
Allow example element in more places #297

The `<example>` element is not allowed in several elements, which means that content cannot be tagged as examples in certain contexts. Adding `<example>` to more contexts solves the issue.

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Tracking information

Event	Date	Links
Stage 1 proposal accepted	10JUN2019	<ul style="list-style-type: none">https://lists.oasis-open.org/archives/dita/201906/msg00026.htmlhttps://lists.oasis-open.org/archives/dita/201907/msg00061.html
Stage 2 proposal submitted	11SEP2019	https://lists.oasis-open.org/archives/dita/201909/msg00039.html
Stage 2 proposal discussed	08OCT2019	<ul style="list-style-type: none">https://lists.oasis-open.org/archives/dita/201909/msg00074.htmlhttps://lists.oasis-open.org/archives/dita/201910/msg00077.html
Stage 2 proposal approved	15OCT2019	https://lists.oasis-open.org/archives/dita/201910/msg00109.html
Stage 3 proposal submitted to reviewers	23 OCT 2019	<ul style="list-style-type: none">Carsten Brennecke, SAPStan Doherty, Oracle
Stage 3 proposal (this document) submitted to TC	29 OCT 2019	

Approved technical requirements

Allow `<example>` everywhere that `<fig>` can go in DITA 1.3, except do not allow `<example>` directly within `<example>`. Also allow `<example>` as a child of `<fig>`.

1. This feature allows `<example>` to exist where it does in DITA 1.3. Use of the element is fully backward-compatible.

2. This feature allows `<example>` in most block elements:

- `<abstract>`
- `<cause>`
- `<chdesc>`
- `<chdeschd>`
- `<choice>`
- `<choption>`
- `<choptionhd>`
- `<condition>`
- `<context>`
- `<dd>`
- `<div>`
- `<draft-comment>`
- `<entry>`
- `<fig>`
- `<fn>`
- `<glossScopeNote>`
- `<glossUsage>`
- `<glossdef>`
- `<info>`
- `<itemgroup>`
- ``
- `<lq>`
- `<note>`
- `<p>`
- `<pd>`
- `<postreq>`
- `<prereq>`
- `<propdeschd>`
- `<proptypehd>`
- `<propvaluehd>`
- `<refsyn>`
- `<responsibleParty>`
- `<result>`
- `<section>`
- `<sectiondiv>`
- `<stentry>`
- `<stepresult>`
- `<steps-informal>`
- `<stepsection>`
- `<steptroubleshooting>`
- `<tasktroubleshooting>`
- `<tutorialinfo>`

3. This feature does not create a new context for titled areas, since the additional contexts already allow for titled elements. Processors can process the new context without extra difficulty.

4. This feature avoids the "why did they do this" condition since it prevents nesting of `<example>` as a child of `<example>`.

Dependencies or interrelated proposals

N/A

Modified grammar files

This solution can be achieved by adding `<example>` to the following common element sets in `dita/doctypes/rng/base/commonElementsMod.rng`:

- `basic.block`
- `basic.block.notbl`
- `basic.block.nonote`
- `basic.block.nopara`
- `basic.block.nolq`

```
<define name="basic.block">
  <a:documentation>Elements common to most body-like contexts</a:documentation>
  <choice>
    <ref name="dl"/>
    <ref name="div" dita:since="1.3"/>
    <ref name="example"/>
    <ref name="fig"/>
    <ref name="image"/>
    <ref name="lines"/>
    <ref name="lq"/>
    <ref name="note"/>
    <ref name="object"/>
    <ref name="ol"/>
    <ref name="p"/>
    <ref name="pre"/>
    <ref name="simpletable"/>
    <ref name="sl"/>
    <ref name="table"/>
    <ref name="ul"/>
  </choice>
</define>
<define name="basic.block.notbl">
  <choice>
    <ref name="dl"/>
    <ref name="div" dita:since="1.3"/>
    <ref name="example"/>
    <ref name="fig"/>
    <ref name="image"/>
    <ref name="lines"/>
    <ref name="lq"/>
    <ref name="note"/>
    <ref name="object"/>
    <ref name="ol"/>
    <ref name="p"/>
    <ref name="pre"/>
    <ref name="sl"/>
    <ref name="ul"/>
  </choice>
</define>
<define name="basic.block.nonote">
  <choice>
    <ref name="dl"/>
    <ref name="div" dita:since="1.3"/>
    <ref name="example"/>
    <ref name="fig"/>
    <ref name="image"/>
    <ref name="lines"/>
    <ref name="lq"/>
    <ref name="object"/>
  </choice>
</define>
```

```

    <ref name="ol"/>
    <ref name="p"/>
    <ref name="pre"/>
    <ref name="simpletable"/>
    <ref name="sl"/>
    <ref name="table"/>
    <ref name="ul"/>
  </choice>
</define>
<define name="basic.block.nopara">
  <choice>
    <ref name="dl"/>
    <ref name="div" dita:since="1.3"/>
    <ref name="example"/>
    <ref name="fig"/>
    <ref name="image"/>
    <ref name="lines"/>
    <ref name="lq"/>
    <ref name="note"/>
    <ref name="object"/>
    <ref name="ol"/>
    <ref name="pre"/>
    <ref name="simpletable"/>
    <ref name="sl"/>
    <ref name="table"/>
    <ref name="ul"/>
  </choice>
</define>
<define name="basic.block.nolq">
  <choice>
    <ref name="dl"/>
    <ref name="div" dita:since="1.3"/>
    <ref name="example"/>
    <ref name="fig"/>
    <ref name="image"/>
    <ref name="lines"/>
    <ref name="note"/>
    <ref name="object"/>
    <ref name="ol"/>
    <ref name="p"/>
    <ref name="pre"/>
    <ref name="simpletable"/>
    <ref name="sl"/>
    <ref name="table"/>
    <ref name="ul"/>
  </choice>
</define>

```

The solution requires the addition of a new common element set:

```

<define name="basic.block.noex">
  <a:documentation>Elements common to most body-like contexts</a:documentation>
  <choice>
    <ref name="dl"/>
    <ref name="div" dita:since="1.3"/>
    <ref name="fig"/>
    <ref name="image"/>
    <ref name="lines"/>
    <ref name="lq"/>
    <ref name="note"/>
    <ref name="object"/>
    <ref name="ol"/>
    <ref name="p"/>
    <ref name="pre"/>
    <ref name="simpletable"/>
    <ref name="sl"/>
    <ref name="table"/>
    <ref name="ul"/>
  </choice>
</define>

```

The solution requires the modification of the example.cnt model in dita/doctypes/rng/base/topicMod.rng to use the new common element set (to prevent nesting of example):

```
<define name="example.cnt">
  <choice>
    <text/>
    <ref name="basic.block.noex"/>
    <ref name="basic.ph"/>
    <ref name="data.elements.incl"/>
    <ref name="foreign.unknown.incl"/>
    <ref name="title"/>
    <ref name="txt.incl"/>
  </choice>
</define>
```

Modified terminology

N/A

Modified specification documentation

Since content models are autogenerated for the language reference, no changes to existing topics are needed.

Migration plans for backward incompatibilities

Backward compatibility is not affected, since the `<example>` element is an addition to existing content models.

No existing content requires migration, since the `<example>` element is an addition to existing content models.

Element reference topic: `<example>`

The `<example>` element is a section that contains examples that illustrate or support the current topic.

Usage information

Use `<example>` to contain both sample code (or similar artifacts) and the discussion that illustrates the sample. For example, a DITA topic about programming code could use the `<example>` element to contain both the sample code and the text that describes the code. Similarly, a sample that included preformatted text might use the `<pre>` element along with a paragraph or list to elaborate upon sections of that text.

Rendering expectations

Example content is rendered as a block.

Processing expectations

N/A

Specialization hierarchy

- topic/example

Attributes

The following attributes are available on this element: Universal attribute group, outputclass, and spectitle.

Intermixing examples with paragraphs

```
<section id="sect_Content">
<title>My code description</title>
<sectiondiv product="productname">
  <p><synph>variable</synph></p>
  <example><codeph>var=123</codeph></example>
</sectiondiv>
<example><title>Scenario: when to use this code</title>
<p>Lorem ipsum.</p>
<codeblock>var=123</codeblock></example></section>
```

New <example> context within a table entry

```
<p>File maintenance commands create, modify, and delete records in the database.
An explanation and example of each maintenance command is shown in the following table.</p>
<table colsep="1" frame="all" rowsep="1" id="tb_FileMaintenance">
  <title>file maintenance commands</title>
  <tgroup cols="2">
    <thead>
      <row>
        <entry>Command</entry>
        <entry>Description</entry>
      </row>
    </thead>
    <tbody>
      <row>
        <entry><cmdname>ADD</cmdname></entry>
        <entry>
          <p>New database records are created using the <cmdname>ADD</cmdname> command.</p>
          <p>The following example illustrates the creation of a new record.
All parameter settings are strictly optional.</p>
          <example><codeblock>01 OPTIONS ABC,ADD,DEF,HIJK,LMNO,AOW=25000,HF=2</codeblock></
example>
        </entry></row></tbody></tgroup></table>
```