
Stage three: #647 Replace classification domain with a new attribute

Replace classification domain with a new attribute: @subjectrefs

Champion

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Tracking information: Stage two

Event	Date	Links
Initial suggestion	E-mail, 09 December 2021	Minutes, 04 January 2022
Stage 1 proposal accepted	11 January 2022	Minutes, 11 January 2022 GitHub issue
Stage 2 proposal submitted to TC for early feedback (not applicable to all proposals)	Not applicable	
Stage 2 proposal submitted to reviewers	E-mail, 07 March 2022	Carsten Brennecke, SAP Gershon Joseph, Precision Content I've also requested feedback from the following members of the larger DITA community: <ul style="list-style-type: none">• Peyton Bentley, Kaplan• Joe Gelb, Zoomin Software• Pam Noreault, Ellucian• Shane Taylor, Cengage Group
Stage 2 proposal submitted to TC	E-mail, 17 March 2022 E-mail, 29 March 2022	
Stage 2 proposal discussed by TC	22 March 2022 29 March 2022	Minutes, 22 March 2022 Minutes, 29 March 2022
Stage 2 proposal approved by TC	05 April 2022	Minutes, 05 April 2022
Stage 2 proposal reopened	24 May 2022 The proposal was reopened to allow @subjectrefs on <map>.	
Revised stage 2 proposal submitted to reviewer		Not applicable
Revised stage 2 proposal submitted to TC	E-mail, 26 May 2022 E-mail, 29 May 2022	
Revised stage 2 proposal approved	31 May 2022	Add link to "Minutes, 31 May 2022"

Tracking information: Stage three

Event	Date	Links or notes
Stage 3 proposal submitted to reviewers	E-mail, 04 June 2022	Robert Anderson, Oracle Carsten Brennecke, SAP Gershon Joseph, Precision Content Eliot Kimber, ServiceNow
Stage 3 proposal submitted to TC	<xref to e-mail sent to list>	
Stage 3 proposal discussed	<Date>	<xref to meeting minutes where discussed>
Stage 3 proposal approved	<Date>	<xref to meeting minutes where discussed>

Approved technical requirements

Remove the classification domain and the classification map. Add a new attribute, `@subjectrefs`, to the `<topicref>` element and specializations of `<topicref>`, as well as `<map>` and specializations of `<map>`. This includes both elements in the base and the technical content edition.

Note The `@subjectrefs` attribute has no meaning if it is specified on a key definition that does not reference a resource.

The `@subjectrefs` attribute will have the following characteristics:

- It will cascade.
- It will take multiple values, separated by white space. The values are one or more keys, defined in a subject scheme map.

While the DITA TC does not want to introduce any processing expectations for `@subjectrefs` in the DITA 2.0 time frame, it is possible that we will introduce them in the future.

Dependencies or interrelated proposals

None.

Removed grammar files

The following grammar files need to be removed. In addition, the catalog files that currently reference the following files will need to be modified.

Base

- `doctypes/dtd/subjectScheme/classifyDomain.ent`
- `doctypes/dtd/subjectScheme/classifyDomain.mod`
- `doctypes/rng/subjectScheme/classifyDomain.rng`

Technical content

- `doctypes/dtd/classificationMap` directory
- `doctypes/rng/classificationMap` directory

The classification domain and the document-type shell for a base classification map will be loaded into the GitHub repository for specializations that are removed from the DITA standard.

Modified grammar files

This proposal will require modifications to the following files:

Base edition

- dtd/base/map.mod
- dtd/base/mapGroup.mod
- rng/base/map.rng
- rng/base/mapGroupDomain.rng

Technical content edition

- dtd/technicalContent/glossrefDomain.mod
- rng/technicalContent/glossrefDomain.mod

No changes are required to the bookmap grammar files, since the relevant attribute definitions reference the topicref attribute entities that are defined in the base grammar files.

In the content below, the following conventions are used:

- Bold is used to indicate code to be added, for example, **addition**.
- Line-through and red text is used to indicate code to be removed, for example, ~~removal~~.
- Ellipses (...) indicate where code is snipped for brevity.

Figure 1: Changes to map.mod

```
<!ENTITY % topicref-atts
    "...
    subjectrefs
        CDATA
        #IMPLIED"
>
...
<!ENTITY % topicref-atts-without-format
    "...
    subjectrefs
        CDATA
        #IMPLIED"
>
```

Figure 2: Changes to mapGroup.mod

```
<!ENTITY % keydef.attributes
    "...
    subjectrefs
        CDATA
        #IMPLIED
    %univ-atts;"
>
```

Figure 3: Changes to mapMod.rng

```
<div>
  <a:documentation>COMMON ATTRIBUTE SETS</a:documentation>

  <define name="topicref-atts">
    ...
    <optional>
      <attribute name="subjectrefs"/>
    </optional>
  </define>
  ...
  <define name="topicref-atts-without-format">
```

```

...
<optional>
  <attribute name="subjectrefs"/>
</optional>
</define>

```

Figure 4: Changes to mapGroupDomain.rng

```

<div>
  <a:documentation>Key Definition</a:documentation>
  ...
  <define name="keydef.attributes">
    ...
    <optional>
      <attribute name="subjectrefs"/>
    </optional>
    <ref name="univ-atts"/>
  </define>

```

Figure 5: Changes to glossrefDomain.mod

```

<!ENTITY % glossref.attributes
    "
      ...
      subjectrefs
      CDATA
      #IMPLIED
      %univ-atts;"
>

```

Figure 6: Changes to glossrefDomain.rng

```

<div>
  <a:documentation>ELEMENT TYPE DECLARATIONS</a:documentation>

  <div>
    <a:documentation> LONG NAME: Glossary Reference </a:documentation>
    ...
    <define name="glossref.attributes">
      ...
      </optional>
      <optional>
        <attribute name="subjectrefs"/>
      </optional>
      <ref name="univ-atts"/>
    </define>

```

Modified terminology

Not applicable

Modified specification documentation

The following topics need to be removed or modified:

Topics and maps to be removed

- archSpec/base/classification-maps.dita
- langRef/classification-domain-elements.ditamap
- langRef/containers/classify-d.dita
- langRef/base/subjectCell.dita
- langRef/base/subjectref.dita
- langRef/base/subjectref.dita

- langRef/base/topicapply.dita
- langRef/base/topicCell.dita
- langRef/base/topicsubject.dita
- langRef/base/topicSubjectHeader.dita
- langRef/base/topicSubjectRow.dita

Architectural topics and maps to be modified

File	Modification
cascading-in-a-ditamap.dita	Add @subjectrefs to the list of attributes that cascade.
cascading-of-attributes-from-map-to-map.dita	Add @subjectrefs to the list of attributes that cascade from map to map.
subjectSchema.dita	Remove the following sentence: "In conjunction with the classification domain, subject definitions can be used for retrieval and traversal of the content at run time when used with information viewing applications that provide such functionality."
subject-scheme-maps.ditamap	Remove reference to classification-maps.dita. Add references to new topics: <ul style="list-style-type: none"> • The subjectrefs attribute (6) • Example: A subject scheme map used to define taxonomic subjects (6)
example-cascade-map-to-map-attributes.dita	Modify the content as shown in Example: How attributes cascade from one map to another (7). Modified content is marked with rev="proposal-647" and highlighted with blue in the PDF for this proposal.

Element-reference topics and maps to be modified

The following attribute definition for @subjectrefs will need to be added to the appropriate attribute topic:

Specifies one or more subject keys that are defined in a subject scheme map. Multiple values are separated by white space.

Base edition

The following topics will need to include the @subjectrefs attribute:

- <keydef>
- <map>
- <mapref>
- <topichead>
- <topicgroup>
- <topicref>

This might happen automatically depending on what attribute "grouping" the @subjectrefs attribute is part of.

Comment by Kristen J Eberlein on 04 June 2022

Robert, what (spec) attribute grouping will this be -- "common map attributes"?

Technical content edition

The following topics will need to include the `@subjectrefs` attribute:

- `<glossref>`
- All bookmap elements that are defined with the `topicref-atts` entity

This might happen automatically depending on what attribute "grouping" the `@subjectrefs` attribute is part of.

Topics to be added

The following topics are to be added to the "DITA map processing" chapter, in the "Subject scheme maps and their usage" section:

- [The subjectrefs attribute \(6\)](#)
- [Example: A subject scheme map used to define taxonomic subjects \(6\)](#)

Migration plans for backwards incompatibilities

Implementations that use the classification domain and classification map will need to do one of the following, if they want to move to DITA 2.0:

- Download the classification domain from the GitHub repository and integrate it into the relevant document-type shells. If the implementation currently uses the OOB OASIS-provided document-type shell for the classification map, they will need to move to using a custom document-type shell.
- Replace map markup that uses the classification domain with the new `@subjectrefs` attribute, as well as modifying any processing that is based on the classification domain.

The `@subjectrefs` attribute

The `@subjectrefs` attribute specifies one or more keys that are defined by a subject definition in a subject scheme map. Multiple values are separated by white space.

The `@subjectrefs` attribute cascades. It can be used on a `<topicref>` element to associate the referenced topic with a subject defined in a subject scheme map.

The `@subjectrefs` attribute has no meaning if it is specified on a key definition that does not reference a resource.

Example: A subject scheme map used to define taxonomic subjects

A subject scheme map can be used to define taxonomic subjects. Once defined, the subjects can be referenced by applying a `@subjectrefs` attribute to a `<topicref>` element.

The following subject scheme map defines a set of subjects that are used to classify content:

```
<subjectScheme>
  <subjectdef keys="content-types">
    <subjectdef keys="conceptual-material"/>
    <subjectdef keys="reference"/>
    <subjectdef keys="tutorial"/>
  </subjectdef>
  <subjectdef keys="operating-systems">
    <subjectdef keys="linux"/>
    <subjectdef keys="macosx"/>
    <subjectdef keys="windows"/>
  </subjectdef>
</subjectScheme>
```

```

<subjectdef keys="user-tasks">
  <subjectdef keys="administering"/>
  <subjectdef keys="developing"/>
  <subjectdef keys="installing"/>
  <subjectdef keys="troubleshooting"/>
</subjectdef>
</subjectScheme>

```

The keys assigned to the subject definitions can be referenced by specifying the @subjectrefs attribute on topic references in a navigation map:

```

<map>
<title>User assistance for the Acme Widget</title>
<!-- ... -->
<topicref keyref="install-overview" subjectrefs="installing">
  <topicref keyref="install-linux"/>
  <topicref keyref="install-macosx"/>
  <topicref keyref="install-windows"/>
  <topicref keyref="install-troubleshooting" subjectrefs="troubleshooting"/>
</topicref>
<!-- ... -->
</map>

```

Because the @subjectrefs attribute cascades, the effective value of the above markup is the same as the following markup:

```

<map>
<title>User assistance for the Acme Widget</title>
<!-- ... -->
<topicref keyref="install-overview" subjectrefs="installing">
  <topicref keyref="install-linux" subjectrefs="installing"/>
  <topicref keyref="install-macosx" subjectrefs="installing"/>
  <topicref keyref="install-windows" subjectrefs="installing"/>
  <topicref keyref="install-troubleshooting" subjectrefs="installing troubleshooting"/>
</topicref>
<!-- ... -->
</map>

```

Example: How attributes cascade from one map to another

In this scenario, attributes in one map cascade to a nested map.

Assume the following references in test.ditamap:

```

<map>
  <topicref href="a.ditamap" format="ditamap" toc="no"/>
  <mapref href="b.ditamap" audience="developer"/>
  <mapref href="c.ditamap#branch2" platform="myPlatform"/>
  <mapref href="d.ditamap" subjectrefs="puzzles"/>
</map>

```

- The map a.ditamap is treated as if toc="no" is specified on the root <map> element. This means that the topics that are referenced by a.ditamap do not appear in the navigation generated by test.ditamap, except for branches within the map that explicitly set toc="yes".
- The map b.ditamap is treated as if audience="developer" is set on the root <map> element. If the @audience attribute is already set on the root <map> element within b.ditamap, the value "developer" is added to any existing values.
- The element with id="branch2" within the map c.ditamap is treated as if platform="myPlatform" is specified on that element. If the @platform attribute is already specified on the element with id="branch", the value "myPlatform" is added to existing values.

- The map `d.ditamap` is treated as if `subjectrefs="puzzles"` is set on the root `<map>` element. If the `@subjectrefs` attribute is already set on the root `<map>` element within `d.ditamap`, the value "puzzles" is added to any existing values.