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1 Elements

This section contains topics for all elements that appear in both DITA 2.0 and LwDITA.

1.1 <alt>

[LwDITA] [DITA] Alternate text is a textual description of an image. Systems often render the alternate text when the reader is using assistive technology or the image cannot be rendered.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]

The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**HDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**MDITA**

For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.2 <audio>

[LwDITA] [DITA] Audio is sound that the human ear is capable of hearing.

Usage information

[DITA]

The <audio> element is modeled on the HTML5 <audio> element.

An audio resource can be referenced by @href, @keyref, and nested <media-source> elements.

Playback behaviors such as auto-playing, looping, and muting are determined by attributes. When not specified, the default behavior is determined by the user agent that is used to present the media.

[LwDITA]

The audio component is modeled on the HTML5 <audio> element.

An audio resource can be referenced by @href, @keyref, and nested media-source components.

Playback behaviors such as auto-playing, looping, and muting are determined by attributes. When not specified, the default behavior is determined by the user agent that is used to present the media.
Rendering expectations

001 (77) [LwDITA] When an audio resource cannot be rendered in a meaningful way, processors SHOULD present the contents of the <fallback> element, if it is present.

Attributes

[DITA]
The following attributes are available on this element: universal attributes (67), @format (60), @href (60), @keyref (60), @scope (65), and the attributes defined below.

For this element, the following considerations apply:

- The @format attribute specifies the MIME type for the resource. This attribute enables processors to avoid loading unsupported resources. If @format is not specified and @keyref is specified, the effective type for the key named by the @keyref attribute is used as the value. If an explicit @format is not specified on either the <audio> element or key definition, processors can use other means, such as the URI file extension, to determine the effective MIME type of the resource.
- The @href attribute specifies the absolute or relative URI of the audio resource. If @href is specified, also specify @format.

[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: ID attributes (49), link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, @props, and the additional attributes listed below.

HDITA
The following attributes are available on this element: ID attributes (49), link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, @props, and the additional attributes listed below.

MDITA
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[LwDITA] (XDITA and HDITA) The following additional attributes are also available:

@autoplay
Specifies whether the resource automatically plays when it is presented. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target ". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".

@controls
Specifies whether the presentation of the resource includes user interface controls. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target ". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".

@loop
Specifies whether the resource loops when played. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target ". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".
@muted
Specifies whether the resource is muted. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".

@tabindex
Specifies whether the audio resource can be focused and where it participates in sequential keyboard navigation. See @tabindex in the HTML specification (WHATWG version).

[LwDITA] (XDITA and HDITA) For this element, the following considerations apply:

- The @format attribute specifies the MIME type for the resource. This attribute enables processors to avoid loading unsupported resources. If @format is not specified and @keyref is specified, the effective type for the key named by the @keyref attribute is used as the value. If an explicit @format is not specified on either the <audio> element or key definition, processors can use other means, such as the URI file extension, to determine the effective MIME type of the resource.
- The @href attribute specifies the absolute or relative URI of the audio resource. If @href is specified, also specify @format.

1.3 <b>
[LwDITA] [DITA] Bold text is text that is used to draw a reader's attention to a phrase without otherwise adding meaning to the content.

Specialization hierarchy
[DITA] The <b> element is specialized from <ph>. It is defined in the highlighting-domain module.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

HDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

MDITA
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.4 <body>
[LwDITA] [DITA] The body contains the main content of a topic.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: localization attributes (52) and universal attributes (54).

**HDITA**
The following attributes are available on this element: localization attributes (52) and universal attributes (54).

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.5 <data>

**Usage information**

**[DITA]**
The primary purpose of the `<data>` element is as a specialization base. Because it can nest, it can be used to create complex metadata structures. Since it is available in both block and inline contexts, the `<data>` element can specify properties for most element types.

A metadata property specified using a `<data>` element usually applies to the structure that contains the `<data>` element.

When located in `<prolog>` and `<metadata>` elements, the property applies to the topic as a whole. When located in the `<topicmeta>` element, the property applies to the referenced topic.

---

**CAUTION**

By default, processors do not render the content of the `<data>` element. Use the `<data>` element only for properties; do not use it to embed text as part of the content flow.

---

**[LwDITA]**

A metadata property specified using a `<data>` component usually applies to the structure that contains the `<data>` component.

---

**CAUTION**

By default, processors do not render the content of the `<data>` component. Use the `<data>` component only for properties; do not use it to embed text as part of the content flow.

### Rendering expectations

**002 (77)**

**[DITA]**

By default, processors **SHOULD** treat a `<data>` element as unknown metadata. The contents of the `<data>` element **SHOULD NOT** be rendered.

Processors that recognize a particular `<data>` element **MAY** make use of it to trigger specialized rendering.

---

**003 (77)**

**[LwDITA]**
By default, processors **SHOULD** treat a data component as unknown metadata. The contents of the data component **SHOULD NOT** be rendered. Processors that recognize a particular data component **MAY** make use of it to trigger specialized rendering.

**Attributes**

[DITA] The following attributes are available on this element: data-element attributes (55), link-relationship attributes (56), universal attributes (67), and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: data-element attributes (47), link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, and @props.

**HDITA**
The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, and @props.

**MDITA**
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

**1.6 <dd>**

[LwDITA] [DITA] The definition description is the definition for an item in a definition list entry.

**Attributes**

[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

**1.7 <desc>**

[LwDITA] [DITA] A description is a statement that describes or contains additional information about an object.

**Usage information**

[DITA]
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 the object to be displayed

[LwDITA]

The following list outlines common uses of the description component:

- **Table and figure**
  - Provides more information than can be contained in the title
- **Cross reference**
  - Provides a description of the target

**Rendering expectations**

004 (77)

[DITA]

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 forms of link preview.

005 (77)

[LwDITA]

When used in conjunction with figures, processors **SHOULD** consider the content of description components to be part of the content flow.

When used in conjunction with cross references, processors often choose to render the content of description components as hover help or other forms of link preview.

**Attributes**

[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]

The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), and @props.

**HDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), and @props.

**MDITA**

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.8 `<dl>`
[LwDITA] [DITA] A definition list is a list of items and their corresponding definitions.

**Attributes**

[DITA] The following attributes are available on this element: **universal attributes** (67) and `@compact` (58).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: **ID attributes** (49), **localization attributes** (52), **universal attributes** (54), and `@props`.

**HDITA**
The following attributes are available on this element: **ID attributes** (49), **localization attributes** (52), **universal attributes** (54), and `@props`.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.9 `<div>`
[LwDITA] [DITA] A division is a grouping of contiguous content within a topic. There is no additional semantic meaning.

**Usage information**

[DITA] The `<div>` element is useful primarily for reuse and as a specialization base.

[LwDITA] The `<div>` component is useful primarily for reuse.

**Attributes**

[DITA] The following attributes are available on this element: **universal attributes** (67).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: **localization attributes** (52), **universal attributes** (54), and `@props`.

**HDITA**
The following attributes are available on this element: **localization attributes** (52), **universal attributes** (54), and `@props`.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.10 <dlentry>
[LwDITA] [DITA] A definition list entry is a group within a definition list. It contains an item and its definitions.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).
[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.11 <dt>
[LwDITA] [DITA] A definition term is the item that is defined in a definition list entry.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).
[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.12 <em>
[LwDITA] [DITA] Emphasis indicates special meaning or particular importance.

Specialization hierarchy
[DITA] The <em> element is specialized from <ph>. It is defined in the emphasis-domain module.
Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

HDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

MDITA
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.13 <example>

[LwDITA] [DITA] An example illustrates the subject of the topic or a portion of the topic.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: display attributes (48), link relationship attributes (51), localization attributes (52), universal attributes (54), and @props.

HDITA
The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), and @props.

MDITA
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.14 <fallback>

[DITA] Fallback content is content to be presented when multimedia objects or included content cannot be rendered.

[LwDITA] Fallback content is content to be presented when multimedia objects cannot be rendered.

Processing expectations

[LwDITA] [DITA] The contents of this element are displayed only when the media that is referenced by the containing element cannot be displayed or viewed.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67).
The available attributes vary based on the authoring format:

**XDITA**
- The following attributes are available on this element: localization attributes (52), universal attributes (54), and @props.

**HDITA**
- The following attributes are available on this element: localization attributes (52), universal attributes (54), and @props.

**MDITA**
- There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.15 <fig>
[LwDITA] [DITA] A figure is a container for a variety of objects, including artwork, images, code samples, equations, and tables.

**Usage information**
[DITA] A `<fig>` element enables associating other elements, such as a title or description, with the contents of the `<fig>` element.

[LwDITA] A `<fig>` component enables associating other components, such as a title or description, with the contents of the figure component.

**Attributes**
[DITA] The following attributes are available on this element: display attributes (55) and universal attributes (67).

[LwDITA] The available attributes vary based on the authoring format:

**XDITA**
- The following attributes are available on this element: display attributes (48), link relationship attributes (51), localization attributes (52), universal attributes (54), and @props.

**HDITA**
- The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), and @props.

**MDITA**
- There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.16 <fn>
[LwDITA] [DITA] 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**
[LwDITA] [DITA] There are two types of footnotes: single-use footnote and use-by-reference footnote.

[DITA]
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

[LwDITA] [DITA] 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.

[LwDITA] [DITA] 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

[DITA] The following attributes are available on this element: universal attributes (67) and the attribute defined below.

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), @props, and the additional attribute listed below.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**MDITA**
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[LwDITA] (XDITA only) The following additional attribute is also available:

@callout
Specifies the character or character string that is used for the footnote link [LwDITA]. This attribute is available only in XDITA.

1.17 <i>
[LwDITA] [DITA] Italic text is text that is used to emphasize the key points in printed text, or when quoting a speaker, to show which words the speaker stressed.

Specialization hierarchy

[DITA] The <i> element is specialized from <ph>. It is defined in the highlighting-domain module.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**HDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**MDITA**
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.18 <image>

[LwDITA] [DITA] An image is a reference to artwork that is stored outside of the content.

Rendering expectations

[LwDITA] [DITA] The referenced image typically is rendered in the main flow of the content.

006 (77)

[LwDITA] [DITA] 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

[DITA]
The following attributes are available on this element: universal attributes (67), @format (60), @href (60), @keyref (60), @scope (65), and the attributes defined below.

[LwDITA]
The available attributes vary based on the authoring format:

XDTA
The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, and the additional attributes listed below.

HDITA
The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, and the additional attributes listed below.

MDITA
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[LwDITA] (XDITA and HDITA) The following additional attributes are also available:

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

@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. The following units of measurement are supported: cm, em, in, mm, pc, pt, and px (centimeters, ems, inches, millimeters, picas, points, and pixels, respectively). The default unit is px (pixels). Possible 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.

@scalefit
Specifies whether an image is scaled up or down to fit within available space. The 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 by 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 that of the prevailing column or table cell, that is, the width a paragraph
of text would have if the graphic were a paragraph instead od text. 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
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. The following units
of measurement are supported: cm, em, in, mm, pc, pt, and px (centimeters, ems, inches,
millimeters, picas, points, and pixels, respectively). The default unit is px (pixels). Possible values
include:"5", "5in", and "10.5cm".

1.19 <keydef>
[LwDITA] [DITA] A key definition provides a simple way to define a key without making the definition itself
a part of rendered content.

Usage information
[DITA]
The <keydef> element is a convenience element. It is equivalent to a <topicref> element that defines
a key while also setting @processing-role to "resource-only".

Attributes defaulted on the <keydef> element ensure that key definitions do not appear in tables of
contents, do not add extra links, and are not rendered as topics.

[LwDITA] The key definition component is a convenience component. It is equivalent to a topic reference
component that defines a key while also setting @processing-role to "resource-only". Attributes
defaulted on the key definition component ensure that key definitions do not appear in the TOC, do not
add extra links, and are not rendered as topics.

Attributes
[DITA]
The following attributes are available on this element: common map attributes (55), link-relationship
attributes (56), universal attributes (67), and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:
The following attributes are available on this element: localization attributes (52), link relationship attributes (51), universal attributes (54), @keys, @props, and @processing-role.

The following attributes are available on this element: localization attributes (52), link relationship attributes (51), universal attributes (54), @keys, @props, and @processing-role.

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[DITA] For this element, the following considerations apply:
- The @keys attribute is required.
- The @href attribute might be omitted when the key definition is used for variable text.
- The @processing-role attribute has a default value of "resource-only".

[LwDITA] (XDITA and HDITA) For the key definition component, the following considerations apply:
- The @keys attribute is required.
- The @href attribute might be omitted when the key definition is used for variable text.
- The @processing-role attribute has a default value of "resource-only".

1.20 <keytext>
[LwDITA] [DITA] Key text is variable or link text that is used when resolving key references. It also specifies alternate text for images that are referenced by keys.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]

The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: localization attributes (52) and universal attributes (54).

HDITA
The following attributes are available on this element: localization attributes (52) and universal attributes (54).

MDITA
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.21 <li>
[LwDITA] [DITA] A list item is an item in either an ordered or unordered list.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]

The available attributes vary based on the authoring format:
XDITA
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

HDITA
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

MDITA
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.22 <linktext>
[LwDITA] [DITA] Link text is the label for a link or resource.

Usage information
[DITA] The <linktext> element provides descriptive text for a link. It is most commonly used when the target cannot be resolved during processing or when a title for the reference cannot be determined by a processor. For example, link text might be required when the link is to a peer, external, or non-DITA resource.

[LwDITA] The link text component provides descriptive text for a link. It is most commonly used when the target cannot be resolved during processing or when a title for the reference cannot be determined by a processor. For example, link text might be required when the link is to a peer, external, or non-DITA resource.

Rendering expectations
[DITA] When a link contains a <linktext> element, the content of the <linktext> element is rendered instead of the text that retrieved from the resource.

[LwDITA] When a link contains a linktext component, the content of the linktext component is rendered instead of the text that retrieved from the resource.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).

1.23 <map>
[LwDITA] [DITA] A DITA map is the mechanism for aggregating topic references and defining a context for those references. It contains references to topics, maps, and other resources. [DITA] These references are organized into hierarchies, groups, and tables.

Usage information
Comment by Kristen J Eberlein on 02 December 2021
Most of the information below was authored for DITA 1.0 and subsequently edited.
Zoe Lawson identified a key problem with this information; it does not discuss key definition or key resolution. If this section is going to contain all this info about navigation relationships, then it really also needs to discuss keys.
And then the example should illustrate not just a DITA map creating navigational hierarchy, but also a map that references a key-definition map.

Disposition: Unassigned

[DITA]

A map describes the relationships among a set of DITA topics. The following are some types of relationships that can be described in a map:

Hierarchical
- Nested topics create a hierarchical relationship. The topic that does the nesting is the parent, and the topics that are nested are the children.

Ordered
- Child topics can be labeled as having an ordered relationship, which means they are referenced in a definite sequence.

Family
- Child topics can be labeled as having a family relationship, which means they all refer to each other.

In addition, a DITA map can contain relationship tables. Relationship tables can define relationships between resources that are not directly related based on their location in the navigation structure.

[LwDITA] A map describes the relationships among a set of DITA topics. Nested topics create a hierarchical relationship. The topic that does the nesting is the parent, and the topics that are nested are the children.

Comment by Kristen J Eberlein on 10 November 2021

I moved this content about titles in maps from "Rendering expectations," where I do not think it belonged. I think we probably ought to be clearer about the scenarios in which titles are rendered; certainly users get confused about this. And do we cover processing expectations for submaps somewhere?

Disposition: Unassigned

[DITA] The <title> element can be used to provide a title for the map. In some scenarios the title is purely informational and is present only as an aid to the author. In other scenarios, the title might be useful or even required. In a map referenced by another map, the title might be discarded as topics from the submap are aggregated into a larger publication.

[LwDITA] The title component can be used to provide a title for the map. In some scenarios the title is purely informational and is present only as an aid to the author. In other scenarios, the title might be useful or even required. In a map referenced by another map, the title might be discarded as topics from the submap are aggregated into a larger publication.

Rendering expectations

[LwDITA] [DITA] When rendering a map, processors might make use of the relationships defined in the map to create a table of contents (TOC), aggregate topics into a PDF document, or create links between topics in the output.

Attributes

[DITA] The following attributes are available on this element: architectural attributes (55), common map attributes (55), universal attributes (67), @format (60), @scope (65), and @type (66).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: architectural attributes (41), localization attributes (52), universal attributes (54), and @id (50).

[LwDITA] For this element, the @id attribute is required.

**HDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @id (50).

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.24 <media-source>
[LwDITA] [DITA] The media source specifies the location of an audio or video resource.

**Usage information**
[LwDITA] [DITA] The media source is modeled on the `<source>` element used in HTML5 media elements.

**Rendering expectations**
[DITA] When multiple `<media-source>` elements are present, the user agent evaluates them in document order and selects the first resource that can be played.

[LwDITA] When multiple `<media-source>` components are present, the user agent evaluates them in document order and selects the first resource that can be played.

**Attributes**

[DITA]
The following attributes are available on this element: universal attributes (67), @format (60), @href (60), @keyref (60), and @scope (65).

[DITA] For this element, the @href attribute specifies the URI of the track resource.

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), and @keyref.

**HDITA**
The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), and @keyref.

**MDITA**
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.25 <media-track>

[LwDITA] [DITA] Media track settings specify the location of supplemental, text-based data for the referenced media, for example, subtitles or descriptions.

Usage information

[LwDITA] [DITA] The media track settings are modeled on the <track> element used in HTML5 media elements. They refer to track resources that use Web Video Text Track Format (WebVTT).

Attributes

[DITA] The following attributes are available on this element: universal attributes (67), @format (60), @href (60), @keyref (60), @scope (65), and the attributes defined below.

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), @keyref, and the additional attributes listed below.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), @keyref, and the additional attributes listed below.

**MDITA**
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[LwDITA] (XDITA and HDITA) The following additional attributes are also available:

@kind
Specifies the usage for the track resource. This attribute is modeled on the @kind attribute on the HTML5 <track> element, as described by the HTML specification, WHATWG version. The values for this attribute are derived from the HTML5 standard:

**captions**
Transcription or translation of the dialogue, sound effects, relevant musical cues, and other relevant audio information. This is intended for use when the soundtrack is unavailable, for example, because it is muted or because the user is hard-of-hearing. This information is rendered over the video and labeled as appropriate for hard-of-hearing users.

**chapters**
Chapter titles, which are intended to be used for navigating the media resource. The chapter titles are rendered as an interactive list in the interface for the user agent.

**descriptions**
Textual descriptions of the video component of the media resource. This is intended for audio synthesis when the visual component is unavailable, for example, because the user is interacting with the application without a screen or because the user is blind. Descriptions are synthesized as separate audio tracks.

**metadata**
Tracks intended for use from script. This metadata is not displayed by the user agent.
subtitles
Transcription or translation of the dialogue, suitable for when the sound is available but not understood, for example, because the user does not understand the language of the soundtrack. Subtitles are rendered over the video.

-dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

@srclang
Specifies the language of the track resource.

[LwDITA] [DITA] For this element, the @href attribute specifies the URI of the track resource.

1.26 <navtitle>
[LwDITA] [DITA] A navigation title is an alternative title for a resource. It is designed for situations where the topic title is unsuitable for use in a table of contents or navigation pane.

Usage information
[DITA] The <navtitle> element is a convenience element. It is equivalent to a <titlealt> element with @title-role set to "navigation".

Comment by Kristen J Eberlein on 27 September 2022
[LwDITA]
What should the LwDITA spec say? Below is the content of the "Usage information" section in the DITA 2.0 spec:

The <navtitle> element is a convenience element. It is equivalent to a <titlealt> element with @title-role set to "navigation".

Disposition: Unassigned

Processing expectations
[DITA]
Processing expectations are dictated by the rules for the <titlealt> element.

In some cases, when processing a <topicref> element that has no @href attribute, the navigation title can also be used as the title of the generated topic, if applicable.

Comment by Kristen J Eberlein on 27 September 2022
[LwDITA]
What should the LwDITA spec say? Below is the content of the "Processing expectations" section in the DITA 2.0 spec:

Processing expectations are dictated by the rules for the <titlealt> element.

In some cases, when processing a <topicref> element that has no @href attribute, the navigation title can also be used as the title of the generated topic, if applicable.

Disposition: Unassigned
### Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @title-role (65).

For this element, @title-role has a default value of "navigation".

[LwDITA] The available attributes vary based on the authoring format:

**XDITA**
- The following attributes are available on this element: localization attributes (52) and universal attributes (54).

**HDITA**
- The following attributes are available on this element: localization attributes (52) and universal attributes (54).

**MDITA**
- There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

#### 1.27 <note>

[LwDITA] [DITA] A note is information that expands on or calls attention to a particular point.

### Usage information

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

[DITA] 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

[DITA] The following attributes are available on this element: universal attributes (67) and the attributes defined below.

[LwDITA] The available attributes vary based on the authoring format:

**XDITA**
- The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), @props, and the additional attribute listed below.

**HDITA**
- The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), @props, and the additional attribute listed below.
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[LwDITA] (XDITA and HDITA) The following additional attribute is also available:

@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. [LwDITA] [DITA] This differs from the @type attribute on many other DITA elements. The following are the allowable values:

- [DITA] "attention"
- "caution"
- "danger"
- [DITA] "important"
- "note"
- "notice"
- [DITA] "other"
- [DITA] "remember"
- [DITA] "restriction"
- [DITA] "tip"
- "trouble"
- "warning"
- [DITA] "-dita-use-conref-target"

1.28 <ol>

[LwDITA] [DITA] An ordered list is a list of items that are sorted by sequence or order of importance.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @compact (58).

[LwDITA]

The available attributes vary based on the authoring format:

XDITA

The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

HDITA

The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

MDITA

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.29 <p>
[LwDITA] [DITA] A paragraph is a group of related sentences that support a central idea.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.30 <ph>
[LwDITA] [DITA] A phrase is a small group of words that stand together as a unit, typically forming a component of a clause.

Usage information

[DITA]
The `<ph>` element often is used to enclose a phrase for reuse or conditional processing.
The `<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 `<ph>`.

[LwDITA]
The phrase component often is used to enclose a phrase for reuse or conditional processing.
The phrase component 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 phrase.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), @keyref, and @props.
**HDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), `@keyref`, and `@props`.

**MDITA**

For the MDITA core profile, the equivalent of the XDITA `@keyref` attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.31 `<pre>`

[LwDITA] [DITA] Preformatted text is text that contains line breaks and spaces that are intended to be preserved at publication time.

#### Usage information

[DITA] The `<pre>` element is often used for ASCII diagrams and code samples. It is the specialization base for the `@codeblock` element in the Technical Content edition.

#### Rendering expectations

007 (77)

[DITA] Processors **SHOULD** preserve line breaks and spaces that are present in the content of a `<pre>` element.

008 (77)

[LwDITA] Processors **SHOULD** preserve line breaks and spaces that are present in preformatted text.

#### Attributes

[DITA] The following attributes are available on this element: display attributes (55), universal attributes (67), and `@xml:space` (66).

[LwDITA]

The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), `@props`, and the additional attribute listed below.

**HDITA**

The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and `@props`.

**MDITA**

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[LwDITA] (XDITA only) The following additional attribute is also available:

**@xml:space**

Specifies how to handle white space in the current element. [DITA] This attribute is provided on `<pre>`, `<lines>`, and on elements specialized from those. It ensures that parsers respect white space that is part of the data in those elements, including line-end characters. When defined, it has a fixed value of "preserve", making it a default property of the element that cannot be changed or deleted by authors.
1.32 <prolog>
[LwDITA] [DITA] The prolog contains metadata about the topic, for example, author information or subject category.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).
[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @props.

**HDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @props.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.33 <section>
[LwDITA] [DITA] A section is an organizational division in a topic. Sections are used to organize subsets of information that are directly related to the topic.

Usage information
[LwDITA] [DITA] Multiple sections within a single topic do not represent a hierarchy, but rather peer divisions of that topic. Sections cannot be nested. Sections can have titles.

**Note** [DITA] For maximum flexibility in creating specializations, 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

**009 (78)** [DITA] Processors SHOULD treat the presence of more than one <title> element in a <section> element as an error.

**010 (78)** [LwDITA] Processors SHOULD treat the presence of more than one title component in a section component as an error.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).
[LwDITA]
The available attributes vary based on the authoring format:
**XDITA**
The following attributes are available on this element: **ID attributes** (49), **localization attributes** (52), **universal attributes** (54), and **@props**.

**HDITA**
The following attributes are available on this element: **ID attributes** (49), **localization attributes** (52), **universal attributes** (54), and **@props**.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.34 <shortdesc>

[LwDITA] [DITA] A short description is a sentence or group of sentences that describes the purpose or main point of the topic.

#### Usage information

[LwDITA] [DITA] When present in topics, the short description is the first paragraph of the topic. It can also be used for hover text, link previews, search results, and more.

[DITA]

When present in maps, the `<shortdesc>` element is associated with `<topicref>` elements. This enables map authors to accomplish the following goals:

- Associate a short description with a non-DITA object
- Provide a short description that is specific to the map context and used for link previews

When a `<shortdesc>` element applies to an entire DITA map, it serves only as a description. DITA architects might use such a `<shortdesc>` element to store information about the purpose of the DITA map.

#### Rendering expectations

**011 (78)**

[LwDITA] [DITA] Processors **SHOULD** render the content of the `<shortdesc>` element as the initial paragraph of the topic.

**012 (78)**

[DITA]

When processors generate link previews that are based on the map context, they **SHOULD** use the content of the `<shortdesc>` that is located in the map rather than the `<shortdesc>` that is located in the DITA topic. However, when processors render the topic itself, they **SHOULD** use the content of the `<shortdesc>` element that is located in the DITA topic.

#### Processing expectations

[DITA] When a `<shortdesc>` element occurs in a DITA map, it overrides the short description provided in the topic for the purpose of generating map-based link previews. It does not replace the `<shortdesc>` in the rendered topic itself. This means that generated map-based links to this topic will use the short description from the map for any link previews provided with the link, while the rendered topic continues to use the short description located in the topic.
Attributes

[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.35 <simpletable>

[LwDITA] [DITA] A simple table is a basic tabular environment that is designed to present organized content.

#### Usage information

[DITA]
The `<simpletable>` element is designed for close compatibility with HTML5 tables. It can contain a title and allows column and row spanning. The `@keycol` attribute indicates the key column. A key column contains content that represents the key to the tabular structure.

The `<simpletable>` element can also be used as the base for specialized structures, such as the property and choice tables that are available in the Technical Content edition.

[LwDITA] The simpletable component is designed for close compatibility with HTML5 tables. It can contain a title and allows column and row spanning.

#### Rendering expectations

[DITA] When a key column is specified for a simple table, it is treated as a vertical header.

#### Attributes

[DITA] The following attributes are available on this element: display attributes (55), simpletable attributes (56), and universal attributes (67).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.36 <stentry>

[LwDITA] [DITA] A simple table entry represents a single cell within a simple table.

Attributes

[DITA]
The following attributes are available on this element: universal attributes (67) and the attributes defined below.

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), @props, and the attributes listed below.

**HDITA**
The following attributes are available on this element: ID attributes (49), localization attributes (52), @props, and the attributes listed below.

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

[LwDITA] (XDITA and HDITA) The following additional attributes are also available:

[LwDITA] [DITA]

[@colspan]
Specifies the number of columns that a cell is to span inside a simple table.

[@headers]
Specifies which entries in the current table provide headers for this cell. The @headers attribute contains an unordered set of unique, space-separated tokens, each of which is an ID reference of an entry from the same table.

[@rowspan]
Specifies the number of rows that a cell is to span inside a simple table.

[@scope]
Specifies that the current entry is a header for other table entries. The following values are valid:

*col*
Indicates that the current entry is a header for all cells in the column.

*colgroup*
Indicates that the current entry is a header for all cells in the columns that are spanned by this entry.

*row*
Indicates that the current entry is a header for all cells in the row.

*rowgroup*
Indicates that the current entry is a header for all cells in the rows that are spanned by this entry.
1.37 <sthead>
[LwDITA] [DITA] A simple table header is an optional header row for a simple table.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

HDITA
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

MDITA
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.38 <strong>
[LwDITA] [DITA] Strong text is text that is of greater importance than the surrounding text.

Specialization hierarchy
[DITA] The <strong> element is specialized from <ph>. It is defined in the emphasis-domain module.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

HDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

MDITA
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.39 <strow>
[LwDITA] [DITA] A simple table row is a single row in a simple table.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67).
[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

HDITA
The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

MDITA
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.40 <sub>
[LwDITA] [DITA] A subscript is text that is printed below the line. It is frequently used in chemical and mathematical formulas.

Specialization hierarchy
[DITA] The <sub> element is specialized from <ph>. It is defined in the highlighting-domain module.

Attributes
[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).
[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

HDITA
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

MDITA
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.41 <sup>

[LwDITA] [DITA] A superscript is text that is printed above the line. It is frequently used in chemical and mathematical formulas.

Specialization hierarchy

[DITA] The <sup> element is specialized from <ph>. It is defined in the highlighting-domain module.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**HDITA**
The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**MDITA**
For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.42 <title>

[LwDITA] [DITA] A title is a heading or label for an object. Titles can be associated with topics, maps, sections, examples, figures, tables, and other structures.

Attributes

[DITA] The following attributes are available on this element: ID and conref attributes (67), localization attributes (67), @base (68), @class (68), @outputclass (70), and @rev (71).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**
The following attributes are available on this element: localization attributes (52) and universal attributes (54).

**HDITA**
The following attributes are available on this element: localization attributes (52) and universal attributes (54).

**MDITA**
There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
### 1.43 `<topic>`

[LwDITA] [DITA] A topic is a standalone unit of information.

**Attributes**

[DITA] The following attributes are available on this element: architectural attributes (55) and universal attributes (67).

[DITA] For this element, the `@id` attribute is required.

[LwDITA]

The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: architectural attributes (41), localization attributes (52), universal attributes (54), and `@id` (50).

[LwDITA] For this element, the `@id` attribute is required.

**HDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), and `@id` (50).

**MDITA**

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### 1.44 `<topicmeta>`

[LwDITA] [DITA] Topic metadata is metadata that applies to a topic based on its context in a map.

**Usage information**

[DITA] The metadata specified in a `<topicmeta>` element is specific to a given context within a map. If a reference to a single resource appears more than once in a map or set of maps, unique metadata can be specified in each instance. For example, when the parent `<topicref>` element results in a link, elements within the `<topicmeta>` element can be used to provide context-specific information about the link, such as link text, a short description, or a navigation title.

[LwDITA] The metadata specified in a topic metadata component is specific to a given context within a map. If a reference to a single resource appears more than once in a map or set of maps, unique metadata can be specified in each instance. For example, when the parent topic reference results in a link, components within the topic metadata component can be used to provide context-specific information about the link, such as link text or a navigation title.

**Attributes**

[DITA] The following attributes are available on this element: universal attributes (67).

[LwDITA]

The available attributes vary based on the authoring format:
The following attributes are available on this element: localization attributes (52) and universal attributes (54).

The following attributes are available on this element: localization attributes (52) and universal attributes (54).

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

**1.45 <topicref>**

[LwDITA] [DITA] A topic reference is the mechanism for referencing a topic (or another resource) from a DITA map. It can nest, which enables the expression of navigation and table-of-content hierarchies, as well as containment hierarchies and parent-child relationships.

**Attributes**

[DITA]

The following attributes are available on this element: common map attributes (55), link-relationship attributes (56), universal attributes (67), @keyref (61), and @keys (61).

Comment by robander on 27 Sept 2022

Updated style here to match the common attribute style, but still need to make sure the href topic is updated with the same info in arch spec.

Disposition: Unassigned

For this element, the @href attribute references the resource that is represented by the <topicref>. See 2.4.5 The href attribute (75) for detailed information on supported values and processing implications. References to DITA content cannot be below the topic level: that is, you cannot reference individual elements inside a topic. References to content other than DITA topics should use the @format attribute to identify the kind of resource being referenced.

[LwDITA]

The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: ID attributes (49), link relationship attributes (51), localization attributes (52), universal attributes (54), @keys, @keyref, and @props.

**HDITA**

The following attributes are available on this element: ID attributes (49), link relationship attributes (51), localization attributes (52), universal attributes (54), @keys, @keyref, and @props.

**MDITA**

For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.46 <u>

[LwDITA] [DITA] An underline, also called an underscore, is a line immediately below a portion of text.

Specialization hierarchy

[DITA] The <u> element is specialized from <ph>. It is defined in the highlighting-domain module.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @keyref (60).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**HDITA**

The following attributes are available on this element: localization attributes (52), universal attributes (54), and @keyref.

**MDITA**

For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

1.47 <ul>

[LwDITA] [DITA] An unordered list is a list in which the order of items is not significant.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67) and @compact (58).

[LwDITA]
The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**HDITA**

The following attributes are available on this element: ID attributes (49), localization attributes (52), universal attributes (54), and @props.

**MDITA**

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
1.48 <video>

[LwDITA] [DITA] A video is a recording of moving visual images.

Usage information

[DITA]
The <video> element is modeled on the HTML5 <video> element.
A video resource can be referenced by @href, @keyref, and nested <media-source> elements.
Playback behaviors such as auto-playing, looping, and muting are determined by attributes. When not specified, the default behavior is determined by the user agent that is used to present the media.

[LwDITA]
The video component is modeled on the HTML5 <video> element.
A video resource can be referenced by @href, @keyref, and nested media-source components.
Playback behaviors such as auto-playing, looping, and muting are determined by attributes. When not specified, the default behavior is determined by the user agent that is used to present the media.

Rendering expectations

[LwDITA] [DITA] The video resource typically is rendered in the main flow of the content.

013 (78) [LwDITA] [DITA] Processors SHOULD scale the video resource 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.

014 (78) [LwDITA] [DITA] When a video resource cannot be rendered in a meaningful way, processors SHOULD render the contents of the <fallback> element, if it is present.

Attributes

[DITA] The following attributes are available on this element: universal attributes (67), @format (60), @href (60), @keyref (60), @scope (65), and the attributes defined below.

[LwDITA]
The available attributes vary based on the authoring format:

XDITA
The following attributes are available on this element: ID attributes (49), link relationship attributes (51), localization attributes (52), universal attributes (54), @props, and the attributes listed below.
The following attributes are available on this element: ID attributes (49), link relationship attributes (51), localization attributes (52), universal attributes (54), @props, and the attributes listed below the definition list.

There is no attribute support for the MDITA core profile. For the MDITA extended profile, attributes can be specified by using the HDITA representation.

### @autoplay
Specifies whether the resource automatically plays when it is presented. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".

### @controls
Specifies whether the presentation of the resource includes user interface controls. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".

### @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. The following units of measurement are supported: cm, em, in, mm, pc, pt, and px (centimeters, ems, inches, millimeters, picas, points, and pixels, respectively). The default unit is px (pixels). Possible values include:"5", "5in", and "10.5cm".

### @loop
Specifies whether the resource loops when played. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".

### @muted
Specifies whether the resource is muted. [DITA] The following values are recognized: "true", "false", and "-dita-use-conref-target". [LwDITA] The following values are recognized: "true" and "false". The default value is "true".

### @poster
Specifies the absolute or relative URI of the image that is rendered before video playback begins.

### @posterkeyref
Specifies a key reference for the poster image.

### @tabindex
Specifies whether the video resource can be focused and where it participates in sequential keyboard navigation. See @tabindex in the HTML specification (WHATWG version).

### @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. The following units of measurement are supported: cm, em, in, mm, pc, pt, and px (centimeters, ems, inches, millimeters, picas, points, and pixels, respectively). The default unit is px (pixels). Possible values include:"5", "5in", and "10.5cm".

For this element, the following considerations apply:

- The @format attribute specifies the MIME type for the resource. This attribute enables processors to avoid loading unsupported resources. If @format is not specified and @keyref is specified, the effective type for the key named by the @keyref attribute is used as the value. If an
explicit @format is not specified on either the <video> element or key definition, processors can use other means, such the URI file extension, to determine the effective MIME type of the resource.

- The @href attribute specifies the absolute or relative URI of the video resource. If @href is specified, also specify @format.

### 1.49 <xref>

[LwDITA] [DITA] 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

[DITA] The following attributes are available on this element: link-relationship attributes (56), universal attributes (67), and @keyref (60).

[LwDITA]

The available attributes vary based on the authoring format:

**XDITA**

The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, and @props.

**HDITA**

The following attributes are available on this element: link relationship attributes (51), localization attributes (52), universal attributes (54), @keyref, and @props.

**MDITA**

For the MDITA core profile, the equivalent of the XDITA @keyref attribute is supported. For the MDITA extended profile, attributes can be specified by using the HDITA representation.
2 Attributes

This section contains definitions for commonly-used attributes. If an attribute is defined differently on a specific element, that information is covered in the topic for the specific element.

Comment by Kristen J Eberlein on 29 December 2021
Add a brief overview of the fact that some specific attributes are overloaded – and have different meanings depending on what element they are specified upon.
Disposition: Unassigned

2.1 Attribute groups

Many of the attributes used on DITA elements are defined in attribute groups. These attribute groups are used both in the grammar files and the specification,

Architectural attributes

This group contains a set of attributes that are defined for document-level elements such as `<topic>` and `<map>`. These attributes only apply to XDITA.

@DITAArchVersion (architectural attributes)
Specifies the version of the DITA architecture that is in use. This attribute is in the namespace `http://dita.oasis-open.org/architecture/2005/`. This attribute is specified in the topic and map modules, and it uses a default value of the current version of DITA. The current default is "2.0".

@specializations (architectural attributes)
Specifies the attribute-domain specializations that are included in the document-type shell. This attribute is set as a default within the document-type shell. The value varies depending on what domains are integrated into the document-type shell. [DITA] For example, a grammar file that includes the specialized attributes @audience, @deliveryTarget, and @newBaseAtt would set the value to @props/audience @props/deliveryTarget @base/newBaseAtt.

@xmlns:ditaarch (architectural attributes)
Declares the default DITA namespace. This namespace is declared as such in the RNG modules for `<topic>` and `<map>`, but it is specified as an attribute in the equivalent DTD-based modules. The value is fixed to "http://dita.oasis-open.org/architecture/2005/".

Common map attributes

This group contains attributes that are frequently used on map elements. These attributes only apply to XDITA and HDITA.

Comment by Kristen J Eberlein on 28 September 2022
[DITA]
I’ve added draft comments to the attribute definitions in this section that explain how the attribute is defined in the "DITA map attributes" topic.
Disposition: Unassigned
**@cascade (common map attributes)**

Specifies how metadata attributes cascade within a map. The specification defines the following values:

- **merge**
  Indicates that the metadata attributes cascade, and that the values of the metadata attributes are additive. This is the processing default for the `@cascade` attribute.

- **nomerge**
  Indicates that the metadata attributes cascade, but that they are not additive for `<topicref>` elements that specify a different value for a specific metadata attribute. If the cascading value for an attribute is already merged based on multiple ancestor elements, that merged value continues to cascade until a new value is encountered. That is, setting `cascade="nomerge"` does not undo merging that took place on ancestor elements.

Processors can also define custom, implementation-specific tokens for this attribute.

See [Cascading of metadata attributes in a DITA map](#) for more information about how this attribute interacts with metadata attributes.

**@chunk (common map attributes)**

Specifies how a processor should render a map or branch of a map. For example, it can be used to specify that individual topic documents should be rendered as a single document, or that a single document with multiple topics should be rendered as multiple documents.

The following values are valid:

- **combine**
  Instructs a processor to combine the referenced source documents for rendering purposes. This is intended for cases where a publishing process normally results in a single output artifact for each source XML document.

- **split**
  Instructs a processor to split each topic from the referenced source document into its own document for rendering purposes. This is intended for cases where a publishing process normally results in a single output artifact for each source XML document, regardless of how many DITA topics exist within each source document.

Processors can also define custom, implementation-specific tokens for this attribute.

For a detailed description of the `@chunk` attribute and its usage, see [Chunking](#).

**@collection-type (common map attributes)**

Specifies how topics or links relate to each other. The processing default is "unordered", although no default is specified in the OASIS-provided grammar files. The following values are valid:

- **unordered**
  Indicates that the order of the child topics is not significant.

- **sequence**
  Indicates that the order of the child topics is significant. Output processors will typically link between them in order.

- **choice**
  Indicates that one of the children should be selected.

- **family**
  Indicates a tight grouping in which each of the referenced topics not only relates to the current topic but also relate to each other.
Here is the content from the "DITA map attributes" topic:

@collection-type

The @collection-type attribute specifies how the children of a &lt;topicref&gt; element relate to their parent and to each other. This attribute, which is set on the parent element, typically is used by processors to determine how to generate navigation links in the rendered topics. For example, a @collection-type value of "sequence" indicates that children of the specifying &lt;topicref&gt; element represent an ordered sequence of topics; processors might add numbers to the list of child topics or generate next/previous links for online presentation. This attribute is available in topics on the &lt;linklist&gt; and &lt;linkpool&gt; elements, where it has the same behavior. Where the @collection-type attribute is available on elements that cannot directly contain elements, the behavior of the attribute is undefined.

Disposition: Unassigned

Comment by Kristen J Eberlein on 28 September 2022

In the definitions of the supported values, do we want to refer to "resources" instead of "topics"? Since we specify that @collection-type specifies "how topics or links relate to each other" ...

Disposition: Unassigned

@keyscope (common map attributes)

Specifies that the element marks the boundaries of a key scope. See The keyscope attribute for information on using this attribute.

Comment by Kristen J Eberlein on 28 September 2022

Here is the content from the "DITA map attributes" topic:

@keyscope

Defines a new scope for key definition and resolution, and gives the scope one or more names. For more information about key scopes, see Indirect key-based addressing.

Disposition: Unassigned

@linking (common map attributes)

Specifies linking characteristics of a topic specific to the location of this reference in a map. If the value is not specified locally, the value might cascade from another element in the map (for cascade rules, see Cascading of metadata attributes in a DITA map).

Comment by robander on Dec 28 2021

The text below matches 1.3 spec text but I'm nervous about "cannot link" type definition. It's describing how to generate links based on the current context in the map - it's not describing what the topic itself is allowed to link to, which is how I interpret "can".

Disposition: Unassigned

The following values are valid:

- targetonly
  A topic can only be linked to and cannot link to other topics.
sourceonly
A topic cannot be linked to but can link to other topics.

normal
A topic can be linked to and can link to other topics. Use this to override the linking value of a parent topic.

none
A topic cannot be linked to or link to other topics.

dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

Comment by Kristen J Eberlein on 28 September 2022
Here is the content from the "DITA map attributes" topic:

@linking
By default, the relationships between the topics that are referenced in a map are reciprocal:

• Child topics link to parent topics and vice versa.
• Next and previous topics in a sequence link to each other.
• Topics in a family link to their sibling topics.
• Topics referenced in the table cells of the same row in a relationship table link to each other. A topic referenced within a table cell does not (by default) link to other topics referenced in the same table cell.

This behavior can be modified by using the @linking attribute, which enables an author or information architect to specify how a topic participates in a relationship. The following values are valid:

linking="none"
Specifies that the topic does not exist in the map for the purposes of calculating links.

linking="sourceonly"
Specifies that the topic will link to its related topics but not vice versa.

linking="targetonly"
Specifies that the related topics will link to it but not vice versa.

linking="normal"
Default value. It specifies that linking will be reciprocal (the topic will link to related topics, and they will link back to it).

Authors also can create links directly in a topic by using the <xref> or <link> elements, but in most cases map-based linking is preferable, because links in topics create dependencies between topics that can hinder reuse.

Note that while the relationships between the topics that are referenced in a map are reciprocal, the relationships merely imply reciprocal links in generated output that includes links. The rendered navigation links are a function of the presentation style that is determined by the processor.

Disposition: Unassigned

@processing-role (common map attributes)
Specifies whether the referenced resource is processed normally or treated as a resource that is only included in order to resolve references, such as key or content references. The following values are valid:
| **normal** | Indicates that the resource is a readable part of the information set. It is included in navigation and search results. This is the default value for the `<topicref>` element. |
| **resource-only** | Indicates that the resource should be used only for processing purposes. It is not included in navigation or search results, nor is it rendered as a topic. This is the default value for the `<keydef>` element. |
| **-dita-use-conref-target** | See Using the `-dita-use-conref-target value` for more information. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element. [LwDITA] For HDITA, the equivalent of `@processing-role` is `@data-processing-role`. |

### @search (common map attributes)
Specifies whether the target is available for searching. If the value is not specified locally, the value might cascade from another element in the map (for cascade rules, see Cascading of metadata attributes in a DITA map). The following values are valid: "yes", "no", and "-dita-use-conref-target".

Comment by Kristen J Eberlein on 28 September 2022
Here is the content from the "DITA map attributes" topic:

```
@search
   Specifies whether the topic is included in search indexes.
Disposition: Unassigned
```

### @subjectrefs (common map attributes)
Specifies one or more keys that are each defined by a subject definition in a subject scheme map. Multiple values are separated by white space.

### @toc (common map attributes)
Specifies whether a topic appears in the table of contents (TOC) based on the current map context. If the value is not specified locally, the value might cascade from another element in the map (for cascade rules, see Cascading of metadata attributes in a DITA map). The following values are valid:

- **yes**
  The topic appears in a generated TOC.
- **no**
  The topic does not appear in a generated TOC.

- **dita-use-conref-target**
  See Using the `-dita-use-conref-target value` for more information.

Comment by Kristen J Eberlein on 28 September 2022
Here is the content from the "DITA map attributes" topic:

```
@toc
   Specifies whether topics are excluded from navigation output, such as a Web site map or an online table of contents. By default, `<topicref>` hierarchies are included in navigation output; relationship tables are excluded.
Disposition: Unassigned
```
Complex table attributes

This group includes attributes that are defined on complex table elements. Unless other noted, these attributes are part of the OASIS Exchange Table Model. Complex table elements typically use only a subset of the attributes that are defined in this group.

@align (complex table attributes)

Specifies the horizontal alignment of text in table entries. The following values are valid:

- **left**
  - Indicates left alignment of the text.

- **right**
  - Indicates right alignment of the text.

- **center**
  - Indicates center alignment of the text.

- **justify**
  - Justifies the contents to both the left and the right.

- **char**
  - Indicates character alignment. The text is aligned with the first occurrence of the character specified by the @char attribute.

- **dita-use-conref-target**
  - See Using the -dita-use-conref-target value for more information.

The @align attribute is available on the following table elements: `<colspec>`, `<entry>`, and `<tgroup>`.

@char (complex table attributes)

Specifies the alignment character, which is the character that is used for aligning the text in table entries. This attribute applies when align="char". A value of "" (the null string) means there is no aligning character.

For example, if align="char" and char="." are specified, then text in the table entry aligns with the first occurrence of the period within the entry. This might be useful if decimal alignment is required.

The @char attribute is available on the following table elements: `<colspec>` and `<entry>`.

@charoff (complex table attributes)

Specifies the horizontal offset of the alignment character that is specified by the @char attribute. The value is a greater-than-zero number that is less than or equal to 100. It represents the percentage of the current column width by which the text is offset to the left of the alignment character.

For example, if align="char", char=".", and charoff="50" are all specified, then text in the table entry is aligned 50% of the distance to the left of the first occurrence of the period character within the table entry.

The @charoff attribute is available on the following table elements: `<colspec>` and `<entry>`.

@colsep (complex table attributes)

Specifies whether to render column separators between table entries. The following values are valid:

- "0" (no separators) and "1" (separators).

The @colsep attribute is available on the following table elements: `<colspec>`, `<entry>`, `<table>`, and `<tgroup>`.
@rowheader (complex table attributes)
Specify whether the entries in the respective column are row headers. The following values are valid:

- **firstcol**
  Indicates that entries in the first column of the table are row headers. This applies when the @rowheader attribute is specified on the <table> element.

- **headers**
  Indicates that entries of the column that is described using the <colspec> element are row headers. This applies when the @rowheader attribute is specified on the <colspec> element.

- **norowheader**
  Indicates that entries in the first column are not row headers. This applies when the @rowheader attribute is specified on the <table> element.

-dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

Note This attribute is not part of the OASIS Exchange Table Model upon which DITA tables are based. Some processors or output formats might not support all values.

The @rowheader attribute is available on the following table elements: <table> and <colspec>.

@rowsep (complex table attributes)
Specify whether to render row separators between table entries. The following values are valid: "0" (no separators) and "1" (separators).

The @rowsep attribute is available on the following table elements: <colspec>, <entry>, <row>, <table>, and <tgroup>.

@valign (complex table attributes)
Specify the vertical alignment of text in table entries. The following values are valid:

- **bottom**
  Indicates that text is aligned with the bottom of the table entry.

- **middle**
  Indicates that text is aligned with the middle of the table entry.

- **top**
  Indicates that text is aligned with the top of the table entry.

-dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

The @valign attribute is available on the following table elements: <entry>, <tbody>, <thead>, and <row>.

---

**Data-element attributes**
[LwDITA] [DITA]
This group contains attributes that are defined on the <data> element and its specializations. These attributes only apply to XDITA.

@datatype (data-element attributes)
Specifies the type of data contained in the @value attribute or within the <data> element. A typical use of @datatype will be the identifying URI for an XML Schema datatype.

@name (data-element attributes)
Defines a unique name for the object.
@value (data-element attributes)
Specifies a value associated with the current property or element.

Date attributes
[DITA]
This group contains attributes that take date values. They are defined on metadata elements that work with date information:

@expiry (date attributes)
Specifies the date when the information should be retired or refreshed. The date is specified using the ISO 8601 format: YYYY-MM-DD, where YYYY is the year, MM is the month (01 to 12), and DD is the day (01-31).

@golive (date attributes)
Specifies the publication or general availability (GA) date. The date is specified using the ISO 8601 format: YYYY-MM-DD, where YYYY is the year, MM is the month (01 to 12), and DD is the day (01-31).

Display attributes
[LwDITA] [DITA]
This group contains attributes that affect the rendering of many elements. These attributes only apply to XDITA.

@expanse (display attributes)
Specifies the horizontal placement of the element. The following values are valid:

  column
  Indicates that the element is aligned with the current column margin.

  page
  Indicates that the element is placed on the left page margin for left-to-right presentation or the right page margin for right-to-left presentation.

  spread
  Indicates that the object is rendered across a multi-page spread. If the output format does not have anything that corresponds to spreads, then "spread" has the same meaning as "page".

  textline
  Indicates that the element is aligned with the left (for left-to-right presentation) or right (for right-to-left presentation) margin of the current text line and takes indentation into account.

@dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

For <table>, in place of the @expanse attribute that is used by other DITA elements, the @pgwide attribute is used in order to conform to the OASIS Exchange Table Model.

Some processors or output formats might not support all values.

@frame (display attributes)
Specifies which portion of a border surrounds the element. The following values are valid:
all
Indicates that a line is rendered at the top, bottom, left, and right of the containing element.

bottom
Indicates that a line is rendered at the bottom of the containing element.

none
Indicates that no lines are rendered.

sides
Indicates that a line is rendered at the left and right of the containing element.

top
Indicates that a line is rendered at the top of the containing element.

topbot
Indicates that a line is rendered at the top and bottom of the containing element.

@dita-use-conref-target
See Using the dita-use-conref-target value for more information.

Some processors or output formats might not support all values.

@scale (display attributes)
Specifies the percentage by which fonts are resized in relation to the normal text size. The value of this attribute is a positive integer. [DITA] When used on <table> or <simpletable>, the following values are valid: "50", "60", "70", "80", "90", "100", "110", "120", "140", "160", "180", "200", and -dita-use-conref-target. [LwDITA] The following values are valid: "50", "60", "70", "80", "90", "100", "110", "120", "140", "160", "180", and "200".

This attribute is primarily useful for print-oriented display. Some processors might not support all values.

If the @scale attribute is specified on an element that contains an image, the image is not scaled. The image is scaled only if a scaling property is explicitly specified for the <image> element.

ID and conref attributes
[DITA] [LwDITA]
This group contains the attributes that enable the naming and referencing of elements. These attributes only apply to XDITA and HDITA.

@conaction
Specifies how the element content will be pushed into a new location. The following values are valid:

mark
The element acts as a marker when pushing content before or after the target, to help ensure that the push action is valid. The element with conaction="mark" also specifies the target of the push action with @conref. Content inside of the element with conaction="mark" is not pushed to the new location.

pushafter
Content from this element is pushed after the location specified by @conref on the element with conaction="mark". The element with conaction="pushafter" is the first sibling element after the element with conaction="mark".

pushbefore
Content from this element is pushed before the location specified by @conref on the element with conaction="mark". The element with conaction="pushbefore" is the first sibling element before the element with conaction="mark".
**pushreplace**

Content from this element replaces any content from the element referenced by the `@conref` attribute. A second element with `conaction="mark"` is not used when using `conaction="pushreplace"`.

**-dita-use-conref-target**

See [Using the -dita-use-conref-target value](#) for more information.

See [The conaction attribute](#) for examples and details about the syntax.

**@conkeyref**

Specifies a key name or a key name with an element ID that acts as an indirect reference to reusable content. The referenced content is used in place of the content of the current element. See [The conkeyref attribute](#) for more details about the syntax and behaviors.

**@conref**

Specifies a URI that references a DITA element. The referenced content is used in place of the content of the current element. [DITA] See [2.4.3 The conref attribute](#) for examples and details about the syntax.

[LwDITA] For HDITA, the equivalent of `@conref` is `@data-conref`.

**@conrefend**

Specifies a URI that references the last element in a sequence of elements, with the first element of the sequence specified by `@conref`. The referenced sequence of elements is used in place of the content of the current element. See [The conrefend attribute](#) for examples and details about the syntax.

**@id**

Specifies an identifier for the current element. This ID is the target for references by `@href` and `@conref` attributes and for external applications that refer to DITA or LwDITA content. This attribute is defined with the XML data type NMTOKEN, except where noted for specific elements within the language reference.

[DITA] See [id attribute](#) for more details.

### Inclusion attributes

[DITA]

This group includes attributes defined on `<include>` and its specializations:

Comment by Kristen J Eberlein on 28 September 2002

What is specialized from `<include>`? Both base (if any) and technical content ...

Disposition: Unassigned

**@encoding (inclusion attributes)**

Comment by Kristen J Eberlein on 29 April 2019

Can we replace "should" in the following definition?

Disposition: Unassigned

Specifies the character encoding to use when translating the character data from the referenced content. The value should be a valid encoding name. If not specified, processors may make attempts to automatically determine the correct encoding, for example using HTTP headers, through analysis of the binary structure of the referenced data, or the `<?xml?>` processing instruction when including
XML as text. The resource should be treated as UTF-8 if no other encoding information can be determined.

When `parse="xml"`, standard XML parsing rules apply for the detection of character encoding. The necessity and uses of `@encoding` for non-standard values of `@parse` are implementation-dependent.

@parse (inclusion attributes)

Specifies the processing expectations for the referenced resource. Processors must support the following values:

- **text**
  
The contents should be treated as plain text. Reserved XML characters should be displayed, and not interpreted as XML markup.

- **xml**
  
The contents of the referenced resource should be treated as an XML document, and the referenced element should be inserted at the location of the `<include>` element. If a fragment identifier is included in the address of the content, processors must select the element with the specified ID. If no fragment identifier is included, the root element of the referenced XML document is selected. Any grammar processing should be performed during resolution, such that default attribute values are explicitly populated. Prolog content must be discarded.

  It is an error to use `parse="xml"` anywhere other than within `<foreign>` or a specialization thereof.

  Processors may support other values for the `@parse` attribute with proprietary processing semantics. Processors should issue warnings and use `<fallback>` when they encounter unsupported `@parse` values. Non-standard `@parse` instructions should be expressed as URIs.

  **Note**  Proprietary `@parse` values will likely limit the portability and interoperability of DITA content, so should be used with care.

Link relationship attributes

[LwDITA] [DITA]

This group contains attributes whose values can be used for representing navigational relationships. These attributes only apply to XDITA and HDITA.

@format (link-relationship attributes)

Specifies the format of the resource that is referenced. [DITA] See 2.4.4 The format attribute (73) for detailed information on supported values and processing implications.

[LwDITA] For HDITA, the equivalent of `@format` is `@type`.

@href (link-relationship attributes)

Specifies a reference to a resource. [DITA] See 2.4.5 The href attribute (75) for detailed information on supported values and processing implications.

@scope (link-relationship attributes)

Specifies the closeness of the relationship between the current document and the referenced resource. [DITA] The following values are valid: "local", "peer", "external", and "-dita-use-conref-target". [LwDITA] The following values are valid: "local", "peer", and "external".

[DITA] See 2.4.6 The scope attribute (76) for detailed information on supported values and processing implications.

[LwDITA] For HDITA, the equivalent of `@scope` is `@rel`. 
@type (link-relationship attributes)
Describes the target of a reference. See The type attribute for detailed information on supported values and processing implications.

Localization attributes
[LwDITA] [DITA]

Comment by Kristen J Eberlein on 29 September 2022
The definition of the localizations attribute matches how they are described in the architectural topics. Wherever possible, the definition is reused. Where it is not reused (because the definition in the archSpec topics is in a shortdesc), I've checked to ensure that wording is identical.

Disposition: Unassigned

This group contains the attributes that are related to translation and localization. These attributes only apply to XDITA and HDITA.

@dir
Identifies or overrides the text directionality. The following values are valid:

lro
Indicates an override of the Unicode Bidirectional Algorithm, forcing the element into left-to-right mode.

ltr
Indicates left-to-right.

rlo
Indicates an override of the Unicode Bidirectional Algorithm, forcing the element into right-to-left mode.

rtl
Indicates right-to-left.

-dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

[DITA] See The dir attribute for more information.

@translate
Specifies whether the content of the element should be translated. [DITA] The following values are valid: "yes", "no", and "-dita-use-conref-target". [LwDITA] The following values are valid: "yes" and "no".

[DITA] See Element-by-element recommendations for translators for suggested processing defaults for each element.

Comment by Kristen J Eberlein on 31 December 2021
[DITA]
Does Element-by-element recommendations for translators really provide suggested processing defaults for each element? I thought it covered whether an element was block or in-line and whether there were considerations that translators needed to be aware of.

Disposition: Unassigned
@xml:lang
Specifies the language and optional locale of the content that is contained in an element. Valid values are language tokens or the null string. The @xml:lang attribute and its values are described in the Extensible Markup Language 1.0 specification, fifth edition.

[LwDITA] For HDITA, the equivalent attribute is @lang.

Comment by Kristen J Eberlein on 29 September 2022
[平坦]
Do we also want to direct readers to the architectural topics about the @xml:lang attribute?
Disposition: Unassigned

Metadata attributes
[LwDITA] [DITA]
This group contains common metadata attributes: @base, @importance, @props, @rev, and @status. The @base and @props attributes can be specialized.

@base
Specifies metadata about the element. It is often used as a base for specialized attributes that have a simple syntax for values, but which are not conditional processing attributes.

The @base attribute takes a space-delimited set of values. [DITA] However, when serving as a container for generalized attributes, the attribute values will be more complex. See Attribute generalization for more details.

@importance
Specifies the importance or priority that is assigned to an element. The following values are valid: "default", "deprecated", "high", "low", "normal", "obsolete", "optional", "recommended", "required", "urgent", and "-dita-use-conref-target". This attribute is not used for conditional processing, although applications might use the value of the @importance attribute to highlight elements. For example, in steps of a task topic, the value of the @importance attribute indicates whether a step is optional or required.

Comment by Kristen J Eberlein on 29 September 2022
I think the phrase "to highlight elements" is a little off. Maybe "render generated text"? And how about adding "Processors often add text or images to ensure that readers of the generated content understand whether the step is optional or required." to the end of the example?
Disposition: Unassigned

@props
Specifies metadata about the element. New attributes can be specialized from the @props attribute. This attribute supports conditional processing. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

The @props attribute takes a space-delimited set of values. [DITA] However, when serving as a container for generalized attributes, the attribute values will be more complex. See Attribute generalization for more details.

[LwDITA] For HDITA, the equivalent of @props is @data-props
@rev
   Specifies a revision level of an element that identifies when the element was added or modified. It can be used to flag outputs when it matches a run-time parameter. It cannot be used for filtering nor is it sufficient to be used for version control. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

Comment by Kristen J Eberlein on 29 September 2022
   I want to tweak this. How about the following? Also, neither definition describes what values are permitted.

   Specifies metadata that identifies when the element was added or the content of the element was modified. The @rev attribute can be used for flagging. It cannot be used for filtering nor is it sufficient to be used for version control. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

   Disposition: Unassigned

@status
   Specifies the modification status of the element. The following values are valid: "new", "changed", "deleted", "unchanged", and "-dita-use-conref-target".

Simple table attributes
   [DITA]

   This group includes attributes that are defined only on the <simpletable> element: @keycol and @relcolwidth. These attributes are listed in a group because the <simpletable> element is frequently used as a specialization base.

@keycol (simpletable attributes)
   Specifies the column that contains the content that represents the key to the tabular structure. If @keycol is present and assigned a numerical value, the specified column is treated as a vertical header.

@relcolwidth (simpletable attributes)
   Specifies the width of each column in relationship to the width of the other columns. The value is a space-separated list of relative column widths. Each column width is specified as a positive integer or decimal number followed by an asterisk character.

   For example, the value relcolwidth="1* 2* 3*" gives a total of 6 units across three columns. The relative widths are 1/6, 2/6, and 3/6 (16.7%, 33.3%, and 50%). Similarly, the value relcolwidth="90* 150*" causes relative widths of 90/240 and 150/240 (37.5% and 62.5%).

Universal attributes

   This group defines a set of attributes that are available on almost all DITA elements. It includes all elements in the ID, localization, and metadata attribute groups, as well as the following attributes:

@class (not for use by authors)
   This attribute is not for use by authors. If an editor displays @class attribute values, do not edit them. Specifies a default value that defines the specialization ancestry of the element. Its predefined values allow DITA [LwDITA] and XDITA tools to work correctly with specialized elements. [DITA] In a generalized DITA document the @class attribute value in the generalized instance might differ from the default value for the @class attribute for the element as given in the DTD or schema. See The class attribute rules and syntax for more information. This attribute is specified on every element.
except for the `<dita>` container element. It is always specified with a default value, which varies for each element.

@outputclass
Specifies a role that the element is playing. The role must be consistent with the basic semantic and expectations for the element. In particular, the @outputclass attribute can be used for styling during output processing; HTML output will typically preserve @outputclass for CSS processing.

Comment by robander
I don’t like “The role must be consistent…”, that seems like best practice that cannot be normative – and I could easily say outputclass="flashy" which makes my element show up with sparkles, and has nothing to do with “the basic semantic and expectations for the element”.
Disposition: Unassigned

2.2 Common attributes
The common attributes topic collects defines most of the attributes that are used on more than one base element.

Common attribute groups
The following groups are referenced in this specification, and they are also used in grammar files when defining attributes for elements.

Architectural attributes
This group includes a set of attributes that are defined for document-level elements such as `<topic>` and `<map>`: @DITAArchVersion, @specializations, and @xmlns:ditaarch.

Common map attributes
This group includes attributes that are frequently used on map elements: @cascade, @chunk, @collection-type, @keyscope, @linking, @processing-role, @search, @toc, and @subjectrefs.

Complex table attributes
This group includes attributes that are defined on table elements but not simple table elements. These attributes are part of the OASIS Exchange Table Model, unless otherwise noted. Table elements generally use only a subset of the attributes that are defined in this group. This group contains the following attributes: @align, @char, @charoff, @colsep, @rowheader, @rowsep, and @valign.

Data-element attributes
Includes attributes defined on `<data>` and its many specializations: @datatype, @name, and @value

Date attributes
Includes attributes that take date values, and are defined on metadata elements that work with date information: @expiry and @golive

Display attributes
This group includes attributes that affect the rendering of many elements: @expanse, @frame, and @scale.

Inclusion attributes
Includes attributes defined on `<include>` and its specializations: @encoding and @parse.
Link-relationship attributes

This group includes attributes whose values can be used for representing navigational relationships: @format, @href, @type, and @scope.

Simple table attributes

Comment by Kristen J Eberlein on 29 December 2021

If I have jumped to this place in a document from the element-reference topic, I want the attributes listed here in the “Simple table group” to be hyperlinked to the actual definition.

Disposition: Unassigned

This group includes attributes that are defined only on the <simpletable> element: @keycol and @relcolwidth. These attributes are listed in a group because the <simpletable> element is frequently used as a specialization base.

Other attributes (not in a group)

These are attributes that are used in the same way on more than one base element, but they are not formally grouped together: @compact, @duplicates, @otherrole, @role, and @title-role.

Common attribute definitions

Common attributes, including those in the groups listed above, are defined as follows.

@align (complex table attributes)

Specifies the horizontal alignment of text in table entries. The following values are valid:

left
Indicates left alignment of the text.

right
Indicates right alignment of the text.

center
Indicates center alignment of the text.

justify
Justifies the contents to both the left and the right.

char
Indicates character alignment. The text is aligned with the first occurrence of the character specified by the @char attribute.

@dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

The @align attribute is available on the following table elements: <colspec>, <entry>, and <tgroup>.

@cascade (common map attributes)

Specifies how metadata attributes cascade within a map. The specification defines the following values:

merge
Indicates that the metadata attributes cascade, and that the values of the metadata attributes are additive. This is the processing default for the @cascade attribute.
nomerge
Indicates that the metadata attributes cascade, but that they are not additive for <topicref> elements that specify a different value for a specific metadata attribute. If the cascading value for an attribute is already merged based on multiple ancestor elements, that merged value continues to cascade until a new value is encountered. That is, setting cascade="nomerge" does not undo merging that took place on ancestor elements.

Processors can also define custom, implementation-specific tokens for this attribute.

See Cascading of metadata attributes in a DITA map for more information about how this attribute interacts with metadata attributes.

@char (complex table attributes)
Specifies the alignment character, which is the character that is used for aligning the text in table entries. This attribute applies when align="char". A value of "" (the null string) means there is no aligning character.

For example, if align="char" and char="." are specified, then text in the table entry aligns with the first occurrence of the period within the entry. This might be useful if decimal alignment is required.

The @char attribute is available on the following table elements: <colspec> and <entry>.

@charoff (complex table attributes)
Specifies the horizontal offset of the alignment character that is specified by the @char attribute. The value is a greater-than-zero number that is less than or equal to 100. It represents the percentage of the current column width by which the text is offset to the left of the alignment character.

For example, if align="char", char=".", and charoff="50" are all specified, then text in the table entry is aligned 50% of the distance to the left of the first occurrence of the period character within the table entry.

The @charoff attribute is available on the following table elements: <colspec> and <entry>.

@chunk (common map attributes)
Specifies how a processor should render a map or branch of a map. For example, it can be used to specify that individual topic documents should be rendered as a single document, or that a single document with multiple topics should be rendered as multiple documents.

The following values are valid:

combine
Instructs a processor to combine the referenced source documents for rendering purposes. This is intended for cases where a publishing process normally results in a single output artifact for each source XML document.

split
Instructs a processor to split each topic from the referenced source document into its own document for rendering purposes. This is intended for cases where a publishing process normally results in a single output artifact for each source XML document, regardless of how many DITA topics exist within each source document.

Processors can also define custom, implementation-specific tokens for this attribute.

For a detailed description of the @chunk attribute and its usage, see Chunking.

@collection-type (common map attributes)
Specifies how topics or links relate to each other. The processing default is "unordered", although no default is specified in the OASIS-provided grammar files. The following values are valid:
unordered
Indicates that the order of the child topics is not significant.

sequence
Indicates that the order of the child topics is significant. Output processors will typically link between them in order.

choice
Indicates that one of the children should be selected.

family
Indicates a tight grouping in which each of the referenced topics not only relates to the current topic but also relate to each other.

Comment by Kristen J Eberlein on 28 September 2022
Here is the content from the "DITA map attributes" topic:

@collection-type
The @collection-type attribute specifies how the children of a <topicref> element relate to their parent and to each other. This attribute, which is set on the parent element, typically is used by processors to determine how to generate navigation links in the rendered topics. For example, a @collection-type value of "sequence" indicates that children of the specifying <topicref> element represent an ordered sequence of topics; processors might add numbers to the list of child topics or generate next/previous links for online presentation. This attribute is available in topics on the <linklist> and <linkpool> elements, where it has the same behavior. Where the @collection-type attribute is available on elements that cannot directly contain elements, the behavior of the attribute is undefined.

Disposition: Unassigned

Comment by Kristen J Eberlein on 28 September 2022
In the definitions of the supported values, do we want to refer to "resources" instead of "topics"? Since we specify that @collection-type specifies "how topics or links relate to each other" ...

Disposition: Unassigned

@colsep (complex table attributes)
Specifies whether to render column separators between table entries. The following values are valid: "0" (no separators) and "1" (separators).

The @colsep attribute is available on the following table elements: <colspec>, <entry>, <table>, and <tgroup>.

@compact
Specifies whether the vertical spacing between list items is tightened. The following values are valid: "yes", "no", and "-dita-use-conref-target". Some DITA processors or output formats might not support the @compact attribute.

@datatype (data-element attributes)
Specifies the type of data contained in the @value attribute or within the <data> element. A typical use of @datatype will be the identifying URI for an XML Schema datatype.

@DITAArchVersion (architectural attributes)
Specifies the version of the DITA architecture that is in use. This attribute is in the namespace http://dita.oasis-open.org/architecture/2005/. This attribute is specified in the topic...
and map modules, and it uses a default value of the current version of DITA. The current default is "2.0".

@duplicates
Specifies whether duplicate links are removed from a group of links. Duplicate links are links that address the same resource using the same properties, such as link text and link role. How duplicate links are determined is processor-specific. The following values are valid:

- **yes**
  Specifies that duplicate links are retained.

- **no**
  Specifies that duplicate links are removed.

@dita-use-conref-target
- See Using the -dita-use-conref-target value for more information.

The suggested processing default is "yes" within <linklist> elements and "no" for other links.

Comment by robander on Dec 28 2021
"How duplicate links are determined is processor-specific" => this should be included in any updates to standardize language around "implementation dependent".
Disposition: Unassigned

@encoding (inclusion attributes)

Comment by Kristen J Eberlein on 29 April 2019
Can we replace "should" in the following definition?

Disposition: Unassigned

Specifies the character encoding to use when translating the character data from the referenced content. The value should be a valid encoding name. If not specified, processors may make attempts to automatically determine the correct encoding, for example using HTTP headers, through analysis of the binary structure of the referenced data, or the <?xml?> processing instruction when including XML as text. The resource should be treated as UTF-8 if no other encoding information can be determined.

When parse="xml", standard XML parsing rules apply for the detection of character encoding. The necessity and uses of @encoding for non-standard values of @parse are implementation-dependent.

@expanse (display attributes)

Specifies the horizontal placement of the element. The following values are valid:

- **column**
  Indicates that the element is aligned with the current column margin.

- **page**
  Indicates that the element is placed on the left page margin for left-to-right presentation or the right page margin for right-to-left presentation.

- **spread**
  Indicates that the object is rendered across a multi-page spread. If the output format does not have anything that corresponds to spreads, then "spread" has the same meaning as "page".

- **textline**
  Indicates that the element is aligned with the left (for left-to-right presentation) or right (for right-to-left presentation) margin of the current text line and takes indentation into account.
For `<table>`, in place of the `@expanse` attribute that is used by other DITA elements, the `@pgwide` attribute is used in order to conform to the OASIS Exchange Table Model.

Some processors or output formats might not support all values.

**@expiry (date attributes)**
Specifies the date when the information should be retired or refreshed. The date is specified using the ISO 8601 format: `YYYY-MM-DD`, where `YYYY` is the year, `MM` is the month (01 to 12), and `DD` is the day (01-31).

**@format (link-relationship attributes)**
Specifies the format of the resource that is referenced. [DITA] See 2.4.4 The format attribute (73) for detailed information on supported values and processing implications.

[LwDITA] For HDITA, the equivalent of `@format` is `@type`.

**@frame (display attributes)**
Specifies which portion of a border surrounds the element. The following values are valid:

- **all**
  Indicates that a line is rendered at the top, bottom, left, and right of the containing element.

- **bottom**
  Indicates that a line is rendered at the bottom of the containing element.

- **none**
  Indicates that no lines are rendered.

- **sides**
  Indicates that a line is rendered at the left and right of the containing element.

- **top**
  Indicates that a line is rendered at the top of the containing element.

- **topbot**
  Indicates that a line is rendered at the top and bottom of the containing element.

**@golive (date attributes)**
Specifies the publication or general availability (GA) date. The date is specified using the ISO 8601 format: `YYYY-MM-DD`, where `YYYY` is the year, `MM` is the month (01 to 12), and `DD` is the day (01-31).

**@href (link-relationship attributes)**
Specifies a reference to a resource. [DITA] See 2.4.5 The href attribute (75) for detailed information on supported values and processing implications.

**@keycol (simpletable attributes)**
Specifies the column that contains the content that represents the key to the tabular structure. If `@keycol` is present and assigned a numerical value, the specified column is treated as a vertical header.

**@keyref**
Specifies a key name that acts as a redirectable reference based on a key definition within a map. [DITA] See The keyref attribute for information on using this attribute.
For HDITA, the equivalent of \texttt{@keyref} is \texttt{@data-keyref}

Comment by robander
The definition above for \texttt{@keyref} should be synchronized with the definition in the linked section on keys.

Disposition: Unassigned

\texttt{@keys}
Specifies one or more names for a resource. [DITA] See \texttt{Setting key names with the keys attribute} for information on using this attribute.

[DITA] For HDITA, the equivalent of \texttt{@keys} is \texttt{@data-keys}

\texttt{@keyscope (common map attributes)}
Specifies that the element marks the boundaries of a key scope.

See \texttt{The keyscope attribute} for information on using this attribute.

Comment by Kristen J Eberlein on 28 September 2022
Here is the content from the "DITA map attributes" topic:

\texttt{@keyscope}
Defines a new scope for key definition and resolution, and gives the scope one or more names. For more information about key scopes, see \texttt{Indirect key-based addressing}.

Disposition: Unassigned

\texttt{@linking (common map attributes)}
Specifies linking characteristics of a topic specific to the location of this reference in a map. If the value is not specified locally, the value might cascade from another element in the map (for cascade rules, see \texttt{Cascading of metadata attributes in a DITA map}).

Comment by robander on Dec 28 2021
The text below matches 1.3 spec text but I'm nervous about "cannot link" type definition. It's describing how to generate links based on the current context in the map - it's not describing what the topic itself is allowed to link to, which is how I interpret "can".

Disposition: Unassigned

The following values are valid:

\texttt{targetonly}
A topic can only be linked to and cannot link to other topics.

\texttt{sourceonly}
A topic cannot be linked to but can link to other topics.

\texttt{normal}
A topic can be linked to and can link to other topics. Use this to override the linking value of a parent topic.

\texttt{none}
A topic cannot be linked to or link to other topics.

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

Comment by Kristen J Eberlein on 28 September 2022
Here is the content from the "DITA map attributes" topic:
@linking

By default, the relationships between the topics that are referenced in a map are reciprocal:

- Child topics link to parent topics and vice versa.
- Next and previous topics in a sequence link to each other.
- Topics in a family link to their sibling topics.
- Topics referenced in the table cells of the same row in a relationship table link to each other. A topic referenced within a table cell does not (by default) link to other topics referenced in the same table cell.

This behavior can be modified by using the @linking attribute, which enables an author or information architect to specify how a topic participates in a relationship. The following values are valid:

- linking="none"
  Specifies that the topic does not exist in the map for the purposes of calculating links.

- linking="sourceonly"
  Specifies that the topic will link to its related topics but not vice versa.

- linking="targetonly"
  Specifies that the related topics will link to it but not vice versa.

- linking="normal"
  Default value. It specifies that linking will be reciprocal (the topic will link to related topics, and they will link back to it).

Authors also can create links directly in a topic by using the <xref> or <link> elements, but in most cases map-based linking is preferable, because links in topics create dependencies between topics that can hinder reuse.

Note that while the relationships between the topics that are referenced in a map are reciprocal, the relationships merely imply reciprocal links in generated output that includes links. The rendered navigation links are a function of the presentation style that is determined by the processor.

Disposition: Unassigned

@name (data-element attributes)

Defines a unique name for the object.

Comment by robander

Do we need to specify the scope of "unique" here?

Disposition: Unassigned

@otherrole

Specifies an alternate role for a link relationship when the @role attribute is set to "other".

@parse (inclusion attributes)

Specifies the processing expectations for the referenced resource. Processors must support the following values:

- text
  The contents should be treated as plain text. Reserved XML characters should be displayed, and not interpreted as XML markup.
xml

The contents of the referenced resource should be treated as an XML document, and the referenced element should be inserted at the location of the <include> element. If a fragment identifier is included in the address of the content, processors must select the element with the specified ID. If no fragment identifier is included, the root element of the referenced XML document is selected. Any grammar processing should be performed during resolution, such that default attribute values are explicitly populated. Prolog content must be discarded.

It is an error to use parse="xml" anywhere other than within <foreign> or a specialization thereof.

Processors may support other values for the @parse attribute with proprietary processing semantics. Processors should issue warnings and use <fallback> when they encounter unsupported @parse values. Non-standard @parse instructions should be expressed as URIs.

**Note** Proprietary @parse values will likely limit the portability and interoperability of DITA content, so should be used with care.

@processing-role (common map attributes)

Specifies whether the referenced resource is processed normally or treated as a resource that is only included in order to resolve references, such as key or content references. The following values are valid:

*normal*
Indicates that the resource is a readable part of the information set. It is included in navigation and search results. This is the default value for the <topicref> element.

*resource-only*
Indicates that the resource should be used only for processing purposes. It is not included in navigation or search results, nor is it rendered as a topic. This is the default value for the <keydef> element.

- **-dita-use-conref-target**
See Using the -dita-use-conref-target value for more information.

If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

[LwDITA] For HDITA, the equivalent of @processing-role is @data-processing-role.

@relcolwidth (simpletable attributes)

Specifies the width of each column in relationship to the width of the other columns. The value is a space-separated list of relative column widths. Each column width is specified as a positive integer or decimal number followed by an asterisk character.

For example, the value relcolwidth="1* 2* 3*" gives a total of 6 units across three columns. The relative widths are 1/6, 2/6, and 3/6 (16.7%, 33.3%, and 50%). Similarly, the value relcolwidth="90* 150*" causes relative widths of 90/240 and 150/240 (37.5% and 62.5%).

@role

Specifies the role that a linked topic plays in relationship with the current topic.

For example, in a parent/child relationship, the role would be "parent" when the target is the parent of the current topic, and "child" when the target is the child of the current topic. This can be used to sort and classify links when rendering.

The following values are valid:

*ancestor*
Indicates a link to a topic above the parent topic.
child
Indicates a link to a direct child such as a directly nested or dependent topic.

cousin
Indicates a link to another topic in the same hierarchy that is not a parent, child, sibling, next, or previous.

descendant
Indicates a link to a topic below a child topic.

friend
Indicates a link to a similar topic that is not necessarily part of the same hierarchy.

next
Indicates a link to the next topic in a sequence.

other
Indicates any other kind of relationship or role. The type of role is specified as the value for the @otherrole attribute.

parent
Indicates a link to a topic that is a parent of the current topic.

previous
Indicates a link to the previous topic in a sequence.

sibling
Indicates a link between two children of the same parent topic.

@dita-use-conref-target
See Using the @dita-use-conref-target value for more information.

@rowheader (complex table attributes)
Specifies whether the entries in the respective column are row headers. The following values are valid:

firstcol
Indicates that entries in the first column of the table are row headers. This applies when the @rowheader attribute is specified on the <table> element.

headers
Indicates that entries of the column that is described using the <colspec> element are row headers. This applies when the @rowheader attribute is specified on the <colspec> element.

norowheader
Indicates that entries in the first column are not row headers. This applies when the @rowheader attribute is specified on the <table> element.

@dita-use-conref-target
See Using the @dita-use-conref-target value for more information.

Note This attribute is not part of the OASIS Exchange Table Model upon which DITA tables are based. Some processors or output formats might not support all values.

The @rowheader attribute is available on the following table elements: <table> and <colspec>.

@rowsep (complex table attributes)
Specifies whether to render row separators between table entries. The following values are valid: "0" (no separators) and "1" (separators).

The @rowsep attribute is available on the following table elements: <colspec>, <entry>, <row>, <table>, and <tgroup>.
@scale (display attributes)
Specifies the percentage by which fonts are resized in relation to the normal text size. The value of this attribute is a positive integer. [DITA] When used on `<table>` or `<simpletable>`, the following values are valid: "50", "60", "70", "80", "90", "100", "110", "120", "140", "160", "180", "200", and `-dita-use-conref-target`. [LwDITA] The following values are valid: "50", "60", "70", "80", "90", "100", "110", "120", "140", "160", "180", and "200".

This attribute is primarily useful for print-oriented display. Some processors might not support all values.

If the `@scale` attribute is specified on an element that contains an image, the image is not scaled. The image is scaled only if a scaling property is explicitly specified for the `<image>` element.

@scope (link-relationship attributes)
Specifies the closeness of the relationship between the current document and the referenced resource. [DITA] The following values are valid: "local", "peer", "external", and "-dita-use-conref-target". [LwDITA] The following values are valid: "local", "peer", and "external".

[DITA] See 2.4.6 The `scope` attribute (76) for detailed information on supported values and processing implications.

[LwDITA] For HDITA, the equivalent of `@scope` is `@rel`.

@search (common map attributes)
Specifies whether the target is available for searching. If the value is not specified locally, the value might cascade from another element in the map (for cascade rules, see Cascading of metadata attributes in a DITA map). The following values are valid: "yes", "no", and "-dita-use-conref-target".

Comment by Kristen J Eberlein on 28 September 2022
Here is the content from the "DITA map attributes" topic:

`@search`
Specifies whether the topic is included in search indexes.

Disposition: Unassigned

@specializations (architectural attributes)
Specifies the attribute-domain specializations that are included in the document-type shell. This attribute is set as a default within the document-type shell. The value varies depending on what domains are integrated into the document-type shell. [DITA] For example, a grammar file that includes the specialized attributes `@audience`, `@deliveryTarget`, and `@newBaseAtt` would set the value to `@props/audience @props/deliveryTarget @base/newBaseAtt`.

@subjectrefs (common map attributes)
Specifies one or more keys that are each defined by a subject definition in a subject scheme map. Multiple values are separated by white space.

@title-role (REQUIRED)
Specifies the role that the alternative title serves. Multiple roles are separated by white space. The following roles are defined in the specification: "linking", "navigation", "search", "subtitle", and "hint".

Processors can define custom values for the `@title-role` attribute.

@toc (common map attributes)
Specifies whether a topic appears in the table of contents (TOC) based on the current map context. If the value is not specified locally, the value might cascade from another element in the map (for cascade rules, see Cascading of metadata attributes in a DITA map). The following values are valid:
| **yes** | The topic appears in a generated TOC. |
| **no** | The topic does not appear in a generated TOC. |

- **dita-use-conref-target**
  See Using the -dita-use-conref-target value for more information.

**Comment by Kristen J Eberlein on 28 September 2022**

Here is the content from the "DITA map attributes" topic:

@toc
Specifies whether topics are excluded from navigation output, such as a Web site map or an online table of contents. By default, <topicref> hierarchies are included in navigation output; relationship tables are excluded.

**Disposition: Unassigned**

@type (link-relationship attributes)
Describes the target of a reference. See The type attribute for detailed information on supported values and processing implications.

@value (data-element attributes)
Specifies a value associated with the current property or element.

@valign (complex table attributes)
Specifies the vertical alignment of text in table entries. The following values are valid:

- **bottom**
  Indicates that text is aligned with the bottom of the table entry.

- **middle**
  Indicates that text is aligned with the middle of the table entry.

- **top**
  Indicates that text is aligned with the top of the table entry.

- **dita-use-conref-target**
  See Using the -dita-use-conref-target value for more information.

The @valign attribute is available on the following table elements: <entry>, <tbody>, <thead>, and <row>.

@xml:space
Specifies how to handle white space in the current element. [DITA] This attribute is provided on <pre>, <lines>, and on elements specialized from those. It ensures that parsers respect white space that is part of the data in those elements, including line-end characters. When defined, it has a fixed value of "preserve", making it a default property of the element that cannot be changed or deleted by authors.

@xmlns:ditaarch (architectural attributes)
Declares the default DITA namespace. This namespace is declared as such in the RNG modules for <topic> and <map>, but it is specified as an attribute in the equivalent DTD-based modules. The value is fixed to "http://dita.oasis-open.org/architecture/2005/".
2.3 Universal attribute group

The universal attribute group defines a set of common attributes that are available on almost every DITA element. The universal attribute group includes all attributes from the ID, localization, and metadata attribute groups, plus the @class and @outputclass attributes.

**Comment by Kristen J Eberlein on 29 December 2021**

This is something wrong with the organizational structure of this topic ... Look at it in outline form, and check that the sections, titles, and content all make logical sense with the topic title of “Universal attribute group”.

**Disposition: Unassigned**

Common attribute groups

The following attribute groups are referenced in this specification. They are also used in the grammar files when the element attributes are defined.

**Universal attributes**

Includes @class and @outputclass, along with every attribute in the ID, localization, and metadata attribute groups.

**ID attributes**

This group includes the attributes that enable the naming and referencing of elements: @conaction, @conkeyref, @conref, @conrefend, and @id.

**Localization attributes**

This group includes attributes that are related to translation and localization: @dir, @translate, and @xml:lang.

**Metadata attributes**

**Comment by Kristen J Eberlein on 31 December 2021**

Why do we need to mention that two attributes are available for specialization here? I think it makes the paragraph hard to read.

**Disposition: Unassigned**

This group includes common metadata attributes, two of which are available for specialization: @base, @importance, @props, @rev, and @status.

The base DITA vocabulary from OASIS includes several specializations of @props: @audience, @deliveryTarget, @otherprops, @platform, and @product. These attributes are defined as attribute-extension domains. By default, they are integrated into all OASIS-provided document-type shells, but they can be made unavailable by implementing custom document-type shells.

**Comment by Kristen J Eberlein on 29 December 2021**

Why do we provide information about specialization and custom document-type shells here? I think that information could be removed.

**Disposition: Unassigned**
Universal attribute definitions

The universal attributes for OASIS DITA elements are defined below. Specialized attributes, which are part of the OASIS distribution but are only available when explicitly included in a shell, are noted in the list.

@audience (specialized attribute)
Indicates the intended audience for the element. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

@base
Specifies metadata about the element. It is often used as a base for specialized attributes that have a simple syntax for values, but which are not conditional processing attributes.

The @base attribute takes a space-delimited set of values. [DITA] However, when serving as a container for generalized attributes, the attribute values will be more complex. See Attribute generalization for more details.

@class (not for use by authors)
This attribute is not for use by authors. If an editor displays @class attribute values, do not edit them. Specifies a default value that defines the specialization ancestry of the element. Its predefined values allow DITA [LwDITA] and XDITA tools to work correctly with specialized elements. [DITA] In a generalized DITA document the @class attribute value in the generalized instance might differ from the default value for the @class attribute for the element as given in the DTD or schema. See The class attribute rules and syntax for more information. This attribute is specified on every element except for the <dita> container element. It is always specified with a default value, which varies for each element.

@conaction
Specifies how the element content will be pushed into a new location. The following values are valid:

mark
The element acts as a marker when pushing content before or after the target, to help ensure that the push action is valid. The element with conaction="mark" also specifies the target of the push action with @conref. Content inside of the element with conaction="mark" is not pushed to the new location.

pushafter
Content from this element is pushed after the location specified by @conref on the element with conaction="mark". The element with conaction="pushafter" is the first sibling element after the element with conaction="mark".

pushbefore
Content from this element is pushed before the location specified by @conref on the element with conaction="mark". The element with conaction="pushbefore" is the first sibling element before the element with conaction="mark".

pushreplace
Content from this element replaces any content from the element referenced by the @conref attribute. A second element with conaction="mark" is not used when using conaction="pushreplace".

-dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

See The conaction attribute for examples and details about the syntax.
@conkeyref
Specifies a key name or a key name with an element ID that acts as an indirect reference to reusable content. The referenced content is used in place of the content of the current element. See The conkeyref attribute (72) for more details about the syntax and behaviors.

@conref
Specifies a URI that references a DITA element. The referenced content is used in place of the content of the current element. [DITA] See 2.4.3 The conref attribute (73) for examples and details about the syntax.

[LwDITA] For HDITA, the equivalent of @conref is @data-conref.

@conrefend
Specifies a URI that references the last element in a sequence of elements, with the first element of the sequence specified by @conref. The referenced sequence of elements is used in place of the content of the current element. See The conrefend attribute for examples and details about the syntax.

@deliveryTarget (specialized attribute)
Specifies the intended delivery target of the content, for example, "html", "pdf", or "epub". If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

@dir
Identifies or overrides the text directionality. The following values are valid:

lro
Indicates an override of the Unicode Bidirectional Algorithm, forcing the element into left-to-right mode.

ltr
Indicates left-to-right.

rlo
Indicates an override of the Unicode Bidirectional Algorithm, forcing the element into right-to-left mode.

rtl
Indicates right-to-left.

@dita-use-conref-target
See Using the -dita-use-conref-target value for more information.

[DITA] See The dir attribute for more information.

@id
Specifies an identifier for the current element. This ID is the target for references by @href and @conref attributes and for external applications that refer to DITA or LwDITA content. This attribute is defined with the XML data type NMTOKEN, except where noted for specific elements within the language reference.

[DITA] See id attribute for more details.

@importance
Specifies the importance or priority that is assigned to an element. The following values are valid: "default", "deprecated", "high", "low", "normal", "obsolete", "optional", "recommended", "required", "urgent", and "-dita-use-conref-target". This attribute is not used for conditional processing, although applications might use the value of the @importance attribute to highlight elements. For example, in
steps of a task topic, the value of the @importance attribute indicates whether a step is optional or required.

Comment by Kristen J Eberlein on 29 September 2022
I think the phrase "to highlight elements" is a little off. Maybe "render generated text"? And how about adding "Processors often add text or images to ensure that readers of the generated content understand whether the step is optional or required." to the end of the example?
Disposition: Unassigned

@otherprops (specialized attribute)
Specifies a property or properties that provide selection criteria for the element. Alternatively, the @props attribute can be specialized to provide a new metadata attribute instead of using the general @otherprops attribute. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

Comment by robander
I don't like "The role must be consistent...", that seems like best practice that cannot be normative – and I could easily say outputclass="flashy" which makes my element show up with sparkles, and has nothing to do with "the basic semantic and expectations for the element".
Disposition: Unassigned

@outputclass
Specifies a role that the element is playing. The role must be consistent with the basic semantic and expectations for the element. In particular, the @outputclass attribute can be used for styling during output processing; HTML output will typically preserve @outputclass for CSS processing.

Comment by robander
I don't like "The role must be consistent...", that seems like best practice that cannot be normative – and I could easily say outputclass="flashy" which makes my element show up with sparkles, and has nothing to do with "the basic semantic and expectations for the element".
Disposition: Unassigned

@platform (specialized attribute)
Indicates operating system and hardware. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

Comment by robander
I think this could specify a platform that is not an operating system or hardware, right? The current definition explicitly limits platform to those two … maybe "Specifies a platform or platforms to which the element applies, such as the operating system or hardware relevant to a task."
Disposition: Unassigned

@product (specialized attribute)
Specifies the name of the product to which the element applies. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

@props
Specifies metadata about the element. New attributes can be specialized from the @props attribute. This attribute supports conditional processing. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

The @props attribute takes a space-delimited set of values. [DITA] However, when serving as a container for generalized attributes, the attribute values will be more complex. See Attribute generalization for more details.

[LwDITA] For HDITA, the equivalent of @props is @data-props
@rev
Specifies a revision level of an element that identifies when the element was added or modified. It can be used to flag outputs when it matches a run-time parameter. It cannot be used for filtering nor is it sufficient to be used for version control. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

Comment by Kristen J Eberlein on 29 September 2022
I want to tweak this. How about the following? Also, neither definition describes what values are permitted.

Specifies metadata that identifies when the element was added or the content of the element was modified. The @rev attribute can be used for flagging. It cannot be used for filtering nor is it sufficient to be used for version control. If no value is specified but the attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.

Disposition: Unassigned

@status
Specifies the modification status of the element. The following values are valid: "new", "changed", "deleted", "unchanged", and "-dita-use-conref-target".

@translate
Specifies whether the content of the element should be translated. [DITA] The following values are valid: "yes", "no", and "-dita-use-conref-target". [LwDITA] The following values are valid: "yes" and "no".

[DITA] See Element-by-element recommendations for translators for suggested processing defaults for each element.

Comment by Kristen J Eberlein on 31 December 2021
[DITA]
Does Element-by-element recommendations for translators really provide suggested processing defaults for each element? I thought it covered whether an element was block or in-line and whether there were considerations that translators needed to be aware of.

Disposition: Unassigned

@xml:lang
Specifies the language and optional locale of the content that is contained in an element. Valid values are language tokens or the null string. The @xml:lang attribute and its values are described in the Extensible Markup Language 1.0 specification, fifth edition.

[LwDITA] For HDITA, the equivalent attribute is @lang.

Comment by Kristen J Eberlein on 29 September 2022
[DITA]
Do we also want to direct readers to the architectural topics about the @xml:lang attribute?

Disposition: Unassigned

2.4 Complex attributes
This is a temporary topic used to group topics about complex attributes that are in both DITA 2.0 and LwDITA. These topics appeared in the "Language reference" in the DITA 1.x spec, but are integrated into
the "Architectural" section of the spec for DITA 2.0. It's unclear how this content will be handled in the LwDITA spec; do we just refer readers to "See that DITA 2.0 specification"? Only a handful of these topics have been edited and reviewed for DITA 2.0: @format, @href, and @scope.

The @conkeyref attribute

The @conkeyref attribute provides an indirect content reference to topic elements, map elements, or elements within maps or topics. When the DITA content is processed, the key references are resolved using key definitions from DITA maps.

Comment by robander on 19 May 2021

This topic is moving into the arch spec, but needs further editing to split overview / conceptual info from processing info; this and other conref-attribute topics currently have a bunch of processing info that is missing from the actual "Processing conref" arch spec topics.

Disposition: Unassigned

For content references from map elements to map elements or topic elements to topic elements, the value of the @conkeyref attribute is a key name, where the key must be bound to a map element (for references from map elements) or a topic element (for references from topic elements). For all other elements, the value of the @conkeyref attribute is a key name, an optional slash (/), and the ID of the target element, where the key name must be bound to the map or topic that contains the topic element.

When the key name specified by the @conkeyref attribute is not defined and the element also specifies a @conref attribute, the @conref attribute is used to determine the content reference relationship. If no @conref attribute is specified there is no content reference relationship.

Processors SHOULD issue a warning when a @conkeyref reference cannot be resolved and there is no @conref attribute to use as a fallback. Processors MAY issue a warning when a @conkeyref cannot be resolved to an element and a specified @conref attribute is used as a fallback.

The @conrefend attribute, which defines the end of a conref range, cannot include a key. Instead the map or topic element addressed by the key name component of the @conkeyref is used in place of whatever map or topic element is addressed by the @conrefend attribute. See Using conrefend together with conkeyref for more information and for examples of this behavior.

The @conkeyref attribute

The @conkeyref attribute provides an indirect content reference to topic elements, map elements, or elements within maps or topics. When the DITA content is processed, the key references are resolved using key definitions from DITA maps.

Comment by robander on 19 May 2021

This topic is moving into the arch spec, but needs further editing to split overview / conceptual info from processing info; this and other conref-attribute topics currently have a bunch of processing info that is missing from the actual "Processing conref" arch spec topics.

Disposition: Unassigned

For content references from map elements to map elements or topic elements to topic elements, the value of the @conkeyref attribute is a key name, where the key must be bound to a map element (for references from map elements) or a topic element (for references from topic elements). For all other elements, the value of the @conkeyref attribute is a key name, an optional slash (/), and the ID of the target element, where the key name must be bound to the map or topic that contains the topic element.
When the key name specified by the @conkeyref attribute is not defined and the element also specifies a @conref attribute, the @conref attribute is used to determine the content reference relationship. If no @conref attribute is specified there is no content reference relationship.

Processors SHOULD issue a warning when a @conkeyref reference cannot be resolved and there is no @conref attribute to use as a fallback. Processors MAY issue a warning when a @conkeyref cannot be resolved to an element and a specified @conref is used as a fallback.

The @conrefend attribute, which defines the end of a conref range, cannot include a key. Instead the map or topic element addressed by the key name component of the @conkeyref is used in place of whatever map or topic element is addressed by the @conrefend attribute. See Using conrefend together with conkeyref for more information and for examples of this behavior.

2.4.3 The @conref attribute

The @conref attribute is used to reference content that can be reused. It allows reuse of DITA elements, including topic or map level elements.

Comment by robander on 19 May 2021
This topic is moving into the arch spec, but needs further editing to split overview / conceptual info from processing info; this and other conref-attribute topics currently have a bunch of processing info that is missing from the actual "Processing conref" arch spec topics.
Disposition: Unassigned

The value of the @conref attribute must be a URI reference to a DITA element. See URI-based (direct) addressing for details on specifying URI references to DITA elements. As with other DITA references, a @conref attribute that references a resource without an ID is treated as a reference to the first topic or map in the document.

Note When using the @conref attribute on an element, the content of that element is ignored. For example, if a phrase is marked up like this:

```
<ph conref="#topic/ph">Something</ph>
```

the word "Something" will be replaced by the content of the referenced <ph> element.

2.4.4 The @format attribute

The @format attribute identifies the format of the referenced resource.

The following values are explicitly supported:

**dita**
Indicates that the target is a DITA topic or an element in a DITA topic. Unless otherwise specified, when @format is set to "dita", the value for the @type attribute is treated as "topic".

**ditamap**
Indicates that the target is a DITA map. References to submaps can occur at any point in a map.

When a topic reference specifies format="ditamap", the topic reference resolves in one of the following ways:

<table>
<thead>
<tr>
<th>Target of &lt;topicref&gt;</th>
<th>Resolution of &lt;topicref&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>DITA map</td>
<td>The hierarchy of all the topic references in the targeted map</td>
</tr>
<tr>
<td>Map branch</td>
<td>The hierarchy of the targeted map branch</td>
</tr>
</tbody>
</table>
When a topic reference targets an entire DITA map and the referenced map contains a relationship table, there are special processing implications. Because relationship tables are only valid as direct children of the DITA map, referenced relationship tables are treated as children of the referencing map.

**Comment by Kristen J Eberlein on 03 March 2022**

I think we need to have an example of the expected processing behaviour. I think it is a good candidate for the new chapter on "DITA map processing".

**Disposition: Unassigned**

**Note** If a `<topicref>` element that references a map contains child `<topicref>` elements, the processing behavior regarding the child `<topicref>` elements is undefined.

For other formats, the file extension without the "." character typically represents the format. For example, the following are all possible values for `@format`: "html", "pdf", or "txt".

If no value is explicitly specified for the `@format` attribute, the following precedence rules apply:

1. If the `@format` attribute is specified on a containing element within the map or within the related-links section of a topic, the value cascades from the closest containing element.
2. If a value for the `@format` attribute does not cascade, the processing default is used. The processing default for the `@format` attribute is determined by inspecting the value of the `@href` attribute:
   a. If the `@href` attribute specifies a file extension, the processing default for the `@format` attribute is that extension, after conversion to lower-case and with no leading period. The only exception to this is if the extension is `.xml`, in which case the default value for `@format` is "dita".
   b. If there is no file extension, but the `@href` value is an absolute URI whose scheme is "http" or "https", then the processing default is "html".
   c. In all other cases where no file extension is available, the processing default is "dita".

If the actual format of the referenced content differs from the effective value of the `@format` attribute, and a processor is capable of identifying such cases, it MAY recover gracefully and treat the content as its actual format. The processor MAY also issue a message.

For processors that support Lightweight DITA, the following table summarizes values for the `@format` attribute:

<table>
<thead>
<tr>
<th>Document type</th>
<th>Value of the <code>@format</code> attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map</td>
<td><code>hditamap</code></td>
<td>HDITA map</td>
</tr>
<tr>
<td></td>
<td><code>mditamap</code></td>
<td>MDITA map</td>
</tr>
<tr>
<td></td>
<td><code>xditamap</code></td>
<td>XDITA map</td>
</tr>
<tr>
<td>Topic</td>
<td><code>hdita</code></td>
<td>HDITA topic</td>
</tr>
<tr>
<td></td>
<td><code>mdita</code></td>
<td>MDITA topic</td>
</tr>
<tr>
<td></td>
<td><code>xdita</code></td>
<td>XDITA topic</td>
</tr>
</tbody>
</table>
2.4.5 The @href attribute

The @href attribute specifies the URI of the resource that is addressed. The referenced resource can be another DITA topic or map, an element inside a DITA topic or map, or a non-DITA resource.

The value of the @href attribute MUST be a valid URI reference [RFC 3986]. If the value of the @href attribute is not a valid URI reference, an implementation MAY generate an error message. It MAY also recover from this error condition by attempting to convert the value to a valid URI reference.

The value of the @href attribute can optionally contain a fragment identifier.

When an @href attribute references a DITA resource using a URI without a fragment identifier, the URI resolves to the root element in the referenced document. For the purposes of rendering, such as when a topic reference to a DITA document is used to render the content as HTML, this means that all topics in the target document are included in the reference. For the purpose of linking, the reference resolves to the first topic in the document.

When an @href attribute references a DITA resource using a URI with a fragment identifier, the portion after the hash must be a DITA local identifier. A DITA local identifier takes the following forms:

<table>
<thead>
<tr>
<th>Target</th>
<th>Syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic element</td>
<td>topicID</td>
</tr>
<tr>
<td>Element in a topic</td>
<td>topicID/elementID</td>
</tr>
<tr>
<td>Element in a map</td>
<td>mapElementID</td>
</tr>
</tbody>
</table>

Where:

- topicID is the value of the @id attribute of the DITA topic. If the topic referenced by a DITA local identifier is the same topic that includes the reference, then topicID can be replaced by a period.
- elementID is the value of the @id attribute of the non-topic element within a DITA topic.
- mapElementID is the value of the @id attribute of the element within a DITA map document.

See [Processing xrefs and conrefs within a conref](#) for more information on how this syntax relates to conref resolution.

**Example: Common syntax for the @href attribute**

The following table includes some examples of common @href syntax. Note that these examples represent only a few common scenarios and are not all-inclusive.

<table>
<thead>
<tr>
<th>Target</th>
<th>Syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first topic in a DITA document</td>
<td>href=&quot;file.dita&quot;</td>
</tr>
<tr>
<td>A specific topic in a DITA document</td>
<td>href=&quot;file.dita#topicId&quot;</td>
</tr>
<tr>
<td>A non-topic element inside a DITA topic</td>
<td>href=&quot;file.dita#topicId/elementId&quot;</td>
</tr>
<tr>
<td>A non-topic element inside the same DITA topic as the reference</td>
<td>href=&quot;#./elementId&quot;</td>
</tr>
<tr>
<td>An element in a DITA map</td>
<td>href=&quot;myMap.ditamap#map-branch&quot;</td>
</tr>
<tr>
<td>An image</td>
<td>href=&quot;exampleImage.jpg&quot;</td>
</tr>
<tr>
<td>An external resource</td>
<td>href=&quot;<a href="http://www.example.org">http://www.example.org</a>&quot;</td>
</tr>
</tbody>
</table>
where:

- `topicid` is the value of the `@id` attribute on the referenced DITA topic.
- `elementid` is the value of the `@id` attribute on the referenced (non-topic) DITA element.
- `map-branch` is the value of the `@id` attribute on the referenced DITA map element.

### 2.4.6 The `@scope` attribute

The `@scope` attribute identifies the closeness of the relationship between the current document and the target resource.

The `@scope` attribute takes the following values:

- **external**
  - Indicates that the resource is not part of the current set of content.

- **local**
  - Indicates that the resource is part of the current set of content.

- **peer**
  - Indicates one of the following:
    - The resource is part of the current set of content, but it might not be accessible at build time.
    - The resource should be treated as a root map for the purpose of creating map-to-map key references (peer maps).
    - The resource is a peer map. If `@keyscope` is also specified on the reference, it indicates that the map should be treated as a separate deliverable for the purposes of linking.

### -dita-use-conref-target

See Using the `-dita-use-conref-target` value for more information on `-dita-use-conref-target`.

If no value is specified for the `@scope` attribute, the following considerations apply:

- If the `@scope` attribute is specified on a containing element within a map or within the related-links section, the value cascades from the closest containing element.
- In most cases, the processing default is "local". However the processing default is "external" whenever the absolute URI in the `@href` attribute begins with one of the following schemes: "http", "https", "ftp", or "mailto"

019 (78) For the `@scope` attribute, processors can consider additional URI schemes as "external" by default. Processors **MUST** always consider relative URIs as "local" by default.
A Aggregated RFC-2119 statements

[DITA] This appendix contains all the normative statements from the DITA 2.0 specification. They are aggregated here for convenience in this non-normative appendix. [LwDITA] This appendix contains all the normative statements from the LwDITA specification. They are aggregated here for convenience in this non-normative appendix.

<table>
<thead>
<tr>
<th>Item</th>
<th>Conformance statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>001 (5)</td>
<td>[LwDITA] [DITA] When an audio resource cannot be rendered in a meaningful way, processors SHOULD present the contents of the &lt;fallback&gt; element, if it is present.</td>
</tr>
<tr>
<td>002 (7)</td>
<td>[DITA] By default, processors SHOULD treat a &lt;data&gt; element as unknown metadata. The contents of the &lt;data&gt; element SHOULD NOT be rendered. Processors that recognize a particular &lt;data&gt; element MAY make use of it to trigger specialized rendering.</td>
</tr>
<tr>
<td>003 (7)</td>
<td>[LwDITA] By default, processors SHOULD treat a data component as unknown metadata. The contents of the data component SHOULD NOT be rendered. Processors that recognize a particular data component MAY make use of it to trigger specialized rendering.</td>
</tr>
<tr>
<td>004 (9)</td>
<td>[DITA] When used in conjunction with &lt;fig&gt; or &lt;table&gt; elements, processors SHOULD consider the content of &lt;desc&gt; elements to be part of the content flow. When used in conjunction with &lt;xref&gt; or &lt;link&gt; elements, processors often render the content of &lt;desc&gt; elements as hover help or other forms of link preview.</td>
</tr>
<tr>
<td>005 (9)</td>
<td>[LwDITA] When used in conjunction with figures, processors SHOULD consider the content of description components to be part of the content flow. When used in conjunction with cross references, processors often choose to render the content of description components as hover help or other forms of link preview.</td>
</tr>
</tbody>
</table>
| 006 (16) | [LwDITA] [DITA] 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. |
<p>| 007 (27) | [DITA] Processors SHOULD preserve line the breaks and spaces that are present in the content of a &lt;pre&gt; element. |
| 008 (27) | [LwDITA] Processors SHOULD preserve line the breaks and spaces that are present in preformatted text. |</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>Conformance statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>009 (28)</td>
<td>[DITA] Processors <strong>SHOULD</strong> treat the presence of more than one <code>&lt;title&gt;</code> element in a <code>&lt;section&gt;</code> element as an error.</td>
</tr>
<tr>
<td>010 (28)</td>
<td>[LwDITA] Processors <strong>SHOULD</strong> treat the presence of more than one title component in a section component as an error.</td>
</tr>
<tr>
<td>011 (29)</td>
<td>[LwDITA] [DITA] Processors <strong>SHOULD</strong> render the content of the <code>&lt;shortdesc&gt;</code> element as the initial paragraph of the topic.</td>
</tr>
<tr>
<td>012 (29)</td>
<td>[DITA] When processors generate link previews that are based on the map context, they <strong>SHOULD</strong> use the content of the <code>&lt;shortdesc&gt;</code> that is located in the map rather than the <code>&lt;shortdesc&gt;</code> that is located in the DITA topic. However, when processors render the topic itself, they <strong>SHOULD</strong> use the content of the <code>&lt;shortdesc&gt;</code> element that is located in the DITA topic.</td>
</tr>
</tbody>
</table>
| 013 (38) | [LwDITA] [DITA] Processors **SHOULD** scale the video resource 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. |
| 014 (38) | [LwDITA] [DITA] When a video resource cannot be rendered in a meaningful way, processors **SHOULD** render the contents of the `<fallback>` element, if it is present. |
| 015 (72) | Processors **SHOULD** issue a warning when a `@conkeyref` reference cannot be resolved and there is no `@conref` attribute to use as a fallback. Processors **MAY** issue a warning when a `@conkeyref` cannot be resolved to an element and a specified `@conref` is used as a fallback. |
| 016 (72) | Processors **SHOULD** issue a warning when a `@conkeyref` reference cannot be resolved and there is no `@conref` attribute to use as a fallback. Processors **MAY** issue a warning when a `@conkeyref` cannot be resolved to an element and a specified `@conref` is used as a fallback. |
| 017 (74) | If the actual format of the referenced content differs from the effective value of the `@format` attribute, and a processor is capable of identifying such cases, it **MAY** recover gracefully and treat the content as its actual format. The processor **MAY** also issue a message. |
| 018 (75) | The value of the `@href` attribute **MUST** be a valid URI reference [RFC 3986]. If the value of the `@href` attribute is not a valid URI reference, an implementation **MAY** generate an error message. It **MAY** also recover from this error condition by attempting to convert the value to a valid URI reference. |
| 019 (76) | For the `@scope` attribute, processors can consider additional URI schemes as “external” by default. Processors **MUST** always consider relative URIs as “local” by default. |
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