

Review F: Attributes available on tables

Table of contents

1 Table elements	3
1.1 <colspec></colspec>	3
1.2 <entry></entry>	4
1.3 <row></row>	5
1.4 <simpletable></simpletable>	5
1.5 <stentry></stentry>	7
1.6 <sthead></sthead>	8
1.7 <strow></strow>	8
1.8	8
1.9	13
1.10 <tgroup></tgroup>	
1.11 <thead></thead>	14
2 Attributes for table review	
Index	10

1 Table elements

DITA topics support two types of tables: complex table and simple table.

The element uses the OASIS Exchange Table Model, a simplification of the CALS table model. The DITA table provides a wide variety of controls over the display properties of the data and even the table structure itself.

The <simpletable> element is structurally less complex than the element and so is an easier base for specialization. The <simpletable> element does not provide much control over formatting, although it permits titles and row and column spanning.

1.1 <colspec>

A column specification provides information about a single column in a table that is based on the OASIS Exchange Table Model. The information might include a column name and number, cell content alignment, or column width.

Attributes

The following attributes are available on this element: universal attributes (without the metadata attribute group), @align, @base, @char, @charoff, @colsep, @rowheader, @rowsep, and the attributes defined below.

@colnum

Specifies the number of the column in the table, where 1 represents the first logical column.

@colname

Specifies a name for the column. The <entry> element can use the @colname attribute to refer to the column.

@colwidth

Specifies the column width. Valid values are either a proportional or fixed measure:

Proportional measure

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.

Fixed measure

A value of a coefficient followed by a unit of measurement. The coefficients are positive integers or fixed point numbers. The fixed unit values are case-insensitive. The allowed units of measure are cm (centimeters), in (inches), pi (picas), and pt (points). The default unit of measure is pt.

If the @colwidth attribute is not specified or is empty, a proportional measure of "1*" is assumed.

Example

See (9).

1.2 <entry>

A table entry represents a single cell in a table that is based on the OASIS Exchange Table Model.

Attributes

The following attributes are available on this element: universal attributes (without the metadata attribute group), @align, @base, @char, @charoff, @colsep, @rev, @rowsep, @valign, and the attributes defined below.

@colname

Specifies the column name in which an entry is found. The value is a reference to the @colname attribute on the <colspec> element.

@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.

@nameend

Specifies the last logical column that is included in a horizontal span. The value is a reference to the @colname attribute on the <colspec> element.

@namest

Specifies the first logical column that is included in a horizontal span. The value is a reference to the @colname attribute on the <colspec> element.

@morerows

Specifies the number of additional rows to add in a vertical span.

@rotate

Specifies whether the contents of the entry are rotated. The following values are valid:

Indicates that no rotation occurs.

1

Indicates that the contents of the cell are rotated 90 degrees counterclockwise.

-dita-use-conref-target

See 3 Using the -dita-use-conref-target value for more information.

@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.

-dita-use-conref-target

See 3 Using the -dita-use-conref-target value for more information.

Example

See (9).

1.3 < row >

A table row is a single row in a table that is based on the OASIS Exchange Table Model.

Attributes

The following attributes are available on this element: universal attributes, @rowsep and @valign.

Example

See (9).

1.4 <simpletable>

A simple table is a basic tabular environment that is designed to present organized content.

Usage information

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.

Rendering expectations

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

Attributes

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

Examples

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

Figure 1: Example of a simple table

The following code sample shows a simple table that contains menu items and prices:

```
<stentry>Milk shake</stentry>
  <stentry>$6.50</stentry>
  </strow>
</simpletable>
```

The simple table might be rendered in the following way:

Menu item	Price
Apple pie	\$7.00
Cheese sandwich	\$10.00
Milk shake	\$6.50

Figure 2: Example of a simple table with column and row spanning

The following code sample shows a simple table that tracks meals. The table has a title and column and row spans.

```
<simpletable>
  <title>Food log for Wednesday</title>
  <sthead>
   <stentry>Meal</stentry>
    <stentry>Food</stentry>
 </sthead>
 <strow>
    <stentry colspan="2">Fasting period</stentry>
  </strow>
 <strow>
   <stentry>Lunch</stentry>
    <stentry rowspan="2">Pasta</stentry>
  </strow>
 <strow>
    <stentry>Dinner</stentry>
  </strow>
</simpletable>
```

The simple table might be rendered in the following way:



Figure 3: Example of a simple table that uses @keycol

The following code sample shows a simple table that contains information about the caloric content and prices of menu items. The <code>@keycol</code> attribute indicates that the first column, which contains the menu items, is the key column.

```
</strow>
<strow>
<stentry>Vegetarian dish</stentry>
<stentry>525</stentry>
<stentry>$9.00</stentry>
</strow>
<strow>
<stentry>Vegan dish</stentry>
<stentry>475</stentry>
<stentry>475</stentry>
<stentry>475</stentry>
<stentry>$7.00</stentry>
</strow>
</strow>
</strow>
</simpletable>
```

This simple table might be rendered in the following way:

Menu item	Calories	Price
Chicken dish	850	\$12.00
Vegetarian dish	525	\$9.00
Vegan dish	475	\$7.00

In the sample rendering, the content of the key column is highlighted with bold formatting. However, note that rendering of the key column is left up to the implementation.

1.5 <stentry>

A simple table entry represents a single cell within a simple table.

Attributes

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

@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.

-dita-use-conref-target

See 3 Using the -dita-use-conref-target value for more information.

Example

See <simpletable> (5).

1.6 <sthead>

A simple table header is an optional header row for a simple table.

Usage information

Comment by Kristen J Eberlein on 21 December 2021

This topic needs to mention the role that table headers play in ensuring that content is accessible. It should link to the new material (not yet developed) about accessibility.

Attributes

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

Example

See <simpletable> (5).

1.7 <strow>

A simple table row is a single row in a simple table.

Attributes

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

Example

See <simpletable> (5).

1.8

A table based on the OASIS Exchange Table Model organizes arbitrarily complex relationships of tabular information. This standard table markup provides a wide variety of controls over the display properties of the data and even the table structure itself.

Usage information

The element is based on the OASIS Exchange Table Model. However, it is augmented with DITA attributes that enable accessibility, content reference, specialization, and more.

An optional <title> inside the <table> element provides a caption to describe the table. In addition, the optional <desc> element enables a table description.

See 1.4 simpletable (5) for a simplified table model that is closely aligned with the HTML5 table model, and which can be easily specialized.

For , 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.

Rendering expectations

If a <table> element contains a <desc> element, the content of the <desc> element is rendered as part of the content flow.

Attributes

The following attributes are available on this element: universal attributes, @colsep, @frame, @rowheader, @rowsep, @scale, and the attributes defined below.

@orient

Specifies the orientation of the table in page-based output formats. This attribute is primarily useful for print-oriented display. The following values are valid:

port

Indicates portrait page orientation. The page is oriented with its long side vertical and its short side horizontal.

land

Indicates landscape page orientation. The page is oriented with its long side horizontal and its short side vertical.

-dita-use-conref-target

See 3 Using the -dita-use-conref-target value for more information.

@pgwide

Specifies the horizontal placement of the element for print-oriented rendering. The following values are valid:

0

Aligns the element with the left margin of the current text line and takes indentation into account

1

Places the element on the left page margin

Examples

This section contains examples of how the element can be used.

Figure 4: Example of a table

The following code sample shows a table that is used to provide reference information about animals and gestation:

The formatted output might be rendered in the following way:

Animal	Gestation (in months)
Elephant (African and Asian)	19-22
Giraffe	15
Rhinoceros	14-16
Hippopotamus	7 1/2

In this example, the use of the <thead> element for the header enables processors or screen readers to identify a header relationship between any cell in the table body and the matching header cell above that column.

Figure 5: Example of a complex table with accessibility markup

Comment by robander on Oct 5 2020

Per discussion with Kris: would be good to have a section on accessibility in the architectural spec; if that is created, some of these examples might be better placed there.

In the following code sample, the table uses the <thead> element to identify header rows and the @rowheader attribute to identify a header column. These header relationships can be used to automatically create renderings of the table in other formats, such as HTML, that can be navigated using a screen reader or other assistive technology.

```
<title>Sample of automated table accessibility</title>
 <desc>Names are listed in the column c1. Points are listed in both data columns, with
      expected points in column c2 and actual points in column c3.</desc>
 <tgroup cols="3">
   <colspec colname="c1"/>
   <colspec colname="c2"/>
   <colspec colname="c3"/>
   <thead>
       <entry morerows="1">Name</entry>
       <entry namest="c2" nameend="c3">Points</entry>
     </row>
     <row>
       <entry>Expected</entry>
       <entry>Actual</entry>
     </row>
   </thead>
   <entry>Mark
```

```
<entry>10,000</entry>
       <entry>11,123.45</entry>
     </row>
     <row>
       <entry>Peter</entry>
       <entry>9,000</entry>
       <entry>11,012.34
     </row>
     <row>
       <entry>Cindy</entry>
       <entry>10,000</entry>
      <entry>10,987.64
     </row>
    </tgroup>
```

In this code sample, navigation information for assistive technology is derived from two sources:

- The <thead> element contains two rows, and indicates that each entry in those header rows is a
 header cell for that column. This means that each body cell can be associated with the header cell
 or cells above the column. For example, in the second body row, the entry "Peter" can be
 associated with the header "Name"; similarly, the entry "9,000" can be associated with the
 headers "Expected" and "Points".
- The @rowheader attribute that is specified on indicates that the first column plays a role as a header. This means that each body cell in columns two and three can be associated with the header cell in column one. For example, in the second body row, the entry "9,000" can be associated with the header "Peter".

As a result of these two sets of headers, a rendering of the table can associate the entry "9,000" with three headers: "Peter", "Expected", and "Points", thus making it fully navigable by a screen reader or other assistive technology.

The formatted output might be rendered in the following way:

Name	Points		
	Expected	Actual	
Mark	10,000	11,123.45	
Peter	9,000	11,012.34	
Cindy	10,000	10,987.64	

Figure 6: Example of a complex table with some manually-specified accessibility markup

In some complex tables, the <thead> element and @rowheader attribute might not be enough to support all accessibility needs. Assume that the table above is flipped so that the names are listed across the top row, instead of in the first column, as shown in the following screen capture:

Vame		Mark	Peter	Cindy
Points Expected	10,000	9,000	10,000	
	Actual	11,123.45	11,012.34	10,987.64

Here, the @rowheader attribute cannot be used, because it is only able to specify the first column as a header column. In this case, the @scope attribute can be used to indicate that entries in the first and second columns function as headers for the entire row (or row group, in the case of a cell that spans more than one row).

The following code sample demonstrates the use of the @scope attribute to facilitate navigation of these rows by a screen reader or other assistive technology. Note that the <thead> element is still used to imply a header relationship with the names at the top of each column.

```
<title>Sample with two header columns</title>
<tgroup cols="5">
 <colspec colname="c1"/>
 <colspec colname="c2"/>
 <colspec colname="c3"/>
 <colspec colname="c4"/>
 <colspec colname="c5"/>
 <t.head>
  <row>
   <entry namest="c1" nameend="c2">Name</entry>
   <entry>Mark</entry>
   <entry>Peter</entry>
   <entry>Cindy</entry>
  </row>
 </thead>
 <row>
   <entry morerows="1" scope="rowgroup"><b>Points</b></entry>
   <entry scope="row"><b>Expected</b></entry>
   <entry>10,000</entry>
   <entry>9,000</entry>
   <entry>10,000</entry>
  </row>
   <entry scope="row"><b>Actual</b></entry>
   <entry>11,123.45/entry>
   <entry>11,012.34
   <entry>10,987.64</entry>
  </row>
 </taroup>
```

Figure 7: Example of a complex table with manual accessibility markup

In extremely complex tables, such as those with a single header cell in the middle of the table, fine-grained accessibility controls are available to explicitly associate any content cell with any header cell. This might also be useful for cases where processors do not support the implied accessibility relationships described above.

In the following sample, header cells are identified using the @id attribute, which is referenced using the @headers attribute on appropriate content cells. This makes all header relationships in the table explicit. Note that this sample ignores the @scope attribute, which could be used to exercise manual control without setting as many attribute values; it also ignores the fact that <thead> creates a header relationship even when the @id and @headers attributes are not used.

Comment by Kristen J Eberlein on 20 December 2021

Do we want to use a different example here? It's a bit confusing to read, since the result output is very similar to the "Example of a complex table with accessibility markup".

```
<entry morerows="1"> </entry>
       <entry namest="c2" nameend="c3" id="pts">Points/entry>
     </row>
     <row>
       <entry id="exp" headers="pts">Expected</entry>
       <entry id="act" headers="pts">Actual</entry>
     </row>
   </thead>
   <row>
       <entry id="name1">Mark</entry>
       <entry headers="name1 exp pts">10,000</entry>
       <entry headers="name1 act pts">11,123.45
     </row>
     <row>
       <entry id="name2">Peter</entry>
       <entry headers="name2 exp pts">9,000</entry>
       <entry headers="name2 act pts">11,012.34</entry>
     <row>
       <entry id="name3">Cindy</entry>
       <entry headers="name3 exp pts">10,000</entry>
       <entry headers="name3 act pts">10,987.64</entry>
    </tgroup>
```

The formatted output might be rendered in the following way:

	Points		
	Expected	Actual	
Mark	10,000	11,123.45	
Peter	9,000	11,012.34	
Cindy	10,000	10,987.64	

1.9

A table body is a collection of rows in a table that is based on the OASIS Exchange Table Model. It contains the table rows that contain content.

Attributes

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

Example

See (9).

1.10 <tgroup>

A table group is a wrapper that contains column specifications, a table header, and the table body in a table that is based on the OASIS Exchange Table Model.

Attributes

The following attributes are available on this element: universal attributes, @align, @colsep, @rowsep, and the attribute defined below.

@cols (REQUIRED)

Specifies the number of columns in a table group.

Example

See 1.8 table (8).

1.11 < thead >

A table header contains one or more header rows in a table that is based on the OASIS Exchange Table Model.

Usage information

Comment by Kristen J Eberlein on 21 December 2021

This topic needs to mention the role that table headers play in ensuring that content is accessible. It should link to the new material (not yet developed) about accessibility.

Attributes

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

Example

See (9).

2 Attributes for table review

This topic contains the attributes that are used on complex and simple tables, with the exception of the universal attributes. This topic is not intended for formal use in the DITA specification. It was designed only to facilitate editing and review.

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.

@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 <code>@char</code> attribute.

-dita-use-conref-target

See 3 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>, , and <tgroup>.

@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>, , and <tgroup>.

@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 <code>@rowheader</code> attribute is specified on the <code></code> 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 <code>@rowheader</code> attribute is specified on the element.

-dita-use-conref-target

See 3 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: and <colspec>.

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

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

Display attributes

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

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

For , 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 3 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 following values are valid: "50", "60", "70", "80", "90", "100", "110", "120", "140", "160", "180", "200", and -ditause-conref-target.

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.

Simple table attributes

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 <code>@keycol</code> 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%).

Specialization attributes

This group includes attributes that are designed to be used by DITA practitioners when they create specializations: @specentry and @spectitle. These attributes are not intended for direct use by authors

@specentry (specialization attributes)

Specifies a fixed or default header title for a specialization of the <stentry> element. This attribute is not intended for direct use by authors.

@spectitle (specialization attributes)

Specifies a fixed or default header title for a specialized element. This attribute enables DITA practitioners to define header titles for specialized elements that represent examples, figures, lists, notes, and more. This attribute is not intended for direct use by authors.

Index

```
Ε
element groups
   table 3
S
simple tables 5
Т
table elements
   <colspec>3
   <entry>4
   <row> 5
   <simpletable>5
   <stentry> 7
   <sthead>8
   <strow>8
   8
    13
   <tgroup> 13
   <thead> 14
tables
   complex
       body 13
       cells 4
       column specifications 3
       group 13
       headers 14
       overview 8
       rows 5
   simple
       cells 7
       headers 8
       overview 5
       rows 8
```