Connexions module: m10159

COMBINING XML LANGUAGES*

Sarah Coppin Brent Hendricks Connexions

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Abstract

This module explains how to use XML namespaces and DTDs to combine multiple XML languages in the same document.

XML¹ allows you to create documents in custom markup languages. But what if you want to combine markup from multiple languages in the same document? What if there are one or more tags that exist in both languages, but with different meanings? You could, for example, have a tag in HTML and one in a language describing office furniture as well. How do you use these tags unambiguously, without losing functionality?

The solution is to use an extension to XML called **namespaces** (See the W3C's recommendation, Namespaces in XML²). A namespace associates a unique global identifier (usually a URI) with a particular set of tags and their usage rules. To declare a namespace for a particular tag, set the **xmlns** attribute to the value of the unique identifier.

You can also define a **namespace prefix** for use in your document. To do this, use a modified version of the xmlns attribute. For example, you would use the attribute xmlns:foo="http://somewhere.org/foo" to associate the prefix foo with the namespace identifier http://somewhere.org/foo. You can then indicate which tags come from that namespace by adding the appropriate prefix to each tag. Thus, the bar tag in foo's namespace would be written as <foo:bar> and </foo:bar>.

When you use the default namespace any children of that tag lacking an explicit prefix will be assumed to have come from the same namespace. This allows you to define a default namespace for all of the children of a tag. This is especially useful when used on the **root node**, which is the outermost tag in a document.

Example 1

For CNXML 0.6 there is only one schema. The document tag will contain the namespace for all available languages and will look like this:

```
<document xmlns="http://cnx.rice.edu/cnxml"
    xmlns:md="http://cnx.rice.edu/mdml/0.4"
    xmlns:bib="http://bibtexml.sf.net/"
    xmlns:m="http://www.w3.org/1998/Math/MathML"</pre>
```

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¹http://www.w3.org/XML

²http://www.w3.org/TR/REC-xml-names/

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```
xmlns:q="http://cnx.rice.edu/qml/1.0"
id="new"
cnxml-version="0.6"
module-id="new">
```