

Juxta Render Specification

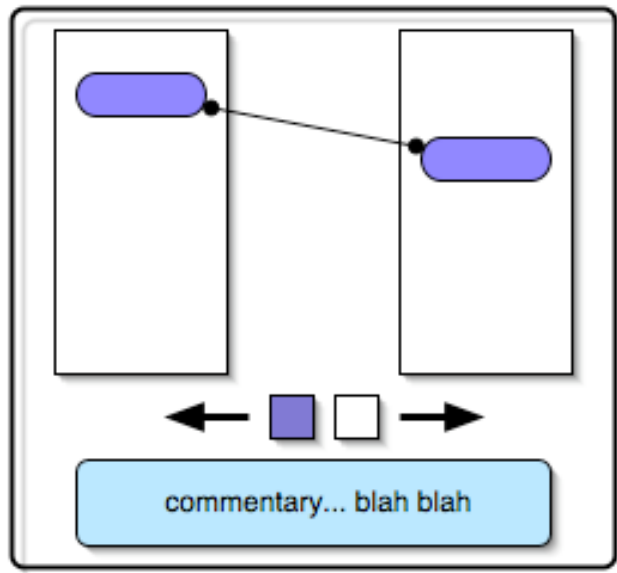
Revised 28 Oct 2003: DMG

Juxta will provide a means of comparing two or more objects through simultaneous display, including highlighted portions of each object for related lexia (be they lines, paragraphs or other document parts). In the most general sense, Juxta has two components that would be used by different audiences. The first tool is the Author and the second is the Render. This document is concerned only with the Render portion.

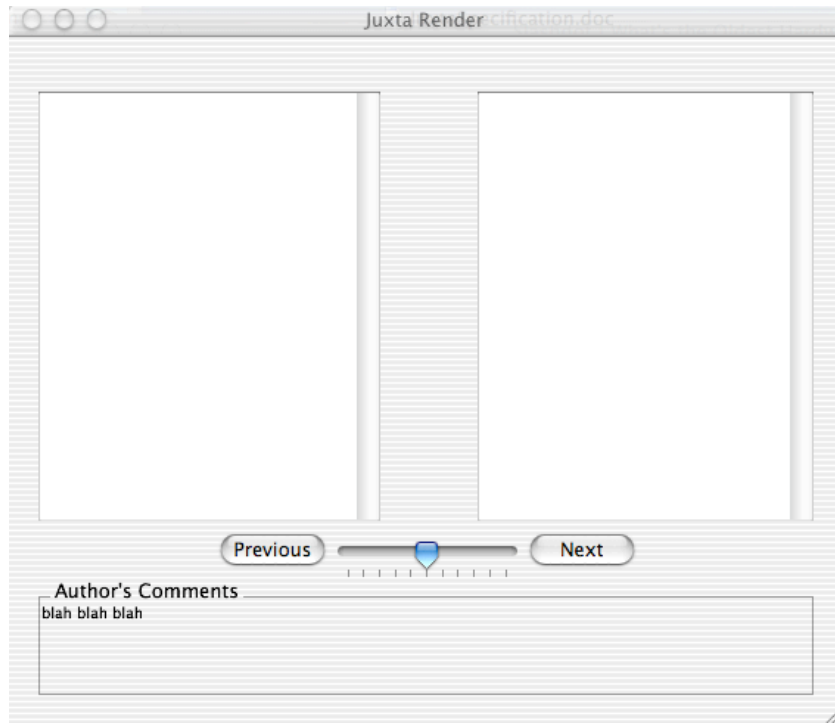
Juxta Render

An example use of the Render tool would be for a Scholar to view a comparison between several versions of Shakespeare's Sonnet 111.

The rendering component of Juxta presents multiple texts and allows the user to "walk a progression" as configured by the Author component. The comparisons in a given progression are highlighted in each document in such a way as to not conflict with internal emphasis in the document. When proceeding from one progression to another both document views should update their displays and align the highlighted region of each document near one another. Below is a mock up of the user interface:

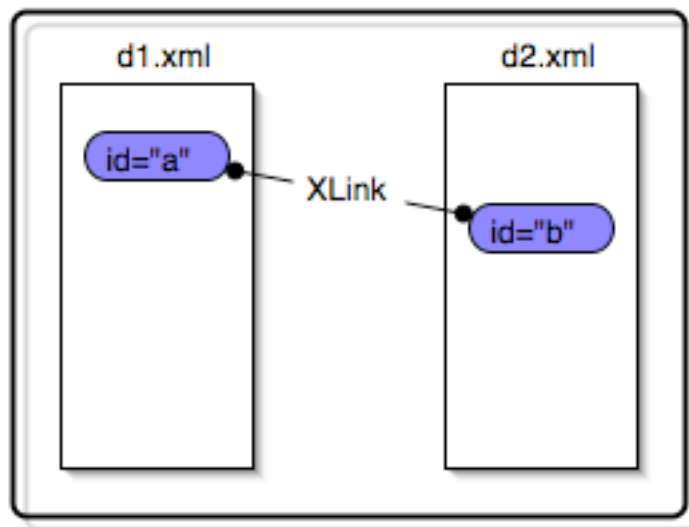


A more refined user interface mock up:



XLink Detail

The XLink resides in a separate document and relates two or more documents via XPath expressions and region boundaries on images. Below is a pictorial example of a possible comparand:



The XLink document would look like the following:

```

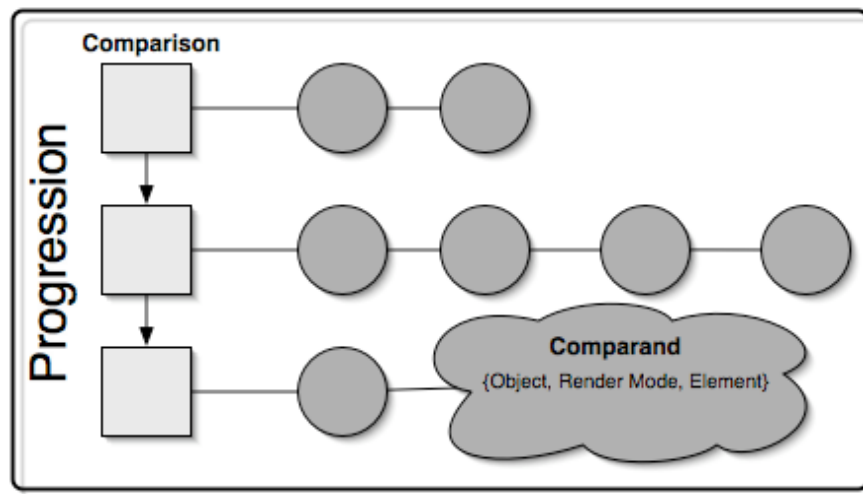
<juxta>
</header>
<extended>
  <locator href="d1.xml#[@id='a']"
    label="document1"/>
  <locator href="d2.xml#[@id='b']"
    label="document2"/>
  <arc from="document1"
    to="document2"/>
</extended>
</juxta>

```

The XLink specifies a linking relationship between the XML element denoted by id="a" in d1.xml to the XML element denoted by id="b" in d2.xml. The locator tags define the two resources and the arc designates the cardinality. In other words, the above example relates id="a" to id="b", but not visa versa. A second arc element would be required to do this.

Progression Detail

A progression is a sequence of comparisons. In turn, a comparison is a set of comparands. A comparand is a single element of a specified object in a specific rendering mode. Below is a diagram that may be helpful:



In the above illustration there are three comparisons comprising multiple comparands. Put another way, a scholar may have identified three interesting points for comparison in many separate documents. A comparand encapsulates the necessary information to locate elements and to highlight them.

Glossary of Terms:

Term	Definition
Object	A complex structure of elements, e.g., an XML file or an image with annotations attached
Element	Portion of an object that can be referenced from outside the object
Implicit Structure	Element or sub-element in an XML DOM or a character (word or line) sequence in a plain text file
Explicit Internal Reference	An idref in an XML DOM
Explicit External Reference	An XPath reference or a qualified URL
Default Scan Order	For a specific mode of rendering this would specify the effect of local scrolling, e.g., line order for a simply displayed poem.
Progression	A sequence of comparisons. The progression will maintain the order of the sequence and specify the effect of global scrolling.
Comparison	A set of comparands
Comparand	A single element of a specified object in a specified rendering mode
Global Scrolling	The update of the display of all objects to focus the respective elements specified in the comparison
Local Scrolling	The update of one display pane when a user operates the scrollbars.
Render Mode	Attributes to designate how a comparand should highlight or emphasize itself
Commentary	Optional description of the comparison being shown
Collation	Index of all textual entities in any given work. All lemmas in other documents.