

# What About XML/XSL?

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**H**TML is a markup language — HTML actually stands for HyperText Markup Language. It gives you a way of marking text so that browsers interpret the text correctly, yet you can still look at the HTML code in a text editor and make some sense of the content.

But HTML has its drawbacks. Unless new definitions are added to HTML, such as when a new version like HTML 4.01 was introduced, there are not a lot of options available to a content author.

Help is on the way. This chapter gives you an overview of XML, or Extensible Markup Language. (And yes, you are correct, that acronym doesn't match the words too well.) XML is a language that enables you to design your own markup and share it with others. It also plays an important role in the evolution of HTML. XML is a complex topic and would take an entire book to describe. Conveniently, you can refer to the *XML Bible* by Elliotte Rusty Harold (IDG Books Worldwide, Inc., 1999) for great coverage of XML.

## What Is XML?

XML is a subset of SGML, or Standard Generalized Markup Language. HTML itself is defined in SGML. XML is intended to offer most of the flexibility of SGML without the complexity of that language. Think of XML as a set of rules that enable you to establish different sets of markup rules for different classes of documents, and to easily share those sets of rules.

XML is a meta-markup language, or a means of formally defining a markup language. For example, if you're creating a Web site to share written music, you may need to describe com-



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posers, instrumentation, and a grade to indicate to conductors who is best suited for that arrangement. Using XML, you can mark these specific descriptors — and any others you may consider relevant — using tags to contain the information. These tagged items can then be manipulated, such as displaying them in a certain font or other formatting method, depending on how the tags are defined in the Document Type Definition, or DTD.

## Document type definition

DTDs are the syntax of a specific XML subset. They contain all the definitions created for a specific application, such as the composers and instrumentation in our music Web site example. The real beauty of this extensibility is that you are no longer constrained by what browser vendors opt to support in their latest version — you can define a specific set of definitions to suit your needs, whether it is for one specific application or a project that has broader application.

You have the option of including a DTD directly in the document it describes, or posting the DTD online and referencing that Uniform Resource Identifier (URI) in your document. There are reasons for both approaches. If you anticipate this DTD would be used widely, posting it may be the best approach. You may also create a single task-specific DTD, and it might make better sense to include it directly in the document for which it was created.

## XML namespace

A namespace is the collection of available elements and attributes that work in a specific XML application, and is identified by a URI reference. The namespace gives a method of overriding conflicts between documents. For example, if two different XML applications share a document, and these two separate applications have used the same attribute or element name differently, the namespace gives a means of arbitrating these potential collisions by linking the attribute names with their specific namespace.

## What Is XSL

In XML, CSS style sheets apply only to elements, not attributes. Attribute content will appear blank when a CSS style sheet is applied. XSL (Extensible Style Language) is the answer. XSL has two sections: transformations and formatting.

## Transformations

*Transformations* in XSL enable you to replace one tag with another. You can use this process to reorder elements or to add data that wasn't included in the XML document, but its simplest purpose is to replace XML tags with HTML tags. You can also assign CSS attributes during this transformation.

## Formatting

XSL *formatting* is extremely powerful, but not yet supported by the major browsers. With XML formatting, you can define the appearance of a page that flows text around graphics, separates text into multiple columns, and includes a variety of fonts. Even more important, you can define a page to appear one way on screen, and then print out in a way better suited for the printed page.

## From Here



XHTML, covered in the next chapter, is the direction of HTML in the future. It is actually an XML application designed to mimic HTML 4.01. Proceed to Chapter 7 to learn more about it.

Jump to Part IV to compare XSL to HTML's Cascading Style Sheets (CSS).

## Summary

XML, like HTML, came from SGML. Unlike HTML, XML offers a convenient way for new attributes and elements to be defined and shared with others, either on a specific project or as a new markup language for a group of projects with common interests. XML in concert with XSL offers exciting new steps in the presentation of your information as you want it to appear.



