TransactXML Server and DesignerXML by United Business Technologies

Author Bio

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[Reviewed By Don Walker]

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Test Environment
OS: Windows 95
Processor: 233 MHz Pentium III
Memory: 32 MB

As cross-platform data, XML is a natural solution for organizations that need to share information. The challenge is to assemble the proper information and deliver it to various clients in the desired format.

United Business Technologies, Inc. (UBT) facilitates this process through the use of a pair of products.

TransactXML Server 5.2 runs on Windows, Linux, and Solaris platforms and processes requests for data from clients – either on the server or over the Internet – by consulting rules scripts that identify the data source (or sources) and the desired format for the requested data. These rules scripts are valid XML and can be created using either a text editor or the DesignerXML IDE.

DesignerXML runs on Windows only. Consequently a Windows98 or WindowsNT machine must be connected to the network that TransactXML resides on until the rules scripts are created, at which point it can be removed.

Configuring TransactXML

TransactXML Server can be configured to handle all requests directly or in conjunction with a Web Server. The Stand Alone mode is easier to install and configure and results in faster performance, but cannot be run on a machine that already runs a Web Server. The Web Server Pass-through mode launches TransactXML inside a CGI container.

I chose to run TransactXML in Stand Alone mode. This required simply that I modify the "txml.txt" configuration file to identify important directories, as well as various default selections and passwords.

Running DesignerXML

After launching DesignerXML, the first step is to establish a connection to the TransactXML Server. This is accomplished by selecting the "Default Server" option from the File menu and entering the IP address and port number of the server along with the password identified in the configuration file.

Selecting "New" from the File menu starts the process of creating a rules script for publication to the TransactXML Server. After naming the script, users are required to identify a data source and database schema to generate the XML document. The data source is generally an RDBMS, but can also be an Electronic Data Interchange (EDI) system or other data source.

The main DesignerXML window (see Figure 1) provides a variety of tools for selecting data from the data source, creating/viewing/editing data, and customizing the display of the data. Tabs provide access to five screens within the main window:

- Document
- SQL
- XSL Stylesheet
- Preview
- XML Rule

The SQL screen allows the user to identify portions of the available data for inclusion in the rules script. The screen has a separate datasheet view that displays the result of the query.

Adding Elements

The precise manner in which the data is added to the XML document is determined using the Document screen. The results of the database query are displayed on the left side of this screen and the structure of the current XML document is displayed on the right (see Figure 1.)

Users can add the following types of elements to the document:

- Empty
- DBMS Result Column
- Constant
- Graft
- Custom Extension

These element types are distinguished primarily by the source of their data.

An empty element – which contains no actual data, but may contain child elements – can be inserted using the buttons that exist above the document or by right-clicking its parent element. The "Add Empty Element" button will place the new element at the currently selected location in the document. Arrow buttons allow the user to move the element within the document (including the ability to make it a parent or child of its current siblings).

Further control is provided through a Sort Break feature that allows a child element to be repeated. For example, if an item comes in a variety of sizes or colors, SIZE or COLOR child elements could be repeated within the parent, rather than producing a series of nearly identical parent elements.

Choosing the Element Data Source

Double-clicking on an element displays its properties dialog box. This dialog allows the user to specify the element data source, add attributes, and format data.

Elements corresponding to the results of a database query can be added to the document in several ways. Perhaps the easiest method is to

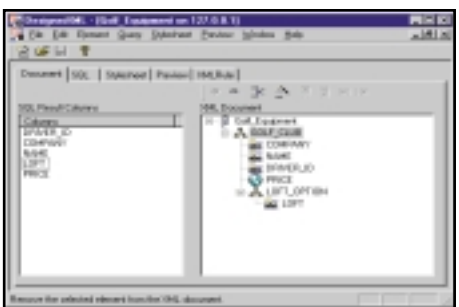

FIGURE 1 Document screen with SQL Results list and current XML document

simply double-click the item in the query results list to immediately add it to the document.

Constant elements don't rely on an external source for their content. Instead, their content is set directly from the properties dialog box.

Graft elements provide access to other rules scripts. These scripts may be based on different databases than the current document. This allows the current document to take advantage of additional sources of data. It also allows businesses the option of creating commonly used "base" scripts that can be shared among a number of documents. One advantage of this approach is that a modification in the base script will immediately be reflected in the scripts that rely on it.

The final element type, custom extension, allows content to be modified by code written in languages like Java or C++. Classes stored in directories specified in the configuration file will be listed in the properties dialog box. Users can then select the method to call, along with the source of its parameters.

Further modifications to the data can be done directly within DesignerXML. For example, masks can be used to format data in a variety of ways, such as adding hyphens to Social Security numbers.

Although DesignerXML does not yet include an integrated XSL editor, the preview screen does present the user with the option of applying an XSL stylesheet created by another tool before rendering the document.

More information on TransactXML Server, DesignerXML, and other XML-related products – plus 30-day evaluation copies of UBT products – is available at www.UnitedBusinessTechnologies.com.