<xsl:complexType name="xhtml.link.type">
  <xsl:group ref="xhtml.link.content"/>
  <xsl:attributeGroup ref="xhtml.link.attlist"/>
</xsl:complexType>

<xsl:attributeGroup name="xhtml.meta.attlist">
  <xsl:attributeGroup ref="xhtml.I18n.attrib"/>
  <xsl:attribute name="xml:space" type="xs:string"/>
  <xsl:attribute name="http-equiv" type="xs:NMTOKEN"/>
  <xsl:attribute name="name" type="xs:NMTOKEN"/>
  <xsl:attribute name="content" type="xh11d:CDATA" use="required"/>
  <xsl:attribute name="scheme" type="xh11d:CDATA"/>
  <xsl:attribute name="about" type="xh11d:URIorSafeCURIE"/>
  <xsl:attribute name="datatype" type="xh11d:CURIE"/>
  <xsl:attribute name="typeof" type="xh11d:CURIEs"/>
  <xsl:attribute name="property" type="xh11d:CURIEs"/>
  <xsl:attribute name="rel" type="xh11d:CURIEs"/>
  <xsl:attribute name="resource" type="xh11d:URIorSafeCURIE"/>
  <xsl:attribute name="rev" type="xh11d:CURIEs"/>
</xsl:attributeGroup>

<xsl:group name="xhtml.meta.content">
  <xsl:sequence/>
</xsl:group>

<xsl:complexType name="xhtml.meta.type">
  <xsl:group ref="xhtml.meta.content"/>
  <xsl:attributeGroup ref="xhtml.meta.attlist"/>
</xsl:complexType>
B. XHTML+RDFa Document Type Definition

This appendix includes an implementation of the XHTML+RDFa 1.1 language as an XML DTD. It is implemented by combining the XHTML 1.1 DTD with the XHTML Metainformation Attribute Module. This is done by using a content model module, and then a driver module. There are direct links to the various files, and the files are also contained in the "Gzip’d TAR" and "Zip" archives linked to at the top of this document. Please note that the files targeted by the "latest version" links may change slowly over time. See the W3C XHTML2 Working Group home page for more information.

B.1 XHTML Metainformation Attributes Module

You can download this version of this file from DTD/xhtml-metaAttributes-2.mod. The latest version is available at http://www.w3.org/MarkUp/DTD/xhtml-metaAttributes-2.mod.

```xml
<!-- Placeholer Compact URI-related types -->
<!ENTITY % CURIE.datatype "CDATA" >
<!ENTITY % CURIES.datatype "CDATA" >
<!ENTITY % PREFIX.datatype "CDATA" >
<!ENTITY % SafeCURIE.datatype "CDATA" >
<!ENTITY % SafeCURIES.datatype "CDATA" >
<!ENTITY % URIorCURIE.datatype "CDATA" >
<!ENTITY % URIorCURIES.datatype "CDATA" >
<!ENTITY % URIorSafeCURIE.datatype "CDATA" >
<!ENTITY % URIorSafeCURIES.datatype "CDATA" >
```

This module declares a collection of meta-information related attributes.

%NS.decl.attrib; is declared in the XHTML Qname module.

This file also includes declarations of "global" versions of the
attributes. The global versions of the attributes are for use on
elements in other namespaces.

-->}

<!ENTITY % about.attrib
    "about  %URIorCURIE.datatype;          #IMPLIED"
>
<![XHTML.global.attrs.prefixed;[
<!ENTITY % XHTML.global.about.attrib
    "%XHTML.prefix;:about  %URIorCURIE.datatype;       #IMPLIED"
>
]]>

<!ENTITY % typeof.attrib
    "typeof  %URIorCURIEs.datatype;          #IMPLIED"
>
<![XHTML.global.attrs.prefixed;[
<!ENTITY % XHTML.global.typeof.attrib
    "%XHTML.prefix;:typeof  %URIorCURIEs.datatype;      #IMPLIED"
>
]]>

<!ENTITY % property.attrib
    "property  %URIorCURIEs.datatype;          #IMPLIED"
>
<![XHTML.global.attrs.prefixed;[
<!ENTITY % XHTML.global.property.attrib
    "%XHTML.prefix;:property  %URIorCURIEs.datatype;      #IMPLIED"
>
]]>

<!ENTITY % resource.attrib
    "resource  %URIorCURIE.datatype;          #IMPLIED"
>
<![XHTML.global.attrs.prefixed;[
<!ENTITY % XHTML.global.resource.attrib
    "%XHTML.prefix;:resource  %URIorCURIE.datatype;      #IMPLIED"
>
]]>

<!ENTITY % content.attrib
    "content  CDATA          #IMPLIED"
>
<![XHTML.global.attrs.prefixed;[
<!ENTITY % XHTML.global.content.attrib
    "%XHTML.prefix;:content  CDATA        #IMPLIED"
>
]]>

<!ENTITY % datatype.attrib
    "datatype  %URIorCURIE.datatype;          #IMPLIED"
B.2 XHTML+RDFa Content Model Module

You can download this version of this file from DTD/xhtml-rdfa-model-2.mod. The latest version is available at [http://www.w3.org/MarkUp/DTD/xhtml-rdfa-model-2.mod](http://www.w3.org/MarkUp/DTD/xhtml-rdfa-model-2.mod)

This module describes the groupings of elements that make up common content models for XHTML elements.
XHTML has three basic content models:

- %Inline.mix; character-level elements
- %Block.mix; block-like elements, eg., paragraphs and lists
- %Flow.mix; any block or inline elements

Any parameter entities declared in this module may be used to create element content models, but the above three are considered ‘global’ (insofar as that term applies here).

The reserved word ‘#PCDATA’ (indicating a text string) is now included explicitly with each element declaration that is declared as mixed content, as XML requires that this token occur first in a content model specification.

-->  

<!-- Extending the Model  

While in some cases this module may need to be rewritten to accommodate changes to the document model, minor extensions may be accomplished by redeclaring any of the three *.extra; parameter entities to contain extension element types as follows:

- %Misc.extra; whose parent may be any block or inline element.
- %Inline.extra; whose parent may be any inline element.
- %Block.extra; whose parent may be any block element.

If used, these parameter entities must be an OR-separated list beginning with an OR separator ("|"), eg., "| a | b | c"

All block and inline *.class parameter entities not part of the *struct.class classes begin with "| " to allow for exclusion from mixes.

-->  

<!ENTITY % HeadOpts.mix "( %script.qname; | %style.qname; | %meta.qname; | %link.qname; | %object.qname; )*"  

<!-- ..............  Optional Elements in head .............. -->  

<!ENTITY % Edit.class "| %ins.qname; | %del.qname;" >  

<!-- script and noscript are used to contain scripts and alternative content -->  

<!ENTITY % Script.class "| %script.qname; | %noscript.qname;" >  

<!ENTITY % Misc.extra "" >
<!ENTITY % InlNoRuby.class
 "%InlStruct.class; 
 %InlPhras.class; 
 %InlPres.class; 
 %I18n.class; 
 %Anchor.class; 
 %InlSpecial.class; 
 %InlForm.class; 
 %Inline.extra;"
>

<!ENTITY % NoRuby.content; includes all inlines except ruby
-->
<!ENTITY % NoRuby.content
 "( #PCDATA 
 | %InlNoRuby.class; 
 %Misc.class; )""
>

<!ENTITY % InlNoAnchor.class; includes all non-anchor inlines, 
used as a component in mixes
-->
<!ENTITY % InlNoAnchor.class
 "%InlStruct.class; 
 %InlPhras.class; 
 %InlPres.class; 
 %I18n.class; 
 %InlSpecial.class; 
 %InlForm.class; 
 %Ruby.class; 
 %Inline.extra;"
>

<!ENTITY % InlNoAnchor.mix; includes all non-anchor inlines
-->
<!ENTITY % InlNoAnchor.mix
 "%InlNoAnchor.class; 
 %Misc.class;"
>

<!ENTITY % Inline.mix; includes all inline elements, including %Misc.class;
-->
<!ENTITY % Inline.mix
 "%Inline.class; 
 %Misc.class;"
>

<!-- .....................  Block Elements  ...................... -->

<!-- In the HTML 4.0 DTD, heading and list elements were included 
in the %block; parameter entity. The %Heading.class; and 
%List.class; parameter entities must now be included explicitly 
on element declarations where desired. 
-->

<!ENTITY % Heading.class
 "%h1.qname; | %h2.qname; | %h3.qname;
<!ENTITY % List.class "%ul.qname; | %ol.qname; | %dl.qname;" >

<!ENTITY % Table.class "| %table.qname;" >

<!ENTITY % Form.class "| %form.qname;" >

<!ENTITY % Fieldset.class "| %fieldset.qname;" >

<!ENTITY % BlkStruct.class "%p.qname; | %div.qname;" >

<!ENTITY % BlkPhras.class "| %pre.qname; | %blockquote.qname; | %address.qname;" >

<!ENTITY % BlkPres.class "| %hr.qname;" >

<!ENTITY % BlkSpecial.class "%Table.class;
%Form.class;
%Fieldset.class;" >

<!ENTITY % Block.extra "">

<!ENTITY % Block.class "%BlkStruct.class;
%BlkPhras.class;
%BlkPres.class;
%BlkSpecial.class;
%Block.extra;" >

<!ENTITY % Block.mix "%Heading.class;
| %List.class;
| %Block.class;
| Misc.class;" >

<!-- All Content Elements ................. -->

<!ENTITY % Flow.mix "%Heading.class;
| %List.class;
| %Block.class;
| %Inline.class;
| Misc.class;" >

<!-- end of xhtml-rdfa-model-2.mod -->
B.3 XHTML+RDFa Driver Module

You can download this version of this file from DTD/xhtml-rdfa-2.dtd. The latest version is available at [http://www.w3.org/MarkUp/DTD/xhtml-rdfa-2.dtd]

<!-- .............................. -->
<!-- XHTML 1.1 + RDFa DTD  ......................... -->
<!-- file: xhtml-rdfa-2.dtd -->

<!-- XHTML 1.1 + RDFa DTD  
This is an example markup language combining XHTML 1.1 and the RDFa modules.

XHTML+RDFa
Copyright 1998-2010 World Wide Web Consortium
(Massachusetts Institute of Technology, European Research Consortium for Informatics and Mathematics, Keio University).
All Rights Reserved.

Permission to use, copy, modify and distribute the XHTML DTD and its accompanying documentation for any purpose and without fee is hereby granted in perpetuity, provided that the above copyright notice and this paragraph appear in all copies. The copyright holders make no representation about the suitability of the DTD for any purpose.

It is provided "as is" without expressed or implied warranty.

-->  
<!-- This is the driver file for version 1 of the XHTML + RDFa DTD.  
Please use this public identifier to identify it:

"-//W3C//DTD XHTML+RDFa 1.1//EN"

-->  
<!ENTITY % XHTML.version "XHTML+RDFa 1.1" >

<!-- Use this URI to identify the default namespace:

"http://www.w3.org/1999/xhtml"

See the Qualified Names module for information on the use of namespace prefixes in the DTD.

Note that XHTML namespace elements are not prefixed by default, but the XHTML namespace prefix is defined as "xhtml" so that other markup languages can extend this one and use the XHTML prefixed global attributes if required.

-->  
<!ENTITY % NS.prefixed "IGNORE" >
<!ENTITY % XHTML.prefix "xhtml" >

<!-- Be sure to include prefixed global attributes - we don’t need them, but languages that extend XHTML 1.1 might.
<!ENTITY % XHTML.global.attrs.prefix "INCLUDE" >

<!-- Reserved for use with the XML namespace: -->
<!ENTITY % XLINK.xmlns "" >
<!ENTITY % XLINK.xmlns.attrib "" >

<!-- For example, if you are using XHTML 1.1 directly, use the public identifier in the DOCTYPE declaration, with the namespace declaration on the document element to identify the default namespace: -->
<?xml version="1.0"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML+RDFa 1.1//EN" "http://www.w3.org/MarkUp/DTD/xhtml-rdfa-2.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
xml:lang="en">
...</html>

Revisions:
(none)
-->

<!-- reserved for future use with document profiles -->
<!ENTITY % XHTML.profile "" >

<!-- ensure XHTML Notations are disabled -->
<!ENTITY % xhtml-notations.module "IGNORE" >

<!-- Bidirectional Text features
This feature-test entity is used to declare elements and attributes used for bidirectional text support. -->
<!ENTITY % XHTML.bidi "INCLUDE" >

<!-- ::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::: -->
<!ENTITY % xhtml-prefw-redecl.module "IGNORE" >
<!ENTITY % xhtml-prefw-redecl.mod "" >
<![%xhtml-prefw-redecl.module;[ %xhtml-prefw-redecl.mod; %xhtml-prefw-redecl.mod -->]]>

<!-- we need the datatypes now -->
<!ENTITY % xhtml-datatypes.module "INCLUDE" >
<![%xhtml-datatypes.module;[ %xhtml-datatypes.mod PUBLIC "-//W3C//ENTITIES XHTML Datatypes 1.0//EN" "http://www.w3.org/MarkUp/DTD/xhtml-datatypes-1.mod" %xhtml-datatypes.mod;]]>

<!-- bring in the RDFa attributes cause we need them in Common -->
B.4 SGML Open Catalog Entry for XHTML+RDFa

This section contains the SGML Open Catalog-format definition [SGML-CATALOG][p.47] of the public identifiers for XHTML+RDFa 1.1.

You can download this version of this file from DTD/xhtml-rdfa.cat. The latest version is available at [http://www.w3.org/MarkUp/DTD/xhtml-rdfa.cat](http://www.w3.org/MarkUp/DTD/xhtml-rdfa.cat)
C. Deployment Advice

This section is non-normative.

Documents written using the markup language defined in this specification can be validated using the DTD defined in [Appendix B][p.29]. If a document author wants to facilitate such validation, they may include the following declaration at the top of their document:

```xml
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML+RDFa 1.1//EN" "http://www.w3.org/MarkUp/DTD/xhtml-rdfa-2.dtd">
```

The XML Namespace document associated with the XHTML Family of markup languages uses the mechanism for transforming XHTML+RDFa documents into RDF as defined by [GRDDL][p.47]. Authors who want to be certain their documents are transformable by all [GRDDL][p.47] processors may also include a profile attribute on the head element that includes a reference to the XHTML vocabulary URI http://www.w3.org/1999/xhtml/vocab.
D. Change History

This section is non-normative.

2010-02-25: First version of the split-out XHTML specialization.

E. Acknowledgments

This section is non-normative.

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- Ben Adida, Creative Commons (Co-Chair)
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- Steven Pemberton, Centre for Mathematics and Computer Science (CWI)
- Jeffrey Sonstein, Rochester Institute of Technology
- Manu Sporny, Digital Bazaar (Co-Chair, Invited Expert)
- Robert Weir, IBM Corporation

F. References

F.1 Normative references

[HTML401]

[RDFA-CORE]

[RFC2119]
S. Bradner. [Key words for use in RFCs to Indicate Requirement Levels] Internet RFC 2119. URL: [http://www.ietf.org/rfc/rfc2119.txt]

[RFC3236]
F.2 Informative references

[GRDDL]

[RDFA-SYNTAX]

[SGML-CATALOG]

[XHTML-MEDIA-TYPES]