

Problem

The recent inclusion of <object> to the TEI has been a long-awaited addition to the language that was adapted from the msdescription module. With this project, we set out to test the effectiveness of the <physDesc> element within <object> and the effectiveness of the current concept of describing general objects.



Figure 1. Ceramic Penguin Figurine.



Figure 2. Emergency Lantern.



Figure 3. U.S. Naval Mobile Construction Battalion Plaque.

Methodology

To test the effectiveness of <physDesc>, we selected six objects from FSU Special Collections. These objects demonstrated a variety of physical characteristics we wanted to capture. We then described these objects in as much detail as possible through observation then took the resulting document and converted it into descriptive markup in the TEI. While marking up our descriptions, we paid special attention to which current child elements of <physDesc> were applicable to the object. We also tested how the current content model restricts accurate description and markup. Based on this markup we then created an ODD file to add elements that would address the observations and questions we had while initially describing the objects.

Result and Discussion

We produced six descriptions of our objects to test the utility of <physDesc> and its child elements <objectDesc>, <decoDesc>, and <typeDesc>. Each object presented a different challenge to describe and resulted in a number of questions about the current version of <physDesc>, such as:

- What is the difference between <physDesc> and <objectDesc> when describing objects and not manuscripts?
- Are the current child elements from the msdescription module still applicable to general objects?
- How do we subdivide objects into parts that can be described within <physDesc>?

Based on our observations, we decided to create two models for segmenting objects for description: one that was meant to segment the *descriptions themselves*, and another that segmented the *objects* and linked these segments to their descriptions.

Customization #1 – <objectSector>

- Creates an <objectSector> element within <object> which lays out segments of the object
- Assigns an @xml:id for linking to corresponding prose in <objectDesc>
- Considers the segmentation of the object *information* about the object itself

```
<object>
  <objectIdentifier>
    <institution>Florida State University</institution>
    <repository>FSU Special Collections</repository>
    <collection>Robert E Hancock Jr. Collection</collection>
    <objectName>Navy Icebreaker Model</objectName>
  </objectIdentifier>
  <objectSector xml:id="icebreakerBase" x1="0" y1="0" x2="5" y2="1" depth="3"/>
  <objectSector xml:id="icebreakerHull" x1="0" y1="1" x2="5" y2="3" depth="3"/>
  <objectSector xml:id="icebreakerDeck" x1="0" y1="3" x2="5" y2="3" depth="3"/>
  <physDesc>
    <objectDesc>
      <p>A detailed <objectType>model</objectType> of a wind-class ice breaker ship.
        <seg corresp="#icebreakerHull">The hull of the ship is painted red with
          grey paint on the sides above the waterline and on the roof</seg>, the
          <seg corresp="#icebreakerDeck">deck is a light tan color</seg> and the
          small propellers at the back of the ship are gold. The ship is labelled
          "GB3" in four places along the waterline of the ship, two at either side of
          the bow and two at the stern.</p>
      <p><seg corresp="#icebreakerBase">The base supporting the model is made with a
          yellow plastic</seg></p>
    </objectDesc>
  </physDesc>
</object>
```

Figure 4. Navy Icebreaker description using <objectSector>.

Customization #2 - <sectorDesc>

- Creates a <sectorDesc> within <objectDesc> element
- Provides the user a way of being more precise by segmenting the *description* of the object
- Considers segmentation a feature of the description, rather than the object

```
<object>
  <objectIdentifier>
    <institution>Florida State University</institution>
    <repository>FSU Special Collections</repository>
    <collection>Robert E Hancock Jr. Collection</collection>
    <objectName>Navy Icebreaker Model</objectName>
  </objectIdentifier>
  <physDesc>
    <objectDesc>
      <p>A detailed <objectType>model</objectType> of a wind-class ice breaker ship.
        The hull of the ship is painted red while there is grey paint on the sides
        above the waterline and on the roof, the deck is a light tan color and the
        small propellers at the back of the ship are gold. The ship is labelled
        "GB3" in four places along the waterline of the ship, two at either side of
        the bow and two at the stern.</p>
      <sectorDesc place="deck">Around the entire deck are small guard
        rails.</sectorDesc>
      <sectorDesc place="bow">At the bow there is a large, gray, armored gun that
        sits in the center of the deck. Behind it are two smaller, black, unshielded
        guns.</sectorDesc>
      <sectorDesc place="sides">On the starboard and port sides there are lifeboats
        with cranes.</sectorDesc>
      <sectorDesc place="stern">At the stern, there is a helipad and helicopter
        hangar with a small orange model of a Sikorsky naval helicopter. At the
        stern railing there is a small American flag flying.</sectorDesc>
      <sectorDesc place="center">At the center of the ship there is a large radar
        unit, broken mast with a variety of maritime flags flying and a large
        ventilation shaft.</sectorDesc>
    </objectDesc>
  </physDesc>
</object>
```

Figure 5. Navy Icebreaker description using <sectorDesc>.

```
<classSpec ident="att.3dcoordinates" type="atts" mode="add">
  <desc>provides attributes to describe a rectangular prism of space on a 3D coordinate
  grid using two points and depth</desc>
  <attList>
    <attDef ident="x1" mode="add">
      <desc>x value of point 1</desc>
      <datatype>
        <dataRef key="tei.numeric"/>
      </datatype>
    </attDef>
    <attDef ident="y1" mode="add">
      <desc>y value of point 1</desc>
      <datatype>
        <dataRef key="tei.numeric"/>
      </datatype>
    </attDef>
    <attDef ident="x2" mode="add">
      <desc>x value of point 2</desc>
      <datatype>
        <dataRef key="tei.numeric"/>
      </datatype>
    </attDef>
    <attDef ident="y2" mode="add">
      <desc>y value of point 2</desc>
      <datatype>
        <dataRef key="tei.numeric"/>
      </datatype>
    </attDef>
    <attDef ident="depth" mode="add">
      <desc>depth of the area user is defining</desc>
      <datatype>
        <dataRef key="tei.numeric"/>
      </datatype>
    </attDef>
  </attList>
</classSpec>
```

Figure 6. Schema for our att.3dcoordinates attribute class.



Figure 7. Model of a United States Navy Icebreaker.

Both Customizations

- Created subdivisions of objects for more nuanced description
- Allow for the use of @place to segment the objects
- Utilize custom att.3Dcoordinates which allows the user to define a box-like space that encloses the area being described. Ideally these coordinates will map onto some 3D model of the object