



# Toolmakers embrace XML

BY JOHANNA AMBROSIO

**M**OST DEVELOPERS ALREADY KNOW ABOUT XML-based Web services, but the XML tools category is actually much broader than that. It ranges from full-fledged IDEs to point tools that do one thing,

like edit and transform many different types of schemas, for example.

Many vendors provide XML in some way or other, and more tools are in the works. But because it is such a young and volatile market, XML tool suppliers are being acquired, merging and otherwise morphing. And analysts expect this to continue for quite some time.

Nobody really tracks the entire XML tools market. Instead, analysts segment XML tools into several smaller pieces — creating XML-based content as either a developer or end user, or doing integration that requires XML as the *lingua franca* between otherwise incompatible apps. On top of these are XML-based IDEs, which are usually lumped into the overall application development tools market.

But some of these lines are getting fuzzy. Ron Schmelzer, senior analyst at ZapThink LLC in Waltham, Mass., expects more people to start thinking of

content as a service, and then delivering it as such. “Among the parallels between content and Web services,” he said, is “how do you componentize content so that you can reuse it, discover it and then compose it into larger documents?” If this “content as a Web service” idea does come to pass as Schmelzer expects, the lines between XML-based middleware used for integration and “pure” content creation or development tools will become blurred even further.

Still, by 2006, the market for just XML content tools is expected to grow by 41.5%, according to a recent study by IDC, Framingham, Mass. Because XML is the “de facto standard” for sharing documents and other information, developers and end users alike are clamoring for tools, say IDC analysts.

This is what is driving many companies to start switching to XML to connect disparate islands of information. “The only

reason anyone ever buys any kind of technology is to solve a business problem,” said Steve Weissman, president at Kinetic Information LLC, Waltham, Mass. “XML is about facilitating enterprise interoperability. It’s present and it works.”

Weissman acknowledges, however, that there is some confusion about what XML can do. “I’m not sure people yet know what it’s good for. XML can be both a dessert topping and a floor wax, to quote that old ‘Saturday Night Live’ commercial, and so people are using it for lots of different things.”

The notion of using XML to share information will get a huge boost with the next version of Microsoft Word — Word 11 — which will create XML documents behind the scenes. That is expected to both “bless” the market and create much havoc in it (see “XML content creation: Danger ahead?,” p. 36).

In the meantime, here is a roundup of the types of tools that already exist.

### The IDEs

There are few native XML-based complete development environments on the market. One, Stylus Studio, was originally from a vendor called eXcelon, which has since been acquired by Sonic Software Corp., Bedford, Mass., an operating com-

**Veteran and start-up developers use XML in a variety of next-generation tools. Experts expect business to be volatile for some time.**

pany of Progress Software. Another IDE is XMLSpy from Altova GmbH, an Austria-based concern with U.S. headquarters in Beverly, Mass. A third player is Tibco Software Inc. in Palo Alto, Calif.

With more than 1 million users in 100,000 organizations, Altova's XMLSpy claims market leadership. Version 5.0, released in September 2002, is aimed at "programmers, developers and IT professionals trying to architect, build, test, debug and deploy XML-enabled apps," said Larry Kim, Altova's marketing director.

The visual tool is broader than Web services, Kim claims, and is used for integration and content projects. "XML is language- and platform-neutral," he explained. "We want to be that utility belt that can plug into any environment." Along those lines, the next release of XMLSpy, which was scheduled for late January, will have the ability to automatically generate C# code, include new editing and server administration features for Oracle's XML DB, and provide a new utility to document and publish a Web services interface, among other features.

Altova also makes Authentic 5, an XML authoring tool for end users, and StyleVision 5, which converts HTML Web sites to XML-based sites.

To help seed the market for its products, Altova has been cutting deals with larger software suppliers. It works with Microsoft to support SQL Server's XML extensions within XMLSpy and has an

agreement with Iona to bundle XMLSpy 5.0 with Iona's Orbix XMLBus Web services development infrastructure. It also has a pact with Software AG to bundle XMLSpy with the Tamino XML Server.

Sonic Software's Stylus Studio is another IDE that includes visual XSLT and XML editors, wizards for creating XML and XSLT documents from HTML and other sources, as well as other features. Sonic plans to keep Stylus Studio available as a separate product — with regular enhancements to boot, according to Gordon Van Huizen, Sonic's vice president of product development.

The company's original purpose with the acquisition was, and remains, to integrate Stylus Studio into its SonicXQ middleware platform. But one move does not obviate the other, Van Huizen said.

There is a need for both, he said, because "working with XML is fundamentally different than writing Java or C. XML is very function-oriented; you're not writing a great deal of logic. You're creating sophisticated expressions and then debugging them, and code-oriented IDEs just don't handle XML very well."

In fact, because they are so different Van Huizen predicts a "fundamental split" between XML and "traditional" application development over time. Perhaps, others have speculated, business users will be more XML-oriented and traditional programmers will retain the keys to the different language kingdoms.

In the meantime, Sonic will do more to integrate the IDE with its own runtime environment, Van Huizen said. "The first example of that will be a version of Stylus that works with the repository in our integration bus, so you can create maps and drop them into the directory." A future version may "create an XML expression, write the rules for the expression and test it without leaving the IDE," he said.

The third vendor in this space — Tibco — is better known for its middleware products than for its XML-based IDE. But TurboXML creates, validates, converts and manages XML schemas, XML files and DTDs. It also includes XML-specific project management tools, according to the company, and it is deployed in "thousands" of customer sites around the world. As part of Tibco's Extensibility product family, other products in this line include XML Validate, XML Transform

and CML Canon/Developer for storing, managing and distributing XML.

### **The middleware**

Many of the traditional middleware vendors play in the XML arena — as does Tibco. WRQ Inc., a Seattle-based middleware company, and IBM with its MQSeries have also incorporated XML into their respective products. WRQ, for example, sells Verastream Integration Broker, which helps transform legacy code into Web-based apps. This includes Web-based Java and XML integration tools. For its part, IBM's MQSeries can now use XML as a trigger for applications to start different workflow processes, and also as a means to start applications.

In addition, there are some new middleware vendors that are XML-only. These include New York-based XML Global Technologies, which bases its technologies on the notion of an enterprise service bus (ESB). Like many "traditional" technologies, it is based on message-oriented middleware. But while others have a central repository at their core, the company takes a more distributed approach with content-based routing.

XML Global's scheme also includes data transformation — mapping structured data from one format to another.

"People often want the mapping — from one format to the other — but they don't necessarily want to take an entire broker and plunk it down on a server," said Bryan Baker, XML Global's vice president of product marketing. "They already have their own infrastructure and just want to embed the tools," he said. Another plus is that "you need not pay for an entire business process modeling tool. If all you're doing is just a few point-to-point integrations," it may make sense to start small.

That said, XML Global does sell a repository, a business process management tool, a native XML database management system and a SOAP-based messaging system.

There are also some point solutions available. XML Architect from Popkin Software in New York is a graphical XML schema editing tool. Formerly called Envision XML, it supports Microsoft's BizTalk and DTDs, with other schema support planned for future releases.

Another schema tool is XSLWiz from

## XML content creation: Danger ahead?

The notion of creating content that is XML-ready will get a huge boost with the next version of Microsoft Office, analysts say. In November 2002, Microsoft announced that Office 11, due in mid-2003, will allow users to save Word documents, Excel spreadsheets or Access databases as XML documents. Also, via a brand-new application called XDocs, customers will be able to create their own forms to mix-and-match XML-enabled information from around the enterprise, in effect creating their own XML schema.

This move is expected to both "bless" the market and create much havoc. In the long term, Microsoft's acceptance of XML will fuel a large market for repositories, content management systems and other types of XML-related software. In the short term, however, some standalone XML content creation software will likely fail by the wayside.

"This will obviate the need for some of the standalone text editors," said Susan Furtak, program manager at analyst firm IDC in Framingham, Mass. These are the packages used to create and manage large and complex types of documents — documentation manuals, repair tomes and that sort of thing. "It's still a growth market," she said, but only the strongest will survive. Part of the problem, she explained, is that some of the biggest players in the content market are stuck in vertical markets.

Clearly vendors will be taking diverse roads. Ottawa, Ontario-based Corel Corp., for its part, has no intention of doing anything differently with its XMetal content-creation family. Part end-user tool and yet developer-friendly, XMetal allows for XML content creation and editing within any Windows application, and can be embedded as a control into any browser or application.

Shawn Henderson, XMetal product manager at Corel, said Microsoft is "right-sizing" XML with Office 11. "[Microsoft] says you can use XML for more than just integration and Web services, that you can use it as a platform to create content," he said. "All legacy content can move forward" to take advantage of XML, he added.

Corel sees the XML content creation market moving more toward vertical out-of-the-box solutions, say for applications like e-learning. Henderson envisions a situation where those responsible for a company's educational efforts could set up courseware and have tests created on-the-fly for specific needs or types of jobs.

Other big names in the XML content market include ArborText Inc., Waltham, Mass., and Adobe Systems Inc., San Jose, Calif.

But not everyone is as optimistic as Corel's Henderson. Austria-based Altiava GmbH, maker of Authentic 5, an XML content creation package, is changing its business model because of Microsoft's entry into this market. "We'll be giving it away for free," said Larry Kim, Altiava's marketing director; the company used to charge a minimum of \$200 for the package. "It's a very competitive market, and we want lots of companies to build new XML systems" to drive demand for Altiava's other products — among them a full-fledged XML-based IDE called XMLSpy. "We don't want price to be a deterrent, especially in this economic climate," he said. So the company will build its revenue stream on its other products and on its growing consulting and professional services offerings.

For its part, CambridgeDocs in Charlestown, Mass., believes it has a product that will survive no matter what Microsoft may do with Office 11. CambridgeDocs converts documents from old formats into XML, so that all documents can "speak" the same version of XML.

There are dozens of different XML variants, from those used in online publications to health insurance and financial organizations, and CambridgeDocs promises an "intelligent" conversion utility. "We let you convert old documents to meaningful XML so that you know what's in each paragraph," said company co-founder Ivan Vrk. "We don't want price to be a deterrent, especially in this economic climate," he said. So the company will build its revenue stream on its other products and on its growing consulting and professional services offerings.

What Microsoft is doing may help users XML-enable some of their old Office documents, Vrk said, but it will not do much for data in CRM, ERP or other applications.

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Induslogic Inc., Vienna, Va. With a drag-and-drop interface, it maps XML documents from one schema to another, and then automatically generates XSLT script.

### Be careful out there

The XML tools market is both young and fast-moving, and some vendors that are here today may not be tomorrow. To make sure you do not get stuck with an orphaned product, check out the supplier's market share. If it is a leading product in its niche, chances are it will be supported even if it is bought by another company.

Another option is to check with your computing infrastructure supplier. Most of them — IBM, Sun, HP, Microsoft and others — have an XML initiative ongoing. Some have more than others, but it is worth checking; some are even working with the new players described here.

Also remember that whatever your company is doing with XML today will likely morph at some point. A "simple" integration job could become a corporate mandate for every document to be XML-compliant. While that should not stop you from looking for that point solution today, it is something to point out to the higher-ups. Just getting them to articulate an XML strategy might help you figure it out.

Above all, keep in mind that a primary job right now is to educate your business users about why XML is important to them, and what it will let them do.

For example, CambridgeDocs' Vrk shared this anecdote: "We were talking to a government type the other day. He's a tech guy, and he was talking about how they were going to implement XML in the agency. He went to talk to his business groups — and they don't know about XML, but they do know about needing to dynamically create training documents and other types of content. He was surprised they could do what they needed to do with XML, and said he'd need to go back to his business users to explain it to them and get their buy-in. Sometimes we forget that not everyone knows the benefits of XML, and we think, 'Of course you can do that.'" ●

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