XML

What is XML?

XML is a markup language for defining the syntax and semantics of structured data. A markup language provides facilities for tagging a document to specify its logical structure, delimiting the data, and in some cases (but not in XML) specifying how the document is to be rendered.

XML is derived from the markup language SGML. Like HTML, the markup language for Web pages, XML is a simple version of SGML, made simple for use on the Web. Like HTML, XML is easy to use and the logical structure (syntax) of the data is specified using tags (identifiers for describing data). However, unlike HTML tags, XML tags are not predefined. XML is designed to allow users to define their own syntax and semantics, that is, to define their own tags and attributes (tag qualifiers that provide additional in-formation about the data).

What Does XML Look Like?

The following XML is part of an XML document that lists potential vendors for supplying a printer:

```
<VendorList>
    <Vendor CompanyName = "PC Inc.">
        <Address Number="1100" Street="South Street"
                City="Morristown" State="NJ"
                Zip="07960">
        </Address>
    </Vendor>
    <Vendor CompanyName = "Printers Ltd.">
        <Address Number="88" Street="New Street"
                City="Murray Hill" State="NJ"
                Zip="07974">
        </Address>
    </Vendor>

    ...

</VendorList>
```

Data is described using tags and attributes. For example, `VendorList` is a tag, `/VendorList` is the matching end tag. The above XML document fragment shows addresses of two potential vendors. `Vendor` is another tag and `CompanyName` is an attribute. Attributes can only refine or provide some additional information about the items specified using tags.

What are Some Advantages of XML?

Using XML to describe data has the following advantages:

o XML is an open standard that is being widely adopted for a variety of applications besides describing text documents. For example, XML is being used for specifying Web services, in business applications, in telecommunications, etc.
o An XML document can be viewed in a variety of ways.
o Many applications are being XML enabled.
o Software vendors are moving towards interfaces.
o Many free XML tools are available.

What are Some Disadvantages of XML?

Using XML has some disadvantages:

o XML is verbose since it was designed to be readable by humans if it became necessary.
o XML enabling systems requires investment o f resources.
o A large number of XML dialects are being developed to address the needs of different application domains.

Where Can I Find More Information About XML?

o The Official XML Website (http://www.w3.org/XML/)
o XML Technologies A comprehensive overview of XML and related technologies. (http://silicon-press.com/reports/isbn.0-929306-22-8/).

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