



# Document Markup Language (DML) Specification 1.0

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## Abstract

This specification defines the Document Markup Language (DML), a markup language for books, articles, notes and other types of document. DML is normatively available as a [RELAX NG](#) (Appendix A, pg. 24) schema with additional [Schematron](#) (Appendix A, pg. 24) assertions.



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# 1. Introduction

DML is general purpose XML schema particularly well suited to books, articles and annotations in other XML sources.

DML is normatively available as a [RELAX NG](#) (Appendix A, pg. 24) schema with additional [Schematron](#) (Appendix A, pg. 24) assertions to cover all cases.

DML is a simple set of elements and attributes which define the basic semantics for a generic document. Its designed keeping in mind that all specialization may be defined through an scoped XML schema. (Draft) For example, to markup code it may be used the [CodeML schema](#).

The *metadata model* use a set of [metadata attributes](#) (Section 4, pg. 21) which are originally defined in [RDFa Syntax](#) (Appendix A, pg. 24) from W3C.

This specification has an style and nomenclature [conventions](#) (Appendix B, pg. 25) to simplify reading process.

## 1.1. Namespace

The *DML namespace* has the URI "<http://purl.oclc.org/NET/dml/1.0/>". Usually it is used associated with "[dml](#)" prefix.

## 1.2. Status of this document

This is a *draft* and it may change at any time based on comments and on its development process.

Use the [DML-discuss mailing list](#) (Appendix A, pg. 25) to discuss and learn about Document Markup Language.

## 2. Elements

### 2.1. The `abbr` element

The `abbr` element represents an abbreviation or acronym.

Flow

[Inline](#) (Section 5.2, pg. 23)

Children

```
( $inline[not( abbr )] | text() )+
```

Attributes

```
( $core.attrs* | $meta.attrs* )
```

Parents

```
( $block | $inline[not( abbr )] )
```

The [@content attribute](#) (Section 4.2, pg. 22) *may* be used to provide an expansion of the abbreviation.

The [@about attribute](#) (Section 4.1, pg. 22) *may* be used to provide a resource which contains the expanded form.

[@content](#) and [@about](#) attributes are mutually exclusive.

---

#### Example 2.1-1: `abbr` element with inline expansion

---

```
<p>Example of <abbr content="Document Markup Language">DML</abbr>'s abbr element.</p>
```

---

**Example 2.1-2:** `abbr` element with remote expansion

---

```
<p>Example of <abbr about="http://example.org/glossary#dml">DML</abbr>'s abbr  
element.</p>
```

---

## 2.2. The `cell` element

The `cell` element represents a table data container.

Flow

[Table](#) (Section 5.3, pg. 23)

Children

```
( ( example | figure | list | note | p | quote )+ | ( $inline | text() )+ )
```

Attributes

```
( $core.attrs* | $meta.attrs* )
```

Parents

```
( group )
```

## 2.3. The `citation` element

The `citation` element represents a citation reference of a quotation block.

Flow

[Block](#) (Section 5.1, pg. 23)

Children

```
( $inline | text() )+
```

Attributes

```
( $core.attrs* | $meta.attrs* )
```

Parents

```
( quote )
```

## 2.4. The `dml` element

The `dml` element is the root element for a DML document.

Flow

[Block](#) (Section 5.1, pg. 23)

Children

```
( title, $block[not( title | citation )]+ )  
(: this expression is more accurated but necessary? :)  
(  
  title,  
  $block[not( title | citation | preceding-sibling::section )]+,  
  section*  
)
```

Attributes

```
( $core.attrs* )
```

---

### Example 2.4-1: Simple DML document

---

```
<dml xmlns="http://purl.oclc.org/NET/dml/1.0/">  
  <title>Simple DML document</title>  
  <p>Lorem ipsum dolor sit amet...</p>  
</example>
```

---

---

### Example 2.4-2: DML document with metadata

---

```
<dml xmlns="http://purl.oclc.org/NET/dml/1.0/"  
xmlns:dct="http://purl.org/dc/terms/">  
  <title>DML document</title>  
  <metadata about="">  
    <list>  
      <item property="dct:creator">Arnau Siches</item>  
      <item property="dct:created">2009-01-02</item>  
    </list>  
  </metadata>  
  <p>Lorem ipsum dolor sit amet...</p>  
</example>
```

---

## 2.5. The `em` element

The `em` element represents an emphasized text.

### Flow

[Inline](#) (Section 5.2, pg. 23)

### Children

```
( $inline | text() )+
```

### Attributes

```
( $core.attrs* | $meta.attrs* | @role? )
```

### Parents

```
( $block | $inline )
```

The `@role` attribute *may* be used to provide strong emphasized text with `"strong"` value.

#### Example 2.5-1: Usage of `em` element

---

```
<p>
  <em>Lorem ipsum</em> dolor sit amet, consectetur adipisicing elit, sed do <em
    role="strong">eiusmod tempor incididunt ut labore</em> et dolore magna aliqua.
</p>
```

---

## 2.6. The `example` element

The `example` element represents an example.

### Flow

[Block](#) (Section 5.1, pg. 23)

### Children

```
( title?, $block[not( example | citation )]+ )
```

### Attributes

```
( $core.attrs* | $meta.attrs* )
```

### Parents

```
( dml | note | section )
```

---

**Example 2.6-1:** Usage of `example` element

---

```
<example xml:id="example-identifier">
  <title>Title of the Lorem Ipsum example</title>
  <p>Lorem ipsum dolor sit amet...</p>
</example>
```

---

## 2.7. The `figure` element

The `figure` element is a figure container; it usually contains an illustration or something to be shown graphically.

Flow

[Block](#) (Section 5.1, pg. 23)

Children

```
( title?, $block[not( example | figure | citation | quote )]+ )
```

Attributes

```
( $core.attrs* | $meta.attrs* )
```

Parents

```
( dml | example | note | section )
```

---

**Example 2.7-1:** Usage of `figure` element

---

```
<figure xml:id="figure-identifier">
  <title>It shown an illustration through a figure element</title>
  <object src="path/to/illustration"/>
</figure>
```

---

## 2.8. The `group` element

The `group` element represents a generic table cell container.

Flow

[Table](#) (Section 5.3, pg. 23)



#### Children

```
( group+ | title+ | ( title?, cell+ ) )
```

#### Attributes

```
( $core.attrs* | $meta.attrs* | @role? )
```

#### Parents

```
( group | table )
```

The `@role` attribute *may* be used to provide a form to refine the `group` element meaning. Allowed values are:

`"header"`

A header table group. Table header *must* be the first child of a `table` element.

`"footer"`

A footer table group. Table footer *must* be child of a `table` element.

## 2.9. The `item` element

The `item` element represents a list item container.

#### Flow

[Block](#) (Section 5.1, pg. 23)

#### Children

```
(  
  ( title*, $block[not( item | title | citation )]+ ) |  
  ( $inline | text() )+  
)
```

#### Attributes

```
( $core.attrs* | $meta.attrs* )
```

#### Parents

```
( list )
```

## 2.10. The `list` element

The `list` element represents a list of items.

Flow

Block (Section 5.1, pg. 23)

Children

```
( title?, item+ )
```

Attributes

```
( $core.attrs* | $meta.attrs* | @role? )
```

Parents

```
( dml | $block[$block[not( self::list )]] )
```

The `@role` attribute *may* be used to define an ordered list with "ordered" value.

---

### Example 2.10-1: Simple list

---

```
<list>
  <item>sugar</item>
  <item>salt</item>
  <item>pepper</item>
</list>
```

---

---

### Example 2.10-2: Ordered list

---

```
<list role="ordered">
  <item>first</item>
  <item>second</item>
  <item>third</item>
</list>
```

---

---

### Example 2.10-3: List with title

---

```
<list>
  <title>List title</title>
  <item>first</item>
  <item>second</item>
  <item>third</item>
</list>
```

---

---

**Example 2.10-4:** Definition list

---

```
<list>
  <item>
    <title>Dweeb</title>
    <p>Young excitable person who may mature into a Nerd or Geek.</p>
  </item>
  <item>
    <title>Hacker</title>
    <p>A clever programmer.</p>
  </item>
  <item>
    <title>Nerd</title>
    <p>Technically bright but socially inept person.</p>
  </item>
</list>
```

---

---

**Example 2.10-5:** Definition list with multiple terms and definitions

---

```
<list>
  <item>
    <title>Center</title>
    <title>Centre</title>
    <list>
      <item>A point equidistant from all points on the surface of a
        sphere.</item>
      <item>In some field sports, the player who holds the middle position on
        the field, court, or forward line.</item>
    </list>
  </item>
  <item>
    <title>Color</title>
    <title>Colour</title>
    <p>The property possessed by an object of producing different sensations on
      the eye.</p>
  </item>
</list>
```

---

## 2.11. The **metadata** element

The **metadata** element represents a metadata container.

Flow

**Block** (Section 5.1, pg. 23)

Children

( *\$block+* | *\$inline+* )

### Attributes

```
( $core.attrs* | $meta.attrs* )
```

### Parents

```
( dml | $block | $inline )
```

(Draft) TODO: examples

## 2.12. The `note` element

The `note` element represents a generic document note or annotation. It *may* be used as a root element in [\(Review\) DML islands](#) in non-DML documents.

### Flow

[Block](#) (Section 5.1, pg. 23)

### Children

```
(  
  ( title?, $block[not( title | note | citation )]+ ) |  
  ( $inline | text() )+  
)
```

### Attributes

```
( $core.attrs* | $meta.attrs* | @role? )
```

### Parents

```
( dml | $block[$block[not( self::note )]] )
```

The `@role` attribute may be used to provide a form to refine the `note` element meaning. Allowed values are:

`"tip"`

A suggestion, tip or trick.

`"warning"`

An admonition note.

`"sidebar"`

A note that is isolated from the main narrative flow.

`"footnote"`

A footnote. Footnotes in paged medias usually occur at the end of the page which cite it.

(Draft) TODO: examples

## 2.13. The `object` element

The `object` element represents a generic embedded media object like images, videos, audio and other types of multimedia files.

### Flow

When its parent is an inline element or a block element that only allows inline elements its flow is `inline` (Section 5.2, pg. 23), otherwise its flow is `block` (Section 5.1, pg. 23).

### Children

```
( $block* | ( $inline | text() )* )
```

### Attributes

```
( $core.attrs* | $meta.attrs* | @src | @type? )
```

### Parents

```
( dml | $block | $inline )
```

The `@src` attribute *must* be used to provide the URI (`xs:anyURI`) of the resource. It also specifies a *resource object* in RDF triple, as its described in [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

The `@type` attribute *may* be used to provide the mime type of the resource.

The children of the `object` element *must* be used to provide an alternative content if the resource provided by `@src` fails to load.

The alternative content *must* be *inline* or *block* in accordance of the flow of its `object` parent.

---

**Example 2.13-1:** Usage of block flow `object` element.

---

```
<figure xml:id="fig-markup-trends">
  <title>Usage of markup language in %</title>
  <object src="markup-trends.svg" type="application/svg+xml">
    <list>
      <item>
        <title>HTML</title>
        <p>98%</p>
      </item>
      <item>
        <title>DocBook</title>
        <p>1%</p>
      </item>
      <item>
        <title>Other</title>
        <p>1%</p>
      </item>
    </list>
  </object>
</figure>
```

---

---

**Example 2.13-2:** Usage of inline flow `object` element.

---

```
<p>
  Press the <object src="accept-call-button-icon.svg"/><em>accept
  call</em></object> button to allow an incoming call.
</p>
```

---

## 2.14. The `p` element

The `p` element represents a generic block of text usually a paragraph.

Flow

[Block](#) (Section 5.1, pg. 23)

Children

( *\$inline* | `text()` )<sup>+</sup>

Attributes

( *\$core.attrs\** | *\$meta.attrs\** )

Parents

( `dml` | *\$block[\$block]* )

## 2.15. The `quote` element

The `quote` element represents a generic quotation container.

### Flow

When its parent is an inline element or a block element that only allows inline elements its flow is `inline` (Section 5.2, pg. 23), otherwise its flow is `block` (Section 5.1, pg. 23).

### Children

```
( $block[not( quote | citation )]+ citation | ( $inline | text() )+ )
```

### Attributes

```
( $core.attrs* | $meta.attrs* | @citation? )
```

### Parents

```
( dml | $block[not( quote | citation )] | $inline[not( quote )] )
```

The `@citation` attribute *must* be used to provide the URI (`xs:anyURI`) of the resource cited when the flow of `quote` element is *inline*, otherwise *must not* be used.

(Draft)

#### Example 2.15-1: Usage of block flow `quote` element.

```
<section>
  ( ... )
  <quote>
    <p>Lorem ipsum</p>
    <citation>??? <span href="http://some.resource">???</span> ??? </citation>
  </quote>
  ( ... )
</section>
```

(Draft)

#### Example 2.15-2: Usage of inline flow `quote` element.

```
<p>
  ??? <quote citation="http://some.resource">cite</quote> ???
</p>
```

## 2.16. The `section` element

The `section` element represents a generic document section.

Flow

[Block](#) (Section 5.1, pg. 23)

Children

```
( title, $block[not( title | citation )]+ )
```

Attributes

```
( $core.attrs* | $meta.attrs* | @role? )
```

Parents

```
( dml | note | object[parent::$block] | quote[parent::$block] | section )
```

The `@role` attribute *may* be used to provide a form to refine the `section` element meaning. Allowed values are:

`"abstract"`

A summary or statement of the contents of a document.

`"part"`

A part of a book. Parts usually group related chapters in a book.

`"chapter"`

**(Review)** A main division of a book.

`"appendix"`

An appendix in a document. Appendixes usually occur at the end of a document.

`"header"`

A header section. Usually it groups common parts like a tagline, author, version history information, etc.

`"footer"`

A footer section. Usually it groups information about its parent such as rights, related links, etc.

**(Draft)** `"toc"`

**(Draft)** description ...?

### Example 2.16-1: Usage of section element

```
<section xml:id="introduction">
  <title>Introduction</title>
  <p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit...
  </p>
</section>
```



**Example 2.16-2:** An appendix section

---

```
<section role="appendix">
  <title>Resources</title>
  <list>
    ( ... )
  </list>
</section>
```

---

## 2.17. The `span` element

The `span` element has no specific semantic. It is provided as a container of inline content.

Flow

[Inline](#) (Section 5.2, pg. 23)

Children

`( $inline | text() )+`

Attributes

`( $core.attrs* | $meta.attrs* )`

Parents

`( $block | $inline )`

## 2.18. The `sub` element

The `sub` element represents a subscript.

Flow

[Inline](#) (Section 5.2, pg. 23)

Children

`( $inline | text() )+`

Attributes

`( $core.attrs* | $meta.attrs* )`

Parents

( *\$block* | *\$inline* )

## 2.19. The **summary** element

The **summary** element is a tabular data summary.

Flow

[Table](#) (Section 5.3, pg. 23)

Children

( *\$inline* | `text()` )+

Attributes

( *\$core.attrs\** | *\$meta.attrs\** )

Parents

( **table** )

## 2.20. The **sup** element

The **sup** element represents a superscript.

Flow

[Inline](#) (Section 5.2, pg. 23)

Children

( *\$inline* | `text()` )+

Attributes

( *\$core.attrs\** | *\$meta.attrs\** )

Parents

( *\$block* | *\$inline* )

## 2.21. The `table` element

The `table` element represents a table container.

Flow

[Block](#) (Section 5.1, pg. 23)

Children

```
( title?, summary, group+ )
```

Attributes

```
( $core.attrs* | $meta.attrs* | @scope )
```

Parents

```
( dml | $block[$block] )
```

The `@scope` attribute *must* be used to provide the primary scope of groups. Allowed values are: "row" and "column".

(Draft) TODO: examples

## 2.22. The `title` element

The `title` element represents a header container.

Flow

[Block](#) (Section 5.1, pg. 23)

Children

```
( $inline | text() )+
```

Attributes

```
( $core.attrs* | $meta.attrs* )
```

Parents

```
( dml | $block[$block] )
```

(Draft) TODO: examples

## 3. Core attributes

```
$core.attrs ::= (  
  @class | @dir | @href | @status | @xml:base | @xml:id | @xml:lang  
)
```

These attributes *must not* be repeated in same element.

### 3.1. The @class attribute

The @class attribute provides additional user-specified classification for an element. Value type is `xs:NMTOKENS`.

Any number of elements *may* be assigned the same class name.

### 3.2. The @dir attribute

The @dir attribute specifies the direction of the element and its descendants. Allowed values are:

"ltr"

Left to right text.

"rtl"

Right to left text.

### 3.3. The @href attribute

The @href attribute specifies the location of a resource through an URI (`xs:anyURI`). It also specifies a *resource object* in RDF triple, as its described in [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

### 3.4. The @status attribute

The @status attribute specifies the status of content in the element. Allowed values are:

"added"

Added text since last revision.

"deleted"

Deleted text since last revision.

"draft"

Text work in progress.

"review"

Text to evaluate or reevaluate but publishable.

*user-value*

Specific status defined by the users according they publishing process. This value *must* be an `xs:NMTOKEN`.

## 3.5. The `@xml:base` attribute

The `@xml:base` attribute specifies the base URI (`xs:anyURI`) of the element and its descendants. Its value *must* be interpreted according [xml:base W3C recomendation](#) (Appendix A, pg. 24).

## 3.6. The `@xml:id` attribute

The `@xml:id` attribute identifies the unique ID (`xs:ID`) value of the element. Its value *must* be interpreted according [xml:id W3C recomendation](#) (Appendix A, pg. 24).

## 3.7. The `@xml:lang` attribute

The `@xml:lang` attribute identifies the language of the element and its descendants. Its value *must* be interpreted according [XML 1.0](#) (Appendix A, pg. 24).

# 4. Metadata attributes

```
$meta.attrs ::= (  
  @about | @content | @datatype | @property | @rel | @resource | @rev | @typeof  
)
```

These attributes *must not* be repeated in same element.

## 4.1. The `@about` attribute

The `@about` attribute provides a *subject* for an RDF triple through an [URIorSafeCURIE](#) (Appendix A, pg. 24).

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

## 4.2. The `@content` attribute

The `@content` attribute provides a machine-readable content for a literal in an RDF triple.

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

## 4.3. The `@datatype` attribute

The `@datatype` attribute provides a datatype of a literal through a [CURIE](#) (Appendix A, pg. 24).

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

## 4.4. The `@property` attribute

The `@property` attribute provides a predicate for an RDF triple through a whitespace separated list of [CURIEs](#) (Appendix A, pg. 24).

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

## 4.5. The `@rel` attribute

The `@rel` attribute provides a predicate for an RDF triple through a whitespace separated list of [CURIEs](#) (Appendix A, pg. 24).

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

## 4.6. The `@resource` attribute

The `@resource` attribute provides an object for an RDF triple through a [URIorSafeCURIE](#) (Appendix A, pg. 24).

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

## 4.7. The `@rev` attribute

The `@rev` attribute provides a reverse predicate for an RDF triple through a whitespace separated list of [CURIEs](#) (Appendix A, pg. 24).

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

## 4.8. The `@typeof` attribute

The `@typeof` attribute provides the type(s) associated with a subject for an RDF triple through a whitespace separated list of [CURIEs](#) (Appendix A, pg. 24).

This attribute is part of [RDFa Recommendation](#) (Appendix A, pg. 24) of W3C.

# 5. Flow

(Draft) Usually elements pertain to an only flow type: block, inline or table but in two cases ([object](#) (Section 2.13, pg. 13) and [quote](#) (Section 2.15, pg. 15)) it changes its type conditioned by its siblings elements.

## 5.1. Block

(Review) Block elements are containers of other block elements or wrappers of [inline](#) (Section 5.2, pg. 23) elements and raw text. (Draft) Those elements are usually associated with the `display: block` defined in [CSS 2.1 specification](#) (Appendix A, pg. 25).

## 5.2. Inline

(Draft) Inline elements are used to mark up running text. It *may* contain inline elements and raw text.

## 5.3. Table

(Draft) <http://www.w3.org/TR/CSS21/tables.html>

(Draft)

## 6. Schema

RELAX NG and Schematron references

## Appendix A — Resources

### RELAX NG

ISO/IEC 19757-2:2008: [Information technology — Document Schema Definition Language \(DSDL\) — Part 2: Regular-grammar-based validation — RELAX NG](http://standards.iso.org/ittf/PubliclyAvailableStandards/c052348_ISO_IEC_19757-2_2008(E).zip) ([http://standards.iso.org/ittf/PubliclyAvailableStandards/c052348\\_ISO\\_IEC\\_19757-2\\_2008\(E\).zip](http://standards.iso.org/ittf/PubliclyAvailableStandards/c052348_ISO_IEC_19757-2_2008(E).zip)). ISO/IEC. 2008.  
[RELAX NG Home page](http://www.relaxng.org/) (<http://www.relaxng.org/>)

### Schematron

ISO/IEC 19757-3:2006: [Information technology — Document Schema Definition Language \(DSDL\) — Part 3: Rule-based validation — Schematron](http://standards.iso.org/ittf/PubliclyAvailableStandards/c040833_ISO_IEC_19757-3_2006(E).zip) ([http://standards.iso.org/ittf/PubliclyAvailableStandards/c040833\\_ISO\\_IEC\\_19757-3\\_2006\(E\).zip](http://standards.iso.org/ittf/PubliclyAvailableStandards/c040833_ISO_IEC_19757-3_2006(E).zip)). ISO/IEC. 2006.  
[Schematron Home page](http://www.schematron.com) (<http://www.schematron.com>)

### IETF (Internet Engineering Task Force)

[RFC 2119: Key words for use in RFCs to Indicate Requirement Levels](http://www.apps.ietf.org/rfc/rfc2119.html) (<http://www.apps.ietf.org/rfc/rfc2119.html>). S. Bradner. 1997.  
[RFC 4646: Tags for the Identification of Languages](http://www.apps.ietf.org/rfc/rfc4646.html) (<http://www.apps.ietf.org/rfc/rfc4646.html>). A. Phillips, Ed., M. Davis. 2006.

### xml namespace

[xml:id Version 1.0](http://www.w3.org/TR/2005/REC-xml-id-20050909/) (<http://www.w3.org/TR/2005/REC-xml-id-20050909/>). N. Walsh, D. Veillard, J. Marsh. 2005.  
[Extensible Markup Language \(XML\) 1.0 \(Fifth Edition\), 2.12 Language Identification](http://www.w3.org/TR/REC-xml/#sec-lang-tag) (<http://www.w3.org/TR/REC-xml/#sec-lang-tag>). T. Bray, J. Paoli, C. M. Sperberg-McQueen, E. Maler, F. Yergeau. 2008.  
[XML Base](http://www.w3.org/TR/2001/REC-xmlbase-20010627/) (<http://www.w3.org/TR/2001/REC-xmlbase-20010627/>). J. Marsh. 2001.

### RDFa

[RDFa in XHTML: Syntax and Processing](http://www.w3.org/TR/2008/REC-rdfa-syntax-20081014/) (<http://www.w3.org/TR/2008/REC-rdfa-syntax-20081014/>). B. Adida, M. Birbeck, S. McCarron, S. Pemberton. 2008.  
[RDFa Primer](http://www.w3.org/TR/2008/NOTE-xhtml-rdfa-primer-20081014/) (<http://www.w3.org/TR/2008/NOTE-xhtml-rdfa-primer-20081014/>). B. Adida, M. Birbeck. 2008.  
[RDFa in XHTML: Syntax and Processing, CURIE definition](http://www.w3.org/TR/rdfa-syntax/#dt_curie) ([http://www.w3.org/TR/rdfa-syntax/#dt\\_curie](http://www.w3.org/TR/rdfa-syntax/#dt_curie)). B. Adida, M. Birbeck, S. McCarron, S. Pemberton. 2008.  
[RDFa in XHTML: Syntax and Processing, URIorSafeCURIE definition](http://www.w3.org/TR/rdfa-syntax/#dt_uriorsafecurie) ([http://www.w3.org/TR/rdfa-syntax/#dt\\_uriorsafecurie](http://www.w3.org/TR/rdfa-syntax/#dt_uriorsafecurie)). B. Adida, M. Birbeck, S. McCarron, S. Pemberton. 2008.





## Dublin Core Metadata Initiative

[Dublin Core Metadata Initiative Home page](http://dublincore.org/). (<http://dublincore.org/>)

[Expressing Dublin Core metadata using HTML/XHTML meta and link elements](http://dublincore.org/documents/2008/08/04/dc-html/) (<http://dublincore.org/documents/2008/08/04/dc-html/>). P. Jhonston, A. Powell. 2008.

## XPath

[XML Path Language \(XPath\) 2.0, A.1 EBNF](http://www.w3.org/TR/xpath20/#id-grammar) (<http://www.w3.org/TR/xpath20/#id-grammar>). A. Berglund, S. Boag, D. Chamberlin, M. F. Fernández, M. Kay, J. Robie, J. Siméon. 2007.

## Discuss

[DML-discuss mailing list](http://groups.google.com/group/dml-discuss) (<http://groups.google.com/group/dml-discuss>)

## CSS

[Cascading Style Sheets Level 2 Revision 1 \(CSS 2.1\) Specification, 9.2.4 The 'display' property](http://www.w3.org/TR/CSS21/visuren.html#propdef-display) (<http://www.w3.org/TR/CSS21/visuren.html#propdef-display>). B. Bos, T. Çelik, I. Hickson, H. Wium Lie. 2007.

# Appendix B — Conventions

The keywords *must*, *must not*, *required*, *shall*, *shall not*, *should*, *should not*, *recommended*, *may*, and *optional*, when emphasized, are to be interpreted as described in [IETF RFC 2119](#) (Appendix A, pg. 24).

A *monospaced* font is used for code, elements, attributes, tags and value literals.

An *italic monospaced* font is used for variables.

The expressions to define allowed *children*, *attributes* and *parent* for an element uses [XPath 2.0 grammar](#) (Appendix A, pg. 25) with addition of [quantifier modifiers](#) (Appendix B, pg. 26).

Element:

(Review) When an element (node with type "element") is mentioned in the text with an associated [attribute](#) (Appendix B, pg. 26) it is always showed as a predicate. [Element EBNF definition](#) (Appendix B.1, pg. 27).

### Example B-1: Notation for the `section` element

```
section
section[@role]
```



#### Attribute:

When an attribute (node with type `"attribute"`) is mentioned in the text, it is always preceded by an at-sign (@) and it optionally has an associated value. [Attribute EBNF definition](#) (Appendix B.1, pg. 27).

#### Example B-2: Notation for the `@role` attribute

---

```
@role
@role="chapter"
```

---

#### Value:

When a value is mentioned in the text, it is always preceded and followed by an quote ("). [Value EBNF definition](#) (Appendix B.1, pg. 27).

#### Example B-3: Notation for the `"chapter"` value

---

```
"chapter"
```

---

#### Tag:

When a tag is mentioned in the text, it is always preceded by a less-than symbol (<) and it is followed by a greater-than symbol (>). [Tag EBNF definition](#) (Appendix B.1, pg. 27).

When a tag is mentioned with some omitted attributes it has an ellipsis symbol (...) preceding greater-than symbol (>).

#### Example B-4: Notation for the start tag `<section ...>`

---

```
<section role="chapter" ...>
```

---

Any element or attribute can be modified by a quantifier modifier as follows:

?

Zero or one time.

+

One or more times.

\*

Zero or more times.

(Review) Therefore, to indicate that an “status” attribute is optional the expression will be `@status?`. Or, if a “section” element is repeatable the expression will be `section+`.

For brevity, throughout this document, assume that the following namespace prefixes have been defined:

"dct"

<http://purl.org/dc/terms/>

"dml"

<http://purl.oclc.org/NET/dml/1.0/>

"rdf"

<http://www.w3.org/1999/02/22-rdf-syntax-ns#>

"xi"

<http://www.w3.org/2001/XInclude>

"xs"

<http://www.w3.org/2001/XMLSchema>

## B.1 EBNF<sup>[1]</sup> definitions

(Draft) TODO: define xpath syntax used in children, attribute and parent definitions.

```
Element ::= Name ( '[' Attribute ' ] ' ) *
Attribute ::= '@' Name ( '=' Value ) ?
Tag ::= '<' Name ( S Name '=' Value ) * S ? '...' ? '/' ? '>'
Name ::= ( [A-Za-z] + ':' ) ? [A-Za-z_] [A-Za-z0-9_-.] *
Value ::= ' ' [ ^<> ] + ' '
S ::= ( #x20 | #x9 | #xD | #xA ) +
```

## Appendix C — GNU Free Documentation License

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<sup>[1]</sup> [W3C notation](http://www.w3.org/TR/REC-xml/#sec-notation) (<http://www.w3.org/TR/REC-xml/#sec-notation>)



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