

### 5.3.4.2 Example: How **metadata** elements cascade from one map to another

In this scenario, a metadata element that is located in a map reference cascades to the topics that are referenced in a nested map.

Consider the following code examples:

**Figure 5: Root map**

```
<map>
  <title>Acme User Guide</title>
  <topicref href="acme-defects.ditamap" format="ditamap">
    <topicmeta>
      <shortdesc>This map contains information about Acme defects.</shortdesc>
    </topicmeta>
  </topicref>
  <topicref href="installing.ditamap" format="ditamap">
    <topicmeta>
      <audience type="installer"/>
    </topicmeta>
  </topicref>
  <mapref href="troubleshooting.ditamap"/>
  <mapref href="reference.ditamap"/>
</map>
```

**Figure 6: installing.ditamap**

```
<map>
  <title>Installation topics</title>
  <topicmeta>
    <audience type="administrator"/>
  </topicmeta>
  <topicref href="install-1.dita"/>
  <topicref href="install-2.dita"/>
</map>
```

When the root map is processed, the following behavior occurs:

- Because the `<shortdesc>` element does not cascade, it does not apply to the DITA topics that are referenced in `acme-defects.ditamap`.
- Because the `<audience>` element cascades, the `<audience>` element in the reference to `installing.ditamap` combines with the `<audience>` element that is specified at the top level of `installing.ditamap`. The result is that the `install-1.dita` and `install-2.dita` topics are processed as though they each contained the following child `<topicmeta>` element:

```
<topicmeta>
  <audience type="installer"/>
  <audience type="administrator"/>
</topicmeta>
```

### 5.3.4.3 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"/>
</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.

#### 5.3.4.4 Example: How the `@cascade` attribute affects attribute cascading

In this scenario, the `@cascade` attribute is used to modify how metadata attributes cascade within a map.

##### Figure 7: Example of `cascade="merge"`

Consider the following code example:

```
<map audience="a b" cascade="merge">
  <topicref href="topic.dita" audience="c"/>
</map>
```

In this map, the `cascade="merge"` attribute instructs a processor to merge attribute values while cascading. With `@audience` specified on both the `<map>` element and the `<topicref>` element, the effective `@audience` attribute value for the reference to `topic.dita` is "a b c".

##### Figure 8: Example of `cascade="nomerge"`

Consider the following code example:

```
<map audience="a b" cascade="nomerge">
  <topicref href="topic.dita" audience="c"/>
</map>
```

In this map, the `cascade="nomerge"` attribute instructs a processor *not* to merge attribute values while cascading. With `@audience` specified on both the `<map>` element and the `<topicref>` element, the effective `@audience` attribute value on the reference to `topic.dita` is not merged with the value from the map and remains "c".

##### Figure 9: Example of changing the `@cascade` value within the map

Consider the following code example:

```
<map platform="a" product="x" cascade="merge">
  <topicref href="one.dita" platform="b" product="y">
    <topicref href="two.dita">
      <topicref href="three.dita" cascade="nomerge" product="z">
        <topicref href="four.dita"/>
      </topicref>
    </topicref>
  </topicref>
</map>
```

In this map, the `@cascade` attribute is set to "merge" at the map level but changes to "nomerge" on a topic reference.

- For the `topic` reference to `one.dita`, `cascade="merge"` is specified. This results in an effective `@platform` value of "a b" and an effective `@product` value of "x y".