DITA 2.0 stage two: #277 Change specialization base for <imagemap>

Change the specialization base for `<imagemap>` to enable image maps to be treated as images.

Date and version information

Date that this feature proposal was completed
17 July 2019

Champion of the proposal
Kristen James Eberlein, Eberlein Consulting LLC

Links to any previous versions of the proposal
Not applicable

Links to minutes where this proposal was discussed at stage 1 and moved to stage 2
16 July 2019

Reviewers for Stage 2 proposal

Robert Anderson, IBM
Eliot Kimber, Individual member

Links to e-mail discussion that resulted in new versions of the proposal
Not applicable

Link to the GitHub issue
https://github.com/oasis-tcs/dita/issues/277

Original requirement or use case

"Originally, <imagemap> was a specialization of <fig>. This means you cannot use an <imagemap> directly inside of a <fig>, which makes it complicated to add a title to your image. … If we change the specialization base of <imagemap> from <fig> to something slightly more generic such as <div>, that may simplify the adding of a title (or other content) around an <imagemap> in a <fig>." Zoe Lawson, 09 July 2019.

Use cases

Changing the specialization base for `<imagemap>` will enable authors to treat imagemaps in the same way as images:

- Insert `<imagemap>` in a figure with an associated title
- Associate a description with the `<imagemap>`
- Include `<imagemap>` in rendered lists of figures

New terminology

None

Proposed solution

Change the specialization base for `<imagemap>` and `<area>` to `<div>`

Benefits

This proposal addresses the following questions:

Who will benefit from this feature?
Authors will benefit from consistency in markup for images and imagemaps.

What is the expected benefit?
Increased consistency in authoring markup.

How many people probably will make use of this feature?
Few.

How much of a positive impact is expected for the users who will make use of the feature?
Minor.

Technical requirements

This section contains a detailed description of how the solution will work.

Renaming or refactoring elements and attributes
This proposal suggests changing the specialization base for `<imagemap>` and its child element `<area>`.

Processing impact
None

Overall usability
Positive effect on usability; authors will be able to treat imagemaps in the same way as images.

Backwards compatibility

DITA 2.0 is the first DITA release that is open to changes affecting backwards compatibility. To help highlight any impact, does this proposal involve any of the following?

Was this change previously announced in an earlier version of DITA?
No

Removing a document type that was shipped in DITA 1.3?
No

Removing a domain that was shipped in DITA 1.3?
No

Removing a domain from a document type shell was shipped in DITA 1.3?
No

Removing or renaming an element that was shipped in DITA 1.3?
No

Removing or renaming an attribute that was shipped in DITA 1.3?
No

Changing the meaning of an element or attribute in a way that would disallow existing usage?
No

Changing a content model by removing something that was previously allowed, or by requiring something that was not?
> No

Changing specialization ancestry?
> Yes – As follows:

Element	DITA 1.3	DITA 2.0
`<area>`	"+ topic/figgroup ut-d/area "	"+ topic/div ut-d/area "
`<imagemap>`	"+ topic/fig ut-d/imagemap "	"+ topic/div ut-d/imagemap "

Removing or replacing a processing feature that was defined in DITA 1.3?
> No

Are element or attribute groups being renamed or shuffled?
> No

Migration plan

This proposal addresses the following questions:

Might any existing documents need to be migrated?
> Only if CCMS or other applications make the `@class` attribute explicit in the source.

Might any existing processors or implementations need to change their expectations?
> No.

Might any existing specialization or constraint modules need to be migrated?

> The "Domains extensions" section of all document-type shells that integrate the utilities domain will need to be modified.

> It is very unlikely that anyone has specialized `<imagemap>` or `<area>`. But if implementations have done so, they will need to update their specialization modules.

> (An extreme edge case) If an implementation has applied a constraint module to remove `<div>` – or limit where it can be used, the constraint modules might need to be updated to ensure image maps can still be placed in the pre-DITA 2.0 locations.

If no migration need is anticipated, why not?
> Not applicable.

Costs

This proposal has a (time and effort) impact on the following groups:

Maintainers of the grammar files

> The following grammar files will need to be modified:

> - `basemap.dtd`
> - `basemap.rng`
> - `basetopic.dtd`
> - `basetopic.rng`
> - `utilitiesDomain.ent`

- utilitiesDomain.mod
- utilitiesDomain.rng

Editors of the DITA specification

The following specification topics will need to be modified:

- area.dita
- imagemap.dita

Vendors of tools
Not applicable

DITA community-at-large
Not applicable

Producing migration instructions or tools
MIgration instructions will be simple and can be handled in the planned committee note, *Migrating to DITA 2.0*.

Examples

Changing the specialization base of `<imagemap>` (and its child element `<area>`) will allow authors to insert `<imagemap>` within a figure.

```
<fig>
<title>Map of the world</title>
<imagemap>
 <image href="imagemapworld.jpg">
   <alt>Map of the world showing 5 areas</alt>
 </image>
 <area><shape>rect</shape><coords>2,0,53,59</coords>
  <xref href="d1-s1.dita">Section 1 alternative text</xref>
 </area>
 <area><shape>rect</shape><coords>54,1,117,60</coords>
  <xref href="d1-s2.dita"><!-- Pull title from d1-s2.dita --></xref>
 </area>
 <area><shape>rect</shape><coords>54,62,114,116</coords>
  <xref href="#inline" type="topic">Alternative text for this rectangle</xref>
 </area>
 <area><shape>circle</shape><coords>120,154,29</coords>
  <xref format="html" href="test.html">Link to a test html file</xref>
 </area>
 <area><shape>poly</shape>
  <coords>246,39,200,35,173,52,177,86,215,90,245,84,254,65</coords>
  <xref format="pdf" href="test.pdf">Link to a test PDF file</xref>
 </area>
</imagemap>
</fig>
```