



WRITTEN BY BRIAN BARBASH

# Stylus Studio 6 from Progress Software

## An integrated tool with breadth

**X**ML Development – the term can mean many different things given the technologies currently available. At the center of it all is XML Schemas, DTDs and instance documents. Building out from the base there's XSL, Web Services and XQuery just to name a few. Because of this, it's not uncommon for a developer to have several tools, each specialized in one of those technologies. Stylus Studio, however, provides an integrated environment for XML development with broad support for the various technologies. This review covers its capabilities in some of the major areas.

### XML and XML Schema Editing

At the center of all XML development is XML itself, schemas, DTDs and instance documents. To work with the core, Stylus Studio offers developers a set of easy-to-use tools for editing XML documents, XML Schemas and DTDs. When working with XML documents, the data is presented in three different views:

- Text – Standard text editor with XML syntax highlighting, keyword completion and validation;
- Tree – A tree view of document nodes that can be expanded and collapsed;
- Grid – A specialized view that displays XML documents in a spreadsheet-like view; excellent for working with documents with repeating or list nodes.

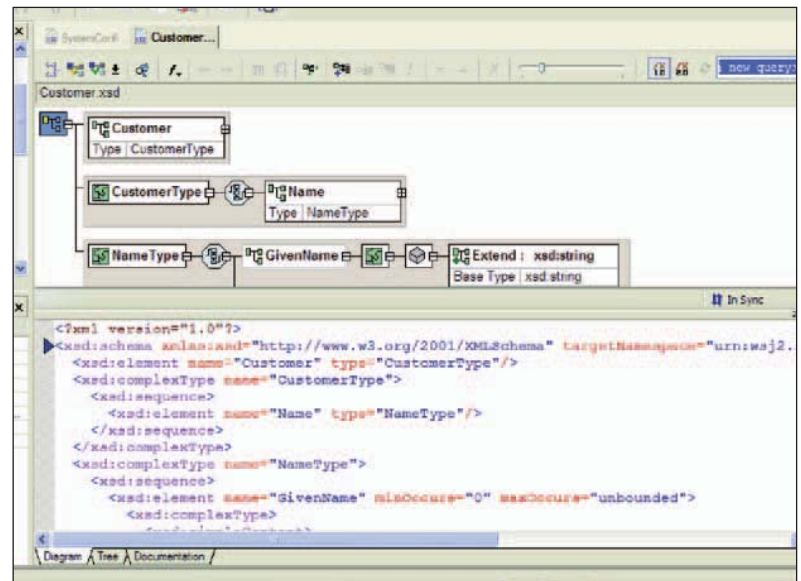


Figure 1 • XML Schema Editing

XML Schemas are also presented in the Text and Tree views, but the Diagram view is an added option for schemas (Figure 1). The Diagram view is a graphical representation of schema elements and structures. One simple but effective feature of the Diagram view is the ability to zoom in and out, which lets developers see the big picture of the schema documents they're working on. While the document is edited in any view, all other views are updated on-the-fly.

Another nice feature of the XML Schema editing environment is the ability to create schema documentation simply by clicking on the documentation tab at the bottom of the editing window. The result is an HTML document with clear

definitions of each element and type, the text of the definition as well as sample XML text for additional clarity.

### XQuery and SQL/XML

Stylus Studio provides two ways to query data sources: XQuery for XML documents and SQL/XML for relational databases. XQuery documents can be created and edited using the Source editor and graphical Mapper editor. Stylus Studio creates a tree representation in the Source editor for each XML instance document referenced in the XQuery code. Nodes from these structures can be dragged into the query source to build any XPath statements quickly. While typing in the Source editor, a context-sensitive popup appears

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containing functions and any previously defined variables.

Developers can also edit XQuery documents in the graphical Mapper view. As with the Source editor, referenced XML instance documents are presented as tree structures. The Mapper also displays the return document structure as a tree. Nodes from source documents can be dragged to the return structure to build the appropriate output. XQuery functions are applied by inserting graphical representations of the desired function into the Mapper and attaching the appropriate source and target nodes. Stylus Studio supports the July 2004 draft specification of XQuery 1.0.

SQL/XML statements can be easily created using the DB-to-XML Data Source editor. It should be noted that this editor requires a JVM version 1.4 or higher on the machine that Stylus Studio is running on so JDBC can manage the connections. Stylus Studio ships with support for IBM DB2, Oracle, SQL Server,

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Informix and Sybase. It also provides ODBC connectivity options through the DataDirect SequeLink server. Once connected to the host database, schemas, tables and columns are presented to the developer in a tree structure. When a table is dragged into the text editor, the statement can be built as SQL/XML. From here, the source code can be edited to structure the resulting XML as needed. As in other editing environments in Stylus Studio, a popup window of relevant functions, tables and column names is available when typing. Once saved, the SQL/XML statement can be used as a source document for other operations in Stylus Studio.

## Web Services

Stylus Studio assists Web Services developers in creating services by acting as a stripped-down Web Services client. It's easy to create

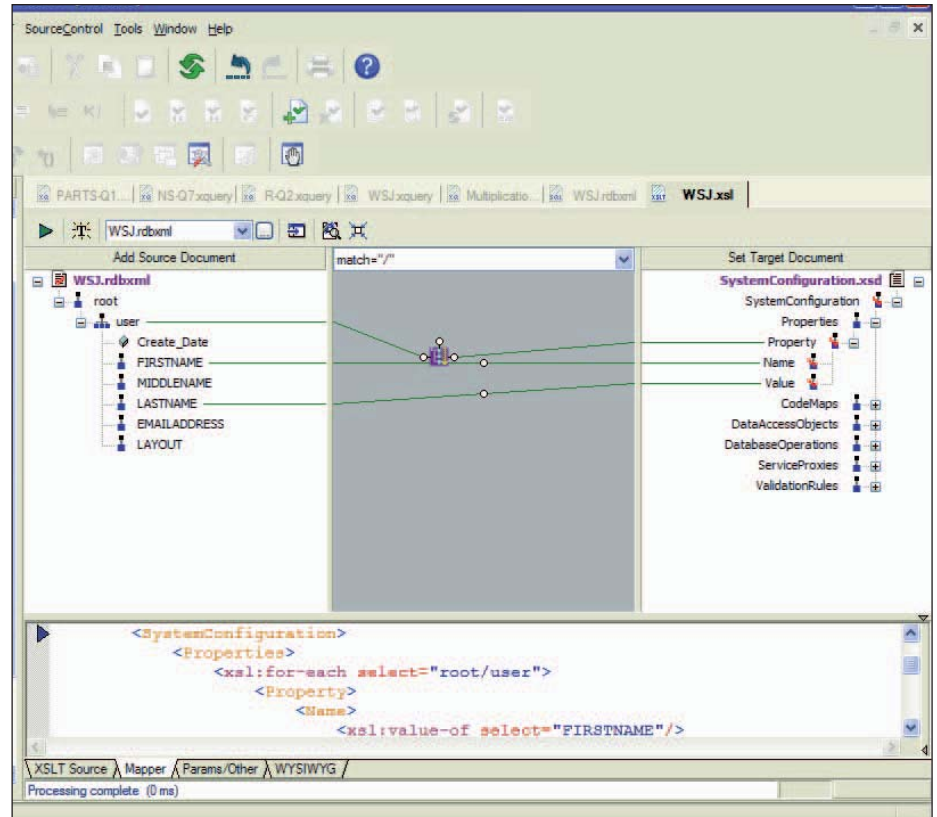


Figure 2 • XSLT Mapper

a call to a Web Service; simply identify the URL of the WSDL document for the desired service and Stylus Studio creates the requisite SOAP message. WSDL documents can be retrieved from either a file system or UDDI registry. The service call can be saved and reused as an XML source document for other operations in Stylus Studio; the call parameters retain the values set at the time saved.

## XSLT and XML Mapping

XML document mappings are easily created in Stylus Studio using the XSLT editor. There are four views to this editor:

1. XSLT Source
2. Mapper
3. Parameters
4. WYSIWYG

The XSLT Source, Mapper and WYSIWYG are linked so that changes made in one are immediately reflected in the other. Figure 2 shows a simple XSLT mapping. The source for the transformation, which appears on the left side of the screen, reuses a previously created SQL/XML document. The target document, represented by the tree structure on the right,

is based on a previously defined schema. The center pane shows any transformation functions in graphical form.

In the example shown, the function is a simple `<xsl:for-each>` statement that copies all user records to the target document. Additional functions can be added to the transformation either by typing the appropriate XSL code or selecting the desired function from a popup list of options.

## Summary

Today there are so many facets to XML development that finding a single tool that effectively provides almost all of the functionality of the different areas is difficult. Stylus Studio from Progress Software, however, makes a very good attempt and delivers on that idea. It has strong support for the core – XML and XML Schema editing, good tools for XML mapping and transformation via XSL. It adds capabilities for newer technologies such as XQuery and supports Web Services. Overall, Stylus Studio is an excellent item for the XML developer's toolbox. 🌀

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