Review C: Body elements
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Body elements

The body elements support the most common types of content authoring for topics: paragraphs, lists, phrases, figures, and other common document components.

<alt>
Alternate text is a textual description of an image. Systems can display the alternate text when the image cannot be rendered or viewed by the reader.

Attributes
The following attributes are available on this element: universal attributes.

Example
The following code sample shows how alternate text is associated with an image of a marketing banner:

```xml
<image href="newCampaign.jpg">
<alt>Marketing banner for new product campaign</alt>
</image>
```

<cite>
A citation is the name or the title of a bibliographic resource.

Attributes
The following attributes are available on this element: universal attributes and @keyref.

Example
The following code sample shows how the <cite> element can be used to mark up the title of an article:

```xml
<p>The online article <cite>Specialization in the Darwin Information Typing Architecture</cite> provides a detailed explanation of how to define new topic types.</p>
```

<dd>
The definition description is the definition for a term in a definition list entry.

Attributes
The following attributes are available on this element: universal attributes.

Example
See dl (6).
A definition heading is an optional heading or title for descriptions or definitions in a definition list.

**Attributes**

The following attributes are available on this element: universal attributes.

**Example**

See dl (6).

A description is a statement that describes or contains additional information about an object.

**Usage information**

The following list outlines common uses of the `<desc>` element:

- `<table>` and `<fig>`
  Provides more information than can be contained in the title

- `<xref>` and `<link>`
  Provides a description of the target

- `<object>`
  Provides alternate content to use when the context does not permit displaying the object

**Rendering expectations**

When used in conjunction with `<fig>` or `<table>` elements, processors SHOULD consider the content of `<desc>` elements to be part of the content flow.

When used in conjunction with `<xref>` or `<link>` elements, processors often render the content of `<desc>` elements as hover help or other form of link preview.

**Attributes**

The following attributes are available on this element: universal attributes.

**Examples**

This section contains examples of how the `<desc>` element can be used.

**Figure 1: Description of a figure**

In the following code sample, the `<figure>` element contains a reference to an image of a famous painting by Leonardo Da Vinci. The `<title>` element provides the name of the painting, while the `<desc>` element contains information about when the portrait is thought to have been painted.

```xml
<fig>
<title>Mona Lisa</title>
<desc>Circa 1503-06, perhaps continuing until 1517</desc>
<image href="mona-lisa.jpg"><alt>Photograph of Mona Lisa painting</alt>
```
Figure 2: Description of a cross reference

In the following code sample, the `<link>` element contains a `<desc>` element. Some processors might render the content of the `<desc>` element as hover help.

```
<link keyref="dita-13-02">
  <linktext>DITA 1.3 Errata 02</linktext>
  <desc>Final errata version of DITA 1.3, published 19 June 2018</desc>
</link>
```

`<div>`

A division is a grouping of sequential content within a topic. There is no additional semantic meaning.

Usage information

The `<div>` element often is useful for reuse or as a specialization base.

Attributes

The following attributes are available on this element: universal attributes.

Example

This section contains examples of how the `<div>` element can be used.

Figure 3: Using `<div>` for grouping

In the following code sample, a `<div>` element is used to organize several elements together so that they can be referenced by `@conref` or `@conkeyref`:

```
...<div id="div-01">
  <p>The first paragraph</p>
  <p>The second paragraph</p>
  <note>This is a note</note>
</div>
...```

Without using a `<div>` element, the content could not be grouped for content referencing since the start and end elements are of different types.

Figure 4: Using `<div>` for specialization

In the following code sample, `<div>` is used as the basis for specializing a new domain element, `<pullquote>`:

```
<!ENTITY % pullquote.content "(%div.cnt;)*">
<!ENTITY % pullquote.attributes "%univ-atts;">
<!ELEMENT pullquote %pullquote.content;>
<!ATTLIST pullquote %pullquote.attributes;>
<!ATTLIST pullquote class CDATA "+ topic/div pubcontent-d/pullquote ">`
Instances of `<pullquote>` could then be used in both `<body>` and `<section>` contexts:

```xml
<topic id="article-01">
  <title>My Article</title>
  <body>
    <p>Something pithy someone said</p>
    <pullquote><p>Something Pithy</p></pullquote> <!-- ... -->
    <section spectitle="Deep Dive">
      <p>This is really really pithy</p>
      <pullquote><p>Really Pithy</p></pullquote> <!-- ... -->
    </section>
  </body>
</topic>
```

**<dl>**

A definition list is a list of terms and the corresponding definitions.

**Attributes**

The following attributes are available on this element: universal attributes.

**Example**

The following code sample shows how a definition list can be used to describe the message levels that are generated by a monitoring application. The @compact attribute instructs processors to tighten the vertical spacing.

```xml
<dl compact="yes">
  <dlentry>
    <dt>Warning</dt>
    <dd>Problems were detected, but the software will continue to monitor activity.</dd>
  </dlentry>
  <dlentry>
    <dt>Error</dt>
    <dd>Problems were detected, and the software is in danger of shutting down.</dd>
  </dlentry>
  <dlentry>
    <dt>Severe</dt>
    <dd>Monitoring activity has ceased.</dd>
  </dlentry>
</dl>
```

**<dlentry>**

A definition list entry is a group within a definition list. It associates a term with its definition.

**Attributes**

The following attributes are available on this element: universal attributes.

**Example**

See dl (6).
<dlhead>
A definition list heading is a group that contains a heading for terms and a heading for definitions within the list.

Attributes

The following attributes are available on this element: universal attributes.

Example

The following code sample shows a definition list with a header:

```xml
<dl>
  <dlhead>
    <dthd>Image selection</dthd>
    <ddhd>Resulting information</ddhd>
  </dlhead>
  <dlentry>
    <dt>File Type</dt>
    <dd>The file extension of the image</dd>
  </dlentry>
  <dlentry>
    <dt>Image class</dt>
    <dd>Whether the image is raster, vector, or 3D</dd>
  </dlentry>
  <dlentry>
    <dt>Number of pages</dt>
    <dd>Number of pages in the image</dd>
  </dlentry>
  <dlentry>
    <dt>Fonts</dt>
    <dd>Names of the fonts contained within a vector image</dd>
  </dlentry>
</dl>
```

Rendering of definition lists will vary by application and by display format.Processors might render the code sample in the following way:

<table>
<thead>
<tr>
<th>Image selection</th>
<th>Resulting information</th>
</tr>
</thead>
<tbody>
<tr>
<td>File type</td>
<td>File extension of the image</td>
</tr>
<tr>
<td>Image class</td>
<td>Whether the image is raster, vector, or 3D</td>
</tr>
<tr>
<td>Number of pages</td>
<td>Number of pages in the image</td>
</tr>
<tr>
<td>Fonts</td>
<td>Names of the fonts contained within a vector image</td>
</tr>
</tbody>
</table>

Comment by Kristen J Eberlein on 21 November 2021

Did we decide that we wanted to use screen captures to show possible presentation?

<draft-comment>
A draft comment is content that is intended for review and discussion, such as questions, comments, and notes to reviewers. This content is not intended to be included in production output.

Rendering expectations

By default, processors SHOULD NOT render <draft-comment> elements. Processors SHOULD provide a mechanism that causes the content of the <draft-comment> element to be rendered in draft output only.
Attributes
The following attributes are available on this element: universal attributes and the attributes defined below.

For this element, the @translate attribute has a default value of "no".

@author
   Designates the originator of the draft comment.

@disposition
   Specifies the status of the draft comment.

@time
   Specifies when the draft comment was created.

Example
The following code samples shows how an content developer can use a <draft-comment> element to pose a question to reviewers:

```xml
<draft-comment
   author="EBP"
   time="23 May 2017">
   Where's the usage information for this section?
</draft-comment>
```

Processors might render the information from the highlighted attributes at viewing or publishing time. Authors might use the value of the @status attribute to track the work that remains to be done on a content collection.

<dt>
A definition term is the term or phrase that is defined in a definition list entry.

Attributes
The following attributes are available on this element: universal attributes.

Example
See dl (6).

<dthd>
A definition term heading is an optional heading or title for terms in a definition list.

Attributes
The following attributes are available on this element: universal attributes.

Example
See dl (6).
<example>
An example illustrates the subject of the topic or a portion of the topic.

Usage information
Use <example> to contain both sample code (or similar artifacts) and the discussion that illustrates the sample. For example, a topic about programming code could use the <example> element to contain both the sample code and the text that describes the code.

Attributes
The following attributes are available on this element: universal attributes and @spectitle.

Example
The following code sample shows an <example> element that contains a code block and a textual explanation of it:

```xml
<section id="AddingRecord">
  <title>ADD</title>
  <p>New database records are created using the <cmdname>ADD</cmdname> command.</p>
  <example>
    <p>The following example illustrates the creation of a new record. All parameter settings are strictly optional.</p>
    <codeblock>01 OPTIONS ABC,ADD,DEF,HIJK,LMNO,AOW=25000,HF=2</codeblock>
  </example>
</section>
```

<fallback>
Fallback content is content to be presented when multimedia objects or other referenced content cannot be rendered.

Processing expectations
The contents of this element are displayed only when the media that is referenced by the containing element cannot be displayed or viewed.

Attributes
The following attributes are available on this element: universal attributes.

Example
See <audio> and <video>.

<fig>
A figure is a container for a variety of objects, including artwork, images, code samples, equations, and tables.

Attributes
The following attributes are available on this element: universal attributes, display attributes, and @spectitle.
Example
The following code sample shows how a `<fig>` element can associate a title and a description with an image:

```
<fig>
  <title>The handshake</title>
  <desc>This image shows two hands clasped in a formal, business-like handshake.</desc>
  <image href="59j0p66.jpg">
    <alt>A handshake</alt>
  </image>
</fig>
```

<figgroup>
A figure group is a grouping of segments within a figure.

Usage information
The `<figgroup>` element is useful primarily as a base for complex specializations, such as nestable groups of syntax within a syntax diagram. The `<figgroup>` element can nest; it also can contain multiple cross-references, footnotes, and keywords.

Attributes
The following attributes are available on this element: universal attributes.

Example
The following code sample shows how the `<figgroup>` can group content with associated metadata:

```
<fig>
  <title>Sample complex figure</title>
  <figgroup>
    <data name="MetaItem" value="13"/>
    <data name="MetaThing" value="31"/>
    <ph>These elements are grouped with associated metadata</ph>
  </figgroup>
</fig>
```

<fn>
A footnote is ancillary information that typically is rendered in the footer of a page or at the end of an online article. Such content is usually inappropriate for inline inclusion.

Usage information
There are two types of footnotes: single-use footnote and use-by-reference footnote.

Single-use footnote
This is produced by a `<fn>` element that does not specify a value for the `@id` attribute.

Use-by-reference footnote
This is produced by a `<fn>` element that specifies a value for the `@id` attribute. It must be used in conjunction with an `<xref>` element with `@type` set to "fn".

To reference a footnote that is located in another topic, the conref or conkeyref mechanism is used.
Rendering expectations

The two footnote types typically produce different types of output:

**Single-use footnote**

When rendered, a superscript symbol (numeral or character) is produced at the location of the `<fn>` element. The superscript symbol is hyperlinked to the content of the footnote, which is placed at the bottom of a PDF page or the end of an online article. The superscript symbol can be specified by the value of the `@callout` attribute. When no `@callout` value is specified, footnotes are typically numbered.

**Use-by-reference footnote**

Nothing is rendered at the location of the `<fn>` element. The content of a use-by-reference footnote is only rendered when it is referenced by an `<xref>` with the `@type` attribute set to "fn". If an `<xref>` with the `@type` attribute set to "fn" is present, a superscript symbol is rendered at the location of the `<xref>` element. Unless conref or conkeyref is used, the `<fn>` and `<xref>` must be located in the same topic.

However, the details of footnote processing and formatting are implementation dependent. For example, a tool that renders DITA as PDF might lack support for the `@callout` attribute, or footnotes might be collected as end notes for certain types of publications.

**Attributes**

The following attributes are available on this element: universal attributes and the attribute defined below.

`@callout`

Specifies the character that is used for the footnote link, for example, a number or an alphabetical character. The attribute also can specify a short string of characters.

**Examples**

This section contains examples of how the `<fn>` element can be used.

---

**Comment by Kristen J Eberlein on 21 November 2021**

Did we decide that we wanted to use screen captures to show possible presentation?

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**Figure 5: Example of a single-use footnote**

The following code sample shows a single-use footnote. It contains a simple `<fn>` element, with no `@id` or `@callout` attribute.

```
The memory storage capacity of the computer is 2 GB<fn>A GB (gigabyte) is equal to 1000 million bytes</fn> with error correcting support.
```

When rendered, typically a superscript symbol is placed at the location of the `<fn>` element; this superscript symbol is hyperlinked to the content of the `<fn>`, which is typically placed at the bottom of a PDF page or the end of an online article. The type of symbol used is implementation specific.

The above code sample might produce output similar to the following:

```
The memory storage capacity of the computer is 2 GB\(^1\) with error correcting support.

\[\ldots\]\n
\(^1\) A GB (gigabyte) is equal to 1000 million bytes
```
The memory storage capacity of the computer is 2 GB. A GB (gigabyte) is equal to 1000 million bytes with error correcting support.

The rendered output is similar to that of the previous example, although processors that support it will render the footnote symbol as # (hashtag).

The following code sample shows use-by-reference footnotes. The elements have @id attributes, and inline elements reference those elements:

```dita
<fn id="dog-name">Fido</fn>
<fn id="cat-name">Puss</fn>
<fn id="llama-name">My llama</fn>
...

I like pets. At my house, I have a dog\(^1\), a cat\(^2\), and a llama\(^3\).

\(^1\) Fido
\(^2\) Puss
\(^3\) My llama
```

The code sample might produce output similar to the following:

```
.....
I like pets. At my house, I have a dog, a cat, and a llama.
.....
```

The following code sample shows footnotes stored in a shared topic (footnotes.dita):

```dita
没有想到  Content from footnotes.dita -->
<topic id="footnotes">
...
<fn id="strunk">Elements of Style</fn>
<fn id="DQTI">Developing Quality Technical Information, 2nd edition</fn>
...
</topic>
```

To use those footnotes, authors conref them into the relevant topics:

```
See the online resource for more information about how to assess the quality of technical documentation ...
```

The following code sample shows a use-by-reference footnote that uses conref:

```dita
<topic id="evaluating-quality">
<title>Evaluating documentation quality</title>
<body>
```
<image>
An image is a reference to artwork that is stored outside of the content.

Rendering expectations
The referenced image typically is rendered in the main flow of the content.
Processors SHOULD scale the object when values are provided for the @height and @width attributes. The following expectations apply:

- If a height value is specified and no width value is specified, processors SHOULD scale the width by the same factor as the height.
- If a width value is specified and no height value is specified, processors SHOULD scale the height by the same factor as the width.
- If both a height value and width value are specified, implementations MAY ignore one of the two values when they are unable to scale to each direction using different factors.

Attributes
The following attributes are available on this element: universal attributes, href (link-relationship attributes), format (link-relationship attributes), scope (link-relationship attributes), @keyref, and the attributes defined below.

@align
  Controls the horizontal alignment of an image when @placement is specified as “break”. Common values include "left", "right", and "center".

@height
  Indicates the vertical dimension for the resulting display. The value of this attribute is a real number (expressed in decimal notation) optionally followed by a unit of measure from the set of pc, pt, px, in, cm, mm, em (picas, points, pixels, inches, centimeters, millimeters, and ems respectively). The default unit is px (pixels). Example values include "5", "5in", and "10.5cm".

@placement
  Indicates whether an image is displayed inline or on a separate line. The default value is inline. Allowable values are "inline", "break", and "-dita-use-conref-target".

@scale
  Specifies a percentage as an unsigned integer by which to scale the image in the absence of any specified image height or width; a value of 100 implies that the image should be presented at its intrinsic size. If a value has been specified for the @height or @width attribute (or both), the @scale attribute is ignored.

  It is an error if the value of this attribute is not an unsigned integer. In this case, the implementation might give an error message and might recover by ignoring this attribute.

@scalefit
  Specifies whether an image is scaled up or down to fit within available space. Allowable values are "yes", "no", and "-dita-use-conref-target". If @height, @width, or @scale is specified, those
attributes determine the graphic size, and the @scalefit attribute is ignored. If none of those attributes are specified and scalefit="yes", then the image is scaled (the same factor in both dimensions) so that the graphic will just fit within the available height or width (whichever is more constraining).

The available width would be the prevailing column (or table cell) width—that is, the width a paragraph of text would have if the graphic were a paragraph instead. The available height is implementation dependent, but if feasible, it is suggested to be the page (or table cell) height or some other reasonable value.

@width
Indicates the horizontal dimension for the resulting display. The value of this attribute is a real number (expressed in decimal notation) optionally followed by a unit of measure from the set of pc, pt, px, in, cm, mm, em (picas, points, pixels, inches, centimeters, millimeters, and ems respectively). The default unit is px (pixels). Example values include “5”, “5in”, and “10.5cm”.

Example
The following code sample shows how an image is referenced. The @placement attribute is set to "break"; this ensures that the image is not rendered inline.

```xml
<image href="bike.gif" placement="break">
  <alt>Two-wheeled bicycle</alt>
</image>
```

<include>
Included content is a reference to non-DITA content outside the current document that will be rendered at the location of the reference. The resource is specified using either a URI or a key reference. Processing expectations for the referenced data can also be specified.

Usage information
The <include> element is intended as a specialization base and for the following use cases:

- The transclusion of non-DITA XML within <foreign> element using parse="xml"
- The transclusion of preformatted textual content within <pre> element using parse="text"
- The transclusion of plain-text prose within DITA elements using parse="text"

For example, the <include> element can be specialized to an element such as <coderef> as a way to include preformatted sample programming code.

The <include> element is not intended to reference DITA content. Use @conref or @conkeyref to reuse DITA content.

Processing expectations
The <include> element instructs processors to insert the contents of the referenced resource at the location of the <include> element. If the content is unavailable to the processor or cannot be processed using the specified @parse value, the contents of the <fallback> element, if any, are presented instead.

Processors SHOULD support the @parse values "text" and "xml".

Processors SHOULD detect the encoding of the referenced document based on the rules described for the @encoding attribute.
Attributes

The following attributes are available on this element: universal attributes, inclusion attributes, link-relationship attributes, and @keyref.

Examples

For the most part, `<include>` is intended to be used as a basis for specialization. The following examples use it directly for purposes of illustration.

Figure 10: Inclusion of XML markup other than SVG or MathML

In the following code sample, the `<include>` element references a tag library descriptor file:

```xml
<fig>
  <title>JSP Tag Library Elements and Attributes</title>
  <foreign outputclass="tld">
    <include href="../src/main/webapp/WEB-INF/jsp-tag-library.tld" parse="xml" format="tld"/>
  </foreign>
</fig>
```

Figure 11: Inclusion of README text into a DITA topic, with fallback

In the following code sample, a README text file is referenced in order to reuse a list of changes to a set of source code:

```xml
<topic id="readme">
  <title>Summary of changes</title>
  <shortdesc>This topic describes changes in the project source code.</shortdesc>
  <body>
    <include href="../src/README.txt" parse="text" encoding="UTF-8">
      <fallback>See README.txt in the source package for a list of changes.</fallback>
    </include>
  </body>
</topic>
```

Figure 12: Inclusion of preformatted text

In the following code sample, the `<include>` element references a JSON file:

```xml
<pre>
  <include href="../src/config.json" format="json" parse="text" encoding="UTF-8"/>
</pre>
```

Figure 13: Proprietary vendor handling for CSV tables

In the following code sample, the `<include>` element uses a proprietary @parse value that instructs a processor how to render a comma separated data set within the figure:

```xml
<fig>
  <title>Data Table</title>
  <include href="data.csv" encoding="UTF-8" parse="http://www.example.com/dita/includeParsers/csv-to-simpletable"/>
</fig>
```
A keyword is text or a token that has a unique or key-like value, such as a product name or unit of reusable text.

**Processing expectations**

When used within the `<keywords>` element, the content of a `<keyword>` element is considered to be metadata and should be processed as appropriate for the given output medium. Elements that are specialized from the `<keyword>` element might have extended processing, such as specific formatting or automatic indexing.

**Attributes**

The following attributes are available on this element: universal attributes and `@keyref`.

**Examples**

This section contains examples of how the `<keyword>` element can be used.

**Figure 14: `<keyword>` element used to store a product name**

In the following code sample, the `<keyword>` element holds a product name that can be referenced using content reference (conref) or content key reference (conkeyref):

```
<keyword id="acme-bird-feeder">ACME Bird Feeder</keyword>
```

To enable referencing variable text using `@keyref`, store the product name in a `<keytext>` element.

**Figure 15: `<keyword>` element as metadata**

In the following code sample, "Big data" is specified as metadata that applies to the topic:

```
<prolog>
  <metadata>
    <keywords>
      <keyword>Big data</keyword>
    </keywords>
  </metadata>
</prolog>
```

**<li>**

A list item is an item in either an ordered or unordered list.

**Attributes**

The following attributes are available on this element: universal attributes.

**Example**

See `ol` (23) or `ul` (30)
<lines>
Lines are lines of text where white space is significant. The <lines> element can be used to represent dialogs, poetry, or other text fragments where line breaks are significant.

Rendering expectations
Processors SHOULD preserve or otherwise indicate white space within the <lines> element.

Attributes
The following attributes are available on this element: universal attributes, display attributes, @xml:space, and @spectitle.

Example
In the following code sample, a <lines> element contains an excerpt from Sonnet 18, one of the best-known of the 154 sonnets written by the English playwright and poet William Shakespeare:

```
<lines>
Shall I compare thee to a summer's day?
Thou art more lovely and more temperate:
Rough winds do shake the darling buds of May,
and summer's lease hath all too short a date:
...<lines>
```

<longdescref>
A long description reference is a reference to a textual description of a graphic or object.

Attributes
The following attributes are available on this element: universal attributes, link-relationship attributes, and @keyref.

Examples
This section contains examples of how the <longdescref> element can be used.

Figure 16: <longdescref> which references a local DITA description
In the following code sample, the <longdescref> references a detailed image description that is stored in a DITA topic:

```
<image href="llama.jpg">
  <alt>Llama picture</alt>
  <longdescref href="my-pet-llama.dita"/>
</image>
```

Figure 17: <longdescref> which references an external description
In this code sample, the long description is stored remotely, on a external Web site:

```
<image href="puffin.jpg">
  <alt>Puffin picture</alt>
  <longdescref href="http://www.example.org/birds/puffin.html" scope="external"
```

A long quotation is a quotation that contains one or more paragraphs. The title and source of the document that is being quoted can be specified.

Attributes

The following attributes are available on this element: universal attributes and @keyref.

Example

The following code sample contains a quotation. The @reftitle attribute specifies the title of the document that is quoted, and the @href attribute indicates a Web site where the full text of the address can be accessed.

```html
<p>This is the first line of the address that Abraham Lincoln delivered on November 19, 1863 for the dedication of the cemetery at Gettysburg, Pennsylvania.</p>
<lq reftitle="Gettysburg address" href="https://en.wikisource.org/wiki/Gettysburg_Address_(Nicolay_draft)" format="html" scope="external">Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal.</lq>
```

A note is information that expands on or calls attention to a particular point.

Usage information

The nature of a note (for example, caution, danger, or warning) is indicated through the values selected for the @type attribute.

The values "danger", "notice", and "warning" have meanings that are based on ANSI Z535 and ISO 3864 regulations.

If @type is set to "other", the value of the @othertype attribute can be used as a label for the note. Many processors will require additional information on how to process the value.

Attributes

The following attributes are available on this element: universal attributes, @spectitle, and the attributes defined below.

@othertype

Specifies an alternate note type. This value is used as the user-provided note label when the @type attribute value is set to "other".

@type

Specifies the type of a note. This differs from the @type attribute on many other DITA elements. The following are the allowable values:
The following explanation needs work! Most of this appeared in DITA 1.0 and has not been edited since then (with the exception of where there is association with the hazard statement domain). TC members, please help.

**attention**
Please pay extra attention to this note.

**caution**
Care is required when proceeding.

**danger**
When used with the `<hazardstatement>` element, this indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**important**
This note is important.

**note**
This is just a note.

**notice**
When used with the `<hazardstatement>` element, this indicates a potential situation which, if not avoided, might result in an undesirable result or state.

**other**
This is something other than a normal note.

**remember**
Don't forget to do what this note says.

**restriction**
You can't do what this note says.

**tip**
This is a fine little tip.

**trouble**
Provides information about how to remedy a trouble situation.

**warning**
Indicates a potentially hazardous situation. When used with the `<hazardstatement>` element, this indicates a situation which, if not avoided, could result in death or serious injury.

**-dita-use-conref-target**
See for more information.

**Example**
The following code sample shows a `<note>` with `@type` set to "tip":

```xml
<note type="tip">Thinking of a seashore, green meadow, or cool mountain overlook can help you to relax and be more patient.</note>
```
The DITA `<object>` element corresponds to the HTML `<object>` element, and the attribute semantics derive from the HTML definitions. For example, the `@type` attribute differs from the `@type` attribute on many other DITA elements.

Usage information

The `<object>` element enables authors to include animated images, applets, plug-ins, ActiveX controls, video clips, and other multimedia objects in a topic.

Rendering expectations

Processors SHOULD scale the object when values are provided for the `@height` and `@width` attributes. The following expectations apply:

- If a height value is specified and no width value is specified, processors SHOULD scale the width by the same factor as the height.
- If a width value is specified and no height value is specified, processors SHOULD scale the height by the same factor as the width.
- If both a height value and width value are specified, implementations MAY ignore one of the two values when they are unable to scale to each direction using different factors.

When an object cannot be rendered in a meaningful way, processors SHOULD present the contents of the `<fallback>` element, if it is present.

Attributes

The following attributes are available on this element: universal attributes and the attributes defined below.

- `@archive`
  Specifies a space-separated list of URIs indicating resources needed by the object. These resources might include those URIs specified by the `@classid` and `@data` attributes. Preloading these resources usually results in faster load times for objects. The URIs in the list should be relative to the URI specified in the `@codebase` attribute.

- `@archivekeyrefs`
  Specifies key references to one or more archives, as for `@archive`. The value is a space-separated list of key names. Each resolvable key reference is treated as a URI as though it had been specified on the `@archive` attribute. When specified, and at least one key name is resolvable, the key-provided archive list is used. If `@archive` is specified, it is used as a fallback when no key names can be resolved to a URI.

- `@classid`
  Contains a URI that specifies the location of an object's implementation. It can be used together with the `@data` attribute which is specified relative to the value of the `@codebase` attribute.

- `@classidkeyref`
  Specifies a key reference to the URI that specifies the location of an object's implementation, as for `@classid`. When specified, and the key is resolvable, the key-provided class ID URI is used. If `@classid` is specified, it is used as a fallback when the key cannot be resolved to a URI.

- `@codebase`
  Specifies the base URI used for resolving the relative URI values given for `@classid`, `@data`, and `@archive` attributes. If `@codebase` is not set, the default is the base URI of the current element.
@codebasekeyref
Specifies a key reference to the base URI used for resolving other attributes, as for @codebase. When specified, and the key is resolvable, the key-provided code base URI is used. If @codebase is specified, it is used as a fallback if the key cannot be resolved to a URI. If no URI results from processing @codebasekeyref and @codebase is not specified, the default is the base URL of the current element.

@data
Contains a reference to the location of an object's data. If this attribute is a relative URL, it is specified relative to the value of the @codebase attribute. If this attribute is set, the @type attribute should also be set.

@datakeyref
Provides a key reference to the object. When specified and the key is resolvable, the key-provided URI is used. A key that has no associated resource, only link text, is considered to be unresolved. If @data is specified, it is used as a fallback when the key cannot be resolved to a resource.

@declare
Specifies whether the current object definition is only a declaration. When this attribute is set to "declare", the current object definition is a declaration only. The object must be instantiated by a later nested object definition referring to this declaration. The only allowable value is "declare".

@height
Specifies the vertical dimension for the resulting display. The value of this attribute is a real number (expressed in decimal notation) optionally followed by a unit of measure from the set of pc, pt, px, in, cm, mm, em (picas, points, pixels, inches, centimeters, millimeters, and ems respectively). The default unit is px (pixels). Possible values include: "5", "5in", and "10.5cm".

@name
Defines a unique name for the object.

@standby
Contains a message to be displayed while an object is loading.

@tabindex
Specifies the position of the object in tabbing order.

@type
Indicates the content type (MIME type) for the data specified by the @data or @datakeyref attribute. This attribute should be set when the @data attribute is set to avoid loading unsupported content types. Note that this differs from the @type attribute on many other DITA elements (it specifies a MIME type rather than a content type). If @type is not specified, the effective type value for the key named by the @datakeyref attribute is used as the this attribute's value.

@usemap
Indicates that a client-side image map is to be used. An image map specifies active geometric regions of an included object and assigns a link to each region. When a link is selected, a document might be retrieved or a program might run on the server.

@width
Specifies the horizontal dimension for the resulting display. The value of this attribute is a real number (expressed in decimal notation) optionally followed by a unit of measure from the set of pc, pt, px, in, cm, mm, em (picas, points, pixels, inches, centimeters, millimeters, and ems respectively). The default unit is px (pixels). Possible values include: "5", "5in", and "10.5cm".
Example
This section contains examples of how the `<object>` element can be used.

Figure 18: Referencing a flash video

The following code sample shows how an `<object>` element can be used to reference a flash video:

```xml
<object classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
        codebase="http://download.macromedia.com/pub/shockwave/cabs/
                   flash/swflash.cab#version=6,0,0,0"
        data="cutkey370.swf"
        type="application/x-shockwave-flash"
        height="280"
        width="370"
        id="cutkey370">
  <desc>Video that demonstrates how to cut keys from the system unit.</desc>
  <fallback>Media not available.</fallback>
  <param name="movie" value="cutkey370.swf"/>
  <param name="quality" value="high"/>
  <param name="bgcolor" value="#FFFFFF"/>
</object>
```

Figure 19: Referencing a PDF

The following code sample shows how an `<object>` element can be used to render a PDF as an inline object:

```xml
<object type="application/pdf"
        data="resources/pdf/terms.pdf"
        width="300"
        height="200"
        id="terms-and-conditions">
  <desc>Terms and conditions for using the site.</desc>
  <fallback>PDF cannot be displayed; please download the terms and
           conditions from <xref keyref="site-terms"/>.</fallback>
</object>
```

Figure 20: Object with reference to video using key reference on the `<param>` elements

The following code sample shows how key definitions can be used to reference supporting resources for an `<object>`:

```xml
<object id="E5123_026.mp4"
        width="300" height="300">
  <fallback>Media not available.</fallback>
  <param name="poster" keyref="E5123_026_poster"/>
  <param name="source" keyref="E5123_026_video"/>
</object>
```

In this scenario, the keys could be defined as follows:

```xml
<map>
  <!-- ... -->
  <keydef keys="E5123_026_poster"
          href="../images/E5123_026_poster.png"
          type="video/mp4"/>
  <keydef keys="E5123_026_video"
          href="../media/E5123_026_video.mp4"
          type="video/mp4"/>
</map>
```
**Figure 21: Object with indirect reference to a flash file**

The following code sample shows how key definitions can be used to reference the main content for an `<object>`:

```xml
<object id="cutkey370"
classidkeyref="video_classid"
codebasekeyref="video_codebase"
datakeyref="cutkey370"
height="280"
width="370">
<desc>Video illustration of how to cut a key</desc>
<fallback>Media not available.</fallback>
<param name="movie" keyref="cutkey370"/>
<param name="quality" value="high"/>
<param name="bgcolor" value="#FFFFFF"/>
</object>
```

In this scenario, the keys could be defined as follows:

```xml
<map>
<!-- ... -->
<!-- NOTE: Using @scope="external" because the class ID is a URI
that is not intended to be directly resolved. -->
<keydef keys="video_classid"
href="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
scope="external" />
<!-- NOTE: Using @scope="external" to avoid systems trying to
download this file when they don't need to. -->
<keydef keys="video_codebase"
href="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=6,0,0,0"
format="shockwave"
scope="external" />
<!-- Using @scope="external" here because the referenced URL is not intended
to be resolved in isolation but relative to the codebase URI. -->
<keydef keys="cutkey370"
href="cutkey370.swf"
type="application/x-shockwave-flash"
scope="external" />
<!-- ... -->
</map>
```

<ol>
An ordered list is a list of items that are sorted by sequence or order of importance.

**Attributes**

The following attributes are available on this element: `universal attributes`, `@compact`, and `@spectitle`.

**Example**

The following code sample shows the use of an ordered list:

```html
<p>Here are Rotten Tomatoes' five best movies of all time:</p>
<ol>
<li>The Wizard of Oz (1939)</li>
<li>Citizen Kane (1941)</li>
<li>Get Out (2017)</li>
<li>The Third Man (1949)</li>
```
A paragraph is a single unit of text that contains a main idea.

Attributes
The following attributes are available on this element: universal attributes.

Example
The following code sample contains a paragraph:

```html
<p>A paragraph is a group of related sentences that support a central idea. Paragraphs typically consist of three parts: a topic sentence, body sentences, and a concluding or bridging sentence.</p>
```

<param>
The `<param>` (parameter) element specifies a set of values that might be required by an `<object>` at runtime.

Usage information
Any number of `<param>` elements might appear in the content of an `<object>` in any order, but must be placed at the start of the content of the enclosing object. This element is comparable to the HTML `<param>` element, and its attributes' semantics derive from their HTML definitions. For example, the `<type>` attribute differs from the `<type>` attribute on many other DITA elements.

Processing expectations
The `<keyref>` and `<valuetype>` attributes on `<param>` have the following expectations:

1. If `<valuetype>` is specified but is not set to "ref", the `<keyref>` attribute is ignored.
2. When `<valuetype>` is not specified and `<keyref>` is specified, it implies a setting of `<valuetype>"ref"`.
3. When `<keyref>` is specified and the effective value of `<valuetype>` is "ref":
   1. When the key specified by `<keyref>` is resolvable and has an associated URI, that URI is used as the value of this element (overriding `<value>`, if that is specified).
   2. When the key specified by `<keyref>` is resolvable and has no associated resource (only link text), the `<keyref>` attribute is considered to be unresolvable for this element. If `<value>` is specified, it is used as fallback.
   3. When the key specified by `<keyref>` is not resolvable, the value of the `<value>` attribute is used as a fallback target for the `<param>` element.

In addition, the following expectations apply to the `<type>` attribute:

1. When `<valuetype>` is set to "ref", the `<type>` attribute directly specifies the content type of the resource designated by `<value>`.
2. Otherwise, if `<type>` is specified and `<keyref>` is specified and resolvable, this attribute specifies the content type of the resource designated by `<keyref>`.
3. Otherwise, if \texttt{type} is not specified and \texttt{keyref} is specified and is resolvable, the effective type value specified for the key that is named by the \texttt{keyref} attribute is used as the value of the \texttt{type} attribute.

**Attributes**

The following attributes are available on this element: universal attributes and the attributes defined below.

\texttt{keyref}  
Specifies a key reference to the thing the parameter references.

\texttt{name (REQUIRED)}  
Specifies the name of the parameter.

\texttt{type}  
Specifies for a user agent the type of values that will be found at the URI designated by \texttt{value}. Note that this differs from the \texttt{type} attribute on many other DITA elements.

\texttt{value}  
Specifies the value of a run-time parameter that is described by the \texttt{name} attribute.

\texttt{valuetype}  
Specifies the type of the \texttt{value} attribute. Allowed values are:

- \texttt{data}
  
  A value of data means that the value will be evaluated and passed to the object's implementation as a string.

- \texttt{ref}
  
  A value of ref indicates that the value of the \texttt{value} attribute is a URL that designates a resource where run-time values are stored. This allows support tools to identify URLs that are given as parameters.

- \texttt{object}
  
  A value of object indicates that the value of the \texttt{value} attribute is an identifier that refers to an object declaration in the document. The identifier must be the value of the \texttt{id} attribute set for the declared \texttt{object} element.

- \texttt{-dita-use-conref-target}
  
  See for more information.

**Example**

See \texttt{object} (20).

**<ph>**

A phrase is a small group of words that stand together as a unit, typically forming a component of a clause.

**Usage information**

The \texttt{<ph>} element often is used to enclose a phrase for reuse or conditional processing.

The \texttt{<ph>} element frequently is used as a specialization base, to create phrase-level markup that can provide additional semantic meaning or trigger specific processing or formatting. For example, all highlighting domain elements are specializations of \texttt{<ph>}.
Attributes
The following attributes are available on this element: universal attributes and @keyref.

Example
The following code sample shows <ph> elements that are used for conditional processing:

```xml
<p>The Style menu is the <ph product="Software1000">third item</ph><ph product="Software9000">fourth item</ph> from the left on the menu bar.</p>
```

<pre>
Preformatted text is text that contains line breaks and spaces that are intended to be preserved at publication time.

Rendering expectations
Processors SHOULD preserve line the breaks and spaces that are present in the content of a <pre> element.

Attributes
The following attributes are available on this element: universal attributes, display attributes, @xml:space, and @spectitle.

Example
The following code sample shows preformatted text that contains white space and line breaks. When the following code sample is published, the white space and line breaks are preserved.

```xml
<pre>
MEMO: programming team fun day
Remember to bring a kite, softball glove, or other favorite outdoor accessory to tomorrow’s fun day outing at Zilker Park.
Volunteers needed for the dunking booth.
</pre>
```

<q>
A quotation is a small group of words that is taken from a text or speech and repeated by someone other than the original author or speaker.

Rendering expectations
Processors add appropriate styling, such as locale-specific quotation marks, around the contents of the <q> element and render it inline.

Attributes
The following attributes are available on this element: universal attributes.
Example
In the following code sample, the `<q>` element contains a quotation. Note that no quotation marks are included; locale-specific quotation marks will be generated during processing.

```xml
<example>
  George said, &lt;q&gt;Disengage the power supply before servicing the unit.&lt;/q&gt;
</example>
```

<section>
A section is an organizational division in a topic. Sections are used to organize subsets of information that are directly related to the topic; they can have titles.

Usage information
Multiple sections within a single topic do not represent a hierarchy, but rather peer divisions of that topic. Sections cannot be nested.

  Note   For maximum flexibility in creating specialization, sections allow plain text as well as phrase and block level elements. Because of the way XML grammars are defined within a DTD, any element that allows plain text cannot restrict the order or frequency of other elements. As a result, the `<section>` element allows `<title>` to appear anywhere as a child of `<section>`. However, the intent of the specification is that `<title>` only be used once in any `<section>`, and when used, that it precede any other text or element content.

Rendering expectations
Processors SHOULD treat the presence of more than one `<title>` element in a `<section>` element as an error.

Attributes
The following attributes are available on this element: universal attributes and `@spectitle`.

Example
The following code sample shows how element-reference topics in the DITA specification use titled sections to provide a consistent structure for grouping information:

```xml
<reference id="sub" xml:lang="en-us">
  &lt;title&gt;Usage information&lt;/title&gt;
  &lt;p&gt;...&lt;/p&gt;
  &lt;/section&gt;
  &lt;title&gt;Rendering expectations&lt;/title&gt;
  &lt;p&gt;...&lt;/p&gt;
  &lt;/section&gt;
  &lt;title&gt;Processing expectations&lt;/title&gt;
  &lt;p&gt;...&lt;/p&gt;
  &lt;/section&gt;
  &lt;title&gt;Specialization hierarchy&lt;/title&gt;
  &lt;p&gt;...&lt;/p&gt;
  &lt;/section&gt;
  &lt;title&gt;Attributes&lt;/title&gt;
  &lt;p&gt;...&lt;/p&gt;
  &lt;/section&gt;
  &lt;title&gt;Example&lt;/title&gt;
  &lt;p&gt;...&lt;/p&gt;
</reference>
```
<sl>
A simple list is a list that contains a few items of short, phrase-like content.

Attributes
The following attributes are available on this element: universal attributes, @compact, and @spectitle.

Example
The following code sample shows how a simple list could be used in a topic that discusses related modules:

```xml
<section>
<title>Messages</title>
<p>Messages from the ags_open module are identical with messages from:</p>
<sl>
  <sli>ags_read</sli>
  <sli>ags_write</sli>
  <sli>ags_close</sli>
</sl>
</section>
```

<sli>
A simple list item is a component of a simple list. A simple list item contains a brief phrase or text content, adequate for describing package contents, for example.

Attributes
The following attributes are available on this element: universal attributes.

Example
See sl (28).

<term>
A term is a word or phrase that might have or require extended definitions or explanations.

Usage information
The @keyref attribute can be used to associate a term with a resource, typically a definition of the term. The @keyref attribute can also be used to supply the text content for <term> using standard @keyref processing for variable text.

Attributes
The following attributes are available on this element: universal attributes and @keyref.
Example
The following code sample shows how the `<term>` element can be used:

```xml
<p>A <term>reference implementation</term> of DITA implements the standard, fallback behaviors intended for DITA elements.</p>
```

`<text>`
Text is a container for text with no associated semantics.

Usage information
The `<text>` element is primarily used as a specialization base or to enable reuse. The `<text>` element can contain only text or nested `<text>` elements.

Attributes
The following attributes are available on this element: universal attributes.

Example
In the following code sample, the `<text>` element is used to contain text that is intended to be reused:

```xml
<p>This an example of <text id="reuse">Text that is reusable</text>, with no extra semantics attached to the text.</p>
```

`<tm>`
A trademark is a term or phrase that is trademarked. Trademarks include registered trademarks, service marks, slogans, and logos.

Usage information
The business rules for indicating and displaying trademarks differ from company to company. These business rules can be enforced by either authoring policy or processing.

Attributes
The following attributes are available on this element: universal attributes and the attributes defined below.

@tmtype (REQUIRED)
Specifies the trademark type. Allowable values are:

- `tm`
  Trademark
- `reg`
  Registered trademark
- `service`
  Service mark

-dita-use-conref-target
See for more information.
@trademark
  Specifies the trademarked term.

@tmowner
  Specifies the trademark owner, for example "OASIS".

@tmclass
  Specifies the classification of the trademark. This can be used to differentiate different groupings of trademarks.

Example
The following code sample shows how IBM uses the `<tm>` element:

```xml
<p>The advantages of using <tm trademark="DB2 Universal Database" tmtype="tm">
<tm trademark="DB2" tmtype="reg" tmclass="ibm">DB2</tm> Universal Database</tm> are well known.</p>
```

<ul>
An unordered list is a list in which the order of items is not significant.

Attributes
The following attributes are available on this element: universal attributes, @compact, and @spectitle.

Example
The following code sample shows a list in which the order of items is unimportant:

```xml
<p>Here are the countries that I have visited:</p>
<ul>
<li>Germany</li>
<li>France</li>
<li>Japan</li>
<li>Mexico</li>
</ul>
```

<xref>
A cross reference is an inline link. A cross reference can link to a different location within the current topic, another topic, a specific location in another topic, or an external resource such as a PDF or Web page.

Attributes
The following attributes are available on this element: universal attributes, link-relationship attributes, and @keyref.

Examples
This section contains examples of how the `<xref>` element can be used.

**Figure 22: Cross reference to another topic, without link text**

The following code sample shows a cross reference to another topic; link text is not provided. Processor typically use the topic title as the link text.

```xml
<p>Background information about DITA is provided in <xref href="overview-of-dita.dita"/>.</p>
```
The same cross reference could be created using @keyref instead of @href; using @keyref allows the link to be redirected to different resources when the topic is used in different contexts.

**Figure 23: Cross references with link text specified**

The following code sample shows a cross reference that specifies link text:

```xml
<p>While this set of tutorials gives several simple examples of
<xref keyref="markup-examples">common DITA features</xref>, a comprehensive
list of DITA features is available in the DITA specification
<xref keyref="dita-conformance">conformance clause</xref>.</p>
```

**Figure 24: Cross reference to a URI that contains an ampersand**

The following code sample shows a cross reference that contains an ampersand:

```xml
<xref href="https://www.example.com/docview.wss?rs=757&amp;context=SSVNX5"
    scope="external" format="html">Part number SSVNX5</xref>
```

Because the @href attribute value needs to be a valid URI, the ampersand must be escaped, as shown in the revised code sample below:

```xml
<xref href="https://www.example.com/docview.wss?rs=757&amp;context=SSVNX5"
    scope="external" format="html">Part number SSVNX5</xref>
```

Although the entity is in the DITA source, the entity might not show up when the link target is displayed in an editor or a Web browser; the URI might be shown as the following:

```xml
https://www.example.com/docview.wss?rs=757&amp;context=SSVNX5
```

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