Stage 3 proposal: Feature #13089

Contents

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The DITA Learning and Training Specialization should support a standarized approach enabling the storage of learning objects and learning groups as separate files on a file system or repository. Currently, it only supports the storage of the components within a learning object (such as a learningOverview or learningContent) as separate files.

Champions

Mark Myers (champion contact) and Doug Burgess from SAP.

Tracking information

Event	Date	Links
Stage 1 proposal accepted	October 25, 2011	*https://www.oasis-open.org/apps/org/workgroup/ dita/download.php/44183/minutes20111025.txt*
Stage 2 proposal submitted	October 26th, 2012	HTML: *https://www.oasis-open.org/apps/ org/workgroup/dita/download.php/48310/ learningObjectMapRef_proposal-13089_v03.html* DITA: *https://www.oasis-open.org/apps/ org/workgroup/dita/download.php/47321/ learningObjectMapRef_proposal-13089_v03.dita*
Stage 2 proposal discussed	October 30th, 2012	*https://www.oasis-open.org/apps/org/workgroup/ dita/download.php/47353/minutes20121030.txt*
Stage 2 proposal approved	November 6th, 2012	*https://www.oasis-open.org/apps/org/workgroup/ dita/download.php/47406/minutes20121106.txt*
Stage 3 proposal submitted to reviewers	March 8th, 2013	Dita Learning and Training Subcomitee
Stage 3 proposal (this document) submitted		

Approved technical requirements

Implement two new elements, learningObjectMapRef and learningObjectMap. The learningObjectMapRef would be a topicref specialization that could be an optional child of a map such as a bookmap, learningMap, or learningGroup. learningObjectMapRef would allow a reference to one learningObjectMap which could be a map specialization that would function as a wrapper element around one and only one learningObject element. This would enable the learningObjectMap to be stored as a separate file and referenced by the learningObjectMapRef in one or more maps. learningObjectMap could also support a child topicmeta which implementors could use to capture various information about the learningObjectMap.

Implement two new elements, learningGroupMapRef and learningGroupMap. The learningGroupMapRef would be a topicref specialization that could be an optional child of a map such as a bookmap or learningMap. learningGroupMapRef would allow a reference to one learningGroupMap which could be a map specialization that would function as a wrapper element around one and only one learningGroup element. This would enable the learningGroupMap to be stored as a separate file and referenced by the learningGroupMapRef in one or more maps. learningGroupMap could also support a child topicmeta which implementors could use to capture various information about the learningGroupMap.

Dependencies or interrelated proposals

No interrelated proposals.

Modified DTDs, Modules and Entity Files

learningMapDomain.ent

Two new elements added to `% learningmap-d-topicref`

- learningObjectMapRef
- learningGroupMapRef

```
<!ENTITY % learningmap-d-topicref

 "learningObject |

 learningGroup  |

 learningObjectMapRef |

 learningGroupMapRef"
>
```

learningMapDomain.mod

Two content entities declared for the new elements, containing `%topicmeta;`

```
<!ENTITY %
 learningGroupMapRef.content

 "((%topicmeta;)?)">
```

```
<!ENTITY %
 learningObjectMapRef.content

 "((%topicmeta;)?)">
```

Two new element entities declared:

```
<!ENTITY % learningObjectMapRef
 "learningObjectMapRef">
<!ENTITY % learningGroupMapRef
 "learningGroupMapRef">
```

Two new elements declared:

```
<!ELEMENT learningGroupMapRef
 %learningGroupMapRef.content;>
```

```
<!ELEMENT learningObjectMapRef
 %learningObjectMapRef.content;>
```

Two corresponding attribute entities declared, which reference the existing learningDomain mapref attribute entities:

```
<!ENTITY % learningGroupMapRef-
attributes
     "%learningDomain-mapref-
attributes;"
```

```
>
<!ENTITY % learningObjectMapRef-
attributes
      "%learningDomain-mapref-
attributes;"
>
```

learningGroup.content entity modified to include the new element entities

```
<!ENTITY % learningGroup.content
   "((%topicmeta;)?,
    (%learningPlanRef;)?,
    ((%learningOverviewRef;) |
    (%learningPreAssessmentRef;))*,
    ((%learningObject;) |
    (%learningObjectMapRef;) |
    (%learningGroup;) |
    (%learningGroupMapRef;))*,
    ((%learningPostAssessmentRef;) |
    (%learningSummaryRef;))* )"
>
```

Class attributes created for each new element:

```
<!ATTLIST learningObjectMapRef
 %global-atts;
    class CDATA "+ map/topicref
 mapgroup-d/mapref learningmap-d/
learningObjectMapRef ">
<!ATTLIST learningGroupMapRef
 %global-atts;
    class CDATA "+ map/topicref
 mapgroup-d/mapref learningmap-d/
learningGroupMapRef ">
```

learningMap.dtd

Public identifier changed, and recorded in the org.dita.doctypes.learning plugin catalog as:

```
PUBLIC "-//OASIS//DTD DITA 1.3
 Learning Map//EN"
```

Public identifiers added for the modified `learningMapDomain.ent` and `learningMapDomain.mod` files:

```
<!ENTITY % learningmap-d-dec
  PUBLIC "-//OASIS//ENTITIES DITA
 1.3 Learning Map Domain//EN"
         "learningMapdomain.ent">
  %learningmap-d-dec;
```

```
<!ENTITY % learningmap-d-def
  PUBLIC "-//OASIS//ELEMENTS DITA
 1.3 Learning Map Domain//EN"
  "learningMapdomain.mod"
>%learningmap-d-def;
```

learningBookmap.dtd

Public identifier changed and recorded in the org.dita.doctypes.learning plugin catalog as:

```
PUBLIC "-//OASIS//DTD DITA 1.3
 Learning BookMap//EN"
```

Public identifiers added for the modified `learningMapDomain.ent` and `learningMapDomain.mod` files:

```
<!ENTITY % learningmap-d-dec
  PUBLIC "-//OASIS//ENTITIES DITA
 1.3 Learning Map Domain//EN"
        "learningMapdomain.ent">
  %learningmap-d-dec;
```

```
<!ENTITY % learningmap-d-def
  PUBLIC "-//OASIS//ELEMENTS DITA
 1.3 Learning Map Domain//EN"
  "learningMapdomain.mod"
>%learningmap-d-def;
```

New DTDs, Modules and Entity Files

learningGroupMap.dtd

New DTD

learningGroupMap.mod

Element module to support the learningGroupMap DTD.

learningGroupMap.ent

Domain entity to support the learningGroupMap DTD

learningObjectMap.dtd

New DTD

learningObjectMap.mod

Element module to support the learningObjectMap DTD

learningObjectMap.ent

Domain entity to support the learningObjectMap DTD

LearningAggregationsTopicrefConstraints.mod

New constraint module for the topicref parameter entity within the learningObjectMap DTD and the learningGroupMap DTDs. The content model was specified in the *DITA Learning/Training Subcommmittee meeting, 2012-10-25*.

This constraint module restricts %topicref; to non-navigational elements:

```
<!ENTITY %
 learningAggregationsTopicref-c-
topicref
        "data |
         data-about |
         keydef |
         mapref |
         navref |
         topicgroup"
>
```

Modified architectural specification topics

DITA1.2-spec/archSpec/
lc_spec_Overview_objectives.dita

The list under objective one needs to mention the new map types at the same point it mentions the learningMap Domain.

Existing 1.2 Documentation	New Proposed 1.3 Documentation
provides a map domain for structuring the specialized learning topics as reusable learning objects, and for managing the linking and relationships among them	provides a map domain for structuring and storing the specialized learning topics as reusable learning objects, and for managing the linking and relationships among them

DITA1.2-spec/archSpec/
lc_spec_Overview_assumptions.dita

Needs to be refactored to make specific reference to the new map types.

Existing 1.2 Documentation	New Proposed 1.3 Documentation
	No changes necessary. I think what we are proposing is more technical in nature that what is covered in this section. Gnerally, what we are doing just better enables the assumptions described here.

DITA1.2-spec/archSpec/
lc_spec_Overview_usecases.dita

These use-cases are high-level. Can we add any that make specific reference to learningObjectMap or learningGroupMap?

Existing 1.2 Documentation	New Proposed 1.3 Documentation
	No changes necessary. I think what we are proposing simply better enables the existing use cases.

DITA1.2-spec/archSpec/
lc_spec_Summary_of_landt_designs.dita

The section on the learning map domain needs to mention the two new reference types: learningObjectMapRef and learningGroupMapRef. We need a new section which introduces the two new map types: learningObjectMap and learningGroupMap.

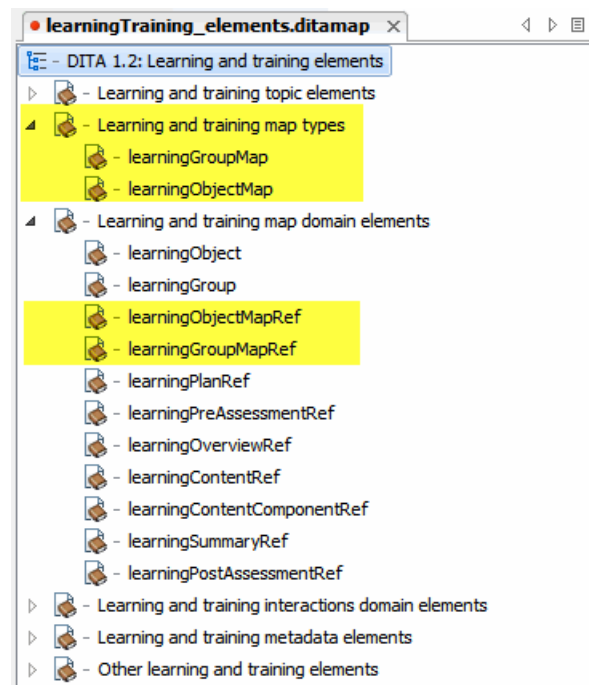| Existing 1.2 Documentation	New Proposed 1.3 Documentation
	learningGroupMap: A map container to enable learningGroup elements

Existing 1.2 Documentation	New Proposed 1.3 Documentation
	to be stored as separate objects in a repository.
	learningObjectMap: A map container to enable learningObject elements to be stored as separate objects in a repository.

Modified Language Reference Topics and Maps

DITA1.2-spec/learningTraining_elements.ditamap

- Requires a new top-level topicref, entitled *Learning and training map types*. That topicref points to a new overview topic, `lc_spec_maps.dita`, with a shortdesc describing the map types. The top-level topicref contains topicrefs to `learningGroupMap.dita` and `learningObjectMap.dita`.
- The existing topicref entitled *Learning and training map domain elements* requires additional topicrefs to the new topics `learningObjectMapRef.dita` and `learningGroupMapRef.dita`.
- 👉 **Note:** It may be helpful to rename that topic, since it describes the learning map domain. It's currently located here: `DITA1.2-spec/common/ lc_spec_learning_map.dita`. It's hard to distinguish its filename from the proposed topic which describes the new map types.

Proposed placement of topics is as follows:

New Language Reference Topics

DITA1.2-spec/common/lc_spec_maps.dita   Overview topic referenced by the root topicref of *Learning and training map types*.

DITA1.2-spec/langref/learningGroupMap.dita   Syntax and semantics of the learningGroupMap type.

DITA1.2-spec/langref/learningObjectMap.dita   Syntax and semantics of the learningObjectMap type.

DITA1.2-spec/langref/learningGroupMapRef.dita   Syntax and semantics of the learingGroupMapRef element.

DITA1.2-spec/langref/learningObjectMapRef.dita   Syntax and semantics of the learningObjectMapRef element.

Learning and training map types

Use the learning and training map types to aggregate learning content into individual learning objects, groups of learning objects, or higher-level aggregations of learning groups and objects, according to the needs identified by the learning goals and objectives.

learningGroupMap

Use a learningGroupMap to create standalone aggregations of learningObjects and learningGroups, as well as overviews, summaries, and assessments, according to the needs identified by the learning goals and objectives.

Description and Semantics

The learningGroupMap is a map specialization which supports the DITA Learning and Training Map domain. It is used to aggregate learningObjects and learningGroups, together with their supporting files and assessments, into a single standalone map type. Recursion is provided to support complex aggregations of learning content and can be used as necessary to support the creation of complex learning structures, such as learning units, sections, and courses.

Contains

Contained By

Inheritance

- map/map learningGroupMap/learningGroupMap

Example

Attributes

learningObjectMap

Use a learningObjectMap to create standalone aggregations of learningContent together with its supporting plan, overview, summary, and assessments, according to the needs identified by the learning goals and objectives.

Description and Semantics

The learningObjectMap is a map specialization which supports the DITA Learning and Training Map domain. It is used to aggregate learningContent, together with its supporting files and assessments, into a single standalone map type.

Contains

Contained By

Inheritance

- map/map learningObjectMap/learningObjectMap

Example

Attributes

learningGroupMapRef

Use a learningGroupMapRef element to include a map reference to a learning group map as part of a DITA learningMap, learningBookMap, learningGroupMap, or learningGroup.

Description and Semantics

The learningGroupMapRef is a mapref specialization included in the DITA Learning and Training Map domain. It is used to reference a single learningGroupMap, either from a learningMap, learningBookMap, learningGroupMap or learningGroup.

The hierarchy of the referenced learningGroupMap is merged into the container map or learningGroup at the position of the reference, and the relationship tables of the child map are added to the parent map.

Contains

Contained By

Inheritance

+ map/topicref mapgroup-d/mapref learningmap-d/learningGroupMapRef

> **Example**

Attributes

learningObjectMapRef

Use a learningObjectMapRef element to include a map reference to a learning object map as part of a DITA learningMap, learningBookMap, or learningGroupMap.

Description and Semantics

The learningObjectMapRef is a mapref specialization included in the DITA Learning and Training Map domain. It is used to reference a single learningObjectMap, either from a learningMap, learningBookMap, learningGroupMap or learningGroup.The hierarchy of the referenced learningObjectMap is merged into the container map or learningGroup at the position of the reference, and the relationship tables of the child map are added to the parent map.

Contains

Contained By

Inheritance

+ map/topicref mapgroup-d/mapref learningmap-d/learningObjectMapRef

> **Example**

Attributes